Digital.NSW ICT Purchasing Framework

ICT Agreement (ICTA)

Between

Transport for NSW (ABN 18 804 239 602)

and

TYCO Projects Australia Pty Ltd (ABN 70 092 471 737)

Central Corridor Motorway Management System (MMS) instance for the Western Distributor Smart Motorway

M4SM MMS Support & Maintenance

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ICT Agreement (ICTA)

Parties The party identified at Item 1 of the Order Form (**Customer**)

The party identified at Item 4 of the Order Form (**Supplier**)

Background

A. The New South Wales Government's Digital.NSW ICT Purchasing Framework (**ICT Purchasing Framework**) is a suite of template documents which sets out standard terms and conditions to be used by Eligible Customers for the procurement of ICT related goods and services.

B. The Supplier acknowledges and agrees that the New South Wales Procurement Board has directed that Government Agencies must, subject to applicable New South Wales Procurement Board Directions, use the ICT Purchasing Framework for the procurement of ICT related goods and services.

C. This Agreement forms part of the ICT Purchasing Framework and contains the terms and conditions on which the Supplier agrees to carry out the Supplier's Activities.

D. The Supplier has represented to the Customer that it has the relevant skills and experience to provide the Supplier's Activities.

E. The Customer has agreed to appoint the Supplier, on a non-exclusive basis, to carry out the Supplier's Activities, subject to the Supplier's ongoing compliance with the terms and conditions of this Agreement, and the Supplier has agreed to accept that appointment.

PART A: PRELIMINARIES

1. Definitions and Agreement documents

1.1 Defined terms and interpretation

In this Agreement the definitions and interpretation provisions set out in Schedule 1 apply.

1.2 Agreement documents

This Agreement comprises the following documents:

(a) any Additional Conditions;

(b) these Core Terms and Schedule 1;

(c) the applicable Module Terms;

(d) the Order Form and Payment Schedule (excluding any Additional Conditions or Supplier's Documents);

(e) any other schedule, attachment or annexure to this Agreement (excluding any documents forming part of the Order Form);

(f) any other document expressly incorporated into this Agreement as set out in the Order Form; and

(g) any Supplier's Documents.

1.3 Order of precedence

In the event of any conflict or inconsistency between the documents set out in clause 1.2, the document listed higher in the list will prevail over the document listed lower in the list to the extent of such conflict or inconsistency, regardless of anything to the contrary in those documents.

1.4 Role of the Master ICT Agreement

Where this Agreement is made under a MICTA, the Supplier acknowledges that its MICTA with the Contract Authority constitutes a standing offer under which it offers to supply the deliverables, services and/or activities specified in the MICTA to Eligible Customers, including the Customer:

(a) pursuant to the terms of the MICTA and this Agreement; and

(b) at rates and prices which are the same as or less than those set out in the MICTA (and, upon the commencement of any Renewal Period, at rates and prices which are the same as or less than any reduced rates and prices then applying under the MICTA at the time of such renewal).

1.5 Supplier's Documents

(a) The parties acknowledge that the intent of incorporating any Supplier's Documents into this Agreement, where so agreed, is to supplement and elaborate the detail and specifications of particular Services and Deliverables and not to amend or contradict the terms set out in any of the documents listed in clauses 1.2(a) to 1.2(f).

(b) The Supplier represents that the Supplier's Documents:

(i) set out specific details regarding how the Customer may access, use and interact with particular Services or Deliverables; and

(ii) may describe other elements of the Services or Deliverables which the Supplier offers to provide to the Customer, such as technical and functional specifications, service characteristics and performance standards.

(c) No Supplier's Documents will be incorporated into this Agreement except to the extent expressly specified in, and attached to, Annexure A of the Order Form.

(d) Notwithstanding the incorporation of Supplier's Documents under clause 1.5(c), those Supplier's Documents do not apply to the extent that they:

(i) deal with the same or similar subject matter as a provision of the Core Terms, Module Terms or any Additional Conditions (for example, provisions in the Supplier's Documents that deal with limitations of liability will not apply, in whole, as the Core Terms also deal with this subject matter);

(ii) are inconsistent, or in conflict, with the Core Terms, Module Terms or any Additional Conditions;

(iii) alter, or seek to alter, the legal obligations of, or relationship between, the Customer and the Supplier, as set out in the Core Terms, Module Terms or any Additional Conditions;

(iv) impose additional obligations or requirements on the Customer, beyond those set out in the Core Terms, Module Terms or any Additional Conditions; or

(v) limit any rights or remedies of the Customer or relieve the Supplier from any of its obligations or responsibilities under the Core Terms, Module Terms or any Additional Conditions.

(e) Where any of the Supplier's Documents purport to override or otherwise vary the Core Terms, Module Terms or any Additional Conditions those terms will have no legal effect.

(f) Except to the extent expressly set out in the Module Terms, no subsequent changes, amendments or updates to the Supplier's Documents will have any effect other than where made pursuant to a written variation under clause 39.6.

2. Supplier's acknowledgments

(a) The Supplier warrants, represents, acknowledges and agrees that it:

(i) has the expertise to carry out the Supplier's Activities;

(ii) has satisfied itself about, and has obtained all information necessary to enable it to understand, the Customer's requirements under this Agreement in so far as they relate to the Supplier's Activities;

(iii) has satisfied itself as to the availability and suitability of the Materials, labour and resources necessary to perform its obligations under this Agreement;

(iv) has satisfied itself of the nature and extent of the Supplier's Activities and its obligations under this Agreement;

(v) did not in any way rely on:

A. any information, data, representation, statement or document made by the Customer or its Personnel or provided to the Supplier by the Customer or its Personnel; or

B. the accuracy, adequacy, suitability or completeness of any such information, data, representation, statement or document,

for the purposes of entering into this Agreement, except to the extent that any such information, data, representation, statement or document forms part of this Agreement;

(vi) entered into this Agreement based on its own investigations, interpretations, deductions, information and determinations; and

(vii) is aware that the Customer has entered into this Agreement relying upon the warranties given by the Supplier under this Agreement, including in clauses 2(a)(i) to 2(a)(vi), 17.12, 33.2, 33.3 and in the Module Terms.

(b) The Supplier further acknowledges and agrees that, where this Agreement is entered into under a MICTA, the Customer may appoint or delegate the enforcement of any of its rights from time to time under this Agreement to the Contract Authority.

3. Purchasing Services and/or Deliverables by Order

3.1 Order Form

The Supplier must provide all Services and/or Deliverables specified in the Order Form and carry out all other Supplier's Activities on the terms of this Agreement.

3.2 Electronic execution

Subject to applicable Laws, the parties may execute this Agreement and any document entered into under it, electronically (including through an electronic platform) and in one or more counterparts. Notwithstanding the manner in which a document under this Agreement is submitted or accepted, the terms of this Agreement will apply and any click-wrap, "pop-up" or other like terms and conditions of the Supplier appearing in the course of such submittal or acceptance will have no force or effect.

3.3 Additional Orders

(a) This clause applies where it is specified in Item 10 of the Order Form that the Customer may place Additional Orders for Services and/or Deliverables within the scope of this Agreement.

(b) If, at any time during the Term, the Customer wishes to increase the volume or quantum of Services and/or Deliverables, the Customer may, in its sole discretion, do so by submitting a written notice to the Supplier for those increased Services and/or Deliverables. The written notice will be in the form required by the Customer and will include information relating to the Additional Order, including the number of additional Services and/or Deliverables required.

(c) Except to the extent agreed by the parties in writing, any increased Deliverables and/or Services will be supplied for the same rates and charges specified in the Payment Particulars.

(d) The parties agree that each time the Customer submits an Additional Order to the Supplier:

(i) that Additional Order forms part of this Agreement, and will not constitute a separate contractual relationship between the parties; and

(ii) the Supplier must increase the supply of the Deliverables and/or Services in accordance with that Additional Order, subject to any reasonable qualifications specified in Item 10 of the Order Form.

3.4 No exclusivity or minimum commitment

The Supplier acknowledges and agrees that:

(a) except to the extent expressly set out in the Payment Particulars, the Customer is under no obligation to acquire any minimum volumes of Services or Deliverables or to meet any minimum spend level under this Agreement; and

(b) the Supplier is not an exclusive provider of the Supplier's Activities (nor activities which are the same as or similar to them) to the Customer, and the Customer is not, by executing this Agreement, restricted in any way from engaging any other person to provide activities which are the same as, or similar to, the Supplier's Activities.

3.5 Additional Conditions

The parties agree to comply with any Additional Conditions.

3.6 Reseller arrangements

Where specified in Item 12 of the Order Form, the parties agree that the Supplier may provide particular Services and/or Deliverables in the Supplier's capacity as a reseller and subject to any Additional Conditions relating to the reseller arrangement.

4. Relationship and governance

4.1 General

The parties must perform their respective roles and responsibilities as set out in the Order Documents.

4.2 Nature of relationship

Nothing in this Agreement creates or is intended to constitute a relationship between the parties of employer and employee, principal and agent, partnership or joint venturers, and neither party has authority to bind the other party. Neither party may hold itself out in any manner which is contrary to this clause 4.2.

4.3 Governance

(a) Each party agrees to comply with any governance arrangements specified in the Order Documents, including any governance framework approved by the Customer pursuant to clause 4.3(b) (**Governance Framework**).

(b) If specified in the Order Form, the Supplier must prepare and submit to the Customer for its approval a Governance Framework that contains the details specified in the Order Form. The Governance Framework must be submitted by the Supplier to the Customer's Representative by the time specified in the Order Form or such other time as reasonably required by the Customer's Representative.

5. Term

5.1 Initial Term

This Agreement begins on the Commencement Date and continues for the Initial Term, unless terminated earlier by agreement in writing between the parties or in accordance with the terms of this Agreement.

5.2 Renewal Period

(a) Where a Renewal Period has been specified in Item 9 of the Order Form, the Customer may, in its sole discretion, extend the Term for a period not exceeding the relevant Renewal Period (up to, if any, the maximum number of renewals specified in that Item), by giving the Supplier a notice in writing at least 15 Business Days prior to the end of the then current Term (or such other notice period as may be specified in Item 9 of the Order Form).

(b) Subject to clause 1.4(b), any Renewal Period exercised in accordance with clause 5.2(a) will be on the same terms and conditions of this Agreement as in effect at the end of the then current Term, unless the parties agree to amend this Agreement in accordance with clause 39.6.

PART B: SUPPLIER'S ACTIVITIES

6. Performance of the Supplier's Activities

6.1 General

The Supplier must carry out the Supplier's Activities in accordance with the timeframes, Specifications and requirements of this Agreement, including all requirements specified in the Order Documents.

6.2 Customer Supplied Items

(a) Other than any CSI or any items expressly specified in the Order Documents or the Additional Conditions to be provided by an Other Supplier in connection with this Agreement, the Supplier must provide all necessary Materials and resources to carry out the Supplier's Activities in accordance with this Agreement.

(b) The Supplier acknowledges and agrees that:

(i) unless the Customer agrees otherwise in writing, the Supplier will only receive access to the CSI specified in the Order Form;

(ii) the Supplier will obtain no title or interest to any CSI;

(iii) it is the Supplier's responsibility to inspect and assess any CSI before the Supplier or its Personnel use it to ensure the CSI is suitable and contains no defects; and

(iv) the Customer provides no warranty or representation about the suitability or fitness of any CSI for the Supplier's Activities or any other use (except to the extent the Order Form expressly contemplates CSI being put to a particular use or function in relation to this Agreement).

(c) The following will not be a breach of this Agreement by the Customer, but in relation to Critical CSI, may entitle the Supplier to an extension of time if clause 6.8 applies:

(i) the Customer failing to supply the CSI at the times and in accordance with any requirements specified in this Agreement;

(ii) the Customer failing to maintain the CSI to any minimum standards specified in the Order Documents; or

(iii) any Other Supplier failing to supply items in accordance with any requirements specified in this Agreement.

(d) The Supplier must:

(i) take all reasonable care of all CSI, including accounting for, preserving and handling all CSI in accordance with any requirements in the Order Form;

(ii) take reasonable steps to protect the CSI from any loss, destruction or damage;

(iii) not use any CSI other than:

A. for the purpose for which the CSI was designed and manufactured;

B. for the purpose of carrying out the Supplier's Activities in accordance with this Agreement; and

C. in accordance with any applicable third party terms and conditions relating to the use of, or dealing with, such CSI;

(iv) not modify or adapt any CSI without the prior written consent of the Customer;

(v) promptly inform the Customer's Representative of any loss, destruction or damage to any CSI and (to the extent known) its cause and comply with any directions of the Customer in relation to such CSI;

(vi) not part with possession of any CSI unless the Customer has provided its prior written consent to do so, nor create or allow the creation of any lien, security interest or mortgage over any CSI; and

(vii) if specified in the Order Form, pay the costs for the CSI as stated in the Order Form, and pay those costs in accordance with the timeframes for payment set out in the Order Form or otherwise agreed by the Customer.

(e) Unless other arrangements have been agreed by the Customer in writing, the Supplier must, at its cost, return any CSI to the Customer (or otherwise deal with CSI as directed by the Customer's Representative in writing) once it is no longer required for the purposes of this Agreement.

(f) The Supplier is liable to the Customer for any loss, destruction or damage to CSI to the extent that any such loss, destruction or damage is caused or contributed to by the Supplier or its Personnel or resulted from the failure of the Supplier to comply with its obligations under this clause 6.2.

6.3 ICT Accessibility

(a) The Supplier acknowledges that the Customer is committed to:

(i) meeting Accessibility Standard AS EN 301 549 (**Accessibility Standard**); and

(ii) ensuring that the Services and Deliverables support access to information and communications technology for all Customer Users, regardless of disability.

(b) Without limiting any other obligation under this Agreement, the Supplier must ensure that, to the extent reasonably practicable, all Services and Deliverables:

(i) are available to Customer Users on a non-discriminatory accessible basis and do not infringe anti-discrimination Laws; and

(ii) meet the Accessibility Standard and any other accessibility requirements to the extent specified in the Order Documents (unless otherwise required by the Order Form).

6.4 Co-operation with the Customer and Other Suppliers

(a) Each party agrees to reasonably co-operate with the other party and its Personnel to promote the timely progress of the activities contemplated by this Agreement.

(b) The Supplier acknowledges that the Customer may require the Supplier to co-operate and work collaboratively with any Other Suppliers in connection with the provision of the Supplier's Activities.

(c) Where stated in the Order Documents or at the reasonable request of the Customer, the Supplier must:

(i) permit any Other Suppliers to carry out their work;

(ii) reasonably co-operate with any Other Suppliers;

(iii) carefully co-ordinate and interface the Supplier's Activities with the services and work being carried out by any Other Suppliers in a manner that:

A. is as efficient and non-disruptive as reasonably practicable;

B. integrates, where applicable, with the services, works and deliverables that the Supplier and any Other Suppliers will provide; and

C. minimises the need for the Customer to be involved in resolving service problems or managing the tasks that the Supplier and Other Suppliers perform;

(iv) carry out the Supplier's Activities in a manner that minimises disruption or delay to the work of Other Suppliers; and

(v) comply with any additional requirements with respect to Other Suppliers or interfacing arrangements as specified in the Order Documents.

6.5 Project management

(a) The parties must perform their obligations in accordance with any initial project plan that is included in the Order Documents or such other project plan that is approved by the Customer pursuant to this clause 6.5 (**Project Plan**).

(b) Where specified in the Order Form, the Supplier must prepare and submit to the Customer's Representative for the Customer's approval a Project Plan that contains the details specified in the Order Form or in an Order Document.

(c) The Supplier must submit the Project Plan by the date specified in the Order Documents or, where no date is specified, within 20 Business Days following the Commencement Date.

(d) The Supplier agrees to update the Project Plan at the times or intervals set out in the Order Documents or at such other times as reasonably required by the Customer, including to reflect any Change Requests.

(e) For clarity, the Project Plan is a Document Deliverable. Clause 8 therefore applies to the Project Plan, including any updates to it.

6.6 Staged implementation

(a) Where the Order Documents specify that the Supplier's Activities will be carried out in different Stages, the Supplier must:

(i) carry out each Stage in accordance with the requirements and staging so specified in the Order Documents; and

(ii) not commence work on a Stage until it receives written notice from the Customer to proceed with the work in that Stage. Unless otherwise agreed by the parties in writing, the execution of this Agreement by the

Supplier and the Customer is deemed to be sufficient notice to proceed with work on any first Stage described in the Order Documents.

(b) Without limiting the Customer's rights under clause 6.6(c), at any time during the Term, the parties may:

(i) change the order of any Stages; or

(ii) vary the Supplier's Activities by removing one or more Stages from the scope of the Supplier's Activities,

by following the Change Control Procedure under this Agreement.

(c) The Customer may, at any time during the Term, and without having to comply with clause 6.6(b) and the Change Control Procedure, by written notice to the Supplier, remove from the scope of this Agreement any future Stages in respect of which approval to commence work has not been given by the Customer under clause 6.6(a)(ii).

(d) The Customer will have no liability to the Supplier in respect of any Stage(s) that may be removed from the scope of the Supplier's Activities, except for those costs stated in Item 28 of the Order Form (if any) as being recoverable by the Supplier in such circumstance or as otherwise agreed by the parties in writing.

(e) Nothing in this clause 6.6 will prevent the parties adopting a different project delivery methodology to that described in clause 6.6 (including involving agile, iterative and/or parallel development activities or other project methodology which is not Stage-based). Where an alternative project delivery methodology is specified in the Order Form, the Supplier must carry out the Supplier's Activities in accordance with the requirements for that alternative methodology as specified in the Order Form.

6.7 Delays

(a) The Supplier must manage the Supplier's Activities, including to:

(i) anticipate and identify potential failures to meet a Date for Delivery, Key Milestone or other timeframe under this Agreement (**Delay**) (including, to the extent known or able to be reasonably anticipated, those Delays that may arise due to the Customer or an Other Supplier); and

(ii) take all necessary steps within its reasonable control to avoid or mitigate those potential Delays.

(b) The parties must keep each other informed of anything that they become aware of which is likely to cause a Delay.

6.8 Extension of time

(a) If a Delay occurs and that Delay was beyond the reasonable control of the Supplier, the Supplier may request an extension of time on the terms of this clause 6.8.

(b) To request an extension of time under clause 6.8(a), the Supplier must within five Business Days of the commencement of the occurrence of the Delay, give the Customer's Representative written notice of the:

(i) particulars of the Delay and the occurrence causing the Delay; and

(ii) extension of time claimed in days, together with the basis for calculating that period.

(c) The Customer will reasonably consider any Supplier request to extend a Date for Delivery or Key Milestone where the applicable Delay was beyond the reasonable control of the Supplier, could not have been reasonably mitigated or worked around, and the Supplier has given notice as required by clause 6.8(b). The Customer may reduce any extension of time to the extent that the Supplier or its Personnel contributed to the Delay or the Supplier failed to take steps necessary both to preclude the cause of the Delay and to avoid or minimise the consequences of the Delay. In all other circumstances, the Customer may grant, decline or impose conditions on the granting of such request in its sole discretion.

(d) Where the Supplier requests an extension of time under clause 6.8(b) and that Delay has arisen because of:

(i) the Customer's breach of this Agreement;

(ii) a failure to provide any Critical CSI; or

(iii) the acts or omissions of an Other Supplier,

the Customer must grant an extension of time, of a duration reasonably determined by the Customer having regard to the extent to which the Delay was attributable to the relevant breach, failure, acts or omissions.

(e) Whether or not the Supplier has made, or is entitled to make, a Claim for an extension of time under clause 6.8(a), the Customer may, in its sole discretion, at any time by written notice to the Supplier, unilaterally extend a Date for Delivery or Key Milestone by written notice to the Supplier. For clarity, no extension of time granted by the Customer will result in an increase or decrease to the Price, unless separately agreed pursuant to an agreed Change Request.

(f) Notwithstanding clause 35.1, where:

(i) any dispute or difference arises between the parties in relation to this clause 6.8 or its subject matter; and

(ii) a project management committee or other governance forum, which meets at least monthly, is provided for in the Order Documents,

then the party claiming the dispute or difference has arisen must not issue a Dispute Notice pursuant to clause 35.1(b) in relation to that dispute or difference unless it has first raised and sought to resolve that dispute or difference in the next occurring meeting of that committee or forum, without resolution at such meeting.

6.9 Delay costs

(a) To the extent a Delay arises which is attributable to the Customer's breach of this Agreement, a failure to provide any Critical CSI or the acts or omissions of an Other Supplier, the Supplier:

(i) may advise the Customer of any proposed changes to the Price, the quantum of which must not exceed any additional, incremental cost and expense (calculated on a cost-only basis) directly attributable to:

A. undertaking and implementing any workarounds or remedial measures which are within the Supplier's control to implement or adopt, and which would minimise or lessen the impact of that Delay; and

B. any increase in the Supplier's Activities, or in the cost of the Supplier's Activities, as a result of that Delay,

(**Additional Activities**);

(ii) must accompany any advice under clause 6.9(a)(i) with sufficient supporting evidence to substantiate the calculation of its proposed changes to the Price in accordance with the principles set out in that clause; and

(iii) may prepare and submit to the Customer a Change Request Form, which complies with clause 10, in respect of the Additional Activities referred to in clause 6.9(a)(i).

(b) The parties will comply with the Change Control Procedure in relation to the Change Request initiated by that Change Request Form, including any approval, rejection or request for further information. For clarity, however (and subject to clause 6.9(c)), the Supplier is not required to perform any of the Additional Activities unless the Change Request is approved by the Customer.

(c) Nothing in clause 6.9(b) will prevent the parties reaching some other written agreement in relation to the Additional Activities, for example, the Supplier performing aspects of the Additional Activities on an urgent and/or interim time and materials basis, subject to the subsequent formalisation of a detailed Change Request.

6.10 Site

(a) Where specified in Item 16 of the Order Form, the Supplier must carry out the Supplier's Activities at the locations or sites specified in that Item (**Site**).

(b) Where physical delivery of any Deliverables to a Site is required, the Supplier must, at no additional cost to the Customer, deliver any Deliverables:

(i) to the delivery area at the Site specified in the Order Form; and

(ii) on the Date for Delivery and between the hours stated in the Order Form,

or as otherwise agreed in writing between the parties.

(c) The Supplier warrants, represents and undertakes that it has, and it will be deemed to have, done everything that would be expected of a prudent, competent and experienced supplier in assessing the risks which it is assuming under this Agreement in relation to carrying out the Supplier's Activities at the Site, including visiting and inspecting the Site and its surroundings and making its own assessment of the risks associated with the conditions at the Site and its surroundings.

(d) Any failure of the Supplier to do any of the matters mentioned in clause 6.10(c) will not relieve the Supplier of its obligations to carry out the Supplier's Activities in accordance with this Agreement.

(e) The Customer:

(i) is not obliged to:

A. provide the Supplier with sole access to the Site; or

B. carry out any work or provide any facilities or Materials to the Supplier (other than CSI or such other items specified in the Order Form) which may be necessary to enable the Supplier

to obtain adequate access to carry out the Supplier's Activities; and

(ii) may engage Other Suppliers to work upon, or in the vicinity of, the Site at the same time as the Supplier.

(f) In carrying out the Supplier's Activities, the Supplier must:

(i) minimise disruption or inconvenience to:

A. the Customer, occupiers, tenants and potential tenants of the Site in their occupation, use of or attendance upon any part of the Site; and

B. others having a right of access to the Site;

(ii) comply with all Policies, Codes and Standards of the Customer applicable to access to and attendance at the Site and any additional requirements specified in Item 16 of the Order Form;

(iii) at all reasonable times give the Customer's Representative, the Customer and any person authorised by the Customer access to the Supplier's Activities located at, or being carried out at, the Site (as applicable) or any location where the Supplier's Activities are being carried out; and

(iv) facilitate the Customer's supervision, examination or assessment of the Supplier's Activities at the Site or any location where the Supplier's Activities are being carried out.

7. Transition-In

7.1 Application

This clause 7 applies if specified in the Order Form that the Supplier is required to provide any Transition-In Services as part of any Stage or part of the Supplier's Activities.

7.2 Transition-In Plan

(a) If the Order Form specifies that a Transition-In Plan must be prepared with respect to the Supplier's Activities, by the date specified in the Order Documents, the Supplier must prepare, and submit to the Customer's Representative for the Customer's approval, a plan setting out how the Supplier will carry out the Transition-In Services.

(b) For clarity, the Transition-In Plan is a Document Deliverable. Clause 8 therefore applies to the Transition-In Plan, including any updates to it.

7.3 Transition-In Services

(a) The Supplier must supply any Transition-In Services specified in the Order Documents or in any Transition-In Plan that is developed pursuant to clause 7.2.

(b) The Transition-In Services must be provided by the Supplier for the period specified in the Order Documents. Where no period is specified in the Order Documents, the Transition-In Services must be provided in a prompt and timely manner that will ensure that the Supplier can meet the Dates for Delivery, Key Milestones and other timeframes under this Agreement.

8. Document Deliverables

8.1 General

(a) The process in this clause 8.1 applies to all Deliverables that comprise written, printed, digital or electronic Materials on which there is writing or other text or symbols, including all Plans (**Documents**) and which are subject to the Customer's approval under this Agreement.

(b) The Supplier must submit all Document Deliverables to the Customer for approval in accordance with this clause 8 and by the dates specified in this Agreement or the Order Documents.

(c) Document Deliverables must be submitted to the Customer's Representative, unless otherwise directed by the Customer in writing.

(d) The Document Deliverables must:

(i) be in English;

(ii) be fit for their intended purpose;

(iii) be free of Defects;

(iv) in relation to any User Documentation, be current, complete, accurate and sufficient to enable the Customer and its Personnel to make full and proper use of the applicable Services and/or Deliverables; and

(v) comply with any applicable Specifications and any other requirements in the Order Documents.

(e) A Document Deliverable will not be deemed approved by the Customer until the Customer notifies the Supplier in writing that it approves the relevant Document Deliverable, except where clause 8.2(f) applies.

8.2 Review

(a) The Customer may:

(i) review any Document Deliverable (including any resubmitted Document Deliverable) prepared and submitted by the Supplier; and

(ii) within 15 Business Days of the submission by the Supplier of such Document Deliverable or resubmitted Document Deliverable (or any alternative timeframe set out in the Order Documents or otherwise agreed between the parties in writing):

A. approve the Document Deliverable; or

B. reject the Document Deliverable if, in its reasonable opinion, the Document Deliverable does not comply with the Specifications and other requirements of this Agreement.

(b) The Customer will accompany any rejection under clause 8.2(a)(ii)B with a description of why the relevant Document Deliverable does not comply with the Specifications and other requirements of this Agreement.

(c) A Document Deliverable does not fail to comply with the Specifications and other requirements of this Agreement exclusively because of:

(i) any opinion expressed in the Document Deliverable, provided that the opinion expressed is the professional opinion held by the Supplier;

(ii) the style, formatting or layout of the Document Deliverable, unless the style, formatting or layout is of a nature that it:

A. fails to meet the requirements in clause 8.1(d); or

B. affects the readability or useability of the Document Deliverable; or

(iii) semantics which do not impact the interpretation of the substantive matters conveyed in the Document Deliverable.

(d) If the Customer gives the Supplier a notice rejecting a Document Deliverable under clause 8.2(a)(ii)B, the Supplier must, within five Business Days (or any alternative timeframe set out in the Order Documents or otherwise agreed between the parties in writing), prepare a revised version of the Document Deliverable which addresses all of the amendments and issues required by the Customer.

(e) The parties must repeat the process in this clause 8.2 until the Customer approves each Document Deliverable in accordance with clause 8 or terminates this Agreement.

(f) Where the period referred to in clause 8.2(a)(ii) elapses without the Customer approving or rejecting the Document Deliverable, the Supplier must submit to the Customer's Representative a written reminder notice identifying the Document Deliverable in respect of which it requires a decision by the Customer. If the Customer does not approve or reject the relevant Document Deliverable or otherwise communicate with the Supplier in relation to that reminder notice within 10 Business Days of its receipt, then the relevant Document Deliverable will be deemed to have been approved by the Customer.

8.3 No obligation

(a) The Customer does not assume or owe any duty of care to the Supplier to review any Document or Document Deliverable for errors, omissions or compliance with this Agreement.

(b) No review, acceptance or approval of, comments upon, rejection of, or failure to review or comment upon or reject, any Document or Document Deliverable provided by the Supplier to the Customer under this Agreement or any other direction by the Customer about that Document or Document Deliverable will:

(i) relieve the Supplier from, or alter or affect, the Supplier's liabilities or responsibilities whether under this Agreement or otherwise at Law; or

(ii) prejudice the Customer's rights against the Supplier whether under this Agreement or otherwise at Law.

8.4 User Documentation

(a) The Supplier must, at its sole cost, provide the User Documentation to the Customer's Representative except where otherwise specified in the Order Form.

(b) The User Documentation must be supplied in an electronic format and by the time specified in the Order Documents or, where no timeframe is specified, where reasonably required by the Customer.

(c) Where it is specified in the Order Form that the Customer also requires any User Documentation in a hard copy format (or where otherwise requested by the Customer), the Supplier must provide the Customer's Representative with at least one copy of the User Documentation at no additional charge to the Customer.

(d) The Supplier must ensure that any User Documentation that is supplied to the Customer's Representative:

(i) provides adequate instructions on how to enable the Customer and Customer Users to utilise the Services and Deliverables (as applicable) without reference to the Supplier; and

(ii) complies with the same requirements as specified in clause 8.1(d) in relation to Document Deliverables.

(e) The Supplier must update the User Documentation as is needed for the Customer and Customer Users to be able to use the Services and Deliverables (as applicable) in an efficient and effective manner.

9. Defects

(a) If, prior to the expiry of the Warranty Period, the Customer discovers or is informed that there is a Defect, the Customer may give the Supplier an instruction (with which the Supplier will comply) specifying the Defect and doing one or more of the following:

(i) requiring the Supplier to correct the Defect, or any part of it;

(ii) advising the Supplier that the Customer will accept the Deliverable or Service, or any part thereof, despite the Defect; or

(iii) advising the Supplier that the Customer will accept the Deliverable or Service, or any part thereof, despite the Defect, in exchange for a reasonable reduction in, or adjustment to, the cost of the Deliverables or Services which were impacted by the Defect,

and pursuing any other remedy it may have at Law or under this Agreement subject to compliance with the dispute resolution procedure in clause 35.

(b) If, prior to the expiry of the Warranty Period, the Supplier identifies a Defect, the Supplier must notify the Customer in writing within one Business Day of identifying the Defect.

(c) If, prior to the expiry of the Warranty Period, the Supplier identifies a Defect or an instruction is given under clause 9(a)(i), the Supplier must, at no cost to the Customer, correct the Defect:

(i) in accordance with all applicable Service Levels, or if no applicable Service Levels apply, within 15 Business Days after the date on which the non-compliance was notified to, or identified by, the Supplier (or such other timeframe as agreed between the parties in writing); and

(ii) in a manner which will cause as little inconvenience to the Customer and Customer Users as is reasonably possible.

(d) The parties acknowledge that where the Defect relates to any Services, the Customer may request that the Supplier, and the Supplier must, supply the affected Services again.

(e) If multiple Defects are identified, the Customer may request the Supplier to prioritise the rectification of such Defects, and the Supplier must comply with any such request. However, for clarity, any prioritisation must remain consistent with any applicable Service Levels.

(f) Unless otherwise agreed between the parties in writing, the Warranty Period will be increased by a period of time equivalent to the time that the relevant Services and Deliverables were unavailable or their functionality materially decreased due to a Defect.

(g) The Customer's rights under this Agreement and at Law will not be affected or limited by:

(i) the rights conferred upon the Customer by this clause;

(ii) the failure by the Customer or the Customer's Representative to exercise any such rights; or

(iii) any instruction of the Customer under this Agreement.

(h) For clarity, the Warranty Period will not be deemed to exclude or restrict any guarantee that is provided at Law with respect to any Deliverable or Service.

10. Change Control Procedure

10.1 Change Requests

(a) Either party may request a variation to the Supplier's Activities, including:

(i) varying the Specifications or the nature, quality or scope of the Deliverables and Services, the sequence or time in which they are performed or substituting alternative Materials (if applicable);

(ii) varying the order of any Stages or removing one or more Stages from the scope of the Supplier's Activities;

(iii) increasing, decreasing, omitting, deleting or removing any Deliverables and/or Services;

(iv) varying the CSI and/or any responsibilities or dependencies attributable to the Customer; and/or

(v) any change resulting in the Supplier providing services and/or deliverables that are materially different to the Services and Deliverables specified in the Order Form,

(**Change Request**).

(b) Except to the extent expressly specified in the Module Terms, no Change Request is binding on either party or to be carried out by the Supplier until the Change Control Procedure specified in this clause 10 is followed.

10.2 Process for submitting and agreeing to Change Requests

(a) Each Change Request must be submitted in a form substantially similar to the Change Request Form included at Schedule 5 (or such other form approved by the Customer) and containing the details specified in that Change Request Form or such other details as may be reasonably required by the Customer.

(b) Where rates and charges for any Change Requests, and/or a pricing methodology, have been specified in the Payment Particulars, then the Prices in the relevant Change Request must not exceed those rates and charges and must be based on any applicable pricing methodology specified in the Payment Particulars. Where no rates, charges or methodology are specified, prices must be based on those costs and expenses reasonably and necessarily incurred by the Supplier to implement the relevant Change Request.

(c) The party receiving the draft Change Request Form must notify the other party in writing as to whether it:

(i) approves or rejects the Change Request; or

(ii) requires further information in relation to any aspect of the Change Request.

(d) The parties must respond to Change Requests and requests for information regarding Change Requests within seven Business Days of receiving the request or such other timeframe as reasonably agreed between the parties having regard to the nature and substance of the work required by the relevant request.

(e) Each party will act reasonably in preparing, submitting, reviewing, considering and assessing Change Requests.

(f) If a Change Request is approved, the:

(i) parties must promptly execute the relevant Change Request Form; and

(ii) Supplier must perform the Supplier's Activities in accordance with the executed Change Request Form.

(g) No Change Request is binding on either party or to be carried out by the Supplier until the relevant Change Request Form is executed by both parties in accordance with this clause 10.

10.3 Electronic transactions

(a) The parties may submit and execute Change Request Forms electronically (including through an electronic platform) and in one or more counterparts.

(b) Unless otherwise directed by the Customer, either party may also submit Change Request Forms through its designated electronic ordering portal to which it may give the other party access from time to time.

10.4 Acknowledgements

The parties acknowledge and agree that:

(a) the Change Control Procedure does not apply to changes to the Core Terms, the Module Terms or any Additional Conditions, which must be effected in accordance with the variation procedure specified in clause 39.6;

(b) the Customer does not need to follow the Change Control Procedure with respect to:

(i) Additional Orders submitted in accordance with clause 3.3; or

(ii) the Customer's exercise of its unilateral right to:

A. remove from the scope of this Agreement any future Stages pursuant to clause 6.6(c); or

B. reduce the scope of this Agreement pursuant to clause 29;

(c) the Customer is not obliged to pay the Supplier for implementing any Change Request unless the parties have complied with this clause 10;

(d) the Customer is under no obligation to place Change Requests;

(e) if any Change Request made pursuant to the Change Control Procedure omits or removes any part of the Supplier's Activities, the Customer may thereafter either provide those Supplier's Activities itself or employ or engage third parties to do so;

(f) the Customer may, in its sole discretion, agree or reject a Change Request;

(g) no Change Request will invalidate, or amount to a repudiation of, this Agreement; and

(h) each party must bear its own costs in preparing, submitting and negotiating any Change Request.

11. Personnel

11.1 Nominated Personnel

(a) The Supplier must ensure that:

(i) each of its Nominated Personnel is made available to perform their role/responsibilities as set out in Item 18 of the Order Form; and

(ii) it immediately notifies the Customer's Representative if the Supplier becomes unable or unwilling to comply with this clause 11.1 or otherwise breaches this clause 11.1.

(b) The Supplier must not remove or replace any of the Nominated Personnel unless the:

(i) Customer requests that the Nominated Personnel are replaced pursuant to clause 11.3(e); or

(ii) Nominated Personnel are no longer available to carry out the Supplier's Activities due to a substantial change in the relevant Nominated Personnel's personal circumstances (including compassionate leave, carers' leave or other extended leave, serious illness, injury, death, termination of employment by the Supplier or resignation).

11.2 Replacement of Nominated Personnel

If the Supplier is required to replace any Nominated Personnel in accordance with clauses 11.1(b) or 11.3(e), the Supplier must ensure that any replacement is:

(a) approved by the Customer. The Customer must act reasonably in granting or withholding approval, or granting approval subject to conditions. If requested by the Customer, the Supplier must provide the Customer with such information as the Customer requires concerning any proposed replacement of any Nominated Personnel (including a resume and an opportunity to interview them); and

(b) of equal or superior ability to, and has the required experience of, the original Nominated Personnel and meets the Personnel requirements specified in this Agreement.

11.3 Supplier's Personnel

(a) The Supplier must ensure that all of its Personnel engaged or employed by the Supplier in carrying out the Supplier's Activities:

(i) are aware of, and comply with, the Supplier's obligations under this Agreement as if they were the Supplier;

(ii) prior to carrying out any part of the Supplier's Activities, are properly trained and qualified and have the requisite competencies, skills, qualifications and experience to:

A. perform the duties allocated to them; and

B. understand the Supplier's obligations under this Agreement, including with respect to privacy, security, confidentiality and safety; and

(iii) are provided with regular training to ensure that the Supplier's Personnel's skills and qualifications are maintained in accordance with all applicable Best Industry Practice.

(b) On the Customer's request or as part of any audit conducted pursuant to clause 37.2, the Supplier must promptly provide the Customer or its nominee with evidence that the obligations under this clause 11.3 have been complied with (including with respect to the training of the Supplier's Personnel).

(c) The Supplier must ensure that all of its Personnel, when on the Customer's premises or when accessing Customer Data or the Customer's systems, equipment or facilities, comply with the reasonable requirements and directions of the Customer (including with regard to the Customer's safety and security requirements).

(d) The Supplier must ensure that its Personnel when entering any Site comply with any conditions of entry or other Site specific requirements as specified in the Order Documents or notified by the Customer to the Supplier from time to time.

(e) The Customer may, acting reasonably and in its discretion, give notice in writing requiring the Supplier to remove any of its Personnel (including Nominated Personnel) from work in respect of this Agreement, together with its reasons for removal. The Supplier must promptly arrange for the removal of such Personnel and their replacement with Supplier Personnel reasonably acceptable to the Customer.

(f) The Supplier must ensure that it (and where appropriate, its outgoing Personnel) effects a process that:

(i) minimises any adverse impact on, or delay in, the performance of the Supplier's Activities; and

(ii) effects a smooth transition between the outgoing and replacement Personnel, including by identifying and recording:

A. any processes and systems in place (or proposed) to manage the provision of the Supplier's Activities; and

B. the detail of any outstanding issues in relation to the Supplier's Activities,

for which any of the outgoing Supplier's Personnel were responsible.

(g) The process for transition to the replacement Personnel by the Supplier must be performed as expeditiously as possible with regard to the Supplier's Activities, the Dates for Delivery and other timeframes under this Agreement, and to the reasonable satisfaction of the Customer.

(h) The Supplier will be solely responsible, at its sole cost, for compliance with clause 11.2, including finding and replacing Supplier's Personnel in accordance with clause 11.3(e).

(i) The Supplier must properly manage its Personnel resourcing (including any planned absences) to maintain a sufficient level of Personnel engaged or employed in the provision of the Supplier's Activities (both in terms of quality and quantity of such Personnel) to ensure that all relevant roles are, and continue to be, adequately resourced and that the Supplier's Activities are provided in accordance with this Agreement.

11.4 Deed of Confidentiality and Privacy

(a) If specified in Item 19 of the Order Form or at the request of the Customer's Representative, the Supplier's Personnel involved in the provision of the Supplier's Activities (or who may receive or have access to the Customer's Confidential Information or Personal Information in connection with this Agreement), must sign a deed in substantially the same form as the document in Schedule 6 or such other deed as required by the Customer (**Deed of Confidentiality and Privacy**).

(b) Where the Customer requires an alternate Deed of Confidentiality and Privacy to that specified in Schedule 6, it must include obligations that are consistent with the privacy and confidentiality obligations under this Agreement.

(c) Unless otherwise agreed by the Customer in writing, the Deed of Confidentiality and Privacy must be signed and returned to the Customer's Representative prior to the Supplier's Personnel commencing the Supplier's Activities or being provided with access to the Customer's Confidential Information or Personal Information.

11.5 Subcontracting

(a) The Supplier must not subcontract any of its obligations under this Agreement unless specified in Item 20 of the Order Form (or otherwise pre-approved by the Customer in writing). Such approval may also be given in respect of classes or categories of subcontractor or types of subcontracted activities and made subject to any applicable conditions. The use of permitted subcontractors may be withheld or given on such conditions as specified in the Order Form or otherwise notified by the Customer to the Supplier in writing.

(b) If the Customer consents to the engagement of any subcontractor on a conditional basis, then the Supplier must comply with those conditions when it engages that subcontractor.

(c) A permitted subcontractor may not further subcontract the relevant obligations to another person without the Customer's prior written consent.

(d) The Customer may, by written notice to the Supplier, revoke its consent to any permitted subcontractor if the Customer, acting reasonably, has concerns about that permitted subcontractor’s or its personnel's:

(i) performance of the Supplier's Activities; or

(ii) compliance with (or ability to comply with) the terms of this Agreement.

(e) Where practicable to do so, the Customer must engage in reasonable advance consultation with the Supplier in relation to its concerns regarding a permitted subcontractor's (or its personnel's) performance or compliance, including whether those concerns may be otherwise addressed or remediated, before the Customer gives a notice of revocation under clause 11.5(d).

(f) The Supplier is solely responsible for managing its supply chains and any risks in its supply chains, including ensuring any permitted subcontractor's compliance with clause 13.

(g) Any subcontracting by the Supplier does not relieve the Supplier of any of its obligations under this Agreement.

(h) The Supplier must ensure that each of its subcontractors comply with all of the terms of this Agreement to the extent that they are relevant to the subcontractor.

(i) The Supplier is responsible for its subcontractors, and liable for their acts and omissions, as though they were the acts and omissions of the Supplier.

(j) If specified in the Order Form or if required by the Customer as a condition of granting consent to the Supplier's use of any subcontractor, the Supplier must arrange for its subcontractors to enter into a subcontractor deed on terms consistent with, and no less onerous than, the parts of this Agreement applicable to the subcontractor's activities.

(k) The Order Form may specify additional procurement policy requirements which the parties have agreed will apply to, or be prioritised in, any subcontracting arrangement by the Supplier, including the Policies, Codes and Standards. The parties agree to comply with any such requirements.

11.6 Background checks

(a) The Supplier must:

(i) prior to involving any of its Personnel in carrying out the Supplier's Activities, undertake all necessary background checks of those Personnel to ensure that they are fit and proper to provide the Supplier's Activities; and

(ii) monitor and assess its Personnel throughout their involvement in the Supplier's Activities to ensure that they remain fit and proper to provide the Supplier's Activities.

(b) Without limiting the generality of clause 11.6(a), if specified in Item 22 of the Order Form or where not so specified in that Item but reasonably required by the Customer, the Supplier must:

(i) carry out any specific background checks of its Personnel as specified in Item 22 of the Order Form or as requested by the Customer, including criminal record and "Working with Children" checks; and

(ii) provide the results of those checks to the Customer's Representative within the timeframe specified in Item 22 of the Order Form, or if no time is specified, within five Business Days of receipt (or within such other time as reasonably required by the Customer).

(c) Where the outcome of a background check reveals that any of the Supplier's Personnel are not fit and proper to be involved in the provision of the Supplier's Activities, the Supplier must not use those Personnel with respect to such activities.

(d) The Supplier acknowledges and agrees that:

(i) all background checks will be undertaken at the Supplier's sole cost, unless otherwise agreed by the Customer in writing;

(ii) the Customer may provide the results of any background checks to the Contract Authority or any other Government Agency; and

(iii) the Supplier is solely responsible for obtaining all necessary consents, in accordance with the Privacy Laws, in connection with the conduct of any background checks and the sharing and use of those background checks as contemplated under this clause 11.6.

11.7 Compliance with employment Laws

(a) The Supplier undertakes to comply with all applicable employment Laws in relation to itself and its Personnel, including in relation to workers' compensation, payroll tax, fringe benefits tax, PAYG tax, group tax, superannuation contributions, leave entitlements and any other employment or related benefit or entitlement.

(b) The Supplier acknowledges and agrees that:

(i) it is solely responsible for the obligations under clause 11.7(a); and

(ii) neither the Supplier, nor its Personnel have, pursuant to this Agreement, any entitlement from the Customer in relation to any form of employment or related benefit.

11.8 Non-solicitation

(a) Neither party may, without the prior written consent of the other party, engage, employ, induce or cause a third party to induce the other party's Personnel engaged in the performance of this Agreement to enter into a contract for service or a contract of employment with it.

(b) The restrictions in clause 11.8(a) will apply during the Term and for a period of six months after the end of the Term.

(c) General solicitation for employment which is placed in good faith, such as on a jobs website or in a newspaper advertisement, will not constitute a breach of this clause 11.8.

(d) The parties agree that the restrictions in this clause 11.8 are necessary to protect the legitimate interests of each party.

12. Compliance

12.1 Compliance with Laws and directions

While carrying out the Supplier's Activities, the Supplier must:

(a) acquire and maintain all Authorisations necessary for the performance of the Supplier's Activities;

(b) ensure that the Supplier's Activities comply with all applicable Laws (including all applicable Australian Laws, even if the Supplier is not domiciled in Australia); and

(c) comply with any reasonable directions made by the Customer in relation to the Supplier's Activities.

12.2 Policies, Codes and Standards

(a) Without limiting the generality of clause 12.1, the Supplier must, in performing its obligations under this Agreement, comply with all Policies, Codes and Standards.

(b) Where it is specified in Item 17 of the Order Form that this clause 12.2(b) applies, the Supplier:

(i) must comply with the Aboriginal Participation Plan and all relevant Aboriginal participation and reporting requirements under the Aboriginal Procurement Policy and clause 37.1(b)(ii);

(ii) acknowledges and agrees that Training Services NSW has established the Aboriginal participation fund to receive payments when the Supplier does not meet contracted Aboriginal participation requirements; and

(iii) acknowledges and agrees that where the Supplier does not meet its Aboriginal participation requirements under this Agreement, the Agency may, in accordance with the Aboriginal Procurement Policy, withhold payments due to the Supplier pursuant to this Agreement and direct the funds to an account held by Training Services NSW.

12.3 Policy Changes

(a) If there is:

(i) any change to any of the Policies, Codes and Standards specified in this Agreement (including with respect to any security requirements); or

(ii) the introduction of any new Policies, Code and Standards in addition to those specified in this Agreement,

with which the Customer requires the Supplier to comply (**Policy Change**), then (without limiting any other express rights of the Customer or obligations of the Supplier under this Agreement) where:

(iii) the Supplier's compliance with that Policy Change can, with the Supplier's best efforts, be achieved without the incurrence of material additional cost and expense to the Supplier; or

(iv) irrespective of the cost of complying with the Policy Change, the Supplier's compliance with its obligations under clause 12.1 would involve the Supplier complying with that Policy Change in any event,

then the Supplier must comply with the Policy Change at no additional cost to the Customer.

(b) If neither clauses 12.3(a)(iii) nor 12.3(a)(iv) apply and the Supplier cannot comply with a Policy Change without incurring material additional cost and expense, then:

(i) the Supplier must promptly notify the Customer in writing of the additional, incremental cost and expense (calculated on a cost-only and zero-margin basis) that would be directly attributable to its compliance with the Policy Change, accompanied with evidence to substantiate the

additional, incremental costs and expenses (including information as to how those costs and expenses have been calculated); and

(ii) following receipt of such notification, the Customer may:

A. approve the incurrence of the costs and expenses notified to it under clause 12.3(b)(i), in which case the Supplier must comply with the relevant Policy Change and, subject to so complying, will be entitled to invoice the Customer for such costs and expenses;

B. reject the incurrence of the costs and expenses notified to it under clause 12.3(b)(i), in which case, the Supplier will not be required to incur those costs or to comply with the Policy Change; or

C. require the Supplier to, in which case the Supplier must, participate in reasonable good faith discussions with the Customer in relation to an alternative approach to managing the Policy Change.

12.4 Work health and safety

Without limiting the Supplier's obligations under any other provision of this Agreement, the Supplier must:

(a) comply, and must ensure that its Personnel comply, with the WHS Legislation (including any obligation under the WHS Legislation to consult, co-operate and coordinate activities with all other persons who have a work health and safety duty in relation to the same matter);

(b) if requested by the Customer's Representative or required by the WHS Legislation, demonstrate compliance with the WHS Legislation, including providing evidence of any approvals, prescribed qualifications or experience, or any other information relevant to work health and safety matters;

(c) notify the Customer's Representative promptly (and in any event within 12 hours of such matter arising) of all work health, safety and rehabilitation matters arising out of, or in any way in connection with, the Supplier's Activities;

(d) insofar as the Supplier, in carrying out the Supplier's Activities, is under any duty imposed by the WHS Legislation, do everything necessary to comply with any such duty;

(e) ensure that it does not do anything or fail to do anything that would cause the Customer to be in breach of the WHS Legislation; and

(f) comply with any additional work health and safety requirements specified in the Order Form or as otherwise reasonably required by the Customer from time to time.

12.5 Work health and safety where Supplier's Activities include construction work

(a) This clause applies where construction work forms part of the Supplier's Activities.

(b) In this clause 12.5, the terms "**construction work**", "**principal contractor**" and "**workplace**" have the same meanings assigned to those terms under the WHS Legislation.

(c) Where the Customer engages the Supplier as the principal contractor:

(i) the Customer authorises the Supplier to have management and control of each workplace at which construction work is to be carried out and to discharge the duties of a principal contractor, under the WHS Legislation;

(ii) the Supplier accepts the engagement as principal contractor and agrees to discharge the duties imposed on a principal contractor by the WHS Legislation; and

(iii) the Supplier's engagement and authorisation as principal contractor will continue until:

A. the Supplier delivers the Supplier's Activities in accordance with this Agreement;

B. the Supplier achieves Acceptance in respect of each Deliverable subject to Acceptance Testing under this Agreement; and

C. any rectification work that is "construction work" that is carried out during the Warranty Period is completed,

unless sooner revoked by the Customer, including by terminating this Agreement at Law or pursuant to this Agreement.

12.6 The environment

Where applicable to the performance of the Supplier's Activities, the Supplier must:

(a) provide all Supplier's Activities in a manner that does not cause or threaten to cause pollution, contamination or environmental harm to, on or outside a Site or other location;

(b) ensure that it and its Personnel comply with all applicable environmental Laws and Policies, Codes and Standards; and

(c) follow New South Wales Government policies and guidelines concerning the safe disposal of any hazardous substances.

12.7 Conflicts of Interest

(a) The Supplier must:

(i) promptly notify the Customer in writing if a Conflict of Interest arises or is likely to arise during its performance of the Supplier's Activities; and

(ii) take all necessary action as may be reasonably required by the Customer to avoid or minimise such a Conflict of Interest.

(b) If such a Conflict of Interest, in the Customer's view, significantly affects the interests of the Customer, and the Supplier is unable to resolve the Conflict of Interest to the satisfaction of the Customer within 14 days of receipt of a notice from the Customer, then the Customer will be entitled to terminate this Agreement under clause 29.1(d).

13. Modern Slavery

13.1 Compliance

The Supplier represents, warrants and undertakes that, as at the date of its execution of this Agreement, neither the Supplier, any entity that it owns or controls or, to the best of its knowledge, any subcontractor of the Supplier, has been convicted of a Modern Slavery offence under the Modern Slavery Laws.

13.2 Information

(a) For the purpose of this clause, "**Information**" may include (as applicable) information as to any risks of, actual or suspected occurrences of, and remedial action taken in respect of, Modern Slavery but excludes Personal Information.

(b) The Supplier must:

(i) subject to any restrictions under any applicable Laws by which it is bound, provide to the Customer any Information and other assistance, as reasonably requested by the Customer, to enable the Customer to meet any of its obligations under the Modern Slavery Laws and associated regulatory requirements (for example, any applicable annual reporting requirements and New South Wales Procurement Board Directions), including co-operating in any Modern Slavery audit undertaken by the Customer or the NSW Audit Office and providing reasonable access to the Customer's and/or Audit Office's auditors to interview the Supplier's Personnel; and

(ii) notify the Customer in writing as soon as it becomes aware of either or both of the following:

A. a material change to any of the Information it has provided to the Customer in relation to Modern Slavery; and

B. any actual or suspected occurrence of Modern Slavery in its operations or supply chains (or those of any entity that it owns or controls).

(c) The Supplier may provide any Information or report requested by the Customer in the form of a previously-prepared statement or re-purposed report, for example a statement provided in response to a similar request for Information from another Australian public sector agency, or refer the Customer to its publicly available Modern Slavery Statement, provided that such statement or report provides generally the same Information as that sought by the Customer.

(d) The Supplier must, during the Term and for a period of seven years thereafter:

(i) maintain; and

(ii) upon the Customer's reasonable request, give the Customer access to, and/or copies of,

records in the possession or control of the Supplier to trace, so far as practicable, the supply chains of all Services and Deliverables provided under this Agreement and to enable the Customer to assess the Supplier's compliance with this clause 13.

13.3 Modern Slavery due diligence

The Supplier must take reasonable steps to ensure that Modern Slavery is not occurring in the operations and supply chains of the Supplier and any entity that it owns or controls.

13.4 Subcontractors

In respect of any subcontracts that relate to the Supplier's Activities, or the whole or any part of this Agreement (and without limiting the Supplier's obligations under any Modern Slavery Laws), the Supplier must take reasonable steps to ensure that those subcontracts contain:

(a) in relation to subcontracts that relate exclusively to the Customer, provisions in relation to Modern Slavery that are substantially the same provisions as this clause 13; and

(b) in all other cases, Modern Slavery provisions that are reasonably consistent with the provisions in this clause 13.

13.5 Response to Modern Slavery Incident

(a) If the Supplier becomes aware of any actual or suspected occurrence of Modern Slavery in its operations or supply chains (or in those of any entity that it owns or controls), the Supplier must take reasonable steps to respond to the occurrence in accordance with any internal Modern Slavery strategy and procedures of the Supplier and any relevant policies, codes and standards (including any code of practice or conduct) or other guidance issued by any relevant Authority or (if the Customer notifies the Supplier that it requires the Supplier to comply with any relevant New South Wales Procurement Board Code/guidance) by the New South Wales Procurement Board.

(b) Any action taken by the Supplier under clause 13.5(a) will not affect any rights of the Customer under this Agreement, including its rights under clause 13.6.

13.6 Termination

In addition to any other rights or remedies under this Agreement or at Law, the Customer may terminate this Agreement, upon written notice and with immediate effect if, in the Customer's reasonable view, the Supplier has:

(a) failed to notify the Customer as soon as it became aware of an actual or suspected occurrence of Modern Slavery in its operations or supply chains (or in those of any entity that it owns or controls);

(b) failed to take reasonable steps to respond to an actual or suspected occurrence of Modern Slavery in its operations or supply chains (or in those of any entity that it owns or controls); or

(c) otherwise committed a substantial breach or multiple minor (non-trivial) breaches of its obligations under clause 13 and the breach (or breaches) is not remedied within 15 days of the Supplier receiving a notice to remedy.

14. Acceptance Testing

14.1 General

(a) Unless otherwise specified in the Order Form, this clause 14 will apply in relation to the supply of any Deliverables that are not Documents.

(b) Where the parties have agreed further details as to the form or the conduct of Acceptance Tests in the Order Documents, those details apply in addition to this clause 14, except to the extent expressly stated in the Order Form.

14.2 Testing by Supplier

(a) Before delivery by the Supplier to the Customer of any Deliverable (or any component thereof) that is subject to Acceptance Testing, the Supplier must:

(i) carry out the tests in accordance with any Test Plan and to ensure that the Deliverable meets the Acceptance Criteria for the Deliverable;

(ii) following testing, supply the Customer with the test results in accordance with the requirements and timeframes in the Test Plan and Order Documents, or where no requirements or timeframes are specified in those documents, promptly on completion of each test;

(iii) if the Supplier determines that a Deliverable (or component thereof) does not meet any Acceptance Criteria, promptly remedy that non-compliance; and

(iv) when appropriate, notify the Customer that the relevant Deliverable (or applicable component thereof) is ready for Acceptance Testing by the Customer.

(b) Where directed by the Customer, the Supplier must:

(i) permit the Customer or its nominee to witness any tests conducted pursuant to this clause 14.2; and

(ii) provide the Customer with evidence as reasonably required by the Customer,

to demonstrate that the tests have been successfully completed in accordance with clause 14.2.

14.3 Testing by the Customer

(a) The Customer may carry out Acceptance Tests in respect of each Deliverable to which Acceptance Testing applies and the Supplier must provide all reasonable assistance required by the Customer in connection with the Customer's Acceptance Testing.

(b) If the Customer carries out Acceptance Tests, the Customer must conclude the Acceptance Tests in accordance with any timeframes specified in the Order Documents or, where no timeframes are specified, within a time reasonably determined by the Customer.

(c) Following completion of the Customer's Acceptance Testing in respect of a Deliverable, the Customer must either:

(i) provide to the Supplier an Acceptance Certificate in respect of that Deliverable; or

(ii) notify the Supplier that the Acceptance Criteria in respect of that Deliverable have not been met.

(d) Neither the full or partial Acceptance of any Deliverable nor any exercise by the Customer of any option or other right under this clause 14 will:

(i) operate as a sole or exclusive remedy; or

(ii) limit or prejudice any rights or remedies of the Customer under this Agreement or at Law.

(e) Where the Deliverable meets the Acceptance Criteria, the Customer must issue the Acceptance Certificate no later than 10 Business Days from completion of the Acceptance Testing, or within such other timeframe specified in the Order Documents.

(f) Where the period referred to in clause 14.3(e) elapses without the Customer either providing an Acceptance Certificate to the Supplier in respect of that Deliverable or notifying the Supplier that the Acceptance Criteria have not been met, the Supplier must submit to the Customer's Representative a written reminder notice identifying the Deliverable in respect of which it requires a decision by the Customer. If the Customer does not take one of the actions referred to in clause 14.3(c) or otherwise communicate with the Supplier in relation to that reminder notice within 15 Business Days of its receipt, then the relevant Deliverable will be deemed to have been Accepted by the Customer.

14.4 Effect of failure to meet Acceptance Criteria

(a) If the Acceptance Criteria in respect of a Deliverable have not been met, the Customer may, at its option, do any of the following:

(i) issue a notice to the Supplier that requires the Supplier to comply with clause 14.4(b), accompanied with a description of the areas in which the relevant Deliverable has failed to meet the Customer's Acceptance Testing;

(ii) Accept the Deliverable subject to a reasonable reduction in the Price as reasonably agreed between the parties or, in the absence of agreement, as reasonably determined by the Customer to reflect the greater of the:

A. cost to the Customer of correcting the Defects in the Deliverable; or

B. reduced features, functionality or quality of operation as a result of those Defects; or

(iii) if the Deliverable contains a Material Defect that, in the Customer's reasonable opinion, is incapable of remedy or the Supplier has failed to remedy that Material Defect within 20 Business Days after delivery of the Deliverable (or such other time as specified in the Order Form or agreed between the parties in writing), immediately terminate this Agreement or reduce its scope pursuant to clause 29.1(d).

(b) If the Supplier receives a notice under clauses 14.4(a)(i) or 14.4(c)(i), the Supplier must, at its cost, within 20 Business Days (or such other time as specified in the Order Form or agreed between the parties in writing) after the date of the notice:

(i) supply such additional services to rectify any Defect in the Deliverable as may be necessary to enable the Deliverable to meet the Acceptance Criteria, including, if necessary, replacing the Deliverable;

(ii) co-operate with the Customer with respect to any repeat Acceptance Testing; and

(iii) provide all assistance required by the Customer in relation to the repeated Acceptance Tests.

(c) If the Acceptance Criteria in respect of a Deliverable have not been met following repeat Acceptance Testing, the Customer may, at its option, do any of the following:

(i) require the Supplier to again comply with clause 14.4(b);

(ii) Accept the Deliverable subject to a reduction in the Price as reasonably agreed between the parties or, in the absence of agreement, as reasonably determined by the Customer in accordance with the same principles as described in clause 14.4(a)(ii); or

(iii) immediately terminate or reduce the scope of this Agreement pursuant to clause 29.1(d).

(d) The Customer reserves the right to remedy any Defects or to appoint third parties to do so if the Supplier fails to correct any Defect that has been notified by the Customer to the Supplier and which the Supplier has not corrected within the timeframe required by this clause 14.4. At the Customer's request, the Supplier must reimburse the Customer for the costs incurred by the Customer in relation to the remediation of the relevant Defects, based on commercially reasonable rates and charges.

14.5 Effect of Acceptance Certificate

An Acceptance Certificate will constitute Acceptance for the purposes of this clause 14, but will not be taken as an admission or evidence that the Deliverables comply with, or that the Supplier has performed its obligations under, this Agreement.

15. Performance

15.1 Performance obligations

The Supplier must:

(a) carry out the Supplier's Activities:

(i) in accordance with this Agreement, including the Order Documents;

(ii) with all due skill, care and diligence and in a proper, regular and timely manner;

(iii) in a manner that encourages the most efficient use of resources and promotes the achievement of any Customer objectives specified in the Order Documents;

(iv) to a high standard and in accordance with Best Industry Practice for work of a similar nature to the Supplier's Activities;

(v) in a manner that is safe to both people and the environment;

(vi) in a manner that minimises any disruption, interference or inconvenience to the Customer or its operations, Personnel or Other Suppliers;

(vii) to enable all Deliverables to operate in accordance with this Agreement, and to meet the Acceptance Criteria applicable to them;

(viii) to ensure that all timeframes under this Agreement are met, including all Key Milestones and Dates for Delivery;

(ix) in accordance with any relevant Statement of Work;

(x) in accordance with the Specifications; and

(xi) otherwise in accordance with the other requirements of this Agreement; and

(b) provide Deliverables to the Customer which:

(i) are of high quality and are fit for the purpose for which they are required as detailed in, or reasonably ascertainable from, the Order Documents;

(ii) achieve Acceptance;

(iii) where applicable, will (on delivery, or at the time of performance of the relevant Supplier's Activities in relation to the applicable Deliverable(s)):

A. have been tested and verified, in accordance with Best Industry Practice, to be free from any Viruses; and

B. be compatible and interoperable with those features or characteristics of the Customer Environment described in the Order Documents and will not detrimentally affect the operation or performance of the Customer Environment or any part thereof.

15.2 Service standards and Service Levels

(a) The Supplier must carry out the Supplier's Activities in a manner that meets or exceeds any Service Levels or, if none are specified in the Order Documents, in a timely and efficient manner taking into account the Supplier's obligations under this Agreement.

(b) Unless otherwise specified in the Order Documents, the Supplier agrees to:

(i) measure its performance under this Agreement against any Service Levels;

(ii) provide the Customer with the results of all performance reviews;

(iii) use appropriate measurement and monitoring tools and procedures to measure performance accurately; and

(iv) provide the Customer with sufficient information in relation to the Supplier's assessment and monitoring of its performance pursuant to this clause 15.

(c) The Supplier's liability under clause 15.2(a) is reduced to the extent that the failure to meet or exceed a Service Level was caused or contributed to by the:

(i) breach or negligence of the Customer;

(ii) unavailability or failure of any Critical CSI; or

(iii) acts or omissions of an Other Supplier.

15.3 Consequences for failing to meet a Service Level

(a) If the Supplier fails to meet any applicable Service Levels, it will:

(i) notify the Customer of the Service Level failure in accordance with clause 15.6;

(ii) provide timely updates to the Customer's Representative, in accordance with the incident notification requirements in the Service Levels or on request by the Customer, in relation to the progress being made in rectifying the failure;

(iii) promptly take whatever action that is commercially reasonable to minimise the impact of the failure;

(iv) correct the failure as soon as practicable;

(v) promptly take all necessary actions to prevent the recurrence of the failure and any other failure resulting from the same facts, circumstances or root cause(s); and

(vi) where requested by the Customer or specified in the Order Documents, promptly investigate the facts, circumstances or root cause(s) of the failure and promptly following conclusion of the investigation, deliver to the Customer a written report identifying such facts, circumstances or root cause(s) in the form requested by the Customer.

(b) Without limiting any right or remedy available to the Customer under this Agreement or at Law, if the Supplier does not meet a Service Level, then the consequences for failing to meet a Service Level will be as set out in the Order Documents (such as service credits, service rebates or termination rights).

(c) The parties acknowledge and agree that any service credits or service rebates calculated in accordance with the Order Documents:

(i) reflect the provision of a lower level of service than is required under this Agreement; and

(ii) are reasonable and represent a genuine pre-estimate of the diminution in value the Customer will suffer, as represented by an adjustment to the Price, as a result of the delivery by the Supplier of a lower level of service than that required by the applicable Service Level, but are not an exclusive remedy with respect to other categories of Loss.

15.4 Performance reports

The Supplier must provide to the Customer's Representative the following written or electronic reports and reporting tools:

(a) a monthly (unless a different frequency is specified in the Order Form) report on the performance and availability of the Services and/or Deliverables in respect of the immediately preceding month, including detail relating to:

(i) the quantity of Services and/or Deliverables supplied to the Customer (including, where applicable, the rates of utilisation);

(ii) the total Price paid by the Customer in respect of that reporting period and cumulatively over the Term to date, tracked over time and usage, including any applicable discounts, credits, rebates and other benefits; and

(iii) any other matters specified in the Order Form;

(b) a monthly report of the Supplier’s performance against any Service Levels, including any accrued service credits or service rebates;

(c) the additional reports specified in the Module Terms and Order Form for the time period specified in those documents (which may include, where so specified, access to real-time or near-real time reporting capability); and

(d) any other reports as reasonably requested by the Customer from time to time, including as may be required by the Customer to enable the Customer to meet its internal or New South Wales Government compliance, regulatory and operational reporting obligations.

15.5 Performance reviews

(a) If it is stated in Item 25 of the Order Form that the parties must conduct a service and performance review of the Supplier's performance under this Agreement, then the parties must conduct such reviews at the intervals and in accordance with any requirements in the Order Form (or as otherwise agreed between the parties).

(b) All reviews must be undertaken by representatives of both parties who have the authority, responsibility and relevant expertise in financial and operational matters appropriate to the nature of the review. Where this Agreement is made under a MICTA, either party may request the involvement of the Contract Authority in any review.

15.6 Notice

The Supplier must notify the Customer immediately if it becomes aware that it is not able to, or reasonably anticipates that it is not able to, perform the Supplier's Activities in accordance with the performance standards and requirements specified in this Agreement.

15.7 Meetings

(a) The Supplier's Representative must meet with the Customer's Representative or other Personnel at the times and at the locations specified in the Order Form or as otherwise agreed between the parties in writing.

(b) The parties agree that meetings may be held by video or teleconference if required by the Customer.

16. Liquidated Damages

(a) This clause 16 applies if Item 29 of the Order Form provides for Liquidated Damages to be payable in relation to a failure by the Supplier to meet a Key Milestone.

(b) If the Supplier fails to meet a Key Milestone, the Supplier must pay the Customer the amount of Liquidated Damages set out in, or otherwise calculated in accordance with, Item 29 of the Order Form in relation to the period between the relevant Key Milestone and the date on which the:

(i) Supplier achieves the relevant Key Milestone; or

(ii) Customer terminates the relevant Order (or this Agreement),

but subject always to the maximum number of days (if any) for which Liquidated Damages are payable, or maximum percentage of the value of applicable Prices, as may be specified in Item 29 of the Order Form.

(c) The Supplier acknowledges that the Liquidated Damages payable under this clause 16 are a reasonable and genuine pre-estimate of the Loss likely to be suffered by the Customer in respect of a failure by the Supplier to meet the relevant Key

Milestone. However, they do not limit the rights or remedies of the Customer to claim Loss from the Supplier in the event that the amount of Loss actually incurred by the Customer exceeds such genuine pre-estimate, in the amount of the difference between such Loss actually incurred and the Liquidated Damages payable under this clause 16.

(d) The Supplier will not be liable to pay Liquidated Damages to the extent that the Supplier's failure to achieve a Key Milestone was caused or contributed to by the:

(i) breach or negligence of the Customer;

(ii) unavailability or failure of any Critical CSI; or

(iii) acts or omissions of an Other Supplier.

17. Intellectual Property

17.1 Ownership of Existing Materials

Unless otherwise specified in Item 37 of the Order Form, the parties agree that nothing in this Agreement will affect the ownership of the Intellectual Property Rights in any Existing Materials.

17.2 Licence to use Existing Materials

(a) Unless otherwise specified in the applicable Module Terms or in Item 37 of the Order Form, the Supplier grants to the Customer an irrevocable, non-exclusive, worldwide, transferable, royalty-free licence to use, copy, adapt, translate, reproduce, modify, communicate and distribute any Intellectual Property Rights in the Supplier's Existing Materials for any purpose in connection with the:

(i) Customer performing its obligations and exercising its rights under this Agreement;

(ii) full use of any Services and/or Deliverables in which the Supplier's Existing Material is incorporated, including installing, operating, upgrading, modifying, supporting, enhancing and maintaining the Deliverables or integrating them with any other software, systems, equipment or infrastructure owned, operated or maintained by the Customer or a Government Agency;

(iii) performance of tests and other quality assurance processes, including Acceptance Tests, in relation to the Deliverables and systems that may integrate or interoperate with the Deliverables; or

(iv) carrying out, or exercise, of the functions or powers of the Customer, a Government Agency or the Crown, including any statutory requirements concerning State records or auditing.

(b) Where:

(i) the Supplier’s Existing Material is incorporated into any New Materials; and

(ii) clause 17.4(b) applies in respect of those New Materials,

then the licence granted in clause 17.2(a) will also include, in respect of the Supplier’s Existing Materials, an equivalent right and licence to that described in clause 17.4(b), to the extent required to support the exploitation and

commercialisation of the Intellectual Property Rights in the relevant New Materials under that clause (but excluding commercial exploitation of the Supplier's Existing Materials independently of the New Materials in which they are incorporated).

(c) The rights and licences granted by the Supplier to the Customer under clause 17.2(a):

(i) do not permit the Customer to sell, monetise or commercialise the Supplier's Existing Materials, except as otherwise stated in Item 37 of the Order Form; and

(ii) are sub-licensable by the Customer (on the same terms, for the same period and for the same purposes as set out in clause 17.2(a)), without additional charge to any:

A. contractor, subcontractor or outsourced service provider (subject to such persons being under reasonable obligations of confidentiality owed to the Customer or another Government Agency) acting on behalf of, or providing products and/or services for the benefit of, the Customer or a Government Agency; or

B. Government Agency.

(d) Unless otherwise specified in Item 37 of the Order Form, the Customer grants to the Supplier, a non-exclusive, non-transferable, revocable, worldwide, royalty-free licence to use the Intellectual Property Rights in the Customer's Existing Materials, to the extent required for the Supplier to perform, and solely for the purposes of the Supplier performing, its obligations under this Agreement.

17.3 Ownership of New Materials

(a) Unless otherwise specified in Item 37 of the Order Form, where the Supplier creates New Materials in carrying out the Supplier's Activities, the ownership of all Intellectual Property Rights in those New Materials vests in, or is transferred or assigned to, the Supplier immediately on creation.

(b) If the parties agree in Item 37 of the Order Form that the Intellectual Property Rights in any New Materials will be owned by the Customer, then ownership of all Intellectual Property Rights in those New Materials vests in the Customer immediately on creation or is transferred or assigned by the Supplier to the Customer immediately on creation, free of any encumbrances, security interests and third party rights.

17.4 Customer licence to use Supplier owned New Materials

(a) Where the Supplier owns the Intellectual Property Rights in any New Materials, unless otherwise specified in the applicable Module Terms or in Item 37 of the Order Form, the Supplier grants to the Customer an irrevocable, non-exclusive, worldwide, transferable, royalty-free licence to use, copy, adapt, translate, reproduce, modify, communicate and distribute the Intellectual Property Rights in such New Materials, for any purpose in connection with the:

(i) Customer performing its obligations and exercising its rights under this Agreement;

(ii) full use of any Services and/or Deliverables in which New Material is incorporated, including installing, operating, upgrading, modifying, supporting, enhancing and maintaining the Deliverables or integrating them with any other software, systems, equipment or infrastructure

owned, operated or maintained by the Customer or a Government Agency;

(iii) performance of tests and other quality assurance processes, including Acceptance Tests, in relation to the Deliverables and systems that may integrate or interoperate with the Deliverables; or

(iv) carrying out, or exercise, of the functions or powers of the Customer, a Government Agency or the Crown, including any statutory requirements concerning State records or auditing.

(b) Where specified in Item 37 of the Order Form, the licence granted in clause 17.4(a) will also include the right and licence to exploit and commercialise the Intellectual Property Rights in New Materials for the purposes specified in clause 17.4(a) or such other purposes specified in Item 37 of the Order Form.

(c) The rights and licences granted by the Supplier to the Customer under clauses 17.4(a) and 17.4(b) are sub-licensable by the Customer (on the same terms and for the same purposes as set out in those clauses) to any person, without additional charge, including to any:

(i) contractor, subcontractor or outsourced service provider (subject to such persons being under reasonable obligations of confidentiality owed to the Customer or another Government Agency (as applicable)) acting on behalf of, or providing products and/or services for the benefit of, the Customer or a Government Agency; or

(ii) Government Agency.

17.5 Licence term

Except where otherwise specified in Item 37 of the Order Form or in the applicable Module Terms, the licences granted under clauses 17.2 and 17.4 will be perpetual in relation to the purposes specified in those clauses.

17.6 Supplier Licence to use Customer owned New Materials

Where it is specified in Item 37 of the Order Form that Intellectual Property Rights in any New Materials are owned by the Customer, then to the extent required to enable the Supplier to perform its obligations under this Agreement, the Customer grants to the Supplier, a non-exclusive, non-transferable, revocable, worldwide, royalty-free licence to use the Intellectual Property Rights in those New Materials, to the extent required for the Supplier to perform, and solely for the purposes of the Supplier performing, its obligations under this Agreement.

17.7 Third party Intellectual Property Rights

Unless stated otherwise in Item 37 of the Order Form or the applicable Module Terms, the Supplier must, in respect of any third party Intellectual Property Rights used in the production of Deliverables, included in any Deliverables, or required by the Customer to receive the Services:

(a) ensure that it procures for the Customer a licence on terms no less favourable than:

(i) the terms set out in this clause 17 or any applicable Module Terms; or

(ii) on such other terms specified in Item 37 of the Order Form;

(b) ensure that the use of such third party Intellectual Property Rights does not constrain the Customer's use of the Services or any Deliverables; and

(c) otherwise, not use any third party Intellectual Property Rights in the provision of the Services or the production of any Deliverables.

17.8 Open Source Software

(a) The Supplier must not, without the prior written consent of the Customer:

(i) develop or enhance any Deliverable using Open Source Software; or

(ii) incorporate any Open Source Software into any Deliverable.

(b) In requesting any consent from the Customer under clause 17.8(a), the Supplier must provide the Customer with:

(i) complete and accurate copies of any licence agreement, the terms and conditions of which would apply to the proposed use or incorporation of the Open Source Software into a relevant Deliverable; and

(ii) a description of how such use or incorporation may affect the provision of the Supplier's Activities, the Customer's licence rights under this Agreement and the Customer's and Customer Users' uses or other dealings with the relevant Deliverable,

for the Customer's review and consideration.

(c) Where the Customer provides its consent in relation to the use or incorporation of any Open Source Software under clause 17.8(a) the:

(i) Customer must comply with the terms and conditions notified to it in clause 17.8(b)(i) in relation to the use of that Open Source Software: and

(ii) Supplier must ensure that the use of that Open Source Software will not:

A. result in an obligation to disclose, licence or otherwise make available any part of the Customer Environment, software of the Customer, Customer Data or Confidential Information to any third party; or

B. diminish the Supplier's obligations or the Customer's rights under this Agreement.

17.9 Consents and Moral Rights

(a) Prior to provision to the Customer or use in connection with this Agreement, the Supplier must ensure that it obtains all necessary consents from all authors of all Materials and Deliverables provided or licenced to the Customer under this Agreement to any use, modification or adaptation of such Materials and Deliverables to enable the Customer to fully exercise its Intellectual Property Rights under this Agreement, including:

(i) the use, modification or adaptation of the Materials or Deliverables; or

(ii) any other dealing which might otherwise constitute an infringement of the author's Moral Rights.

(b) To the extent the Customer provides any CSI for use by the Supplier and that CSI incorporates any Intellectual Property Rights, the Customer must procure all necessary:

(i) licences of Intellectual Property Rights in that CSI; and

(ii) Moral Rights consents from all authors of that CSI,

to the extent required to enable the Supplier to perform, and solely for the purposes of the Supplier performing, its obligations under this Agreement with respect to that CSI.

17.10 Prohibited activities

The licences granted to the Customer under clauses 17.2 and 17.4 do not permit the Customer to disassemble, decompile or reverse engineer any software-based elements of the materials licensed under those clauses, provided that this restriction shall not apply to the extent it would not be permissible under the *Copyright Act 1968* (Cth) in relation to particular acts conducted for certain purposes, as specified in that legislation.

17.11 Additional obligations

The Supplier must, at its cost, do all acts (and procure that all relevant persons do all acts) as may be necessary to give effect to the intellectual property provisions in this clause 17, including by executing (or procuring the execution of) any required documents or effecting any required registrations.

17.12 Warranties and acknowledgements

(a) The Supplier represents, warrants and undertakes that:

(i) it has all the Intellectual Property Rights and has procured the necessary Moral Rights consents required to:

A. carry out the Supplier's Activities; and

B. enable the Customer and each Customer User (or other permitted licensee) to use the requisite Services and/or Deliverables in the manner envisaged by this Agreement; and

(ii) its supply of the requisite Services and/or Deliverables to the Customer, and the Customer's, Customer Users' (and other permitted licensees') use of them in the manner envisaged by this Agreement will not infringe any Intellectual Property Rights or Moral Rights.

(b) The Supplier acknowledges and agrees that the Intellectual Property Rights and licences (as applicable) granted under this Agreement (including this clause 17) do not limit or reduce the Supplier's or its Personnel's obligations under this Agreement with respect to the Customer's Confidential Information, Personal Information and Customer Data.

17.13 Replacement of Deliverables

Without limiting the Customer's rights under clause 34.1(c), if any Claim of the kind described in that clause is made or brought in respect of Intellectual Property Rights or Moral Rights, the Supplier must, at its election and at no additional cost to the Customer:

(a) procure for the Customer the right to continue to use the Services and/or Deliverables on terms no less favourable than those set out in this Agreement;

(b) promptly replace or modify the Services and/or Deliverables so that the alleged infringement ceases and the replaced or modified Services and/or Deliverables provides the Customer with no less functionality and performance as that required by this Agreement; or

(c) only where the options in paragraphs (a) and (b) are not reasonably possible and subject to prior consultation with and receipt of approval from the Customer, accept return of the affected Deliverable or cease to provide the affected Service (as applicable) and, within 30 days, refund the Customer any fees paid for the relevant Service and/or Deliverable, subject to any reasonable deduction for any in-production use already made by the Customer of the relevant Service and/or Deliverable.

18. Escrow

(a) If specified in Item 38 of the Order Form (or if otherwise agreed between the parties in writing) that any Escrow Materials are to be held in escrow, the Supplier must arrange for:

(i) itself, the Customer and an escrow agent approved by the Customer to enter into an escrow agreement in substantially the same form as Schedule 7 (or such other form as may be prescribed by the relevant escrow agent and agreed by the parties in writing); or

(ii) the Customer to become a party to an escrow arrangement which already covers the Escrow Materials which the Customer regards as a satisfactory arrangement.

(b) Any escrow arrangement to which the Customer becomes a party under clause 18(a) must continue in effect for at least the period stated in Item 38 of the Order Form, unless otherwise agreed between the parties in writing.

(c) The Supplier must consult with, and comply with the reasonable directions of, the Customer in any negotiations with the escrow agent arising under clause 18(a).

(d) Any escrow arrangement must be entered into by the timeframe specified in Item 38 of the Order Form, or if no timeframe is specified, as otherwise reasonably required by the Customer.

PART C: DATA AND SECURITY

19. Customer Data

19.1 Obligations in relation to Customer Data

(a) This clause 19 applies where the Supplier or its Personnel obtains access to, or collects, uses, holds, controls, manages or otherwise processes, any Customer Data in connection with this Agreement.

(b) The Supplier acknowledges and agrees that it obtains no right, title or interest with respect to any Customer Data, other than a right to use Customer Data for the sole purpose of, and only to the extent required for, the carrying out of the Supplier's Activities in accordance with this Agreement.

(c) As between the Supplier and Customer, all rights in and in relation to Customer Data remain with the Customer at all times and the Supplier assigns all rights, title and interest in the Customer Data to the Customer on creation. The Supplier agrees to do all things necessary to assign or vest ownership of all rights in Customer Data to the Customer on creation.

(d) The Supplier must:

(i) not use any Customer Data for any purpose other than for the sole purpose of, and only to the extent required for, carrying out the Supplier's Activities in accordance with this Agreement;

(ii) not sell, assign, lease or commercially transfer or exploit any Customer Data;

(iii) not perform any data analytics on Customer Data, except to the sole extent permitted by this Agreement;

(iv) ensure that all of its Personnel who access, or have the ability to access, Customer Data are appropriate to do so, including passing any background or security checks as required by this Agreement;

(v) apply to the Customer Data the level of security and (if applicable) encryption that is required under this Agreement;

(vi) apply technical and organisational controls which are appropriate to ensure that all Customer Data is at all times protected from any unauthorised access, modification or disclosure and only handled and processed in accordance with the terms of this Agreement and any other security requirements reasonably specified by the Customer; and

(vii) ensure that Customer Data is at all times managed in accordance with the *State Records Act 1998* (NSW) (to the extent applicable); and

(viii) ensure that its Personnel (including subcontractors) comply with this clause 19.1(d) and manage and safeguard Customer Data in accordance with all other requirements of this Agreement.

19.2 Security of Customer Data

(a) The Supplier must comply with the security requirements set out in this Agreement, including in the Order Documents (**Information Security Requirements**) in carrying out the Supplier's Activities.

(b) The Supplier must establish, maintain, enforce and continuously improve its safeguard and security measures, and take all reasonable steps, to ensure that Customer Data is protected against misuse, interference and loss, and from unauthorised access, modification or disclosure.

(c) The Supplier must immediately notify the Customer where it is or may be required by Law to disclose any Customer Data to any third party contrary to the terms of this Agreement.

19.3 Location of Customer Data

(a) The Supplier must not:

(i) transfer, store, process, access, disclose or view Customer Data; or

(ii) perform any of its obligations under this Agreement which could involve Customer Data being stored, processed, accessed, disclosed or viewed,

outside of New South Wales, Australia, except in accordance with clause 19.3(b).

(b) Notwithstanding clause 19.3(a), the Supplier may transfer, store, process, access, disclose or view Customer Data outside of New South Wales:

(i) if permitted under the Order Form or any relevant Module Terms;

(ii) at the locations specified in the Order Documents (or as otherwise agreed to in writing in advance by the Customer); and

(iii) subject to the Supplier's and its Personnel's compliance with the Data Location Conditions.

19.4 Backup of Customer Data

(a) If specified in the Order Documents that the Supplier is required to make and store backup copies of Customer Data as part of the Services, the Supplier must make and store backup copies of the Customer Data in accordance with all requirements (including as to frequency, maturity of backup and approved locations) set out or referenced in this Agreement (including the Module Terms and Order Form) or as otherwise reasonably required by the Customer by notice to the Supplier.

(b) Where clause 19.4(a) applies, the Supplier must check the integrity of all backup Customer Data annually (or at such other time required by the Order Form).

19.5 Restoration of lost Customer Data

Notwithstanding any other rights the Customer may have under this Agreement, if as a result of any act or omission of the Supplier or its Personnel in the carrying out of the Supplier's Activities or in discharging their privacy or security obligations under this Agreement:

(a) any Customer Data is lost; or

(b) there is any unauthorised destruction or alteration of Customer Data,

the Supplier must take all practicable measures to immediately restore the Customer Data (including, where applicable, in accordance with any requirements specified in the Order Documents). Any such measures will be at the Supplier's sole cost where and to the extent such loss, destruction or alteration to the Customer Data was caused or contributed to by an act or omission of the Supplier or any of its Personnel.

19.6 Rights to access, use, extract and retrieve Customer Data

Where Customer Data is in the Supplier's possession or control, the Supplier must enable the Customer to:

(a) access, use and interact with the Customer Data (which may be through access controls identified in the Order Documents); and

(b) extract, retrieve and/or permanently and irreversibly delete those copies of the Customer Data which are in the Supplier's possession or control (which may be performed by self-service tools), or otherwise provide the Customer Data to the Customer:

(i) in accordance with all applicable timeframes and requirements under this Agreement;

(ii) at no additional charge to the Customer;

(iii) in a human readable, commonly accepted format which does not require the Customer to purchase additional licences it does not already hold, or in the same format as the Customer Data was uploaded (for example, a semi-structured format); and

(iv) in order to maintain the relationships and integrity of those copies of the Customer Data.

19.7 Record, retention, return and destruction of the Customer Data

(a) If specified in the Order Form, the Supplier must:

(i) establish, keep and maintain complete, accurate and up-to-date records of all Customer Data accessed, collected or changed by it; and

(ii) make copies of the records referred to in clause 19.7(a)(i) available to the Customer immediately upon request.

(b) On the date that any Customer Data is no longer needed for the purposes of the Supplier carrying out the Supplier's Activities (or should the Customer notify the Supplier that the Customer Data is no longer needed), the Supplier must at its sole cost:

(i) immediately stop using the relevant Customer Data (except as permitted under this Agreement); and

(ii) at the Customer's direction (subject to clause 19.7(c)):

A. securely and permanently destroy all records and backups of the Customer Data in accordance with the timeframes under this Agreement and supply the Customer's Representative with a certificate of destruction that confirms that this has occurred; or

B. securely return all records of Customer Data to the Customer in accordance with the timeframes under this Agreement.

(c) The Supplier will be entitled to retain copies of records of Customer Data to the extent, and only for the period, that such retention is mandated by any Laws to which the Supplier is subject.

(d) The Supplier acknowledges and agrees that:

(i) where the Order Documents specify additional requirements for the capture and retention of audit log data, including categories of data and periods of retention, the Supplier must comply with those requirements; and

(ii) notwithstanding anything to the contrary in this Agreement, no Customer Data should be destroyed until the Supplier has met the data retrieval requirements under clause 32.1.

19.8 General

(a) If requested by the Customer, the Supplier must provide the Customer with a report setting out how it will comply, and has complied, with its obligations under this clause 19.

(b) Where applicable, the Supplier must comply with any additional obligations relating to Customer Data as may be specified in the Order Documents.

(c) For clarity, nothing in this clause 19 relieves the Supplier of its obligations under clause 20.

20. Privacy

20.1 Protection and use of Personal Information

(a) If the Supplier or its Personnel obtains access to, or collects, uses, holds, controls, manages or otherwise processes, any Personal Information in connection with this Agreement (regardless of whether or not that Personal Information forms part of the Customer Data), the Supplier must (and must ensure that its Personnel):

(i) comply with all Privacy Laws, as though it were a person subject to those Privacy Laws;

(ii) only use that Personal Information for the sole purpose of carrying out the Supplier's Activities;

(iii) not disclose the Personal Information to any other person without the Customer's prior written consent, which may be given in respect of classes or categories of subcontractors or types of subcontracted activities and made subject to any applicable conditions;

(iv) not transfer the Personal Information outside New South Wales, Australia or access it, or allow it to be accessed, from outside New South Wales, Australia unless permitted in the Order Form or relevant Module Terms and subject to the Supplier's and its Personnel's compliance with the Data Location Conditions;

(v) protect the Personal Information from unauthorised access, use, disclosure, modification and other misuse and in accordance with the security requirements under this Agreement;

(vi) if it becomes aware that there has been an actual, alleged or suspected Security Incident involving Personal Information:

A. comply with clause 22;

B. comply with any reasonable direction (including as to timeframes) from the Customer with respect to that breach (which may include, for example, notifying any affected individuals of the breach of privacy); and

C. take all reasonable steps to prevent such breach from recurring; and

(vii) notify the Customer as soon as reasonably possible if the Supplier is approached by any privacy commissioner or other Authority concerning any Personal Information.

(b) Where the Supplier is required by Law to produce or disclose any information or to develop or provide any response or explanation to an Authority in relation to any incident (including any privacy breach) concerning the handling, management, safekeeping or protection of any Personal Information in connection with this Agreement, it must (to the extent such action is permitted by Law), provide notice to the Customer as soon as reasonably possible of the nature and content of the information to be produced or disclosed and, prior to providing a response to the Authority or disclosing any Personal Information, engage in reasonable consultation with the Customer regarding its proposed response or explanation.

20.2 Data Management and Protection Plan

(a) Where the Supplier or its Personnel collects, uses, discloses, holds or otherwise processes any Personal Information in connection with this Agreement, the Supplier must, for the duration of those activities, have and maintain (and prepare and implement, if not already in existence) a Data Management and Protection Plan that caters for the handling of that Personal Information.

(b) The Data Management and Protection Plan must be provided to the Customer's Representative within five Business Days following the Commencement Date or such other time as agreed between the parties in writing.

(c) The Data Management and Protection Plan must:

(i) set out measures for how the Supplier and its Personnel will:

A. comply with the Privacy Laws; and

B. protect Personal Information;

(ii) be consistent with the Privacy Laws and the security and privacy requirements under this Agreement, provided that, where the Privacy Laws and the security and privacy requirements under this Agreement both address standards in respect of same subject matter, the Data Management and Protection Plan must reflect the higher standard; and

(iii) cover such other matters as reasonably required by the Customer.

(d) The Supplier must review and update the Data Management and Protection Plan annually or at such other times as reasonably required by the Customer to address a Security Incident or breach of this Agreement.

(e) The Supplier must comply with its latest Data Management and Protection Plan and provide the latest copy of that Plan to the Customer's Representative on request.

20.3 No limitation of obligations

Nothing in this clause 20 is intended to limit any obligations that the Supplier has at Law with respect to privacy and the protection of Personal Information.

21. Security

21.1 Scope of the Supplier's security obligations

(a) Without limiting any other security obligation under this Agreement, the Supplier's security obligations under this clause apply to:

(i) the Supplier's Activities; and

(ii) Customer Data and Personal Information, where and to the extent that the Supplier or its Personnel is in the possession of, controls, or is able to control, such data and information.

(b) For the purposes of this clause 21, "**control**" includes controlling, managing, processing, generating, capturing, collecting, transferring, transmitting, deleting and destroying.

21.2 Supplier's security obligations

(a) The Supplier must implement, maintain and enforce a formal program of technical and organisational security measures (including an audit and compliance program) relating to ICT security and cyber security that is in accordance with:

(i) this clause 21; and

(ii) the standards or requirements specified in Item 40 of the Order Form,

(**Security Program**), provided that, where clause 21 and the standards or requirements specified in the Order Form both address standards in respect of the same subject matter, the Security Program must reflect the higher standard.

(b) The Security Program must be designed to:

(i) monitor, audit, detect, identify, report and protect against Security Incidents, Viruses, and any other threats or hazards to the security or integrity of the Customer's operations or the Services and Deliverables in carrying out the Supplier's Activities;

(ii) ensure the security (including the confidentiality, availability and integrity) of the Services and Deliverables in accordance with the requirements of this Agreement;

(iii) ensure the continuity of the Customer's access to, and use of, the Services and Deliverables and in a manner that achieves any applicable Service Levels. This includes continuity of access and use during any business continuity event, Disaster recovery event, scheduled or unscheduled maintenance and similar events;

(iv) manage any potential security risks in the Supplier's supply chains that bear upon the Supplier's Activities;

(v) monitor, detect, identify and protect against fraud and corruption by the Supplier's organisation and the Supplier's Personnel; and

(vi) ensure that the Security Program is comprehensive in covering all components of the Supplier's Activities and protects data in accordance with this Agreement.

(c) Without limiting its obligations under clause 21.2(a), the Supplier must ensure its Security Program complies, and is consistent, with the Policies, Codes and Standards (to the extent applicable to security).

(d) The Supplier must regularly review and continuously improve the Security Program to ensure it remains current and up-to-date and continues to satisfy the requirements of this clause 21.2 and is in accordance with Best Industry Practice.

(e) If specified in Item 40 of the Order Form, the Supplier must have, obtain and maintain from the Commencement Date and for the duration of the Supplier's Activities the security certifications specified or referenced in Item 40 of the Order Form from an accredited, independent, third party register or accredited, independent third party certification body. Unless otherwise specified in Item 40 of the Order Form, the certifications must be updated at least annually and must comply with any specific certification requirements set out in the Order Form.

(f) Without limiting this clause 21.2, the Supplier must comply with any additional security obligations or standards specified in the Order Form.

21.3 Audits and compliance

(a) The Supplier must audit its compliance with its Security Program and security obligations under this Agreement in accordance with any timeframes specified in the Order Documents and, where no such timeframes are specified, on an annual basis.

(b) The Supplier must provide the Customer, at the Customer's request, with electronic copies of:

(i) any security certifications required by this clause 21 and a copy of each renewal of these certifications;

(ii) a description of the Supplier's information security management system and cyber security management system;

(iii) all reports relating to:

A. any external or internal audits of the Supplier's security systems (to be provided for the most recent period available), including follow-up reports on audit action items; and

B. where applicable, the integrity of any data backups required to be undertaken as part of the Supplier's Activities;

(iv) evidence that a vulnerability and security management process is in place within its organisation that includes ongoing and routine vulnerability scanning, patching and coverage verification, with a frequency commensurate with any applicable security requirements specified in the Order Form, or where no requirements are specified, Best Industry Practice. This can include copies of relevant policies, scan results, vulnerability reports, registers of vulnerabilities and patch reports;

(v) evidence that (if applicable) penetration and security testing (including any Acceptance Tests set out in the Order Form) are carried out:

A. prior to, and directly after, new systems are moved into production or in the event of a significant change to the configuration of any existing system; or

B. at such other times specified in the Order Form; and

(vi) evidence that high and extreme Inherent Risks identified in audits, vulnerability scans and tests have been remediated,

which must contain (at a minimum) full and complete details of information and reports insofar as they relate to the Supplier's Activities. Where the Supplier is not permitted to provide the Customer with any of the foregoing (due to confidentiality obligations to third parties or because to do so would cause the Supplier to breach any Law or relevant security certification that the Supplier is subject to), the Supplier may (acting reasonably) redact those components that it is not permitted to provide to the Customer but only to the fullest extent needed to prevent the Supplier's non-compliance.

(c) Without limiting clause 11.3(a)(ii), the Supplier must run initial and annual mandatory security awareness training for all of the Supplier’s Personnel involved in carrying out the Supplier's Activities under this Agreement and ensure that those Personnel have completed the initial training prior to carrying out the Supplier's Activities.

(d) At the Customer's request, the Supplier must implement any audit findings or recommendations arising from an audit conducted under clause 21.3(a) and reasonably demonstrate to the Customer the implementation of such findings and recommendations.

22. Security Incidents

22.1 Notification of Security Incidents

If the Supplier becomes aware that there has been a Security Incident, the Supplier must immediately:

(a) notify the Customer and, for Security Incidents that are classified by the Customer as having a major or potentially major impact or where otherwise directed by the Customer, also notify the Contract Authority where this Agreement is made pursuant to a MICTA; and

(b) provide to the Customer, to the extent known at the time, the date of the Security Incident and a description of the Security Incident.

22.2 Actions required in relation to a Security Incident

(a) Where the:

(i) Supplier becomes aware of any Security Incident; or

(ii) Customer notifies the Supplier that the Customer reasonably believes a Security Incident has occurred or is about to occur,

then, the Supplier must, as soon as possible (but in any case within the time specified in Item 42 of the Order Form):

(iii) investigate and diagnose the Security Incident;

(iv) manage and contain the Security Incident and mitigate the impact of the Security Incident (working on a 24 x 7 basis if required);

(v) investigate and take steps to identify the root cause of the Security Incident and seek to understand the risks posed by the Security Incident and identify how these risks can be addressed; and

(vi) develop and adopt a remediation Plan addressing the rectification of, and the prevention of the future recurrence of the facts and circumstances giving rise to, the Security Incident (**Remediation Plan**).

(b) The Supplier must:

(i) within 48 hours after the Supplier's initial awareness or notification of the Security Incident in accordance with clause 22.1(a), provide to the Customer, to the extent known at that time:

A. a list of actions taken by the Supplier to mitigate the impact of the Security Incident;

B. a summary of the records impacted, or which may be impacted, and any Customer Data and other information that has been or may have been lost, accessed or disclosed as a result of the Security Incident; and

C. the estimated time to resolve the Security Incident;

(ii) promptly on the Customer's request, provide copies of the results of the Supplier's analysis and the Remediation Plan to the Customer;

(iii) provide any assistance reasonably required by the Customer or any Authority in relation to any criminal, regulatory or other investigation relating to the Security Incident;

(iv) promptly update the Remediation Plan to address any concerns reasonably raised by the Customer, following which the Supplier must implement the Remediation Plan in accordance with the timeframes agreed by the Customer;

(v) following implementation of the Remediation Plan, provide evidence to the Customer verifying that the remediation activities in the Remediation Plan have successfully resolved the underlying cause of the Security Incident (for example, by sharing the results of relevant penetration tests or vulnerability scans); and

(vi) review and learn from the Security Incident to improve security and data handling practices and prevent future Security Incidents from occurring.

(c) For clarity, nothing in this clause 22:

(i) requires the Supplier to provide the Customer with specific details that relate to the Supplier's other customers or would breach any applicable Laws; and

(ii) limits the Supplier's obligations at Law with respect to the notification and resolution of Security Incidents.

23. Confidentiality

(a) Where either party (**Recipient**) receives or otherwise possesses Confidential Information of the other party (**Discloser**), the Recipient must:

(i) keep it confidential;

(ii) in the case of the Supplier or its Personnel, only use it where required to exercise its rights or perform its obligations under this Agreement; and

(iii) not disclose it to anyone other than:

A. with the prior consent of the Discloser and on the condition that the subsequent recipient is bound by the same or substantively equivalent confidentiality requirements as specified in this Agreement;

B. where required by the GIPA Act (or any other similar Laws) which may require the Customer to publish or disclose certain information concerning this Agreement;

C. where required by any other Laws, provided that the Recipient gives the Discloser reasonable notice of any such legal requirement or order to enable the Discloser to seek a protective order or other appropriate remedy (unless it would be in violation of a court order or other legal requirement);

D. in the case of the Customer, to:

1) the Contract Authority or responsible Minister (where this Agreement is made under a MICTA); or

2) any Government Agency or Eligible Customer or responsible Minister for a Government Agency or an Eligible Customer; or

E. to its Personnel and directors, officers, lawyers, accountants, insurers, financiers and other professional advisers where the disclosure is in connection with advising on, reporting on, or facilitating the party's exercise of its rights or performance of its obligations under this Agreement.

(b) The Supplier must not issue any press release or make any other public statement regarding this Agreement or the Supplier's Activities without the prior written consent of the Customer, except as required by Law.

(c) This clause 23 does not preclude the Customer from disclosing any information (including Confidential Information) of the Supplier to the extent that this Agreement otherwise permits the disclosure of such information.

PART D: FEES AND PAYMENT

24. Payment and invoicing

24.1 Price

(a) In consideration for the performance of the Supplier's Activities in accordance with this Agreement, the Customer agrees to pay to the Supplier the Price set out in the Payment Particulars, subject to any additional discounts, rebates, credits or other similar benefits specified in the Payment Particulars. Other than as expressly set out in this Agreement, such amounts are the only amounts payable by the Customer in respect of the Supplier's performance of the Supplier's Activities and its other obligations under this Agreement.

(b) Subject to clause 1.4(b), the Price and any rates or charges specified in the Payment Particulars will be fixed for the Term, unless otherwise specified in the Payment Particulars.

24.2 Benchmarking

(a) Clauses 24.2 and 24.3 apply if it is specified in the Order Form that benchmarking applies.

(b) No more than once per annum during the Term and commencing on the first anniversary of the Commencement Date, the Customer may, in its sole discretion, notify the Supplier in writing (**Benchmarking Notice**) that the Customer is seeking to implement a formal independent benchmarking of the cost of the Supplier's Activities in order to consider whether the rates and prices under this Agreement are competitive with the current Australian market for like deliverables and services (**Benchmarking Activities**).

(c) An independent benchmarker may be agreed between the parties. If the parties cannot agree upon an independent benchmarker within 10 Business Days of the Benchmarking Notice, the Customer may appoint an independent third party benchmarker which the Customer reasonably considers to possess the adequate expertise to carry out the Benchmarking Activities, subject to such third party not being a direct competitor of the Supplier.

(d) The parties will work together in good faith to expeditiously develop terms of reference which will form the basis of joint instructions for the benchmarker to follow in conducting the Benchmarking Activities. Those terms of reference must, unless otherwise agreed by the parties, be based on the following principles:

(i) a "like-for-like" comparison in respect of the Supplier's Activities, conducted by reference to one or both of:

A. a "whole of offering" basis in relation to all Services and Deliverables; and

B. a product and service category basis; and

(ii) appropriate normalisation, including with respect to volumes, method of delivery, quality of service and, in respect of clause 24.2(d)(i)B, taking into account any cross-subsidies offered between different product and service categories.

(e) The parties will instruct the benchmarker to:

(i) conduct the Benchmarking Activities on an objective and independent basis; and

(ii) use reasonable efforts to access and rely on recent, accurate and verifiable data in respect of its Benchmarking Activities.

(f) The parties must ensure that the benchmarker signs a confidentiality deed in favour of the Supplier and the Customer (in a form acceptable to the Customer) prior to undertaking any Benchmarking Activities pursuant to this Agreement.

(g) Unless otherwise agreed by the parties in writing, the Customer will bear the cost of engaging a benchmarker to undertake the Benchmarking Activities under this clause.

(h) The parties must each appoint a reasonable number of Personnel to work under the direction of the benchmarker in collecting data necessary for the purposes of the benchmarking exercise.

(i) The parties agree that the benchmarker may, in its own discretion, determine the information required to carry out the Benchmarking Activities and may carry out the benchmark as he or she sees fit (including by determining the benchmarking methodology).

(j) The parties must reasonably co-operate with the benchmarker in connection with the Benchmarking Activities carried out under this clause 24.2.

24.3 Outcome of benchmarking

(a) The benchmarker will be required to deliver a benchmarking report (**Benchmarking Report**) to the parties within 60 days of the Benchmarker's appointment, or within such other period as agreed by the parties in writing.

(b) If the Benchmarking Report concludes that the rates and prices (or certain rates and prices) under this Agreement exceed the rates and prices offered by the current Australian market for comparable goods, services and activities, then the parties must use all reasonable endeavours to agree on an adjustment to the Payment Particulars to reduce the relevant rates and/or prices to align with the conclusions of the Benchmarking Report.

(c) If the parties are unable to agree on adjustments to the rates and prices in the Payment Particulars in accordance with clause 24.3(b) within 20 Business Days of the issue of the Benchmarking Report, then, subject to the Supplier's rights under clause 24.3(g), the Customer may, acting reasonably, determine the adjustments required to reduce the rates and prices in the Payment Particulars to reflect the conclusions contained in the Benchmarking Report.

(d) If the Customer determines that an adjustment to the rates and prices in the Payment Particulars is required in accordance with clause 24.3(c), the Customer may issue a notice to the Supplier notifying it of the adjustment (**Adjustment Notice**).

(e) The parties acknowledge and agree that if an adjustment to the rates and prices in the Payment Particulars is determined under clauses 24.3(b) or 24.3(c), the Payment Particulars will be deemed to have been amended to reflect the relevant adjustment, on and from the date:

(i) on which the parties reach an agreement in respect of the adjustment to the rates and prices under clause 24.3(b); or

(ii) specified in an Adjustment Notice issued by the Customer under clause 24.3(d), provided that the Customer will not specify a retrospective date in the Adjustment Notice.

(f) A party may dispute the results of the Benchmarking Report if it reasonably considers that the findings in, and/or the conclusions of, the Benchmarking Report are based on incorrect facts, assumptions or comparisons. Any such dispute must be notified within 20 Business Days of the issue of the Benchmarking Report and must be resolved in accordance with clause 35.

(g) The Supplier may dispute an Adjustment Notice if it reasonably considers that the adjustment to the rates and prices proposed in that notice are materially inconsistent with the conclusions contained in the Benchmarking Report. Any such dispute must be notified within 20 Business Days of the issue of the relevant Adjustment Notice and must be resolved in accordance with clause 35.

24.4 Invoicing

(a) The Supplier must Invoice the Customer at the time stated in the Order Form or Payment Particulars or, if the time for payment is not stated, then the Supplier must Invoice the Customer within 30 days from the end of the calendar month in which the relevant Deliverables or Services are provided to the Customer in accordance with this Agreement.

(b) The Supplier must:

(i) ensure that its Invoice is a valid tax invoice for the purposes of the GST Law;

(ii) together with any Invoice provided under clause 24.4(a), provide the Customer with a subcontractor's statement regarding workers' compensation, payroll tax and remuneration in the form specified at https://www.revenue.nsw.gov.au/help-centre/resources-library/opt011.pdf (or such other site or form as advised by the Customer from time to time); and

(iii) provide any further details in regard to an Invoice that are set out in the Order Form or reasonably required by the Customer.

24.5 Payment

(a) Subject to the Supplier satisfying any conditions precedent to payment specified in Item 46 of the Order Form, the Customer will pay any Correctly Rendered Invoice:

(i) by electronic funds transfer to the bank account details nominated by the Supplier in Item 46 of the Order Form, or as otherwise stipulated in writing by the Supplier from time to time; and

(ii) within 30 days following receipt of the Correctly Rendered Invoice, or such other time as specified in the Order Form.

(b) The making of a payment is not an acknowledgment that the Supplier's Activities have been provided in accordance with this Agreement.

(c) If the Supplier has overcharged the Customer in any Invoice, the Supplier must promptly refund any amounts that the Supplier has overcharged the Customer, and adjust current Invoices that have not been paid by the Customer to ensure that the Customer is only liable to pay the correct amount.

24.6 Payment disputes

If the Customer disputes or is unable to reconcile part of an Invoice, the Customer may withhold payment for the amount in dispute or in discrepancy until such dispute or discrepancy is resolved. In such case, the Customer must promptly notify the Supplier of the amount in dispute and the reasons for disputing it.

24.7 Set off

(a) The Customer may, on notice to the Supplier, deduct from any amount otherwise due to the Supplier and from any security held by the Customer:

(i) any debt or other liquidated amount due from the Supplier to the Customer; or

(ii) any Claim to money which the Customer may have against the Supplier whether for damages (including Liquidated Damages) or otherwise,

under or in connection with this Agreement.

(b) The rights given to the Customer under this clause 24.7 are in addition to and do not limit or affect any other rights of the Customer under this Agreement or at Law. Nothing in this clause 24.7 affects the right of the Customer to recover from the Supplier the whole of the debt or Claim in question or any balance that remains owing.

24.8 Taxes

(a) Subject to clause 24.8(b), the Price is inclusive of, and the Supplier is responsible for paying, all Taxes levied or imposed in connection with the provision of the Supplier's Activities under this Agreement.

(b) Unless otherwise specified, all amounts specified in this Agreement are exclusive of GST.

(c) The Customer must, subject to receipt from the Supplier of a Correctly Rendered Invoice, pay any GST that is payable in respect of any taxable supply made under this Agreement in addition to the amount payable (exclusive of GST) for the taxable supply. GST is payable at the same time as the amount payable for the taxable supply to which it relates.

(d) Where the Customer is required by any applicable Law to withhold any amounts from the payments made by it to the Supplier under this Agreement, the Customer:

(i) may withhold such amounts and will not be required to gross-up its payments to the Supplier for any amounts withheld; however

(ii) will provide the Supplier with a certificate of withholding or such other reasonable evidence of such withholding, to facilitate the Supplier's claims or deductions with the relevant taxing authority.

PART E: RISK ALLOCATION AND MANAGEMENT

25. Business contingency and Disaster recovery

25.1 Business contingency

While carrying out the Supplier's Activities, the Supplier must have reasonable business continuity and contingency measures and procedures in place to ensure business continuity and no disruption to the Customer or any Customer User.

25.2 Business Contingency Plan

(a) If stated in the Order Form that a business contingency plan is required, the Supplier must, within the timeframe stated in the Order Form or as otherwise agreed in writing by the parties, have in place (and prepare and implement, if not already in existence) a Business Contingency Plan for the approval of the Customer (**Business Contingency Plan**).

(b) The Business Contingency Plan must:

(i) specify the procedures and plans to predict, avoid, remedy and mitigate internal or external problems (including any Disasters) that may have an adverse effect on the Supplier's Activities;

(ii) comply with the security standards, requirements and certifications required by this Agreement, including under clause 21; and

(iii) include any other details specified in the Order Documents or as otherwise reasonably required by the Customer.

(c) In developing the Business Contingency Plan, the Supplier must undertake a careful and informed assessment of the likely events and circumstances which may affect the Supplier's ability to carry out its obligations under this Agreement (including those in existence at the Commencement Date or notified by the Customer to the Supplier in writing).

(d) The Business Contingency Plan must be reviewed and tested by the Supplier in accordance with the timeframes stated in the Order Form, or if no timeframes are stated, at least annually. The Supplier must provide the results of any review or test of its Business Contingency Plan to the Customer upon request.

(e) If any updates to the Business Contingency Plan are required as a result of any review or test of the Business Contingency Plan, the Supplier must make those updates and re-submit the Business Contingency Plan to the Customer for approval.

(f) The Supplier must comply with the latest Business Contingency Plan that has been approved by the Customer pursuant to clause 8.

(g) For clarity, the Business Contingency Plan is a Document Deliverable. Clause 8 therefore applies to the Business Contingency Plan, including any updates to it.

25.3 Disasters

On the occurrence of a Disaster, the Supplier must immediately:

(a) notify the Customer's Representative that a Disaster has occurred; and

(b) implement any measures set out in the Business Contingency Plan or such other measures as reasonably required by the Customer to mitigate and respond to the Disaster.

26. Step-in

26.1 Step-In Rights

(a) This clause 26 applies where specified in Item 48 of the Order Form that the Customer may exercise Step-In Rights.

(b) Without limiting any other right or remedy under this Agreement or at Law, if the Customer reasonably forms the opinion that:

(i) the Supplier is unable or unwilling to provide any of the Supplier's Activities in accordance with this Agreement;

(ii) a Disaster or emergency has occurred, which the Supplier is unable to prevent or overcome and which will or does materially affect the operations of the Customer;

(iii) a Security Incident has occurred and the Supplier has failed to take, or delayed in taking, the actions required in relation to the Security Incident under clause 22.2; or

(iv) the Supplier has materially breached its obligations under this Agreement or there is a real and reasonable prospect of the Supplier materially breaching its obligations under this Agreement,

the Customer may give written notice to the Supplier that it intends to exercise its rights under this clause 26 (**Step-In Rights**).

(c) To the extent reasonably practicable, before exercising Step-In Rights the Customer agrees to consult with the Supplier in relation to measures to mitigate or manage the impact of events and circumstances giving rise to the Step-In Rights.

(d) For the purpose of exercising Step-In Rights, the Customer:

(i) will be entitled to act as the Supplier's agent under all contracts entered into by the Supplier that relate to the Supplier's Activities and are necessary for the Customer to exercise the Step-In Rights; and

(ii) may:

A. give reasonable instructions to any employee of the Supplier (and the Supplier must ensure that such requests are complied with); and

B. contract with any of the subcontractors engaged by the Supplier,

as is reasonably required by the Customer to exercise the Step-In Rights.

(e) Upon receiving notice from the Customer stating that the Customer is exercising the Step-In Rights, the Supplier must:

(i) at the Customer's request, allow the Customer or a third party engaged by the Customer to provide part or all of the Supplier's Activities; and

(ii) maintain all third party agreements, consents and approvals necessary to enable the Customer to exercise its rights under this clause 26.

(f) If the Customer exercises its Step-In Rights under this clause 26:

(i) the Customer will be relieved from paying any component of the Price that relates to those Supplier's Activities in respect of which it has exercised Step-In Rights, for the period of such exercise, however will continue to pay those components of the Price which relate to Supplier's Activities unaffected by the Step-In Rights; and

(ii) the Supplier must pay to the Customer on demand an amount equal to:

A. any costs incurred by the Customer in connection with the exercise of its Step-In Rights (including any costs relating to the Customer or its Personnel providing any part or all of the Supplier's Activities) under clause 26.1(e)(i)); and

B. the quantum of any increase in the fees or costs paid by the Customer to any third party (including any substitute supplier) in respect of the period of the exercise of the Step-In Rights.

(g) The Customer will use its reasonable efforts to minimise the quantum of any increase under clause 26.1(f)(ii)B.

(h) The Supplier will not be responsible for any default or delay in the delivery of the Supplier's Activities to the extent that it was caused by the Customer or any third party providing part or all of the Supplier's Activities as contemplated in clause 26.1(e)(i), except to the extent contributed to by the Supplier or any of its Personnel.

(i) If the Customer exercises its Step-In Rights for 60 days or more (or such other period as specified in Item 48 of the Order Form), then the Customer may, at its sole discretion, elect to terminate this Agreement or reduce its scope pursuant to clause 29.1(d).

26.2 Conclusion of Step-In

(a) The Customer may cease to exercise its Step-In Rights at any time by giving the Supplier at least five Business Days written notice or such other period specified in Item 48 of the Order Form (**Step-Out Notice**).

(b) Upon the Customer ceasing to exercise a Step-In Right, the Supplier must recommence performance of the Supplier's Activities on the date specified in the Step-Out Notice.

(c) The Customer must relinquish the control and possession of any of the Supplier's resources utilised for the performance of the Step-In Rights and must provide the Supplier with details of its actions taken during the period in which the Customer was exercising its Step-In Rights.

26.3 No prejudice

The parties acknowledge and agree that:

(a) except as specified in clause 26.1(g), nothing in this clause 26 will prejudice the rights of the Customer (including with respect to termination) or relieve the Supplier of its liabilities or responsibilities whether under this Agreement or otherwise according to Law; and

(b) the Customer is under no obligation to exercise Step-In Rights before it exercises any termination rights under this Agreement.

27. Insurance

(a) Unless otherwise specified in Item 49 of the Order Form, the Supplier must hold and maintain each of the following types of insurances, for the periods and in the amounts specified below:

(i) public liability insurance with a limit of cover of at least $20 million in respect of each occurrence, to be held for the duration of the Supplier's Activities;

(ii) product liability insurance with a limit of cover of at least $20 million in respect of each occurrence and in the aggregate, to be held for the duration of the Supplier's Activities and for at least seven years thereafter;

(iii) workers' compensation insurance as required by Law;

(iv) professional indemnity insurance with a limit of cover of at least $20 million in respect of each occurrence and in the aggregate, to be held for the duration of the Supplier's Activities and for at least seven years thereafter; and

(v) such other insurances as specified in Item 49 of the Order Form.

(b) Without limiting clause 27(a), where specified in the Order Form, the Supplier must hold and maintain:

(i) cyber security insurance with a limit of cover of at least $20 million in respect of each claim (or such other amount specified in Item 49 of the Order Form), to be held for the duration of the Supplier's Activities; and

(ii) insurance that covers Losses that may be suffered as a result of a data security breach or the wrongful disclosure and use of Personal Information by the Supplier or its Personnel.

(c) Within 10 Business Days following a request from the Customer, the Supplier must provide the Customer with:

(i) a certificate of currency issued by its insurer or insurance broker (or other form of evidence acceptable to the Customer) confirming that all insurance policies required by this Agreement are current and that the insurance has the required limits of cover; and

(ii) any information reasonably requested by the Customer regarding the policies for each of the insurances required to be held and maintained by the Supplier under clauses 27(a) and 27(b) (which may include reasonably redacted policy provisions or summarised policy terms where

disclosure of the full policy terms is restricted by confidentiality obligations owed by the Supplier to third parties).

28. Performance Guarantee and Financial Security

28.1 Performance Guarantee

If specified in Item 50 of the Order Form, the Supplier must arrange for a guarantor approved in writing by the Customer to enter into an agreement with the Customer in substantially the same form as the document in Schedule 8 or such other document reasonably acceptable to the Customer. This Performance Guarantee must be provided to the Customer within 15 Business Days following the Commencement Date or at such other time as specified in Item 50 of the Order Form.

28.2 Financial Security

(a) If specified in Item 51 of the Order Form, the Supplier must provide a financial security in the amount stated in the Order Form and in substantially the same form as the document in Schedule 9 or such other document reasonably acceptable to the Customer (**Financial Security**). The Financial Security must be provided to the Customer within 15 Business Days following the Commencement Date or at such other time as specified in Item 51 of the Order Form.

(b) If the Prices payable for the Supplier's Activities are increased pursuant to this Agreement (including due to a Change Request approved under clause 10), the Customer may, acting reasonably, direct the Supplier to provide additional security in an amount that is proportionate to the increase in Price, and the Supplier must promptly comply with such a direction.

(c) Subject to its rights to have recourse to the Financial Security, the Customer must release the Financial Security on the sooner of:

(i) one year from the date of issue of the Acceptance Certificate for the last Deliverable under the Order Form, or if no Acceptance Tests were required, one year following the termination or expiry of this Agreement (or such other period specified in the Order Documents);

(ii) the date the Customer and the Supplier agree in writing to release the issuer of the Financial Security; and

(iii) the date the Customer notifies the issuer of the Financial Security in writing that the Financial Security is no longer required.

28.3 Costs

Unless otherwise specified in the Order Form, the Supplier will be responsible for the costs that it incurs in complying with its obligations under this clause 28.

29. Termination

29.1 Termination for cause by the Customer

The Customer may (in its sole discretion) immediately terminate this Agreement or reduce its scope by written notice to the Supplier:

(a) if the Supplier breaches a term of this Agreement which is:

(i) not capable of remedy; or

(ii) capable of remedy, but the Supplier fails to remedy it within 30 days of receiving a notice to do so;

(b) if an Insolvency Event occurs in respect of the Supplier, to the extent there is no prohibition at Law in respect of such termination;

(c) if the Supplier or any parent company of the Supplier involved in the performance of the Supplier's Activities undergoes a Change in Control or Other Changes, without the Customer's prior written consent; or

(d) in any of those circumstances specified in clauses 12.7(b), 13.6, 14.4(a)(iii), 14.4(c)(iii), 26.1(i) and 36.4 or as otherwise set out in this Agreement, including the Additional Conditions,

in which circumstances the Customer's sole liability will be to pay the Supplier (subject to substantiation by the Supplier and the Supplier submitting a Correctly Rendered Invoice in accordance with this Agreement) for work carried out prior to the date of termination or reduction in scope.

29.2 Termination for convenience by the Customer

(a) Without prejudice to the Customer's other rights, the Customer may for its sole convenience, and for any reason, by written notice to the Supplier immediately terminate this Agreement or reduce its scope, effective from the time stated in the Customer's notice, or if no such time is stated, at the time notice is given to the Supplier.

(b) If the Customer terminates this Agreement or reduces its scope under clause 29.2(a), the Supplier:

(i) must take all reasonably practicable steps to mitigate the costs referred to in clause 29.2(b)(ii); and

(ii) will be entitled to payment of the following amounts, subject to substantiation by the Supplier, being:

A. for:

1) work carried out prior to the time of termination or reduction in scope; and

2) third party costs and disbursements duly incurred, with the authorisation of the Customer, but only to the extent referable to the period prior to the effective time of termination,

which would have been payable if this Agreement had not been terminated or reduced in scope and the Supplier submitted an Invoice for the work carried out prior to this date; and

B. such other specific costs itemised in Item 52 of the Order Form (if any),

but in no case will the total amount payable to the Supplier be more than the total Price that would have been payable by the Customer had this Agreement not been terminated.

(c) The amount to which the Supplier is entitled under this clause 29.2 will be a limitation on the Customer's liability to the Supplier arising out of, or in connection

with, the termination or reduction in scope of this Agreement and the Supplier may not make any Claim against the Customer with respect to this, other than for the amount payable under this clause 29.2.

29.3 Consequences of reduction of scope

If the Customer exercises its right to reduce the scope of this Agreement pursuant to clause 29, the parties agree that the Price will be reduced proportionately and in accordance with any methodology specified in the Payment Particulars.

29.4 Termination for cause by the Supplier

(a) The Supplier may immediately terminate this Agreement by written notice to the Customer if:

(i) the Customer has not paid an amount due and payable by it under this Agreement and the:

A. amount has been properly invoiced in a Correctly Rendered Invoice and is not the subject of any unresolved dispute under clause 24.6;

B. Supplier has issued a notice to the Customer, stating that the amount is overdue and that the Supplier intends to terminate unless the amount is paid; and

C. Customer does not pay the amount within 90 days of the date it receives the Supplier's notice under clause 29.4(a)(i)B; or

(ii) the Customer has:

A. breached this Agreement in a manner which results in the Supplier being in breach of a Law; or

B. intentionally and wilfully:

1) breached clauses 17.10 or 23; or

2) misappropriated the Intellectual Property Rights of the Supplier in its Existing Materials in a manner that is contrary to the Intellectual Property Rights granted or licenced to the Customer under this Agreement,

and the Customer does not cease the relevant conduct within 60 days of receiving a written notice from the Supplier requesting it to do so.

(b) This clause 29.4 exhaustively sets out the Supplier's rights to terminate this Agreement.

29.5 Dispute resolution

For clarity, the processes described in clause 35 are independent of, may be undertaken contemporaneously with, and do not constrain or delay, a party exercising its rights under this clause 29.

29.6 Survival of rights on termination or reduction in scope

Termination of this Agreement will be without prejudice to any other rights or obligations which may have accrued under this Agreement on or before termination.

30. Suspension

(a) The Customer may direct the Supplier in writing to:

(i) suspend the performance or carrying out of; and/or

(ii) after a suspension has been instructed, re-commence the performance or carrying out of,

all or part of the Supplier's Activities, at any time. Any such suspension will be effective on and from the date specified in the Customer's direction.

(b) The Supplier must comply with any direction issued by the Customer under clause 30(a).

(c) If a suspension under this clause 30 is instructed by the Customer as a result of any breach by the Supplier, the Supplier's failure or delay in carrying out any of its obligations in accordance with this Agreement or because of any event of the kind described in clause 29.1, such suspension will be without any liability to the Customer and the Supplier will not be entitled to make any Claim against the Customer arising out of, or in connection with, the suspension.

(d) If a suspension is instructed by the Customer under clause 30(a) other than for the reasons described in clause 30(c), then:

(i) unless otherwise agreed by the parties, the Supplier will be entitled to Invoice the Customer the direct, reasonable and substantiated costs (excluding any profit, profit component or overheads) necessarily incurred by the Supplier as a result of implementing the suspension as directed by the Customer, to the extent such costs could not have been reasonably mitigated or avoided;

(ii) the Supplier must take all reasonable steps to mitigate those costs incurred by it as a result of such suspension; and

(iii) the Supplier will not be entitled to make any Claim against the Customer arising out of or in connection with the suspension other than as described in clause 30(d)(i).

31. Transition-Out Services

31.1 Application of this clause

This clause 31 applies if it is specified in the Order Form that the Supplier is required to provide Transition-Out Services as part of any Stage or part of the Supplier's Activities.

31.2 Transition-Out Plan

(a) If the Order Form specifies that a Transition-Out Plan must be prepared by the Supplier with respect to the Supplier's Activities, by any date specified in the Order Form or otherwise promptly on request, the Supplier must prepare, and submit to the Customer's Representative for the Customer's approval in accordance with clause 8, a plan setting out how the Supplier will effect:

(i) the orderly disablement of the Supplier's Activities; or

(ii) where applicable, the transfer of the performance of the Supplier's Activities under this Agreement to the Customer or a third party, including complying with the obligations set out in this clause 31.

(b) The Supplier must ensure that the Transition-Out Plan sets out:

(i) the timeframes within which the Supplier will perform its obligations under the Transition-Out Plan;

(ii) any specific transition-out or disengagement obligations specified in the Order Documents; and

(iii) any charges, or the basis or methodology for the calculation of charges, which the Customer will pay the Supplier to perform the Services described in the Transition-Out Plan (if not otherwise specified in the Order Documents).

(c) The Supplier must:

(i) review and update the Transition-Out Plan periodically throughout its engagement under this Agreement or at the Customer's reasonable request; and

(ii) make any updates to the Transition-Out Plan that are reasonably requested by the Customer.

(d) For clarity, the Transition-Out Plan is a Document Deliverable. Clause 8 therefore applies to the Transition-Out Plan, including any updates to it.

31.3 General

The Supplier must for the duration of the Transition-Out Period (or such other period as agreed between the parties in writing):

(a) carry out all transition-out or disengagement Services specified in the Module Terms and other Order Documents or that are necessary to ensure the smooth transition of the Supplier's Activities to the Customer or its nominee;

(b) if a Transition-Out Plan has been approved by the Customer, perform its obligations as set out in the Transition-Out Plan; and

(c) co-operate with the Customer and its Personnel in relation to the performance of all Transition-Out Services.

32. Consequences of expiry or termination

32.1 Extracting or retrieving Customer Data

The Supplier must enable the Customer to extract or retrieve Customer Data, or otherwise provide the Customer Data to the Customer, in accordance with the requirements of this Agreement, for a minimum period of up to six months after the expiry or termination of this Agreement (or such other period as specified in the Order Documents or agreed between the parties in writing).

32.2 Confidential Information and intellectual property

Subject to clauses 23 and 32.1 and any requirements at Law applicable to the parties, on the expiry or termination of this Agreement, the Supplier and its Personnel must cease to access, and at the Customer's election, securely:

(a) return; or

(b) destroy,

the Customer's:

(c) Confidential Information; and

(d) Existing Materials, New Materials and other Materials that comprise the Customer's Intellectual Property Rights.

33. Warranties

33.1 Mutual warranties

Each party represents, warrants and undertakes to the other party that:

(a) as at the date that this Agreement is entered into, it is properly constituted and has sufficient power, capacity and authority to enter into this Agreement and perform the activities required under it;

(b) in so far as it uses Personnel to perform activities on its behalf under this Agreement, those Personnel are duly authorised by it; and

(c) it will reasonably co-operate with the other party and its respective Personnel to promote timely progress and fulfilment of this Agreement.

33.2 General Supplier warranties

Without limiting any other warranty under this Agreement, the Supplier represents, warrants and undertakes to the Customer that:

(a) to the best of its knowledge and belief after making due and reasonable enquiries, there is no Conflict of Interest in respect of itself and its Personnel, which relates to the Supplier's ability to perform its obligations under this Agreement;

(b) the information that is provided to the Customer in terms of the structure, viability, reliability, insurance cover, capacity, experience and expertise of the Supplier and its Personnel is, to the best of the Supplier's knowledge and belief, correct and not misleading as at the date it was (or is to be) supplied to the Customer;

(c) it is not aware of any information which, if it had provided that information to the Customer, may reasonably be expected to have had a material effect on the decision made by the Customer to enter into this Agreement;

(d) the office holders of the Supplier and any associate of the Supplier (as defined under section 11 of the Corporations Act) or its Related Body Corporate are of good fame and character; and

(e) the Supplier has all the Authorisations necessary to perform its obligations under this Agreement.

33.3 Warranties in relation to Supplier's Activities

Without limiting any other warranty under this Agreement, the Supplier represents and warrants to the Customer that:

(a) the Supplier's Activities will be carried out with due skill, care and diligence;

(b) the Supplier's Activities (including Deliverables repaired or replaced or Services re-performed under this Agreement) will meet the Specifications and other requirements of this Agreement;

(c) the Supplier's Activities will only be carried out by Supplier's Personnel who meet the Personnel requirements under this Agreement; and

(d) it will perform the Supplier's Activities in accordance with all applicable Laws.

33.4 Implied warranties

The express warranties given by the Supplier under this Agreement are provided by the Supplier to the exclusion of any implied representations or warranties not set out in this Agreement, provided that this Agreement (including clause 33.4) does not operate to exclude any statutorily implied representations, warranties, conditions or guarantees which cannot legally be excluded. To the extent that any such statutorily non-excludable representations, warranties, conditions or guarantees apply, the Supplier limits its liability for their breach to the maximum amount permitted by Law.

34. Indemnities and liability

34.1 Indemnities

The Supplier indemnifies the Indemnified Entities against any Loss arising out of, or connected with any:

(a) personal injury or death to any person or damage to, or loss of any real or tangible property to the extent caused or contributed to by an act or omission of the Supplier or any of the Supplier's Personnel;

(b) breach of the Supplier's or its Personnel's obligations under clauses 19.1 (Obligations in relation to Customer Data), 19.2 (Security of Customer Data), 20 (Privacy), 21 (Security), 22 (Security Incident notification) or 23 (Confidentiality);

(c) Claim brought by a third party arising out of, or in connection with, any actual or alleged infringement of Intellectual Property Rights or Moral Rights in the Deliverables or Services or associated with the Supplier's Activities, or any breach by the Supplier of the warranties in clause 17.12; or

(d) of the Supplier's or its Personnel's fraud, recklessness or Wilful Misconduct.

34.2 Third Party IP Claims

In relation to Claims of the kind referred to in clause 34.1(c), the parties agree that the Supplier's liability under the indemnity under that sub-clause is reduced to the extent that Loss arising under that indemnity is caused or contributed to by:

(a) the Customer's combination, operation or use of a Deliverable or Service with any other product, equipment, software or document of the Customer or a third party, except where:

(i) such combination, operation or use is authorised under this Agreement;

(ii) the Supplier supplied the Deliverable or Service on the basis that it can be combined, operated or used with the Customer's or the relevant third party's products; or

(iii) such combination, operation or use should have been reasonably anticipated by the Supplier having regard to the nature and purpose of the Deliverable or Service;

(b) the Customer's unauthorised modification of a Deliverable without the knowledge of the Supplier, except where such modification was contemplated in the Order

Documents or reasonably anticipated having regard to the nature and purpose of the Deliverable; or

(c) in relation to Licensed Software:

(i) the Supplier following the Customer's written technical directions in relation to the coding and configuration of the Licensed Software, to the extent that verifying or validating such directions is not within the scope of the Supplier's Activities; or

(ii) the Customer's continued use of old versions of the Licensed Software after the Supplier has notified the Customer in writing of the relevant infringement and provided the Customer (at no additional cost) a remedial software version, patch or correction, or a replacement part or other correction, that would have overcome the relevant infringement without affecting the performance or availability of the Licensed Software.

34.3 Indemnities not affected by insurance

For clarity, the Supplier's obligations and liability to indemnify the Indemnified Entities under this Agreement or otherwise, will not be affected in any way by any terms of insurance or any refusal by the insurer to indemnify the Supplier under the policies of insurance.

34.4 Status of indemnities

The Supplier's obligations to indemnify any Indemnified Entities who are not the Customer, under this Agreement or otherwise, are held on trust by the Customer and may be fully and effectively enforced by the Customer on behalf of those other entities.

34.5 Liability cap

(a) Subject to clauses 34.5(c) and 34.5(d), the liability of each party under this Agreement, howsoever arising and whether for breach, in tort (including negligence) or for any other common law or statutory cause of action is limited to the Limitation Amount.

(b) In clause 34.5(a), the "**Limitation Amount**" means the amount specified in Item 53 of the Order Form, which may be:

(i) a fixed amount;

(ii) a multiple of the total amounts paid or payable by the Customer under this Agreement; or

(iii) an amount determined by reference to any other mechanism,

in the aggregate or otherwise, provided that where no such amount is specified or Item 53 of the Order Form is left blank, the Limitation Amount (in that case, being the aggregate liability of a party under this Agreement), will be the Default Amount. The "**Default Amount**" will be determined in accordance with the table below:

Total Fees Paid or Payable*	**Default Amount**
Under $1,000,000 (including GST)	$2,000,000

$1,000,000 and above (including GST)	Two times the total fees paid or payable by the Customer under this Agreement.
* "Paid or payable" includes amounts that at the relevant time have not been paid but which would have become payable if the parties performed all of their obligations under this Agreement. It is not limited to amounts that at the relevant time have become due and payable.	

(c) The Supplier's liability under this Agreement is uncapped, and the limitation of liability set out in clause 34.5(a) does not apply in relation to each of the following:

(i) liability arising:

A. under any of the indemnities in clause 34.1; or

B. in respect of any of the matters referenced in that clause,

except to the extent that the parties expressly agree to, in Item 53 of the Order Form, an alternative approach in relation to regulating the quantum of any such liability; or

(ii) the Supplier's abandonment or repudiation of its obligations under this Agreement.

(d) Where the Supplier is a current member of a relevant scheme approved under the Professional Standards Legislation, and that scheme applies to limit the liability of the Supplier in accordance with that scheme, then the Supplier's liability will not be regulated by clauses 34.5(a) and 34.5(c) but will instead be limited only to the extent specified under that scheme. For clarity, to the extent that any such scheme does not apply, the Supplier's liability will continue to be determined in accordance with the other provisions of this clause 34.

34.6 Exclusions of liability

(a) In no event will either party's liability to the other party, howsoever arising and whether for breach, in tort (including negligence) or for any other common law or statutory cause of action, include any liability for special, indirect, incidental or consequential loss or damage.

(b) Nothing in clause 34.6(a) will preclude a party from recovering:

(i) Loss which may fairly and reasonably be considered to arise naturally, in the usual course of things, from the breach or other act or omission giving rise to the relevant liability; and

(ii) any kinds of Loss which the parties expressly agree, in Item 53 of the Order Form, will be treated as Loss of the kind referred to in clause 34.6(b)(i),

and where the Customer is the recovering party:

(iii) any Loss against which the Supplier is required to indemnify the Indemnified Entities under clause 34.1, to the extent such Loss relates to monies, amounts or liabilities owed, due, paid or payable, or obligations owed, to a third party; and

(iv) subject to applicable common law tests in respect of the recovery of Loss, any costs and expenses relating to any of the following activities

(which, for clarity, will be treated as loss of the kind referred to in clause 34.6(b)(i)):

A. repairing or replacing the relevant Deliverable or Licensed Software or re-supplying any Services, including the cost of procuring replacement deliverables or services of equivalent functionality and performance internally or from a third party;

B. implementing any reasonably necessary temporary workaround in relation to the Licensed Software, Services or Deliverables;

C. engaging labour resources to reload any lost or corrupt data to the extent caused or contributed by the Supplier, from the last backup made of such data (regardless of whether the Supplier is responsible for backup of that data as part of the Supplier's Activities); and

D. activities undertaken by, or on behalf of, the Customer in connection with the mitigation of Loss.

34.7 Application and contribution

(a) Each party's liability will be reduced proportionately to the extent caused or contributed by the other party.

(b) The limitations and exclusions of liability in this clause 33.4 only apply to the extent permitted by Law.

34.8 Mitigation

The Supplier's obligation to indemnify the Indemnified Entities against Loss under clause 34.1 is reduced to the extent that the relevant Loss arose due to a failure of the relevant Indemnified Entity to take reasonable steps to mitigate that Loss.

35. Dispute resolution

35.1 General

(a) The parties agree to resolve any dispute between them that arises out of, or in connection with, this Agreement in accordance with the procedure set out in clauses 35.2 to 35.3 or such other procedure set out in Item 54 of the Order Form.

(b) Either party may give written notice of a dispute to the other party setting out the particulars of the dispute and, where the notice is issued by the Customer, indicating whether the Contract Authority is to be involved in the dispute resolution process (**Dispute Notice**).

(c) Nothing in this clause 35 limits the ability of either party to commence legal action against the other party for urgent interlocutory relief.

35.2 Escalation

(a) Within 10 Business Days of a party receiving a Dispute Notice, the Customer's Representative and the Supplier's Representative must meet and try to resolve the dispute in good faith.

(b) If the parties have not:

(i) resolved the dispute; or

(ii) met,

within the period specified in clause 35.2(a), a senior executive of each party must meet and try to resolve the dispute in good faith within 10 Business Days or such other period as may be agreed by the parties in writing.

35.3 Alternative dispute resolution

(a) Unless otherwise specified in the Order Form, if the dispute remains unresolved after 20 Business Days of the date of the Dispute Notice (or such longer period as may be agreed by the parties in writing), then either party may issue a notice in writing to the other party requiring the dispute to be determined by mediation in accordance with, and subject to, the Resolution Institute Mediation Rules or any equivalent and replacement rules.

(b) If the dispute still remains unresolved 20 Business Days after a party becomes entitled to issue a notice in writing under clause 35.3(a) requiring the dispute to be determined by mediation, and by that time:

(i) *neither party has referred the dispute to mediation*: then either party may commence any other form of dispute resolution, including court proceedings, to determine the dispute; or

(ii) *the dispute has been referred to mediation*: then neither party may commence any other form of dispute resolution to determine the dispute, until a further 10 Business Days has elapsed following the commencement of mediation.

35.4 Acknowledgment

The parties acknowledge and agree that neither party may commence any other form of dispute resolution to determine the dispute, until the procedure set out in clauses 35.2 to 35.3 (or such other procedure set out in Item 54 of the Order Form) has been complied with in relation to the dispute.

35.5 Costs

Each party will bear its own costs in respect of complying with this clause 35.

35.6 Continue to perform

Notwithstanding the existence of a dispute, the parties must continue to perform their obligations under this Agreement.

36. Force Majeure

36.1 Force Majeure Event

Subject to clauses 36.2 and 36.3, non-performance as a result of a Force Majeure Event by a party of any obligation required by this Agreement to be performed by it will, during the time, and to the sole extent, that such performance is prevented, wholly or in part, by that Force Majeure Event:

(a) be excused; and

(b) not give rise to any liability to the other party for any Losses arising out of, or in any way connected with, that non-performance.

36.2 Notification and diligence

A party which is, by reason of a Force Majeure Event, unable to perform any obligation required by this Agreement to be performed will:

(a) notify the other party as soon as possible giving:

(i) full particulars of the event or circumstance of the Force Majeure Event;

(ii) the date of commencement of the Force Majeure Event and an estimate of the period of time required to enable it to resume full performance of its obligations where these particulars are available at the time of the Force Majeure Event notice; and

(iii) where possible, the means proposed to be adopted to remedy or abate the Force Majeure Event;

(b) use all reasonable diligence and employ all reasonable means to remedy or abate the Force Majeure Event as expeditiously as possible;

(c) resume performance as expeditiously as possible after termination of the Force Majeure Event or after the Force Majeure Event has abated to an extent which permits resumption of performance;

(d) notify the other party when the Force Majeure Event has terminated or abated to an extent which permits resumption of performance to occur; and

(e) notify the other party when resumption of performance will occur.

36.3 Liability not relieved

A Force Majeure Event affecting a party's performance under this Agreement will not relieve that party of liability in the event, and to the extent that:

(a) its negligence, failure to comply with any applicable Business Contingency Plan or breach of this Agreement (which was not caused by the Force Majeure Event) caused or contributed to its failure to perform under this Agreement; or

(b) it failed to use all reasonable endeavours to remedy the situation and to remove the event or circumstances giving rise to the Force Majeure Event.

36.4 Prolonged Force Majeure Event

If a Force Majeure Event prevents or inhibits the Supplier's performance of any obligation required to be performed under this Agreement for 60 days or more (or such other period as specified in the Order Form), then the Customer may, at its sole discretion, elect to terminate this Agreement or reduce its scope pursuant to clause 29.1(d).

37. Reports and audits

37.1 Records and reports

(a) The Supplier must keep and maintain true and accurate records and accounts of:

(i) all of the Supplier's Activities performed under this Agreement, including all records specified in the Module Terms;

(ii) the Supplier's compliance with its obligations under this Agreement; and

(iii) all associated records and accounts, including all supporting material, used to generate and substantiate the Invoices that it submits under this Agreement.

(b) Without limiting clause 37.1(a), the Supplier must provide the Customer with quarterly reports containing details of:

(i) the Supplier's compliance with the SME Policies, including (to the extent that the SME Policies apply):

A. the SMEs (as defined in the SME Policies) engaged in the Supplier's Activities;

B. the amounts paid to any such SMEs;

C. the Supplier's compliance with any plans developed or updated in accordance with the SME Policies; and

D. such other matters as required under the SME Policies; and

(ii) the Supplier's compliance with the Aboriginal Procurement Policy, including identifying (to the extent that the Aboriginal Procurement Policy applies) the:

A. Aboriginal-owned businesses engaged to perform the Supplier's Activities under this Agreement;

B. Supplier's compliance with the Aboriginal Participation Plan; and

C. amounts paid to any Aboriginal owned businesses under this Agreement.

37.2 Audits and inspections

(a) The Customer or its nominee (which may be an advisor, consultant or other third party engaged by the Customer) may conduct audits and inspections of the Supplier's and its Personnel's performance of its obligations under this Agreement, including the:

(i) Supplier's and any of the Supplier's subcontractors' operational practices and procedures as they relate to this Agreement;

(ii) accuracy of the Supplier's Invoices and reports submitted under this Agreement; and

(iii) Supplier's and its Personnel's compliance with its other obligations under this Agreement.

(b) For the purpose of conducting an audit or inspection under clause 37, or for the purposes of an inspection, examination or audit undertaken by or on behalf of the Auditor-General in accordance with its powers to assess the expenditure of public money related to this Agreement, the Customer, Auditor-General or their nominees may, on giving reasonable advance notice to the Supplier (at reasonable times and during Business Hours where practicable):

(i) access the premises and facilities of the Supplier to the extent reasonably required to carry out the audit or inspection;

(ii) to the extent relating to the Supplier's Activities, access, inspect and copy documents, resources and books and records, however stored, in the possession or control of the Supplier or its Personnel; and

(iii) require assistance in respect of any inquiry into or concerning the Supplier's Activities, including any parliamentary or statutory review or inquiry.

(c) If an audit will involve the Supplier being required to produce documents, resources or books and records, the Customer will accompany its notice under clause 37.2(b) with a general description of the scope and purpose of the audit.

(d) To the extent an audit involves physical access to the premises or facilities of the Supplier the:

(i) Customer will limit the exercise of its audit or inspection rights to no more than once per calendar year, unless the audit arises from the Supplier's breach of this Agreement or the Customer forming, on a reasonable basis, a view that such breach may have occurred; and

(ii) Customer or its nominee must comply with the Supplier's reasonable security requirements during such physical access.

(e) The Supplier must provide all reasonable access, assistance and co-operation required by the Customer or its nominee in carrying out an audit under this clause 37.2.

(f) Without limiting any rights or remedies of the Customer, if an audit shows that the Supplier or its Personnel has:

(i) breached, or is in breach of, this Agreement, the Supplier must promptly do all things necessary to remedy that breach and prevent it from recurring at no cost to the Customer; or

(ii) overcharged the Customer in any Invoice, the Supplier must promptly refund any amounts that the Supplier has overcharged the Customer, and adjust all of the current invoices that have not been paid by the Customer to ensure that the Customer is only liable to pay the correct amount. Where the overcharging discrepancy identified exceeds 10% of the amount that should have been correctly invoiced, the Supplier must also promptly reimburse the Customer for the reasonable costs (including internal costs) of conducting the audit.

(g) Subject to clause 37.2(f)(ii), each party must bear its own costs of executing its rights under, or complying with, this clause 37.

37.3 Conduct of audits and inspections

The Customer and its nominee must, in conducting an audit or inspection under this clause 37:

(a) to the extent it obtains any Confidential Information of the Supplier as a result of such audit or inspection, treat that information in accordance with clause 23; and

(b) not delegate the conduct of an audit or inspection under this clause to any person who may reasonably be considered to be a direct competitor of the Supplier in relation to the Supplier's Activities (unless such person is otherwise approved by the Supplier, acting reasonably).

37.4 Survival

This clause 37 survives for the Term and a period of seven years following the termination or expiry of this Agreement.

38. Proportionate liability

(a) To the extent permitted by Law, Part 4 of the *Civil Liability Act 2002* (NSW) (and any equivalent statutory provision in any other state or territory) is excluded in relation to all and any rights, obligations or liabilities of either party under or in any way in connection with this Agreement whether such rights, obligations or liabilities are sought to be enforced in contract, tort or otherwise.

(b) Without limiting clause 38(a), the rights, obligations and liabilities of the Customer and the Supplier under this Agreement with respect to proportionate liability are as specified in this Agreement and are not otherwise, whether such rights, obligations or liabilities are sought to be enforced in contract, in tort or otherwise.

PART F: GENERAL PROVISIONS

39. General

39.1 Government information

(a) The Supplier acknowledges that the Customer is subject to the GIPA Act and agrees that the Customer may disclose any part or all of this Agreement on its nominated website established for GIPA Act disclosures. The Supplier irrevocably consents to the Customer acting in accordance with this clause 39.

(b) To the extent that section 121 of the GIPA Act applies, the Supplier must, upon receipt of a written request by the Customer, provide the Customer with immediate access to the following information contained in records held by the Supplier:

(i) information that relates directly to the performance of the Supplier's Activities;

(ii) information collected by the Supplier from members of the public to whom it provides, or offers to provide, any aspect of the Supplier's Activities; and

(iii) information received by the Supplier from the Customer to enable it to carry out the Supplier's Activities.

(c) For the purposes of clause 39.1(b), information does not include information that:

(i) discloses or would tend to disclose the Supplier's financing arrangements, financial modelling, cost structure or profit margin;

(ii) the Supplier is prohibited from disclosing to the Customer by provision made by or under any Act, whether of any State or Territory, or of the Commonwealth; or

(iii) if disclosed to the Customer, could reasonably be expected to place the Supplier at a substantial commercial disadvantage in relation to the Customer whether at present or in the future.

(d) The Supplier must provide copies of any of the information referred to in clause 39.1(b), as requested by the Customer, at the Supplier's own expense and in such medium as the Customer may reasonably require.

(e) Without limiting any other provision of this clause 39.1, the Supplier:

(i) authorises the Customer to make information concerning the Supplier available to other Government Agencies or Eligible Customers (including to the relevant head of any Government Agency or Eligible Customer and any responsible Minister of a Government Agency) for any purpose in connection with facilitating the Customer's exercise of its rights under this Agreement or the carrying out, or exercise, of the functions or powers of the Customer, any Government Agency, Eligible Customer or the Crown. Such information may include any information provided by the Supplier to the Customer and any information relating to the Supplier's performance under this Agreement (including any reports provided under clause 15.4);

(ii) acknowledges that information about the Supplier from any source, including substantiated reports of unsatisfactory performance, or any conduct including, any civil and/or criminal or alleged criminal conduct, by any officers or associates of the Supplier or a Related Body Corporate may be taken into account by Government Agencies and Eligible Customers considering whether to offer the Supplier future opportunities for working with those entities, for assessing the terms of their own contracts (or proposed contracts) with the Supplier or any other third party, for governance or reporting purposes or for any other reasonable business or government purposes;

(iii) agrees that the communication of such information to any Government Agency is a communication falling within section 30 of the *Defamation Act 2005* (NSW); and

(iv) releases and indemnifies the Customer and the State of New South Wales from and against any Claim in respect of any matter arising out of such communications, including the use of such information by the recipient.

39.2 Personal Property Securities Act

To the extent the *Personal Property Securities Act 2009* (Cth) applies to any Materials or Deliverables supplied by the Supplier to the Customer, the Supplier represents, warrants and undertakes that the supply of the Materials and Deliverables to the Customer:

(a) does not breach any security agreement the Supplier has with a third party; and

(b) is within the ordinary course of the Supplier's business.

39.3 No use of the Customer’s name or logo

The Supplier must not use the Customer's name or any of the Customer’s logos, trade marks or branding, without the prior written consent of the Customer.

39.4 Prior work

Except as otherwise agreed between the parties in writing:

(a) the terms of this Agreement apply to all of the work performed by the Supplier in connection with the Supplier's Activities even if it was performed prior to entry into this Agreement; and

(b) any payment made to the Supplier by the Customer in connection with this Agreement or the Supplier's Activities prior to entry into this Agreement will be

treated as a payment under this Agreement and will be in part discharge of the Customer's obligation to pay the Price.

39.5 Entire agreement

This Agreement is the entire agreement between the parties about its subject matter and replaces all previous agreements, understandings, representations and warranties about that subject matter.

39.6 Variation

No variation to this Agreement is effective unless made in writing and executed by each party.

39.7 Survival and merger

(a) No term of this Agreement merges on completion of any transaction contemplated by this Agreement.

(b) The following provisions survive the termination and expiry of this Agreement:

(i) 9, 13, 17, 18, 19, 20, 21, 23, 27(a)(iv), 29.5, 31, 32, 33.4, 34.8, 37, 38 and this clause 39; and

(ii) any other provisions that are expressed to or which by their nature survive termination or expiry.

39.8 Severability

Any term of this Agreement which is wholly or partially void or unenforceable is severed to the extent that it is void or unenforceable. The validity or enforceability of the remainder of this Agreement is not affected.

39.9 Waiver

(a) No waiver of a right or remedy under this Agreement is effective unless it is in writing and signed by the party granting it. It is only effective in the specific instance and for the specific purpose for which it is granted.

(b) A single or partial exercise of a right or remedy under this Agreement does not prevent a further exercise of that or of any other right or remedy. Failure to exercise or a delay in exercising a right or remedy under this Agreement does not operate as a waiver or prevent further exercise of that or of any other right or remedy.

39.10 Cumulative rights

Except as expressly provided in the Additional Conditions, the rights and remedies of a party under this Agreement (including under an indemnity) are in addition to and do not exclude or limit any other rights or remedies provided by Law.

39.11 Further assurances

Each party must do all things, and execute all further documents, necessary to give full effect to this Agreement.

39.12 Assignment, novation and other dealings

(a) The Supplier must not, in whole or in part, assign or novate this Agreement or otherwise deal with the benefit of it or a right under it, or purport to do so without

obtaining the prior written consent of the Customer, which consent may be withheld at the Customer's sole discretion.

(b) The Supplier acknowledges that the Customer may conduct financial and other inquiries or checks on the entity proposing to take an assignment or novation of this Agreement before determining whether or not to give consent to an assignment or novation.

(c) Subject to clause 39.12(d), the Customer must not, in whole or in part, assign or novate this Agreement or otherwise deal with the benefit of it or a right under it, or purport to do so, without the prior written consent of the Supplier, which consent may not be unreasonably withheld.

(d) Notwithstanding clause 39.12(c), the Customer may, at its sole discretion, assign or novate this Agreement in whole or in part:

(i) to any other Eligible Customer, by notice in writing to the Supplier; or

(ii) for machinery of government changes, including if, by operation of Law, the Customer is reconstituted into a new body or legal entity or the functions of the Customer, relevant to this Agreement, are transferred to a different body or legal entity.

(e) The Supplier agrees to co-operate in good faith and provide all reasonable assistance to the Customer in respect of any such assignment or novation made by the Customer under this clause 39.12.

(f) The Supplier must (to the extent permitted by Law):

(i) notify the Customer if the Supplier or any parent company of the Supplier is about to undergo a Change in Control or Other Changes, as soon as it becomes aware that the Change in Control or Other Changes will or may occur; and

(ii) provide the Customer with all information reasonably requested by the Customer in respect of the Change in Control or Other Changes, including in respect of any incoming owner or other person who is to obtain control over the Supplier or any parent company.

39.13 Notices

(a) A notice, consent or other communication under this Agreement (**Notice**) is only effective if it is in writing and received in full and legible form at the addressee's address or email address.

(b) For the purposes of this clause 39.13, a party's address and email address is that set out in the Order Form (as applicable), unless the party has notified a changed address, then the notice, consent, approval or other communication must be sent to that address.

(c) A Notice will be regarded as received at the time and on the day it is actually received, but if it is received on a day that is not a Business Day or after 5:00pm on a Business Day it is regarded as received at 9:00am on the following Business Day.

(d) Unless there is evidence to the contrary:

(i) a letter sent by post will be taken to be received on the fifth Business Day after posting (or seventh, if posted to or from a place outside of Australia);

(ii) in the case of email:

A. production of a delivery notification statement from the computer from which the email was sent which indicates that the email was sent in its entirety to the email address of the recipient will be prima facie evidence that the email has been received;

B. where there is no delivery notification statement from the computer from which the email was sent, the date and the time of dispatch of the email will be prima facie evidence of the date and time that the email was received; and

C. where a delivery error or similar response is returned in response to that email, the email will not be taken to be received and the sender must use an alternative method of giving that notice in accordance with this clause 39.13.

39.14 Construction

No rule of construction applies to the disadvantage of a party because that party was responsible for the preparation of this Agreement.

39.15 Expenses

Except as otherwise expressly provided in this Agreement, each party must pay its own costs and expenses in connection with the negotiation, preparation and execution of this Agreement.

39.16 English language

All communications between the parties and all documentation provided in connection with this Agreement and the Supplier's Activities must be in the English language.

39.17 Governing Law

This Agreement is governed by the Laws applicable in the State of New South Wales, Australia. The Supplier irrevocably and unconditionally submits to the sole and exclusive jurisdiction of the courts of New South Wales, Australia and the courts entitled to hear appeals from those courts.

Executed as an agreement:

Signed for and on behalf of **Transport for NSW, ABN 18 804 239 602** by its authorised representative, but not so as to incur personal liability, in the presence of:

Sharon Harrison

Signature of witness

Signature of authorised representative

Sharon Harrison, Business Coordinator

Name of witness in full

Lewis Clark, Executive Director

Name of authorised representative in full

Date 12 May 2023

[X] If ticked, the witness confirms that they witnessed the signatory sign this document over audio visual link in accordance with section 14G of the Electronic Transactions Act 2000, and the witness affixed their electronic signature to a counterpart of this document.

[ ] If ticked, the witness confirms that they witnessed the signatory sign this document in the physical presence of the witness, and the witness affixed their signature to either the same or a counterpart copy of this document.

Executed by **TYCO PROJECTS (AUSTRALIA) PTY LIMITED ABN 70 092 471 737** in accordance with section 127 of the *Corporations Act 2001* (Cth):

Signature of Secretary/other Director

Signature of Director or Sole Director and Secretary

Bei Fu

Name of Secretary/other Director in full

Craig Buettel

Name of Director or Sole Director and Secretary in full

Date May 10, 2023

Date May 10, 2023

Schedule 1 - Definitions and interpretation

1.1 Definitions

In this Agreement, unless the contrary intention appears:

Aboriginal Participation Plan means the plan of that name developed pursuant to the Aboriginal Procurement Policy and attached to, or referenced in, the Order Form.

Aboriginal Procurement Policy means the New South Wales Government's Aboriginal Procurement Policy published at https://buy.nsw.gov.au/policy-library/policies/aboriginal-procurement-policy (or such other link as notified by the Customer).

Acceptance in respect of a Deliverable, means the issuing by the Customer of an Acceptance Certificate for that Deliverable. **Accept** and **Accepted** have a corresponding meaning.

Acceptance Certificate means an acceptance notice or certificate issued by the Customer pursuant to clause 14.3 to confirm that a Deliverable meets the Acceptance Criteria.

Acceptance Criteria in respect of a Deliverable, means the compliance of that Deliverable with any criteria set out in the Order Form and such other requirements as the Customer reasonably considers necessary to determine whether that Deliverable complies with the applicable Specifications and the other requirements set out in this Agreement.

Acceptance Tests or **Testing** in respect of a Deliverable, means acceptance tests carried out in accordance with clause 14 to verify whether the Acceptance Criteria in respect of that Deliverable has been met, including any such tests specified in the Order Documents.

Accessibility Standard has the meaning given to that term in clause 6.3(a)(i).

Additional Activities has the meaning given to that term in clause 6.9(a)(i).

Additional Conditions means any terms or conditions that vary or are additional to the terms and conditions set out in the Core Terms or Module Terms and which are stated or referenced in Items 11 of the Order Form.

Additional Order means an Additional Order for Services and/or Deliverables that is placed in accordance with clause 3.3.

Adjustment Notice has the meaning given to that term in clause 24.3(d).

Agreement means this agreement and includes any schedule and attachment to this agreement.

Authorisations means any consent, registration, filing, agreement, notarisation, certificate, licence, approval, permit, authority or exemption from, by or with a Government Agency.

Authority includes any Government Agency, governmental or semi-governmental or local government authority, administrative, regulatory or judicial body or tribunal, department, commission, public authority, agency, Minister, statutory corporation or instrumentality.

Benchmarking Activities has the meaning given to that term in clause 24.2(b).

Benchmarking Notice has the meaning given to that term in clause 24.2(b).

Benchmarking Report has the meaning given to that term in clause 24.3(a).

Best Industry Practice means a standard of service or deliverable, in terms of quality, productivity, performance, cost and timeliness of delivery, that, when considered collectively, is equal to or better than the commonly accepted best practice being provided at the relevant

time by a supplier of like or similar services, deliverables and activities to the Supplier's Activities throughout the world.

Business Contingency Plan has the meaning given to that term in clause 25.2(a).

Business Day means a day other than a Saturday, Sunday or gazetted public holiday in New South Wales, Australia.

Business Hours means the hours between 9:00am and 5:00pm on any Business Day.

Change Control Procedure means the procedure to be followed with respect to Change Requests as specified in clause 10.

Change in Control means, in respect of an entity, the occurrence of any circumstances or events following which the entity, who was not so controlled before, is controlled by another person, alone or together with any Related Body Corporate, and:

(a) includes, in respect of the entity, a change of a direct holding of at least fifteen percent of the voting shares in that entity or a holding company of that entity; however

(b) excludes an internal solvent corporate reorganisation occurring exclusively within the group of companies comprised of the Supplier and its Related Bodies Corporate.

Change Request has the meaning given to that term in clause 10.1(a).

Change Request Form means a document in substantially the same form as that in Schedule 5 or such other form approved by the Customer.

Claim means any allegation, cause of action, liability, claim, proceeding, suit or demand of any nature, whatsoever arising, and whether present or future, fixed or unascertained, actual or contingent and whether at Law, under statute or otherwise.

Commencement Date means the date specified as such in the Order Form.

Confidential Information means information that:

(a) is by its nature confidential;

(b) is communicated by the discloser of the information (**Discloser**) to the recipient of the information (**Recipient**) as confidential;

(c) the Recipient knows or ought to know is confidential; or

(d) relates to or comprises the:

(i) financial, corporate or commercial information of any party;

(ii) affairs of a third party; or

(iii) strategies, practices or procedures of the State of New South Wales or any information in the Supplier's possession relating to a Government Agency,

but excludes information:

(e) in the public domain, unless it came into the public domain due to a breach of confidentiality;

(f) independently developed by the Recipient; or

(g) in the possession of the Recipient without breach of confidentiality by the Recipient or other person.

Conflict of Interest means the Supplier or its Personnel:

(a) engaging in any activity;

(b) obtaining any interest, whether pecuniary or non-pecuniary; or

(c) being involved in any actual or threatened litigation or investigation,

whether proven or alleged, which is likely to, has the potential to, or could be perceived to, present a conflict of interest in the Supplier or its Personnel performing its obligations under this Agreement.

Contract Authority means the entity named as such in the Order Form and who has entered into a MICTA.

Core Terms means clauses 1 to 39 of this Agreement.

Corporations Act means the *Corporations Act 2001* (Cth).

Correctly Rendered Invoice means an Invoice which:

(a) specifies an amount that is due for payment and correctly calculated in accordance with this Agreement;

(b) is itemised and identifies the GST exclusive amount, the GST component and the GST inclusive amount (as applicable) and enables the Customer to ascertain what the Invoice covers and the amount payable;

(c) includes (where available) the relevant purchase order number notified by the Customer to the Supplier and this Agreement reference number;

(d) where relating to an amount that is payable subject to Acceptance, is accompanied by documentary evidence that signifies that Acceptance (where appropriate) has occurred in accordance with this Agreement;

(e) is in the right form (which may be an electronic or digital form where agreed to by the Customer); and

(f) complies with clauses 24.4(a) to 24.4(b) and satisfies any additional criteria relating to Invoices specified in the Order Form.

Critical CSI means any:

(a) CSI that is critical to the Supplier's ability to carry out the Supplier's Activities and without which the Supplier would be materially restricted in its ability to carry out the Supplier's Activities in accordance with the requirements of this Agreement; or

(b) any CSI specified as "Critical CSI" in the Order Form.

Crown means the Crown in right of the State of New South Wales.

Customer means the entity named as such in Item 1 of the Order Form.

Customer Data means all data (including metadata) and information relating to the Customer or any Government Agency and the operations, facilities, customers, clients, personnel, assets

and programs of the Customer and any Government Agency, including Personal Information, in whatever form that information may exist and whether created, captured, collected, entered into, stored in, generated by, controlled, managed, retrieved, transferred, transmitted, printed, processed or produced as part of carrying out the Supplier's Activities, but excluding any Performance Data.

Customer Environment means the combination of hardware, software, systems and network infrastructure and services used by the Customer from time to time, including those specified in the Order Documents.

Customer's Representative means the person nominated in Item 2 of the Order Form or as advised in writing by the Customer to the Supplier from time to time, to act on behalf of the Customer in connection with this Agreement.

Customer Supplied Items or **CSI** means the Materials, equipment, resources or items specified in the Order Form to be provided by the Customer to the Supplier.

Customer User(s) means any Personnel of the Customer or any other person that the Customer authorises to use the Deliverables or Services.

Data Location Conditions means:

(a) compliance with the Information Security Requirements;

(b) ensuring that Customer Data and Personal Information is at all times handled and processed in accordance with all applicable Laws, including the Privacy Laws and the *State Records Act 1998* (NSW) (to the extent applicable);

(c) not transferring any Customer Data and Personal Information to a jurisdiction that is the subject of any sanction, embargo, export control or similar Laws;

(d) ensuring that Customer Data and Personal Information is at all times protected in accordance with the terms of this Agreement including clauses 19, 20 and 21; and

(e) compliance with any other requirements or conditions with respect to the location of Customer Data and Personal Information as specified in Item 39 of the Order Form or in the Module Terms.

Data Management and Protection Plan means the Supplier's written plan with respect to data management and protection that complies with clause 20.2.

Date for Delivery means the date(s) (including any Key Milestones) by which the Supplier must provide the relevant Deliverables and/or Services to the Customer or complete the relevant Supplier's Activities, as stated in the Order Documents and as may be adjusted under this Agreement.

Deed of Confidentiality and Privacy has the meaning given to that term in clause 11.4(a).

Default Amount means the amount determined as such according to clause 34.5(b).

Defect means a fault, error, failure, degradation, deficiency or malfunction that causes the relevant Deliverable or Service to not meet the Specifications and the other requirements of this Agreement or any other aspect of a Deliverable or Service that is not in accordance with the requirements of this Agreement.

Delay has the meaning given to that term in clause 6.7(a)(i).

Deliverable means all things or items (including Documents) to be supplied by the Supplier under this Agreement as set out in the Order Documents.

Denial of Service (DoS) Attack means an attack that shuts down or substantially degrades the Deliverables and/or Services, resulting in the Deliverables and/or Services (or any functionality forming part of the Deliverables and/or Services) being unable to be used by the Customer or Customer Users in the manner intended to be used under this Agreement, including as to any Service Levels or key performance indicators.

Disaster means any disaster, accident, emergency, degradation, damage, interruption or other event which impacts on the continuity of the Supplier's Activities (including any Force Majeure Event impacting the Supplier).

Dispute Notice has the meaning given to that term in clause 35.1(b).

Document has the meaning given to that term in clause 8.1(a).

Document Deliverable means any Deliverable which is, or is required to be, in the form of a Document.

Eligible Customer means any Government Agency or Eligible Non-Government Body.

Eligible Non-Government Body includes the following public bodies that are not Government Agencies (as identified under clause 6 of the *Public Works and Procurement Regulation 2019* (NSW)):

(a) a private hospital;

(b) a local council or other local authority;

(c) a charity or other community non-profit organisation;

(d) a private school or a college;

(e) a university;

(f) a public authority of the Commonwealth or any other State or Territory;

(g) a public authority of any other jurisdiction (but only if it carries on activities in the State of New South Wales); or

(h) any contractor to a public authority (but only in respect of things done as such a contractor).

Escrow Materials means the software code and programming Materials specified in Item 38 of the Order Form or otherwise specified as constituting "Escrow Materials" in Schedule 7.

Existing Materials means any Materials in which Intellectual Property Rights subsist (which, in the case of the Supplier, are incorporated into a Deliverable or Service or to which the Customer otherwise requires a licence in order to enjoy the benefit of this Agreement or any obligations performed for the Customer under it):

(a) belonging to a party that are pre-existing as at the Commencement Date; or

(b) that are brought into existence, by or on behalf of a party, other than in connection with the performance of that party's obligations under this Agreement,

and includes any enhancements, modifications and developments to such Materials, to the extent not comprising New Materials.

Financial Security has the meaning given to that term in clause 28.2(a).

Force Majeure Event means any of the following events or circumstances to the extent not within the reasonable control of the party affected by it (**Affected Party**):

(a) acts of God, including storms, cyclones, landslides, epidemics, earthquakes, floods, and other natural disasters;

(b) strikes, stoppages, labour restraints and other industrial disturbances, except for those only affecting the Personnel of the Affected Party;

(c) acts of the public enemy, including wars, blockades and insurrections; and

(d) riots, malicious damage, sabotage, civil disturbance and acts of terrorism,

the incidence of which is not (or would not be reasonably expected to be) generally known to the Affected Party as at the Commencement Date and which the Affected Party is not reasonably able to prevent or overcome, or the effects of which the Affected Party is not reasonably able to predict and take measures to avoid, by the exercise of reasonable diligence and prudence.

GIPA Act means the *Government Information (Public Access) Act 2009* (NSW).

Governance Framework has the meaning given to that term in clause 4.3(a).

Government Agency means any of the following:

(a) a government sector agency (within the meaning of the *Government Sector Employment Act 2013* (NSW));

(b) a New South Wales Government agency;

(c) any other public authority that is constituted by or under an Act or that exercises public functions for or on behalf of the State of New South Wales (other than a State owned corporation); or

(d) any State owned corporation prescribed by regulations under the *Public Works and Procurement Act 1912* (NSW).

GST Law means *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

ICT means information and communication technologies.

ICT Purchasing Framework means the suite of New South Wales Government template documents which sets out standard terms and conditions to be used by Eligible Customers for the procurement of ICT related goods and services.

Indemnified Entities means the Customer, Customer Users the State of New South Wales, the Customer Personnel and, in relation to a Government Agency, the relevant head of the Government Agency and its responsible Minister.

Information Security Requirements has the meaning given to that term in clause 19.2(a).

Inherent Risks means the level of risks that exists in an organisation prior to the adoption or implementation of internal security controls or measures designed to avoid or mitigate them.

Initial Term means the period specified as such in the Order Form.

Insolvency Event means the occurrence of any one or more of the following events in relation to any person:

(a) an application is made to a court for an order, or an order is made, that it be wound up, declared bankrupt or that a provisional liquidator or receiver, or receiver and manager, be appointed;

(b) a liquidator or provisional liquidator is appointed;

(c) an administrator is appointed to it under sections 436A, 436B or 436C of the Corporations Act;

(d) a Controller (as defined in section 9 of the Corporations Act) is appointed to it or any of its assets;

(e) a receiver is appointed to it or any of its assets;

(f) it enters into an arrangement or composition with one or more of its creditors, or an assignment for the benefit of one or more of its creditors, in each case other than to carry out a reconstruction or amalgamation while solvent;

(g) it proposes a winding-up, dissolution or reorganisation, moratorium, deed of company arrangement or other administration involving one or more of its creditors;

(h) it is insolvent as disclosed in its accounts or otherwise, states that it is insolvent, is presumed to be insolvent under Law (including under sections 459C(2) or 585 of the Corporations Act) or otherwise is, or states that it is, unable to pay all its debts as and when they become due and payable;

(i) it is taken to have failed to comply with a statutory demand as a result of section 459F(1) of the Corporations Act;

(j) a notice is issued under sections 601AA or 601AB of the Corporations Act;

(k) a writ of execution is levied against it or a material part of its property;

(l) it ceases to carry on business or threatens to do so; or

(m) anything occurs under the Law of any jurisdiction which has a substantially similar effect to any of the events set out in the above clauses of this definition.

Intellectual Property Rights means all intellectual property rights, including:

(a) copyright, patent, design, semi-conductor or circuit layout rights, registered design, trade marks or trade names and other protected rights, or related rights, existing worldwide; and

(b) any licence, consent, application or right to use or grant the use of, or apply for the registration of, any of the rights referred to in paragraph (a),

but does not include the right to keep Confidential Information confidential, Moral Rights, business names, company names or domain names.

Invoice means a tax invoice issued under the GST Law.

Item means an item in Parts A to E of the Order Form.

Key Milestone means a Date for Delivery of a Deliverable, or for the completion of a particular Service or other Supplier's Activity, that is specified as such in the Payment Particulars or Order Documents, as may be adjusted under this Agreement.

Laws means any legally binding law, legislation, statute, act, regulation, subordinate legislation, rule, by-law, order, proclamation, decree, ordinance, directive or code which is

enacted, issued or promulgated from time to time in any relevant jurisdiction (including the Commonwealth or any State or Territory government) and any applicable common law and rule or principle of equity.

Licensed Software means the software set out in the Order Documents that the Supplier is to provide to the Customer, or provide the Customer access to (as applicable) under this Agreement and includes any Updates or New Releases of that software that may be provided to the Customer from time to time in accordance with this Agreement.

Limitation Amount has the meaning given to that term in clause 34.5.

Liquidated Damages means any damages specified as such in an Order Form which, where applicable, will be applied in accordance with clause 16.

Loss means any loss, damage, liability, cost (including all legal and other professional costs on a full indemnity basis), charge, expense, Claim, outgoing, fine or payment of any nature or kind.

Material Defect means any Defect which represents a material departure from the Specifications or other requirements of this Agreement in respect of that Deliverable or prevents the proper operation of the Deliverable.

Materials means all property, materials, documents, information and items in whatever form, and includes equipment, hardware, computer software (including development tools and object libraries), concepts, approaches, tools, methodologies, processes, know-how, data, Documentation, manuals and anything else which is the subject matter of Intellectual Property Rights.

MICTA means (if any) the master ICT agreement between the Contract Authority and the Supplier under which there is a standing offer to provide particular ICT-related goods, services and/or other activities (including the Deliverables and Services) to Eligible Customers.

Modern Slavery has the same meaning as in the Modern Slavery Laws and includes slavery, servitude, forced labour, human trafficking, debt bondage, organ trafficking, forced marriage and the exploitation of children.

Modern Slavery Laws means the *Modern Slavery Act 2018* (Cth) and any other applicable legislation addressing similar subject matter.

Modern Slavery Statement means a modern slavery statement as required or volunteered under the Modern Slavery Laws.

Module means the applicable Module(s) which apply to the specific Services and/or Deliverables as identified in the Order Form.

Module Terms means the terms and conditions in respect of the applicable Module(s) as set out in the Module(s).

Moral Rights means a person's moral rights as defined in the *Copyright Act 1968* (Cth) and any other similar rights existing under any other laws.

New Materials means Materials in which Intellectual Property Rights subsist that are created or which arise in the course of performing this Agreement, excluding Customer Data.

New Releases means software (including the latest current version) which has been produced primarily to extend, alter or improve the Licensed Software by providing additional functionality or performance enhancement (whether or not Defects in that Licensed Software are also corrected) while still retaining the original designation of the Licensed Software. A New Release does not include any software that is generally licensed by the Supplier to its customers as a different product.

Nominated Personnel means the key Personnel of the Supplier who are required to undertake the provision of the Supplier's Activities or part of the work constituting the Supplier's Activities, as stated in Item 18 of the Order Form or otherwise agreed by the Customer in writing.

Notice has the meaning given to that term in clause 39.13.

Open Source Software means software available under a licence which:

(a) meets the criteria of the Open Source Definition published by the Open Source Initiative at http://www.opensource.org, and includes the forms of creative commons licences published as the Creative Commons Legal Code for Australia at http://www.creativecommons.org; or

(b) contains any term or condition which mandates the re-licensing or redistribution to the public (whether free of charge or for a fee) of any software code, in any circumstance.

Order means an order for the Services and/or Deliverables and other Supplier's Activities as set out in an Order Form, and includes an Additional Order.

Order Documents means:

(a) the Order Form;

(b) the Payment Schedule;

(c) all applicable Plans; and

(d) the relevant Module Terms identified as applicable in Item 13 of the Order Form.

Order Form means:

(a) the document set out at Schedule 2;

(b) any Additional Order;

(c) any Statement of Work or Supplier's Documents incorporated within or attached to an Order Form in accordance with this Agreement; and

(d) any schedules, annexures or attachments expressly incorporated into any of the above documents.

Other Changes means any actual or proposed change in the Supplier's circumstances, operations or supply chains (including a change to the Supplier's Personnel) that could reasonably be considered to:

(a) create a security risk for the Customer or the State of New South Wales; or

(b) adversely affect the:

(i) Supplier's ability to fulfil its obligations under this Agreement; or

(ii) reputation of the Customer or the State of New South Wales.

Other Supplier means any supplier, contractor, consultant or other person engaged to provide services or deliverables to the Customer, other than the Supplier or its subcontractors and suppliers.

Payment Particulars means the pricing and payment regime for the completion of the Supplier's Activities as set out in the Payment Schedule, the Statement of Work or in Item 43 of the Order Form.

Payment Schedule means the schedule of Prices and payment regime specified in Schedule 4.

Performance Data means automatically generated metadata, not including any Personal Information or Confidential Information of the Customer or a Government Agency that:

(a) is incidentally generated by a computer system in the course of its normal operation;

(b) relates to the performance or operation of that computer system; and

(c) arises in the course of the performance of the Supplier's Activities.

Performance Guarantee has the meaning given to that term in clause 28.1.

Personal Information means:

(a) information or an opinion about an identified individual (that is, a natural person) or an individual who is reasonably identifiable whether the information or opinion is:

(i) true or not; and

(ii) recorded in a material form or not; and

(b) information defined as such under applicable Privacy Laws.

Personnel means a party's employees, officers, agents and subcontractors and:

(a) in the case of the Supplier, includes any persons carrying out the Supplier's Activities on the Supplier’s behalf; and

(b) in the case of the Customer, includes any Customer Users permitted or enabled by the Customer to use the Deliverables and Services, but excludes the Supplier and its Personnel.

Plans means any:

(a) Project Plan;

(b) Business Contingency Plan;

(c) Data Management and Protection Plan;

(d) Test Plan;

(e) Transition-In Plan and Transition-Out Plan; and

(f) any additional plans specified in Item 27 of the Order Form or required to be complied with under this Agreement.

Policies, Codes and Standards means:

(a) all applicable SME Policies and associated requirements;

(b) the other policies, codes, standards and guidelines and associated requirements specified in this Agreement, including within:

(i) clauses 12.2(b) and 37.1(b); and

(ii) the Order Form; and

(c) any Policy Changes with which the Supplier is or becomes required to comply with under clause 12.3.

Policy Change has the meaning given to that term in clause 12.3(a).

Price means the total amount payable by the Customer for the Deliverables and/or Services and the carrying out of the other Supplier's Activities under this Agreement as stated in the Payment Particulars, as may be adjusted under this Agreement.

Privacy Laws means:

(a) the *Privacy Act 1988* (Cth);

(b) the *Privacy and Personal Information Protection Act 1998* (NSW);

(c) the *Health Records and Information Privacy Act 2002* (NSW);

(d) any legislation (to the extent that such legislation applies to the Customer or the Supplier or any other recipient of Personal Information) from time to time in force in:

(i) any Australian jurisdiction (which includes the Commonwealth of Australia and any State or Territory of Australia); and

(ii) any other jurisdiction (to the extent that the Customer or any Personal Information or the Supplier is subject to the laws of that jurisdiction),

affecting privacy or Personal Information, provided that the Supplier ensures that it complies at all times with the Privacy Laws applicable in New South Wales; and

(e) any ancillary rules, guidelines, orders, directions, directives, codes of conduct or other instruments made or issued under any of the legislation referred to in paragraphs (a), (b), (c) and (d), as amended from time to time.

Professional Standards Legislation means the *Professional Standards Act 1994* (NSW) or other equivalent Laws providing for the statutory limitation of liability of certain suppliers.

Project Plan has the meaning given to that term in clause 6.5(a).

Related Body Corporate has the meaning given to that term in the Corporations Act.

Remediation Plan has the meaning given to that term in clause 22.2(a)(vi).

Renewal Period means the renewal period specified in Item 9 of the Order Form.

Schedule means a Schedule to this Agreement. Those Schedules that are applicable to an Order will be identified in Item 13.

Security Incident means in relation to this Agreement:

(a) any unauthorised (whether under this Agreement or otherwise) or unlawful use of, loss of, access to, alteration of, or disclosure of Customer Data or Personal Information within the Supplier's or its Personnel's possession or control (including any data and information stored on the Supplier’s equipment or in the facilities used by the Supplier to carry out the Supplier's Activities, or any unauthorised or unlawful access to such equipment or facilities);

(b) any notifiable data breach under the Privacy Laws;

(c) any Denial of Service Attack;

(d) the occurrence of circumstances indicating it is reasonably likely that any of the circumstances under paragraphs (a) to (c) have occurred;

(e) any similar events relating to Customer Data or Personal Information which trigger, or are likely to trigger, contractual reporting obligations or legal reporting obligations to an Authority or which would require a response or action under this Agreement, at Law or under any of the Policies, Codes and Standards; or

(f) any alleged or suspected occurrence of any of the above events or circumstances.

Security Program has the meaning given to that term in clause 21.2(a).

Service Levels means any minimum performance levels, key performance indicators and other service standards with respect to the Supplier's Activities to be achieved by the Supplier as specified, included or incorporated by reference (in accordance with this Agreement) in the Order Documents.

Services means:

(a) the services that the Supplier is required to perform or provide under this Agreement as described in the Order Documents; and

(b) any related or ancillary services which are required or reasonably incidental for the proper performance of the services, functions, processes and responsibilities referred to in paragraph (a).

Site has the meaning given to that term in clause 6.10(a).

SME Policies means:

(a) the New South Wales Government's Small and Medium Enterprises and Regional Procurement Policy, published at https://buy.nsw.gov.au/policy-library/policies/sme-and-regional-procurement-policy (or such other link as notified by the Customer);

(b) the ICT/Digital Sovereign Procurement Commitments, published at https://buy.nsw.gov.au/resources/ictdigital-sovereign-procurement-commitments (or such other link as notified by the Customer);

(c) the Small Business Shorter Payment Terms Policy, published at https://buy.nsw.gov.au/policy-library/policies/small-business-shorter-payment-terms-policy (or such other link as notified by the Customer); and

(d) such other SME policies specified in the NSW Procurement Policy Framework, published at https://buy.nsw.gov.au/policy-library/policies/procurement-policy-framework (or such other link as notified by the Customer).

Specifications in respect of a Deliverable or Service, means the technical or descriptive specifications of the functional, operational, performance or other characteristics relating to that Deliverable or Service as detailed or referred to in the Order Documents or as otherwise agreed by the parties in writing.

Stage means one or more stages or phases of the project as specified in the Order Documents.

Statement of Work means a statement of work incorporated within or attached to an Order Form, an illustrative form of which is set out in 0.

Step-In Right has the meaning given to that term in clause 26.

Step-Out Notice has the meaning given to that term in clause 26.2(a).

Supplier means the entity named as such in Item 4 of the Order Form.

Supplier's Activities means all things or tasks which the Supplier is, or may be, required to do to comply with its obligations under this Agreement and includes the supply of the Deliverables and Services and, where applicable, the carrying out of any Transition-In Services and Transition-Out Services.

Supplier's Documents means any product specifications, service-specific detail or other terms and conditions of the Supplier which comply with clause 1.5 and which the parties have expressly agreed to incorporate into this Agreement, as set out in Annexure A to the Order Form.

Supplier's Representative means the Supplier's employee nominated in Item 5 of the Order Form or as advised in writing by the Supplier from time to time to act on its behalf in connection with this Agreement.

Tax means any sales tax, value added tax, duty, withholding tax, levy, impost or other charge or duty levied by any government in Australia or elsewhere, which arises out of or in connection with the Supplier's performance of its obligations under this Agreement, but excludes GST.

Term means the Initial Term of this Agreement and any Renewal Period, unless this Agreement is terminated earlier, in which case the Term ends on the date of termination of this Agreement.

Test Plan means the Plan with respect to the conduct of tests pursuant to clause 14, and which is referenced in or annexed to the Statement of Work or other Order Documents or agreed between the parties in writing.

Transition-In Plan means a transition-in Plan prepared by the Supplier and approved by the Customer in accordance with clause 7.

Transition-In Services means the transition-in Services specified in the Order Documents or in any Transition-In Plan that is approved by the Customer in accordance with clause 7.2.

Transition-Out Period means the period specified in the Order Documents or, if no period is specified in the Order Documents, the period commencing on the expiry or termination of this Agreement and continuing for six months.

Transition-Out Plan means a transition-out Plan prepared by the Supplier and approved by the Customer in accordance with clause 31.2.

Transition-Out Services means any transition-out or disengagement Services provided by the Supplier pursuant to clause 31, including under any Transition-Out Plan.

Updates means software which has been produced primarily to overcome Defects in, or to improve the operation of, the relevant part of the Licensed Software without significantly altering the Specifications whether or not that Licensed Software has also been extended, altered or improved by providing additional functionality or performance enhancement.

User Documentation means any documentation (such as user manuals, operating manuals, technical manuals, published specifications, security configurations or other documentation) that:

(a) is specified in the Order Documents; or

(b) is reasonably required in order for the Customer or Customer Users to use, maintain, secure, operate or otherwise obtain the benefit of any Deliverable or Service.

Virus means a computer program, code, device, product or component that is designed to threaten the security or integrity of the Customer's operations or the Deliverables and/or Services, prevent, inhibit or impair the performance of the Customer's operations or the Deliverables and/or Services or pose a threat or hazard to the security or integrity of the Customer's operations, but does not include any code, mechanism or device that is included in software by the Supplier for the purpose of managing the licensed use of software.

Warranty Period means the period specified in Item 36 of the Order Form, or where no warranty period is specified:

(a) 90 days from Acceptance of the relevant Deliverable or Service; or

(b) if a Deliverable or Service is not subject to Acceptance, 30 days from the provision of the Deliverable or Service to the Customer in accordance with this Agreement.

WHS Legislation means legislation relating to health and safety, including the *Work Health and Safety Act 2011* (NSW) and the *Work Health and Safety Regulation 2017* (NSW).

Wilful Misconduct means an act or omission of a party, deliberately performed or engaged in, which the relevant party knew (or ought to have known or predicted on due and reasonable consideration), would have a reasonable possibility of damaging, having a materially adverse effect on, or prejudicing, the other party.

1.2 Interpretation

In this Agreement, the following rules of interpretation apply unless the contrary intention appears:

(a) headings are for convenience only and do not affect the interpretation of this Agreement;

(b) the singular includes the plural and vice versa;

(c) an obligation or liability assumed by, or a right conferred on, two or more persons binds or benefits them jointly and severally;

(d) words that are gender neutral or gender specific include each gender;

(e) where a word or phrase is given a particular meaning, other parts of speech and grammatical forms of that word or phrase have corresponding meanings;

(f) the words "such as", "including", "particularly" and similar expressions are not used as, nor are intended to be interpreted as, words of limitation;

(g) a reference to:

(i) a person includes a natural person, partnership, joint venture, government agency, association, corporation or other body corporate;

(ii) a thing (including a chose in action or other right) includes a part of that thing;

(iii) a party includes its successors and permitted assigns;

(iv) a document includes all amendments or supplements to that document;

(v) a clause, term, party, schedule or attachment is a reference to a clause or term of, or party, schedule or attachment to the relevant part of this Agreement in which that reference is located;

(vi) a reference to a statute or other Law is a reference to that statute or other Law as amended, consolidated or replaced;

(vii) a monetary amount is to Australian dollars or such other currency specified in the Order Documents; and

(viii) time is to Australian Eastern Standard Time;

(h) a reference to any Authority, institute, association or body is:

(i) if that Authority, institute, association or body is reconstituted, renamed or replaced or if the powers or functions of that Authority, institute, association or body are transferred to another organisation, deemed to refer to the reconstituted, renamed or replaced organisation or the organisation to which the powers or functions are transferred, as the case may be; and

(ii) if that Authority, institute, association or body ceases to exist, deemed to refer to the organisation which serves substantially the same purposes or object as that Authority, institute, association or body; and

(i) no rule of construction applies to the disadvantage of a party because that party was responsible for the preparation of any part of this Agreement.

1.3 Discretion

(a) Subject to any express provision in this Agreement to the contrary:

(i) a provision of this Agreement which says that the Customer or the Customer's Representative "may" do or not do something is not to be construed as imposing an obligation on the Customer or the Customer's Representative to do or not do that thing; and

(ii) there will be no procedural or substantive limitation upon the manner in which the Customer or the Customer's Representative may exercise any discretion, power or entitlement conferred by this Agreement.

(b) Without limiting clause 1.3(a) of this Schedule, neither the Customer nor the Customer's Representative will be under any obligation to exercise any such discretion, power or entitlement for the benefit of the Supplier or as required by any other legal doctrine which in any way limits the express words used in the provisions of this Agreement conferring the discretion, power or entitlement.

Schedule 2 - Order Form

PART A: ICTA

Complete this section in relation to parts of this Agreement which reference this Order Form.
Clause references below are references to clauses in this Agreement.

No	Item	Ref	Description or selection
KEY DETAILS			
1.	Customer	Generally Schedule 1	Transport for NSW ABN 18 804 239 602
2.	Customer's Representative	Generally Schedule 1	Ray Treuer Director Service Delivery, Customer Strategy & Technology, Customer Systems & Operations Email Address: Ray.Treuer@transport.nsw.gov.au Phone Number: +61 411 286 577
3.	MICTA	1.4 Generally Schedule 1	Is this Agreement entered into pursuant to a MICTA? ☐ Yes ☒ No.
4.	Supplier	Generally Schedule 1	Tyco Projects (Australia) Pty Limited (ABN 70 092 471 737) trading as Tyco Traffic and Transportation
5.	Supplier's Representative	Generally Schedule 1	Ryan Keegan, Leader – Transport and Business Finance Manager Email Address: ryan.keegan@jci.com Phone Number: 0467 815 298
6.	Notices for the Customer	39.13(b)	Customer's address: 231 Elizabeth Street, Sydney NSW 2000 Customer's email: tacnotices@transport.nsw.gov.au
	Notices for the Supplier	39.13(b)	Supplier's address: 38 South Street, Rydalmere, NSW, 2116 Supplier's email: amit.golwala-ext@jci.com
TERM			
7.	Commencement Date	5.1 Schedule 1	1 May 2023
8.	Initial Term	5.1 Schedule 1	3 years from the Commencement Date

No	Item	Ref	Description or selection
9.	Renewal Period	5.2 Schedule 1	If the Customer provides at least 30 days' notice to the Contractor prior to the expiry of the Initial Term, a further term of one (1) year commences from the expiry of the Initial Term (**Extension Term 1**); and If the Customer provides at least 30 days' notice to the Contractor prior to the expiry of Extension Term 1, a further term of one (1) year commences from the expiry of Extension Term 1 (**Extension Term 2**).
	Notice period for renewals	5.2	30 days.
ORDERING AND PURCHASING			
10.	Additional Orders	3.3 Schedule 1	The Customer is permitted to place Additional Orders. Additional Orders may be agreed between the parties by agreeing to any further Statement(s) of Work ("**SOWs**").
11.	Additional Conditions	3.5 Schedule 1	As set out in in Annexure C to this Schedule 2.
12.	Reseller arrangements	3.6	Not applicable.
13.	Schedules	Generally Schedule 1	☒ Schedule 1 - Definitions and interpretation ☒ Schedule 2 - Order Form ☒ Schedule 3 - Statement of Work Template ☒ Schedule 4 - Payment Schedule ☒ Schedule 5 - Change Request Form ☒ Schedule 6 - Deed of Confidentiality and Privacy ☐ Schedule 7 - Escrow Deed ☐ Schedule 8 - Performance Guarantee ☐ Schedule 9 - Financial Security
	Modules	1.2(c)	☐ Cloud Module ☒ Services Module ☒ Software Module (Non-Cloud) ☒ Hardware and Other ICT Deliverables Module
SUPPLIER'S ACTIVITIES			
14.	Scope	Generally	As set out in the relevant Statement of Work.

No	Item	Ref	Description or selection
15.	Requirements - Accessibility requirements	6.3(b)(ii)	The default accessibility requirements apply.
	Requirements - Work health and safety	12.4(f)	The default work health and safety requirements apply. In addition: a. The Supplier must have in place appropriate policies, practices, and procedures to meet its statutory obligation to provide a safe workplace, as stipulated in the WHS Legislation. b. The Supplier must comply with additional Site-specific work health and safety (WHS) requirements of the Customer when on the Sites and other premises of the Customer. c. The Supplier acknowledges that as hazards differ at each Site and premise, so do the controls in place. Consequently, whilst on the Sites or other premises of the Customer, the Supplier must ensure that its Personnel: i. only utilise the defined access / egress points; ii. comply with all WHS-related instructions, including signage, such as Site or premise speed limits and traffic directions, and minimum clothing expectations, such as footwear; iii. complete and comply with the relevant Site/premise induction; and iv. consult with the Customer if the work to be performed differs in any way from the general duties agreed to in this Agreement. d. The Supplier must comply with all WHS policies and procedures of the Customer, including the following: i. Drug and alcohol policy; ii. Environmental and sustainability policy; iii. Safety policy; iv. Return to work and injury management policy v. Equality and discrimination policy; vi. Prevention and management of bullying and harassment policy; vii. Workplace standards policy; viii. Just culture;

No	Item	Ref	Description or selection
			ix. Emergency Evacuation Procedures; x. Injury Management Policy and Procedure; xi. Safety Incident Reporting, Recording and Investigation Standard; and xii. General safety specification for Contractors.
16.	Site attendance	6.10 Schedule 1	Will the Supplier be required to attend the Site to carry out any aspect of the Supplier's Activities (including the supply of any Deliverables)? ☒ Yes ☐ No
	Site location		The locations listed below or such other locations as notified to the Supplier by the Customer from time to time: **Eveleigh:** Transport Management Centre 25 Garden St Eveleigh NSW 2015 **Parramatta:** Transport for NSW, 27-31 Argyle Street, Parramatta NSW 2150 **Auburn**: E-TMC -123 Adderley St Auburn (M4)
	Physical delivery		Where physical delivery of any Deliverable is required, the Supplier must deliver such Deliverable: • to the relevant Site and Site location as nominated by the Customer on each occasion: and • on a Business Days between 7am – 5pm.
	Requirements for attendance at the Site		The Supplier must comply with any requirements specified by the Customer from time to time relating to the Supplier's access to, and attendance at, a Site.
17.	Policies, Codes and Standards	12.2 Schedule 1	Subject to Clause 12.3, the Supplier must comply with: a. maintenance of current standards (similar to ISO 27001) as at the Commencement Date and work towards compliance with the ISO 27001 Information technology - Security techniques – information security management systems (**ISO 27001**) when any new SOWs are incorporated into this Agreement, this is covered in the Supplier security guidance policy. b. maintenance of current standards (similar to ISO 27002) as at the Commencement Date and work towards compliance with the ISO 27002 Information technology - Security techniques – Code of practice for information management (**ISO 27002**) when any new SOWs are incorporated into this Agreement; this is covered in the Supplier security guidance policy

No	Item	Ref	Description or selection
			c. any Customer ICT policies and standards relevant to the Deliverables or the provision of Services including any: i. incident management standards; ii. records management policies; iii. IT service continuity management standards; and iv. change management process and procedures; d. ISO 31000:2009 Risk Management - principles and guidelines; e. the Customer's personnel, work place, health and safety policies, including those related to: i. drug and alcohol use; ii. workplace standards; iii. safety policies or safety specifications; iv. return to work and injury management; and v. equality and discrimination; f. the Customer's standards and policies relating to the privacy and the security of Personal Information; g. the Customer's environmental and sustainability policy; h. the Customer's Statement of Business Ethics; i. the Customer's anti-bribery and anti-corruption policies; j. the NW Procurement Policy Framework published at https://buy.nsw.gov.au/policy-library/policies/procurement-policy-framework in so far that it relates to the Supplier's Activities; k. the Supplier Code of Conduct published at https://buy.nsw.gov.au/policy-library/policies/supplier-code-of-conduct; l. the NSW Government Cyber Security Policy published at https://www.digital.nsw.gov.au/policy/cyber-security-policy in so far as it relates to the Supplier's Activities and the Supplier is directed by the Customer to assist the Customer's compliance with that policy; m. the Aboriginal Procurement Policy published at https://buy.nsw.gov.au/policy-library/policies/aboriginal-procurement-policy; n. where Services are provided under the Cloud Module, the NSW Government's cloud policies, including the

<table>
<tr><th>No</th><th>Item</th><th>Ref</th><th>Description or selection</th></tr>
<tr><td></td><td></td><td></td><td>NSW Government Cloud Policy published at https://www.digital.nsw.gov.au/sites/default/files/NSW%20Government%20Cloud%20Policy%20v1.1.pdf;

o. the Worst Forms of Child Labour Convention,1999 (ILO Convention 182) ensuring that the Products and Services have not been produced using the "worst forms of child labour" as defined; and

p. the NSW Government Internet of Things (IoT) Policy published at https://www.digital.nsw.gov.au/policy/internet-things-iot in so far as it relates to the Supplier's Activities.; and

q. any other policies, codes, guidelines and/or standards:

i. specified in the Specifications for a Deliverable or Service;

ii. ii. otherwise specified in this Agreement, including in Item 40 of this Schedule 2; or

iii. notified to the Supplier by the Customer from time to time,

iv. all as updated, replaced or superseded from time to time.</td></tr>
<tr><td></td><td>SME Policies</td><td>12.2

Schedule 1</td><td>The Supplier must comply with the SME and Local Participation Plan as specified in Annexure A of this Order Form.</td></tr>
<tr><td></td><td>Aboriginal Procurement Policy: Aboriginal participation</td><td>12.2(b)</td><td>Not applicable.</td></tr>
<tr><td>18.</td><td>Nominated Personnel</td><td>11.1

Schedule 1</td><td><table><tr><th>Nominated Personnel's name and position</th><th>Role/responsibility</th></tr><tr><td>Amit Golwala, Project Manager</td><td>Primary contact</td></tr><tr><td>Lewis Gardener, Software Architect</td><td>Technical Support, SME</td></tr><tr><td>Ryan Keegan, Leader – Transport and Business Finance Manager</td><td>Escalation point</td></tr></table></td></tr>
<tr><td>19.</td><td>Deed of Confidentiality and Privacy</td><td>11.4(a)

Schedule 1</td><td>If required by the Customer, the Supplier's Personnel must sign a deed in substantially the same form as the Deed of Confidentiality and Privacy set out in Schedule 6.</td></tr>
<tr><td>20.</td><td>Permitted subcontractors</td><td>11.5(a)</td><td>Is the Supplier permitted to subcontract? Yes

The permitted subcontractors are specified below:</td></tr>
</table>

<table>
<tr><th>No</th><th>Item</th><th>Ref</th><th>Description or selection</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Subcontractor's full name and ABN</th><th>Role/responsibility</th></tr>
<tr><td>Aimsun Pty Ltd</td><td>To provide maintenance support to the AIMSUN NEXT software that is deployed in the UAT2 and PROD environments of the M4 MMS system.</td></tr>
<tr><td>Genetec Inc.</td><td>Provision of the Genetec software and associated Support Services</td></tr>
</table>
Without limitation, the Supplier must ensure that all subcontractors comply with the requirements of Items 17, 22 and 40 of this Order Form.
</td></tr>
<tr><td rowspan="2">21.</td><td>Subcontractor deed</td><td>11.5(j)</td><td>The Supplier is required to arrange for its Subcontractors to enter into a subcontractor deed on terms consistent with, and no less onerous than, the parts of this Agreement applicable to the Subcontractor's activities and in a form approved by the Customer.</td></tr>
<tr><td>Additional subcontractor procurement policy requirements</td><td>11.5(k)</td><td>Not applicable.</td></tr>
<tr><td rowspan="2">22.</td><td>Background checks</td><td rowspan="2">11.6(b)</td><td>The Supplier must:
a) ensure that for all Supplier Personnel involved in the delivery of the Services have a National Police Check performed as part of their pre-employment checks; and
b) The Supplier will otherwise comply with the Customer's reasonable requests from time to time in relation to background checks during the Term.</td></tr>
<tr><td>Timeframes and time for background checks</td><td>As reasonably required by the Customer.</td></tr>
<tr><td colspan="4">PERFORMANCE AND DELIVERY</td></tr>
<tr><td rowspan="2">23.</td><td>Timeframes and requirements for performance</td><td>6.1</td><td>As specified in the relevant Statement of Work.</td></tr>
<tr><td>Specifications</td><td>6.1
Schedule 1</td><td>The Specifications comprise the following documents (listed in the order of priority from highest to lowest if there is any inconsistency between these documents):
a) the Additional Conditions;
b) the applicable Module Terms;</td></tr>
</table>

No	Item	Ref	Description or selection
			c) any relevant Order(s) (if multiple Additional Orders are agreed under this Agreement for the same subject matter, a SOW for an Additional Order agreed later during the Term will have priority over a SOW for an Additional Order agreed earlier during the Term to the extent of any inconsistency between those SOWs); d) the order details in this Schedule 2 Order Form (excluding any Information Security Requirements and Data Location Conditions); e) any schedule, attachment or annexure to this Agreement (excluding the Additional Conditions, Supplier's Documents and this Schedule 2 Order Form); f) any other document expressly incorporated into this Agreement as set out in the Order Form; and g) any Supplier's Documents.
24.	Service Levels	15.2 Schedule 1	As specified in the relevant Statement of Work.
25.	Performance reports	15.4(a)(iii)	As specified in the relevant Statement of Work.
	Additional performance reporting requirements	15.4(c)	The Supplier must provide a single point of contact to the Customer to coordinate and assist with any Statement of Work requests, availability, scheduling, billing, contract compliance requirements, reports and problem solving, at no additional cost to the Customer.
	Performance reviews	15.5(a)	A performance review of the Supplier's performance of this Agreement will be conducted every three (3) months, commencing on the three-month anniversary of the Commencement Date.
26.	Meetings	15.7(a)	The Supplier's Representative must meet with the Customer's Representative or the Customer's other nominated Personnel: 1. once per month during the Term (within the first 10 days of each month) to discuss performance of the Services; and 2. as otherwise indicated in the relevant Statement of Work. Each Meeting must take place in person at the Customer's offices at 25 Garden St, Eveleigh NSW 2015 unless otherwise agreed by the Customer.
27.	Project Plans	6.5(b)	As specified in the relevant Statement of Work.

No	Item	Ref	Description or selection
	Other Plans	Schedule 1	The Supplier is required to prepare the following Plans, and any other Plans as set out in the relevant Statement of Work: a) a Business Contingency Plan; b) a Data and Protection Management Plan; c) an SI Plan; and d) a Test Plan, in each case in accordance with the requirements of the Statement of Work.
28.	Stages	6.6(a) Schedule 1	As specified in the relevant Statement of Work.
	Project methodology	6.6(e)	Not applicable
	Costs of removing any Stage(s)	6.6(d)	As specified in the relevant Statement of Work.
29.	Liquidated Damages	16(a) 16(b) Schedule 1	Not applicable
30.	Governance Framework	4.3	As specified in the relevant Statement of Work.
31.	Customer Supplied Items	6.2 Schedule 1	As specified in the relevant Statement of Work.
	Date for provision of CSI		As specified in the relevant Statement of Work.
	CSI requirements		As specified in the relevant Statement of Work.
	Supplier's costs for CSI and time for payment		As specified in the relevant Statement of Work.
32.	Transition-In Plan	7.2 Schedule 1	Not applicable
	Transition-In Services	7.3 Schedule 1	Not applicable

No	Item	Ref	Description or selection
33.	Transition-Out Services	31.1 Schedule 1	The Supplier must provide Transition-Out Services upon expiration or termination of this Agreement (regardless of the Stage during which this Agreement termination or expires).
	Transition-Out Plan	31.2 Schedule 1	As set out in the relevant Statement of Work.
	Transition-Out Period	31.3 Schedule 1	Default applies, 6 months following the expiry or termination of this Agreement.
34.	User Documentation	8.4(a)	The Supplier must provide User Documentation to the Customer at the Supplier's sole cost.
	Format for the User Documentation	8.4(c)	The Supplier must provide the User Documentation in hard copy format (in addition to electronic format).
35.	Acceptance Testing	14 Schedule 1	The Customer will advise whether Acceptance Tests are applicable to any Deliverables and the details of the Acceptance Tests in the relevant SOWs.
		14.1	As set out in each relevant SOW.
		14.2 Schedule 1	As set out in each relevant SOW.
36.	Warranty Period	9 Schedule 1	The default position applies unless as otherwise set out in the relevant Statement of Work (noting that "Defect Liability Period", "Defect & Liability Period" or "DLP", when used in the Statement of Work, is a reference to the Warranty Period).
INTELLECTUAL PROPERTY			
37.	Ownership of Existing Materials	17.1	The default position applies.
	Licence to use Existing Materials	17.2 17.5	The default positions apply.
	Ownership of New Materials	17.3	The Supplier will own the Intellectual Property in any New Materials.
	Licence to use New Materials	17.4 17.5	The default position applies in relation to the Customer's licence to the Supplier's New Materials (clauses 17.4 and 17.5).
	Third party Intellectual Property Rights	17.7	The default position applies: the Supplier must not include third party Intellectual Property Rights in the production of Deliverables or include third party Intellectual Property Rights

No	Item	Ref	Description or selection
			in any Deliverables, unless the Customer first approves their inclusion in writing.
38.	Escrow	18	Not applicable.
	Escrow Materials	18 Schedule 1	Not applicable.
DATA AND SECURITY			
39.	Location of Personal Information	20.1(a)(iv) Schedule 1	The Supplier must not, and must ensure that its Personnel do not, transfer, store, process, access, disclose or view Customer Data (including Personal Information) outside of New South Wales.
	Data Location Conditions	19.3(b) Schedule 1	The Supplier must not: a. transfer, store, process, access, disclose or view Customer Data; or b. perform any of its obligations under this Agreement which could involve Customer Data being stored, processed, accessed, disclosed or viewed, outside of New South Wales, Australia. There are no exceptions.
40.	Security obligations, standards and Information Security Requirements	19.2 21.2	The Supplier must: a) comply with, and ensure that the Services and Deliverables comply with, Best Industry Practice; b) provide evidence to the Customer on an annual basis in respect of security testing (including penetration testing) performed on the Services and Deliverables; c) comply with any written Customer security procedures that are in effect from time to time during the Term in relation to the security of any Customer Data and Customer Supplied Items to the extent that the Supplier has been made aware of, those procedures; d) implement the security practices detailed in this Agreement and in any Customer policies (notified to the Supplier from time to time) against any unauthorised copying, use, disclosure, access, damage or destruction of Customer Data and Customer Supplied Items that are in the Supplier's possession or control; e) prohibit and prevent any person who does not have the appropriate level of security clearance from gaining access to, copying or transmitting Customer Supplied Items or Customer Data in accordance with this Agreement and any Customer policies (notified to the Supplier from time to time);

No	Item	Ref	Description or selection
			f) comply with any secrecy and security requirements (including any Policies, Codes and Standards) set out in this Agreement; g) without limiting any other provision in this Agreement, seek the Customer's consent before permitting any Supplier Personnel to access Customer Supplied Items which contain any confidential financial data or information which may be relevant to legal proceedings or potential legal proceedings involving the Customer of which the Supplier is notified; h) keep itself informed of, and comply with, Best Industry Practice in respect of secrecy or security requirements when performing its obligations under this Agreement; i) comply with all other reasonable requirements and directions of the Customer in regard to conduct, behaviour, protection of privacy, use of systems, safety and security (including submitting to security checks as required and complying with any obligation imposed on any person by law); j) comply with any Site access requirements specified by the Customer from time to time including any site access sign-in or sign-out procedures when accessing or leaving a Site; k) comply with the following additional policies: i. the NSW Government Standard for Data Quality Reporting ii. the NSW Government Data Quality Reporting Policy; iii. the NSW Government Information Classification, Labelling and Handling Guidelines i. the Commonwealth Government Information Security Manual; iv. the Australian Government Information Security Manual; v. the Australian Government Protective Security Policy Framework; and vi. Premiers Memorandum M2006-08, Maintaining Confidentiality of Cabinet Documents and Other Cabinet Conventions; and l) comply with the latest versions of the following Customer guidelines, codes, standards and policies relating to secrecy and security requirements (as updated, superseded or replaced from time to time):

No	Item	Ref	Description or selection
			i. Transport for NSW Acceptable Use of Technology Standard; ii. Transport for NSW Backup and Restoration Standard; iii. Transport for NSW Account Authentication Standard; iv. Transport for NSW Baseline Security Standard; v. Transport for NSW BYOD Security Standard; vi. Transport for NSW Cloud Policy; vii. Transport for NSW Code of Conduct; viii. Transport for NSW Cryptography and Key Management Standard; ix. Transport for NSW Data and Information Asset Management Policy; x. Transport for NSW Identity and Privilege Lifecycle Standard; xi. Transport for NSW Information Security Classification and Labelling Standard; xii. Transport for NSW Information Security Exemption Procedure; xiii. Transport for NSW Information Security Incident Management Standard; xiv. Transport for NSW Information Security Policy and Standard; xv. Transport for NSW Information Security Standard; xvi. Transport for NSW IT Service Continuity Management Standard; xvii. Transport for NSW IT Service Continuity Policy; xviii. Transport for NSW Logging and Log Management Standard; xix. Transport for NSW Mobile Computing and Portable Electronic Devices Standard; xx. Transport for NSW Multi-factor Authentication Standard; xxi. Transport for NSW Payment Card Data Security Procedure;

No	Item	Ref	Description or selection
			xxii. Transport for NSW Privacy Policy; xxiii. Transport for NSW Remote Access Standard; xxiv. Transport for NSW Security Passwords Standard; xxv. Transport for NSW Security Vulnerability Scanning and Patch Management Standard); xxvi. Transport for NSW Security Testing Standard; xxvii. Transport for NSW Security Vulnerability Scanning and Patch Management Standard; xxviii. Transport for NSW Wireless Local Area Network Standard; xxix. the Customer's internet usage policy and procedures; and xxx. Transport for NSW Cloud Security Standard; xxxi. Transport for NSW Email Security Standard; xxxii. such other Customer IT and security policies and procedures advised to the Supplier from time to time relating to confidentiality, secrecy and security; and xxxiii. such other information security requirements as set out in the relevant Statement of Work.
	Security certifications	21.2(e)	(**Alignment to Customer Policies and Standards**) The Supplier's solution detailed under this Agreement must align with the Transport for NSW Information Security: - Exemption Procedure; - Incident Management Standard; - Policy and Standard. (**Records of all Cyber Security Incidents**) The Supplier must keep a record of all Cyber Security Incidents and generate evidence to support and substantiate any Cyber Security Incidents. (**Agree approach to Cyber Security Governance**) To ensure the Supplier's continuous compliance with cyber security requirements during the team (as detailed under the Agreement), the Supplier and TfNSW during the first monthly meeting must agree the governance approach and cadence of reporting. The Supplier must: • report suspicious events to the Customer immediately;

No	Item	Ref	Description or selection
			• monitor the Supplier's Personnel activities through the issued laptop; • provide annual security awareness training for the Supplier's Personnel under the Agreement; • provide ongoing assurance to the Customer of the Supplier's security program by supplying certification/accreditations (e.g., ISO 27001 certification) on their renewal; and • ensure non-disclosure agreements are in place, where applicable. (**Reporting Format**) The Customer will confirm and notify the Supplier of the required reporting format, as soon as possible. Note, this may change from time to time, acting reasonably. (**File Transmission**) As at the Commencement Date, all file transfers between the Supplier and Customer must use suitable security measures: All site-to-site transfers shall be encrypted through a virtual private tunnel, e.g. IPSEC, SSH, SSL, Kiteworks; Emailed content considered sensitive shall use Kiteworks. (**User Lifecycle Management**) The VPN will only be used by 2 people from the Supplier's Personnel. Note, in the event 1 person discontinues working for the Supplier, only the 1 other Supplier Personnel will have access to the VPN. Supplier Personnel Changes shall be promptly notified to the Customer in writing. **(Isolated and secure VPN)** The VPN uses key and certificate based authentication that can be revoked to deny access. No VPN traffic shall cross Supplier domains unencrypted. No OMCS Network or TfNSW network shall be connected to or have access to or from a Supplier network. The VPN is implemented external to Supplier networks. Changes shall be notified to the Customer.
	Security audits	21.3 Schedule 1	The default position applies.
41.	Backup of Customer Data	19.4	The Supplier is required to make and store backup copies of Customer Data as part of the Supplier's Activities under and in accordance with this Agreement.
	Retention of Customer Data	19.7	The Supplier must: a) establish, keep and maintain complete, accurate and up-to-date records of all Customer Data accessed, collected or changed by it; and b) make copies of the records referred to in the preceding clause available to the Customer immediately upon request,

No	Item	Ref	Description or selection
			at no additional cost to the Customer.
42.	Security Incident	22.2(a) Schedule 1	Security Incidents must be notified and actioned by the Supplier in accordance with clause 22.2(a) as soon as possible (and in any event within 24 hours of the Security Incident).
FEES AND PAYMENT			
43.	Payment Particulars	24.1(a)	As set out in Schedule 4 and the relevant Statement of Work.
	Price model (exception)	24.1(b)	The Price and any rates or charges specified in the Payment Particulars will be fixed for the Term, unless otherwise specified in Schedule 4 (Payment Schedule) and any SOW.
44.	Benchmarking	24.2	Not Applicable.
45.	Invoicing timeframes	24.4(a)	The default timeframes apply unless otherwise expressly specified in the Payment Schedule.
46.	Payment requirements and invoicing	24.5(a)	a) The Supplier must satisfy the preconditions for payment, as set out in the and, if applicable, the Payment Schedule, prior to being entitled to payment by the Customer. b) The Supplier must, wherever possible, submit invoices via the Customer's Ariba system. c) Alternatively, invoices must be sent to: **Soft Copy:** tss.invoice@transport.nsw.gov.au. The Supplier is advised that this email address is used for the auto-collection of new invoices only. **Hard copy:** Transport for New South Wales TSS Accounts Payable – TfNSW PO Box 533 Burwood, NSW 1805; d) Without limitation, invoices must satisfy the criteria below to ensure that they are paid in a timely manner: i. all invoices must be sent as PDF attachments; ii. only one 'PDF' file, containing only one invoice, should be attached; iii. any supporting documents must be contained within the same attached 'PDF' file as the invoice, with the invoice being the first page and all supporting documents to follow; and iv. a valid contract number and purchase order number must be quoted on all invoices.

No	Item	Ref	Description or selection
			Any queries or requests for assistance in relation to invoices should be directed to the TSS Procurement Service Desk on 1300 132 136 or tss.procurement@transport.nsw.gov.au.]
	Time for payment	24.5(a) Schedule 1	The Customer will pay any Correctly Rendered Invoice within 30 days of receipt of the Correctly Rendered Invoice.
	Purchase order number and Agreement reference number for Correctly Rendered Invoices	Generally	The Customer will notify the purchase order number (and, to the extent applicable, this Agreement reference number) to be specified on Correctly Rendered Invoices to the Supplier.
	Supplier's nominated bank account	24.5(a)(i)	The Supplier's bank account details to which payments should be transferred will be as stated in the Correctly Rendered Invoice.
RISK ALLOCATION AND MANAGEMENT			
47.	Business Contingency Plan	25.2(a) 25.2(b)(iii) 25.2(d)	The Supplier is required to produce a draft Business Contingency Plan for the approval of the Customer within 90 days of the Commencement Date. The Parties will meet and discuss in good faith with a view to agreeing the Business Contingency Plan as soon as possible thereafter. The Contractor must provide the Customer with a copy of the then-current Business Contingency Plan following any update and where so requested by the Customer from time to time. The Business Contingency Plan will not cover the Contractor's other general business operations not connected to the Services under the Customer Contract. The default annual timeframe applies for review and testing of the Business Contingency Plan, on each anniversary of the Commencement Date.
48.	Step-In Rights	26	The Customer may exercise Step-In Rights by giving 5 Business Days' written notice.
49.	Insurance	27(a)	The default position applies: the Supplier must hold and maintain each of the following types of insurances, for the periods and in the amounts specified below: a) public liability insurance with a limit of cover of at least $20 million in respect of each occurrence, to be held for the duration of the Supplier's Activities; b) product liability insurance with a limit of cover of at least $20 million in respect of each occurrence and in the aggregate, to be held for the duration of the Supplier's Activities and for at least seven years thereafter; c) workers' compensation insurance as required by Law; d) professional indemnity insurance with a limit of cover of at least $20 million in respect of each occurrence and in the

No	Item	Ref	Description or selection
			aggregate, to be held for the duration of the Supplier's Activities and for at least seven years thereafter; e) Motor vehicle insurance of at least $20 million covering third party property damage caused by the Supplier's vehicles.
	Cyber security and other insurances	27(a) 27(b)	Cyber security insurance is not required.
50.	Performance Guarantee	28.1	Not required.
51.	Financial Security	28.2	Not required.
52.	Termination for convenience	29.2(b)(ii)B	a) No costs other than those set out in clause 29.2(b)(ii)A are applicable in the event the Customer exercises its right to terminate this Agreement for convenience. b) No other costs are payable by the Customer for the purposes of clause 29.2(b)(ii)B. c) If the Customer terminates this Agreement or reduces its scope under clause 29.2(a) and amounts have been pre-paid by the Customer in respect of the period after the termination or reduction (as applicable), the amounts payable by the Customer under clause 29.2(b)(ii) will be reduced by such pre-paid amounts. For clarity, if amounts that have been pre-paid by the Customer in respect of the period after the termination or reduction (as applicable) exceed the amounts payable by the Customer under clause 29.2(b)(ii), the Supplier must refund the excess amount to the Customer promptly (and in any event within 10 Business Days of the effective date of termination or reduction (as applicable)). d) The Supplier must, within 10 Business Days of a request of the Customer issued from time to time, provide the Customer written notice of the applicable termination for convenience fees which are payable at any particular period during the Term, in which case the Supplier is not entitled to recover any additional amounts if the Customer exercises its termination for convenience rights (including with respect to reduction) in respect of such period.
53.	Limitation Amount	34.5(b)	An amount equal to two (2) times the total fees paid or payable by the Customer under this Agreement. For the purposes of this Item, "*paid or payable*" includes amounts that at the relevant time have not been paid but which would have become payable if the parties performed all of their obligations under this Agreement. It is not limited to amounts that at the relevant time have become due and payable.

No	Item	Ref	Description or selection
	Alternate approach to uncapped liability	34.5(c)	Not applicable.
	Non-excluded Losses	34.6(b)(ii)	Where the Customer is the recovering party, the following additional types of Loss will also be treated as Loss of the kind referred to in clause 34.6(b)(i) (that is, recoverable): a) administrative costs and expenses, including for management and staff time; b) consultant's fees; c) costs arising from the loss of or corruption to data (in whatever format), including the cost and expense of rectifying and reloading the relevant data; d) expenditure incurred in respect of crisis management and/or public relations; and e) out-of-pocket costs and expenses.
54.	Alternative dispute resolution	35	The default position applies.
55.	Prolonged Force Majeure Event	36.4	The Customer may terminate this Agreement under clause 36.4 if a Force Majeure Event prevents or inhibits the Supplier's performance of any obligation required to be performed under this Agreement for 14 or more days.

PART B: Cloud Module

Not applicable

PART C: Services Module
Clause references below are references to clauses in the Services Module.

No	Item	Mod ref	Description or selection
SCOPE			
56.	Services	1.1	As specified in the relevant Statement of Work.
57.	Non-ICT Services	Generally	As specified in the relevant Statement of Work.
58.	Services Period	1.3 Annexure A	As specified in the relevant Statement of Work.
SUPPORT SERVICES			
59.	Support Services	2.1 2.3	The Supplier will provide Hardware Support Services and Software Support Services as specified in the relevant Statement of Work.
	Support Period	2.2 Annexure A	The Support Period is the period during which the Supplier must provide the Support Services, as set out in or contemplated by the relevant Statement of Work.
60.	Help desk	2.4	As specified in the relevant Statement of Work.
61.	Software Support Services	3.1 3.2(b) Annexure A	As specified in the relevant Statement of Work.
	Updates	3.2	As specified in the relevant Statement of Work.
	New Releases	3.2	As specified in the relevant Statement of Work.
	Security Corrections	3.2(f)	As specified in the relevant Statement of Work.
62.	Period to maintain the Software after provision of Updates and New Releases	3.2(g)	If applicable, as specified in the relevant Statement of Work.
63.	Support Services for Hardware and Other ICT Deliverables	4.1 4.2 Annexure A	The Supplier will provide the Hardware Support Services as set out in the Statement of Work.
64.	Preventative Maintenance	4.3 Annexure A	As specified in the relevant Statement of Work.

No	Item	Mod ref	Description or selection
65.	Engineering changes	4.4	As specified in the relevant Statement of Work.
66.	Remedial Maintenance	4.5 Annexure A	As specified in the relevant Statement of Work.
DEVELOPMENT SERVICES			
67.	Development Services	5.1 Annexure A	As specified in the relevant Statement of Work.
68.	Software Solution	5.2 Annexure A	As specified in the relevant Statement of Work.
69.	Design Specification	5.3(a) 5.3(b)	As specified in the relevant Statement of Work.
70.	Service Levels or criteria that apply to the Development Services	5.4(d)	As specified in the relevant Statement of Work.
71.	Alternative project delivery methodology	5.5	As specified in the relevant Statement of Work.
SYSTEM INTEGRATION SERVICES			
72.	Systems Integration Services	6.1 Annexure A	As specified in the relevant Statement of Work.
	Scope of Systems Integration Services	6.2	As specified in the relevant Statement of Work.
	SI Plan and SI Specifications	6.3	As specified in the relevant Statement of Work.
DATA SERVICES			
73.	Data Services	7.1 7.2(a) Annexure A	Not applicable.
74.	Backup	7.4	Not applicable.
75.	Data cleansing	7.5	Not applicable.
76.	Data analysis	7.6	Not applicable.

No	Item	Mod ref	Description or selection
77.	Data migration	7.7	Not applicable.
78.	Data Migration Plan	7.7	Not applicable.
OTHER PROFESSIONAL SERVICES			
79.	Professional Services	8.1 Annexure A	As specified in the relevant Statement of Work.
	Specifications and standards	8.2	As specified in the relevant Statement of Work.
80.	Dates for Delivery and timeframes	8.2 8.3	As specified in the relevant Statement of Work.
MANAGED SERVICES			
81.	Managed Services	9.1 9.2 Annexure A	Not applicable
	Transition-In Services	9.3	Not applicable
82.	Procedures Manual	9.4	Not applicable
83.	Managed Third Party Contracts	9.5 Annexure A	Not applicable
84.	Assets	9.6 Annexure A	Not applicable
85.	Transition-Out Services	9.7	Not applicable
TRAINING SERVICES			
86.	Training Services	10.1	Not applicable
	Training Reports	10.2	Not applicable
GENERAL			
87.	Additional/ancillary Deliverables and Services	11.1 11.2	As specified in the relevant Statement of Work.

No	Item	Mod ref	Description or selection
88.	Records	12	As specified in the relevant Statement of Work.
89.	Operating procedures	13(a)(v)	Not applicable

PART D: Software Module (Non-Cloud)

Where Item 13 above specifies that the Software Module (Non-Cloud) applies, complete this Part D.

If not applicable, this Part D may be deleted and the words "Not applicable" inserted below.

Clause references below are references to clauses in the Software Module (Non-Cloud).

No	Item	Mod ref	Description or selection
SCOPE			
90.	Scope	1.1 2.1(a) 9.1	The Supplier must provide the Licensed Software as set out in the relevant Statement of Work.
	Licensed Software and Software Support Services	1.1 2.1(a) 9.3(a) Annexure A	As set out in the relevant Statement of Work.
SUPPLY OF LICENSED SOFTWARE			
91.	Dates for Delivery	2.1(b)	As set out in the relevant Statement of Work.
	Installation	2.1(c) 2.2	Default Position applies.
	Download of Licensed Software	2.1(d)	As set out in the relevant Statement of Work.
92.	Data backups by the Customer	2.3(a)	Default position applies unless stated otherwise in the relevant Statement of Work.
	Data backups by the Supplier	2.3(b)	The Supplier has delivered the system as per the requirements of the M4 MMS system, whereby the MMS software does the [redacted]r
93.	Licence Period	3.1 Annexure A	As set out in the relevant Statement of Work.
	Licensing model	3.2	As set out in the relevant Statement of Work.
	Permitted Users	3.2 Annexure A	Default position applies.
	Permitted Purposes	3.3	Default position applies.

No	Item	Mod ref	Description or selection
		Annexure A	
	Scope of licence	3.3	Default position applies.
94.	Updates and New Releases - General	4.1(a)	The Supplier must provide Updates and New Releases as set out in the relevant Statement of Work.
	Updates	4.2(a) 4.2(c)	Default position applies.
	New Releases	4.2(a) 4.2(c)	Default position applies.
	Security Corrections	4.2(e)	Default position applies.
	Period to maintain the Licensed Software after provision of Updates and New Releases	4.2(f)	Default position applies.
95.	Transfer rights	5.1	If the Customer has paid for the Licensed Software in advance and the number of Permitted Users that it has paid for exceeds the Customer's requirements at any time, the Customer may sub-licence and transfer its excess licences and associated licensing rights and obligations under the Agreement to any Government Agency or other Eligible Customer.
96.	Restrictions	6.1(a)	Default position applies.
97.	End of Licence Period	6.2(a)	Default position applies.
98.	Third Party Components	7.1(b) Annexure A	As set out in the relevant Statement of Work.
	Third party warranties	7.2	Pass-through and third party warranties apply. Noting warranties commence after acceptance through Acceptance Testing as specified in the relevant Statement of Work. Warranties have been identified in asset audit and register and supplied at time of purchase or each piece of equipment or licence.
99.	Record keeping	8.1	As referenced in the User Documentation
100.	Software Audits	8.2(b) 8.2(c)	Not applicable

No	Item	Mod ref	Description or selection
	Results and consequences of Software Audit	8.3(b)	The default position applies.
SOFTWARE SUPPORT SERVICES			
101.	Support Period	9.2	As specified in the relevant Statement of Work.
	Software Support Services	9.3(b)	As specified in the relevant Statement of Work.
102.	Help desk	10	As specified in the relevant Statement of Work.
TRAINING			
103.	Training Services	11.1	As specified in the relevant Statement of Work.
	Training Reports	11.2	As specified in the relevant Statement of Work.
GENERAL			
104.	Additional/ancillary Deliverables and Services	12	As specified in the relevant Statement of Work.
105.	Export Laws	13(a)(ii) Annexure A	Default position applies.
106.	Records	14	Default position applies.
107.	Operating procedures	15(a)(iv)	Default position applies.

PART E: Hardware and Other ICT Deliverables Module

Clause references below are references to clauses in the Hardware and Other ICT Deliverables Module.

No	Item	Mod ref	Description or selection
SCOPE			
108.	Scope	1.1 7.1	The Supplier will provide Hardware Maintenance and Support Services.
	Hardware, Other ICT Deliverables and Support Services	1.1 2.3(a)(ii) 7.3 Annexure A	As specified in the relevant Statement of Work.
SUPPLY OF HARDWARE AND OTHER ICT DELIVERABLES			
109.	Status of Deliverables	2.1(a)	Not applicable.
110.	Supply and delivery	2.3	Not applicable.
111.	Availability Period	2.5 Annexure A	Not applicable.
112.	Passing of title	3.1(a)	Not applicable.
113.	Risk	3.2(b)	Not applicable.
114.	Installation	4.1	Not applicable.
115.	Data backups by the Customer	4.2(a)	Not applicable.
	Data backups by the Supplier	4.2(b)	Not applicable.
116.	Machine Code	5.1(b) Annexure A	Not applicable.
117.	Licensed Software	5.2	Not applicable.
TRAINING			
118.	Demonstration	6.1	Not applicable.
	Training Services	6.2	Not applicable.

No	Item	Mod ref	Description or selection
	Training Reports	6.3	Not applicable.
SUPPORT SERVICES			
119.	Support Period	7.2 Annexure A	Support will be provided by the Supplier for the duration of the Agreement, as specified in the relevant Statement of Work..
120.	Preventative Maintenance	7.4 Annexure A	As specified in the relevant Statement of Work.
121.	Engineering changes	7.5	As specified in the relevant Statement of Work.
122.	Remedial Maintenance	7.6 Annexure A	As specified in the relevant Statement of Work.
123.	Help desk	8	As specified in the relevant Statement of Work.
GENERAL			
124.	Records	9	The default position applies.
125.	Optional Features	10.1	Not Applicable
126.	Additional/ancillary Deliverables and Services	10.3	As specified in the relevant Statement of Work.
127.	Site access	11	As specified in the relevant Statement of Work.
128.	Export Laws	12 Annexure A	Not applicable.
129.	Compatibility	13.1	The Deliverables are expected to be compatible and interoperable with the Customer Environment, the operating system and any Licensed Software.
130.	Third party warranties	13.2	Pass-through and third party warranties apply. Noting warranties commence after acceptance through Acceptance Testing as specified in the relevant Statement of Work. Warranties have been identified in asset audit and register and supplied at time of purchase or each piece of equipment or licence.
131.	Operating procedures	14(a)(v)	As referenced in the User Documentation
132.	Movement of Deliverables by Supplier	15(a)	Not applicable.

No	Item	Mod ref	Description or selection
	Movement of Deliverables by Customer	15(b)	Not applicable.

Annexure A to Order Form – Supplier's Documents

1. SME and Local Participation Plan

SME and Local Participation Plan	
Contracting agency	Transport for NSW
Project Name & ID	MMS Hardware and Software Support Services and WDSM MMS Software development and delivery.
Project Location	Transport Management Centre, 25 Garden St Eveleigh 2015
Project start date	The Commencement Date
Expected project end date	The end of the term of this Agreement
Supplier name and contact details	Tyco Projects (Australia) Pty Ltd trading as Tyco Traffic and Transportation Ryan Keegan Leader - Transportation and Business Finance Manager 38 South Street, Rydalmere,NSW 2116, Australia
Supplier ABN	70 092 471 737
Are you an Aboriginal business?	No
Is your business recognised as an Aboriginal business by:	Please tick appropriate response: ☐ Supply Nation ☐ NSW Indigenous Chamber of Commerce ☒ None of the above

1. SME Content Commitments

SME Content Commitments	
SME status	Are you an SME (Australian or New Zealand based enterprises with fewer than 200 full-time equivalent employees)? ☐ Yes

	☒ No If you are an SME, you are not required to complete or report on the three fields below, however, you can complete as much as possible of the three fields below.
SME Subcontracting (Subcontracting with an Australian or New Zealand based enterprises with fewer than 200 full-time equivalent employees)	List of SME (Australian or New Zealand based enterprises with fewer than 200 full-time equivalent employees) subcontractors (indicating when this is an Aboriginal-owned supplier): One subcontractor (with one employee) will be retained full-time for the purpose of the support and maintenance period due to his proximity to the site and knowledge and experience with the systems. Two more subcontractors (with fewer than 5 employees) will be retained for on-site support. Another subcontractor with between 100 and 200 employees will be used full time during the Initial Term (3 years) of the contract. Tyco may also use subject matter experts for their specific knowledge of ITS systems. These subcontractors will be engaged as needed. One full time job at Tyco would be retained for the duration of the contract, required to perform all maintenance and project management duties. Personnel and SMEs have been selected based on their experience and track-record with providing services to Tyco especially in support of ITS contracts. Our procurement department identifies candidates for any other needs, or we follow the advice of our experts. e.g.Genetec related works. Training will be provided for any new subcontractors on boarded. Currently, no further training of staff is intended for the contract due to their current extensive knowledge of the Meridian systems. Skills are continually being developed through training courses, e.g. Genetec. Number of SME subcontractors: 04 Over the 5 year term duration
SME participation commitment	Estimated value of products/goods procured from SMEs: $_0__ *Non labour components of contract* Over the 5 year term duration [redacted] *All costs related to time spent by an employee or subcontractor in contract delivery* Over the 5 year term duration

SME participation percentage	[redacted] Over the 5 year term duration

2. SUSTAINABILITY COMMITMENTS

a) Sustainability outcomes (Optional)

Sustainability Commitments (Optional)	
Support of the government's economic, ethical, environment and social priorities	Tyco Projects – part of Johnson Controls – Ethics Policy is the overarching policy that defines Johnson Controls expectations for all employees. Page 15 outlines the overarching policy for Diversity and Inclusion. Please refer to attachment 'Johnson Controls - Johnson Controls Code of Ethics.pdf' Johnson Controls has long understood the value of diversity and inclusion. It is present in everything we embody – from our values to our Leader Expectations Model. Building on this history, our leadership is moving diversity and inclusion beyond a foundational value to a business imperative. These efforts don't stop at the front door. We also engage with the community through career expos, to encourage people from all walks of life into our company and our industry.  Globally, some of Tyco Projects / JCI Diversity and Inclusion initiatives include: Support of **International Women's Day** with this year's theme being Choose to Challenge. Employees at all levels were encouraged to make

a conscious effort to challenge inequality andhave the courage to call out gender discrimination.

Women's Global Network Summit; a one-day, follow-the-sun virtual event that brings together internal leaders and external guest speakers all over the globe for a series of topics on digital transformation, fireside leadership panels and personal & professional development breakout sessions.

Johnson Controls for Equality (JC4e) Business Resource Group which has a mission to foster a work environment that is inclusive to all employees regardless of sexual orientation or gender identity. Our impact extends to all lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ+) employees, their families, and their allies. Their advocacy on diversity and LGBTQ+ equality including events like PRIDE 2021 Virtual Parade contributed to JohnsonControls receiving **a score of 90% on the Human Rights Campaign Foundation's 2021 Corporate Equality Index** (CEI), for the second consecutive year.

Our **Perspectives Series** has been created to provide the opportunity for honest, real and authentic conversations between our colleagues, on topics that are relevant and important to our people, communities and broader society. They are intended to stimulate courageous conversations and an opportunity for us to highlight the uniqueness of experience, diverse perspectives, and the resilience of our employees as we encourage peopleto bring their whole selves to work.

UNlimited Business Resource Group dedicated to supporting people impacted by disabilities.They operate under the principles of awareness, appreciation, acceptance, and assistance to improve the recruitment, retention, engagement and professional development of those impacted by disabilities. In doing so, they strive to enhance the global diversity, growth and talent pool of Johnson Controls.

	Diversity & Inclusion **Centre of Excellence** portal which outlines our commitment to D&I, hosts regular talks & sessions with subject matter experts, facilitates voluntary, employee-led consortium of leaders with similar interests, experiences or demographic characteristics and provides numerous D&I resources including articles,videos, external content and training.

b) Local Participation

Local Participation Commitments (where possible) Note: For the purpose of the SME and Local Participation Plan, local content is defined as: goods produced, services provided, and labour supplied by the NSW industry	
NSW jobs	Number of FTEs in NSW (where possible): _03_ Over the 5 year term duration
NSW content value	Total estimated value of products/goods procured in NSW (where possible): $0 *Non labour components of contract (detailed above)* Over the 5 year term duration [redacted] *All costs related to time spent by an employee in contract delivery* Over the 5 year term duration
NSW Capital Expenditure	Estimated value of capital expenditure in NSW (where possible): $0 Over the 5 year term duration *This figure is separate from your tender value. It is the total value of capital investment (spend by your business), for example building, leasing or procuring infrastructure that benefit NSW communities. Either purchased in NSW or to be retained in the state and to be used as part of the contract delivery. Previously purchased assets are to be calculated at a depreciated value.*

Annexure B to Order Form – Statements of Work 1 and 2

Schedule 1 - Statement of Work M4MMS Support & Maintenance.

1. Statement of Work Details

(a) Statement of Work Name: MMS Support and Maintenance.

(b) Statement of Work Number: 1.

2. Revision History

Version	Status	Date	Prepared By	Comments
Version 0.1	Draft	25/01/2023	Ray Treuer, Director Service Delivery	Initial draft, content copied from CN0152-Q-0001v 4.9 23_10_2022
Version 0.2	Draft	30/03/23	Ray Treuer, Director Service Delivery & Maddocks	
Version 0.2	Final	28/04/2023	Ray Treuer, Director Service Delivery	Updated with agreement of Tyco and TfNSW
Version 0.3	Final	01/05/2023	TfNSW	Final execution version

3. Introduction and overview of the Supplier's Activities

(a) The Supplier's Activities are to provide maintenance and support activities for the Managed Motorway System, (MMS), operated by TfNSW.

(b) The MMS, based on the Supplier's Meridian Motorway Management Solution, is a software and hardware system deployed by the Supplier to manage Sydney's traffic congestion by optimising motorway capacity and improving traffic management. The relevant software platform is connected to intelligent traffic management field devices across the M4 Motorway and state road network. The Supplier must ensure that the entire system functions as designed and operates the field devices safely.

(c) This system is a key component of the M4 Smart Motorway, managing intelligent technology for the M4 Motorway between Pitt Street, Mays Hill, Russell Street and Lapstone

4. Services and Deliverables

4.1 Services

The Supplier must provide Software Support Services & Hardware Maintenance Support Services, which includes:

(a) provision of a 24/7 Software and Hardware Support Service covering day-to-day operational assistance, and assistance for system faults and anomalies (e.g. workaround in the presence of a system fault);

(b) facilitating the Customer reporting incidents by email and by telephone call, or other method approved in writing by the Customer. The Supplier's Support Services must respond to all incident reports, regardless of the initiation method, in the manner and within the timeframes detailed in Table 11 in section 18;

(c) undertaking routine maintenance and inspection, providing a report each month to summarise the system condition, and reporting any findings that warrant further attention;

(d) the Monthly Services; and

(e) the Supplier and the Customer agreeing on operational procedures for change notifications, approvals, escalations and other operational processes within two months after commencement of agreement, and the Supplier must comply with such procedures.

4.2 Deliverables

The Supplier must provide the following Deliverables and any other items noted as being a Deliverables in this statement of work:

(a) monthly governance report in a format agreed with the customer;

(b) weekly time tracking report as per the services performed as per the allowances in section 4.4;

(c) maintenance reporting as per section 4.8;

(d) Documentation required to raise system changes as per section 4.3;

(e) updated system documentation required due to the supplier implementation of changes, enhancements and Meridian software releases; and

(f) post Incident report including root cause analysis as detailed in Table 11 in section 18.

4.3 MMS System Changes

All planned MMS System changes must be formally requested, documented and tested by the Supplier prior to deployment. The Supplier must enter all changes into the Tyco activity log, and must deploy all changes with the ability to reverse a change due to unforeseen problems.

Changes to Meridian or other critical systems must be tested by the Supplier in the MMS Pre-production environment before site deployment. Deployments to Meridian components on site must be carried out and proved by the Supplier one node at a time, so that roll-back to an unaltered node may be facilitated quickly and so that downtime is minimised.

Formal documents impacted by system changes must be updated by the Supplier as part of the change process, e.g. a change that alters the functional design shall cause an update to the Functional Design Specification to keep the design documentation and implementation in sync.

Significant changes, e.g. Meridian software modification, must be accompanied by a release report prepared by the Supplier that outlines the changes, change analysis, risks and testing completed to demonstrate functionality and accuracy.

The Supplier must present all proposed changes to the Customer, with details and documentation, for risk assessment as outlined in the standard change processes prior to being

approved. The Supplier may not proceed with deployment until the Customer has approved the relevant changes in writing (e.g. email) before deployment proceeds.

The Supplier must provide updated documentation upon completion of changes.

Unless otherwise agreed by the Customer in writing, the Supplier must ensure that changes to the Meridian MMS are made in accordance with the TfNSW security Infrastructure Patching framework (05.03.2018), and unless requested by the customer due to an identified security vulnerability, within the agreed Patching Schedule.

4.4 Monthly Services

The Monthly Services are set out below and charged as per section 19:

(a) Software Support and maintenance;

(b) Hardware Support and maintenance;

(c) technical fault-finding / consulting for third party issues relating to the MMS:

[redacted]

(e) testing of interfacing with third party systems:

(i) [redacted]

[redacted]

(g) scope new functions requested by TfNSW within the MMS which includes:

(i) determining the scope for new functions by attending meetings, workshops, and associated or incidental services;

(ii) complying with the following process for scoping new functions:

A. the Customer may submit its requirements to the Supplier for the Supplier to provide an estimate for the overall change request;

B. the Supplier must then prepare the draft SoW (Statement of

Works) document that defines the scope for the new function/s for low and medium complexity change requests;

C. if the Supplier reasonably deems the change request to be of complex nature, then the Supplier may provide a costs estimate for developing the change request proposal;

D. if the Customer provides written approval for the Supplier to proceed with preparing a draft complex change request, then the Supplier must prepare a proposal for the change request;

E. if the Customer approves the draft change request, the Supplier's costs for preparing the draft complex change request must be deducted from the change delivery costs under such change request; and

F. if the Customer does not proceed with the change request, then the Customer will pay Tyco the change proposal costs for complex change requests approved by the Customer under paragraph D above.

As detailed above in section 4.4(c) provision has been made in the Monthly Services for fault-finding / consulting activities in relation to issues that may relate to third party systems connected to the MMS. [redacted] the provision of such Monthly Service can be charged at the Hourly Rates).

Refer to the attached RACI matrix at Attachment 1 of this SOW for roles and responsibilities for M4MMS BAU Operations and Project Changes.

4.5 Provision of Support Service

A provision has been made in the monthly fees for fault-finding / consulting activities in relation to issues that may relate to third party [redacted] **This provision is not accumulative or interchangeable.**

In addition, a provision has been made for testing and Software development services, to test changes to interfacing systems, or to implement Software enhancements to the MMS.

This provision is divided into "Testing Services" for the interfacing systems and "Software Development Services" for system enhancements.

[redacted]

4.6 Performance Reporting.

The Supplier must provide Monthly Performance Reports to TfNSW in a format agreed with the customer.

4.7 Purchase Order and Billing Access to Support, Contracts & Escalation

The Suppler must provide the Customer with access to the 24/7 support service via phone and email. The number(s) and email addresses are set out in section 11.

4.8 Preventative Maintenance

The Supplier must undertake preventative maintenance on the MMS to minimise the likelihood of a system failure.

The Supplier must liaise with TfNSW Technical Representative to provide the information required to raise a change request.

The Supplier must carry out MMS system changes, including but not limited to, the ones listed in Table 1 below:

Table 1 – List of M4 MMS System Changes

Activity	Servers	Description	Frequency
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

The Supplier must provide a report to the Customer each month to summarise the system condition and report any findings that warrant further attention.

The Supplier must ensure that its MMS Preventive Maintenance strategy includes the following:

(a) system self-monitoring and automated alarms;

(b) weekly system integrity review, checking critical server Hardware health;

(c) monthly routine system verification following a checklist of activities;

(d) quarterly physical inspections and routine check-listed tasks; and

(e) Dell equipment monitoring.

Preventive Maintenance must be performed by the Supplier on equipment and areas as agreed in this SOW – see Table 2 below. For areas that are out-of-scope, Tyco will have knowledge and expertise available, in most cases, to aid with fault analysis and rectification on an as-needed basis. Work performed under these conditions may be arranged as quoted jobs or billed at the Hourly Rates. Work scope and approval to work shall be agreed prior to work being started.

4.9 Monthly Preventative Maintenance.

The following table sets out the types of preventative maintenance that must be performed by the Supplier during the monthly preventative maintenance system review.

Table 2 – Preventive Maintenance Activity Types

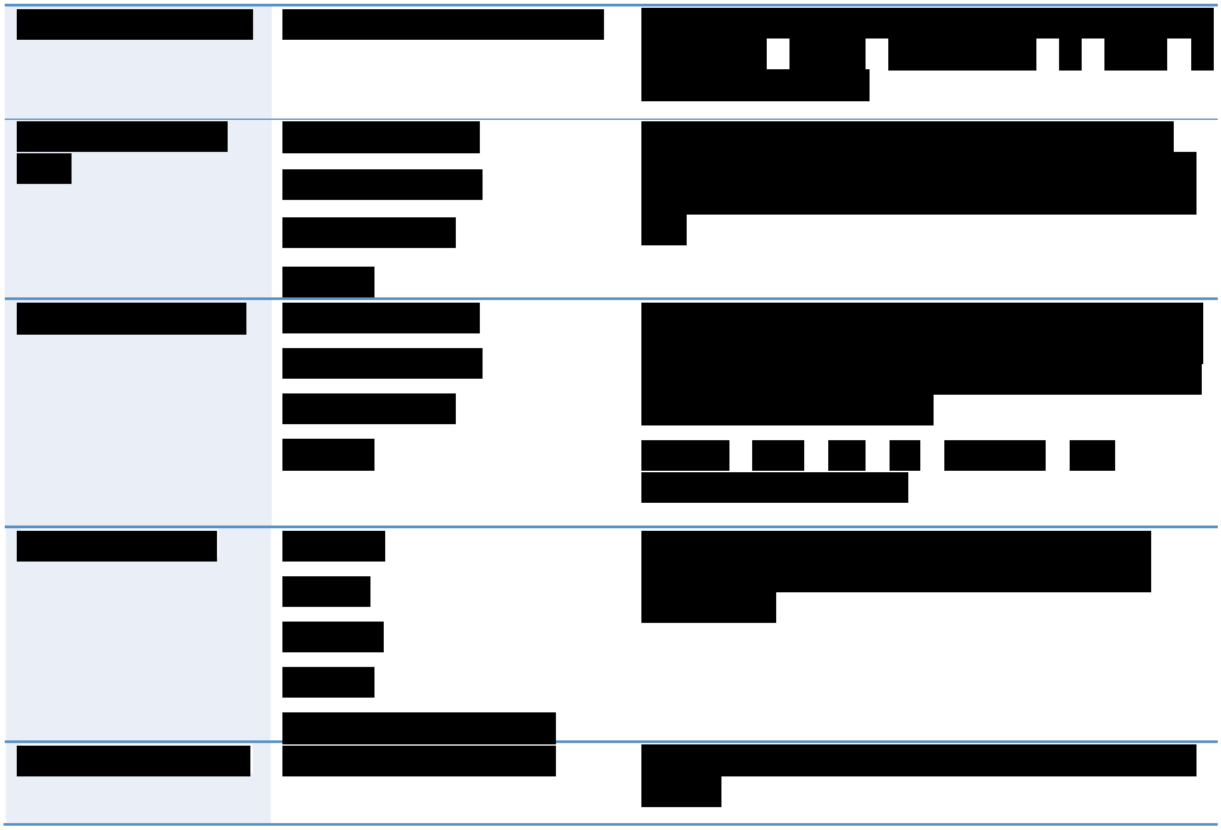
Activity	Assurance Provided
Database Health	The operational database is properly synchronised across hosts and transferred to the reporting/archive database; Aggregation is completed and up to date. Operational database size is optimal, being correctly purged of old data; performance meets expectations.
Installed software	The software that was installed or provided by the maintainer. Software is installed correctly or does not appear to have been corrupted.
Log Review	Reading of recent events in the logging mechanism of that system or application, e.g. Windows Event log; Meridian debug logs; Genetec debug logs.
Meridian Monitoring	Using the Meridian tools to review system status.
Security & Integrity	Review of system access activity.
Software Configuration	The configuration is what was last approved and detailed on the configuration register, includes verifying settings using admin tools.
System Load	Operation is normal, load is not unexpectedly high; sufficient spare overhead

4.10 Quarterly Preventative Maintenance.

The following activities must be carried out by the Supplier quarterly as required. A quarterly works plan must be created by the Supplier prior to work to assess all required actions and subsequent impact to systems. The nominated time for implementation shall be agreed with the Customer.

Table 3 – Quarterly Maintenance Activities

Item	Equipment	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]



*One of the planned failover tests shall be conducted at the same time as the TfNSW annual DR testing.

4.11 Maintenance Tasks.

The Supplier must provide or perform the following tasks:

(a) **Operational Support**

Phone Help 24/7 - advice provided by phone/email, covering day-to-day operational assistance with system faults and anomalies (e.g. workaround in the presence of a system fault). Phone help for standard technical tasks such as database restoration and configuration management tasks.

(b) **Monitoring and Preventative Maintenance**

System Health - a variety of system checks to ensure that the system services are all operating as expected. This includes checking that periodic data purges are running; database size is as expected; that logging and recording operations are working and disk space availability is normal.

This task includes verifying that all Hardware is operating correctly.

System Performance Measurement

The system performance, database access times, service and network response times are measured and compared to expected figures. Exceptions are reported and investigated. These measurements can reveal problems before they affect operation. The Supplier will provide a monthly summary report; any faults or anomalies will be reported immediately.

Diagnostic Review and Log Analysis

The M4 MMS and the operating system produce diagnostic logs. These are used to diagnose faults. Scanning the logs can indicate system problems before they become apparent – for example, database access retries, or data range exceptions can indicate a problem before a complete failure occurs.

Failovers

The Meridian servers must failover in a controlled manner, redundant components operate as expected, servers and clients reconnect correctly, and backup servers are fully operational. This service also circumvents common Windows problems such as resource leaks.

System Integrity Monitoring

This service includes checking the system for security loopholes, such as changes in firewall settings or connections to other networks. Other checks include checking of system activity logs for evidence of unauthorised or unexpected access.

Monitoring services and applications running or loaded on all computers in the system to ensure that only authorised software is installed and running.

Software Version Supportability/Currency

Meridian

The Meridian software platform must be maintained at a version level that is supported by the manufacturer.

Genetec

The Genetec software platform must be maintained at a version level that is supported by the manufacturer. Any software development work as a result of the version upgrade will result in a change request.

(c) **Planned Aimsun Live Model Maintenance**

Quarterly Planned Model Maintenance

The provision for maintenance of the predictive model includes a total of 800 hours of planned model maintenance services per year.

In order to ensure the accuracy of the model, the Customer will provide any updates to the model data (in the format required for the model to be updated) to facilitate the Supplier adjusting the model accordingly. Once provided, the Supplier must adjust the model to reflect the updated model data.

Planned maintenance tasks:

(i) Monitoring the QM indicator outputs, with frequent meetings with operators to obtain feedback;

(ii) Isolate key incidents and events that require further attention/investigation;

(iii) Reconcile QM and key incidents / events, and identify the need for improvements such as incident impact assumptions;

(iv) Check through the data cleaner when new detection stations are added or deleted;

(v) Assess the need for new pattern generation based on the latest historical

data added to the database during the last maintenance cycle (period of historical data to be considered);

(vi) If a new pattern generation is identified:

A. Generate new patterns;

B. Generate new set of OD demands;

C. Generate the corresponding new Initial states and SPA files; and

D. Validate improvement through QM indicators;

(vii) Assess the need for an update of the analytical model and, if required, regenerate new ANA models and validate improvement through QM indicators;

(viii) Assess the need to recalibrate the Incident Detection Module and, if required, regenerate new IDM parameters;

(ix) Manual review of any change or addition to road assets and ITS devices provided by Meridian to Aimsun Live;

(x) Review and fine tune different model calibration parameters including but not limited to:

A. Reaction time, jam density, look-ahead and lane selection parameters;

B. Percentage of SPA route compliances;

C. Route choice parameters; and

D. Vehicles type characteristics;

(xi) Validate improvement of the modified *ang file through QM indicators;

(xii) Update Aimsun Live version when there is a new release and where it is determined that it provides a benefit to the M4SM;

(xiii) Set up of any new Aimsun Live version on the servers after internal QA acceptance test;

(xiv) Upload modified *ang files and other related data to the servers; and

(xv) QA testing in the test environment, including the interface with Meridian

(xvi) Server failover routine testing.

4.12 Reactive Maintenance

Faults that are reported by the Customer must be addressed by the Supplier in accordance with the Service Levels set out in Section 18.

Faults caused by the Customer or any third party not under the direction of the Supplier are not covered in the standard monthly fee. A separate fee, in the form of an annual allowance (see section 4.44.4(c)), has been included to meet the estimated costs incurred by the Supplier assisting in fault analysis related to these

situations. The allowance includes a capped number of staff hours assigned to these tasks (see section 4.44.4(c). Additional staff time beyond this allowance will be charged at the Hourly Rates.

The Supplier must repair or replace Hardware during the Warranty Period (such Warranty Period for the purposes of the Hardware, is as long as the Hardware is covered by the manufacturer's warranty or a 3rd party hardware support agreement) in accordance with this Agreement as part of the Hardware Support Services. Should equipment failure occur outside of these periods, the Supplier will advise the Customer of the problem and provide a quotation to perform the works required to return the system to operation, including all equipment and labour. Labour will be costed at the Hourly Rates, and the Supplier will then undertake repairs with written approval from the Customer. Parts will be used from TfNSW on-site holding wherever possible.

The following table provides examples of potential failure response and rectification modes:

Table 4 – Failure & Rectification Modes Examples

Meridian Server	Dell*	Yes	Server failure	Tyco to ensure backup servers take over system operation as designed. Tyco to ensure service continuity or provide workaround. TfNSW to provide on-site support if required	Tyco to restore server operations including replacement of equipment using customer supplied parts or provide quotation and rectification plans to TfNSW. TfNSW to provide on-site and administrative support as required
Genetec Server	Dell*	Yes	Server failure		
Aimsun Online server	Dell*	Yes	Server failure		
Network Outage	TfNSW	Yes	Failed Network Change		

*Covered by dell Gold Support.

4.13 Out-of-Scope Services and Deliverables.

(i) Additions or changes to the detection systems throughout the network, or a large increase in new detection sources that provide the system with new insight to traffic demand (in particular on arterials) and require a recalibration of the patterns and the base network;

(ii) new construction projects within the corridor. Although simple changes such as improvements to a signalised intersection could be automatically captured, other more complex ones like the addition of a new freeway interchange would require an update and offline testing of the base model;

(iii) upgrades to new ITS algorithms;

(iv) new ITS Systems; and

(v) major changes to the behaviour of traffic due to for example the widespread use of autonomous vehicles.

5. Specifications

The following systems are included in this maintenance Statement of Work (as more fully described in *the M4MMS Hardware Architecture Design Document (ref1)*) attached at Attachment 2:

Table 5 – Supported Systems

Item No.	Name	Description



6. Customer Supplied Items (CSI)

(a) The Customer will provide the CSI as set out in the table below:

Table 6 – Customer Supplied Items.

Item No.	CSI
1.	Customer will provide Supplier's support staff with Transport user accounts to connect to the Transport network as well as Transport email accounts.
2.	Access to the TfNSW ITSM Tool.
3.	The Customer will provide the Supplier with managed access 24/7 to the M4 MMS components and amenities at the TMC-Eveleigh, Argyle Street-Parramatta and the eTMC-Auburn for completing maintenance work.
4.	Maintain power and network services for the MMS components.
5.	In the event of out-of-warranty equipment failure, all return-to-service timing is dependant on the availability of Spare Parts, which are supplied by the Customer.

(b) In relation to the above CSI:

(i) the Customer will provide Supplier support staff with training in the use of the TfNSW ITSM tool;

(ii) the Supplier's support staff must use Citrix and Kiteworks file-transfer as the methods of carrying remote support activities (and the Supplier must advise of any issues with these methods); and

(iii) the Supplier must provide notice to the Customer within 5 business days of whenever a Supplier support staff with a Customer IT account ceases their employment or ceases to provide Services in relation to this Statement of Work.

7. Timeframes and Dates for Delivery

The Supplier must deliver the Services and Deliverables in accordance with the Dates for Delivery set out in the below table.

Deliverable/Service	Timeframe and Date for Delivery
24/7 support and maintenance as per this SOW	From the commencement date of the ICTA.

7.1 Working/Business Hours.

Work related to Preventative Maintenance activities that perform data capture, data collection and system inspection with no impact to operation, may be performed during the Supplier's normal business hours.

Preventative maintenance tasks on the production environment that may affect the Customer's operations, e.g. planned failover, software patch deployment etc. shall only be performed outside of TfNSW Motorway Operations business hours and where practical, at the approval of the customer.

Table 7 – Working / Business Hours

Tyco Working/business hours are:	• Monday to Friday (7am to 5pm) • Excluding Saturdays, Sundays, rostered downtime or Public Holidays
TfNSW Motorway Operations business hours	• Monday to Sunday (5am to 7pm)

8. Key Milestones

Not applicable.

9. Transition-In Services

This SOW is for the support of the MMS system that is currently in production at TfNSW and no Transition-In Services are required.

10. Transition-Out Services

The Supplier must provide Transition-Out Services as may be reasonably required by the Customer. The Supplier must prepare a Transition-Out Plan for the Customer's prior to the date which is eighteen (18) months prior to the expiry of the Term..

11. Roles and responsibilities – Access to Support, Contacts and Escalations.

11.1 JCI(Tyco) Contacts

Table 8 – JCI (Tyco) Contacts

Amit Golwala	Primary Contact / Project Manager	First point of contact for service / Technical support – call escalation	amit.golwala-ext@jci.com Mobile: 0468 468 517
Lewis Gardner	Software Architect	Technical support - SME	lewis.gardner@jci.com Mobile: 0419 800 519
Ryan Keegan	Transportation Leader	Escalation: Senior Management	ryan.keegan@jci.com Mobile: 0467 815 298
Dell Support	Dell Help Desk	Hardware support	deltamail_prod@dell.com Tel: 1300 662 370

11.2 TfNSW Contacts.

Table 9 – TfNSW Contacts

Contact Name	Role	Purpose	Contact Details
Ray Treuer	Director Service Delivery	Service owner for the MMS	Ray.TREUER@transport.nsw.gov.au Mobile: 0411 286 577

Kesavraj Lokababu	Infrastructure & Hosting Manager	Manages our Data centres where the MMS servers are located. Manages the remote & physical access for Tyco to support the MMS.	Kesavraj.LOKABABU@transport.nsw.gov.au Mobile:
Mridu Bhalla	Senior Manager Service Delivery	Service, contract and performance management for the Tyco/JCI MMS support contract	Mridu.BHALLA@transport.nsw.gov.au Mobile: 0418 725 390
Siju Pulickal	ITS Software Engineer	L2 software engineering support	Siju.PULICKAL@transport.nsw.gov.au Mobile: 0430 730 290
Vu Nguyen	ITS Systems Engineering Manager	1st Escalation for L2 support	Vu.HOANG.TRAN.NGUYEN@transport.nsw.gov.au Mobile: 0439 260 697
Nick Patras	Director ITS Engineering	2nd Escalation for L2 support	Nick.PATRAS@transport.nsw.gov.au Mobile: 0411 657 504

12. Business Contingency Plan

Not applicable.

13. Project Plan and management

Not applicable.

14. Stages and methodology

Not applicable.

15. Acceptance Testing

Testing and results will be provided for maintenance tasks as detailed elsewhere in the SOW. Where change requests are carried out, testing and results will be provided as agreed between TfNSW and Tyco.

16. Governance arrangements

16.1 Meetings

The Supplier must attend, for the duration of the Term, the following meetings:

(a) a monthly Service performance meeting;

(b) a weekly operations meeting;

(c) Change Approval board meetings as required by the Customer; and

(d) adhoc meetings as reasonably required by the Customer.

16.2 Reports

The Supplier must provide, for the duration of the Term, the following reports:

(a) a monthly Service performance report;

(b) a weekly time tracking meeting;

(c) PIR's post-Incident report; and

(d) any reporting requirements set out in section 18.

17. Assumptions and dependencies

Not applicable.

18. Service Level agreement

18.1 Incident Priority Levels

The following priority definitions apply to the service levels for the Software and Hardware:

Table 10 – Incident Priority Categories

Incident Priority Level	Description	Initial Report to Tyco
P1 (Critical)	Catastrophic issue affecting the Production system, that is a very high risk with no workaround available. Multiple business processes stopped, divisions cannot operate	Immediate phone call followed by email. Leave voicemails or SMS, use alternative numbers until answered or called-back.
P2 (High)	Material issue affecting the Production system, that is high risk to the division with no workaround available. Business process stopped, staff or function cannot operate	Immediate phone call followed by email Leave voicemails or SMS, use alternative numbers until answered or called-back.
P3 (Medium)	Significant issue affecting the Production system, that is medium risk to the division with no workaround available. Business process affected, staff(s) cannot use certain/some functions This includes all Aimsun related issues that are not P4	Assigned in Incident Management System Email Phone call

P4 (Low)	Insignificant issue affecting the Production system, that is low risk to the division or where a workaround is known, or any issue affecting any other supported system Business process affected; staff experience degraded performance.	Assigned in Incident Management System Email Phone call

The incident reporter shall define the priority of the incident based upon the impact it has on the operating environment, using the definitions above.

The following service levels apply*:

Table 11 – Incident Response Service Levels

Ref #	Service Level Name	Expected SLA	Measurement Period	**Service Level Credit Percentage (%)	Description	Formula Overview	Reporting Requirements	Source
[redacted]								
[redacted]								
[redacted]								

Ref #	Service Level Name	Expected SLA	Measurement Period	**Service Level Credit Percentage (%)	Description	Formula Overview	Reporting Requirements	Source
[redacted]								

* Return to service timing is dependent upon the availability of TfNSW supplied Spare Parts

** Service Levels and corresponding Service Credits for not meeting each Service Level are set out in below table. The maximum credit each month that TfNSW is entitled to is 1% of the monthly charges under this Statement of Work.

Service Credit	% Service Fees over the Measurement Period
[redacted]	

The Key Performance Indicators (KPIs) are shown in the Table 12 below:

Table 12 - Key Measurements

Ref #	Key Measurement Name	Expected SLA	Measurement Period	Description	Formula Overview	Reporting Requirements	Source
[redacted]							
[redacted]							
[redacted]							

[redacted]	[redacted]			[redacted]			
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

19. Pricing

The prices detailed in this SOW are fixed for the term of the Statement of Work, except as set out otherwise below. Table 14 reflects the fixed 3% increase to the Monthly Fees applicable for each year of the Term.

19.1 Monthly Fee

The monthly fee covers 24/7 standby and callout, and preventative maintenance inclusively.

Table 13 – Monthly Fees – Inclusions

	Item	Cost (excl GST)	Quantity	Due
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	

[redacted]

Table 14 – Monthly Fees – Year 1 to 5

Monthly Fees	Initial Term	Extension Options

Item	Year 1	Year 2	Year 3 (Aimsun)	Year 3 (No Aimsun)	Year 4	Year 5
[redacted]						
[redacted]						
[redacted]						

[redacted]

19.2 Hourly Rates

Table 15 below sets out the Hourly Rates that will apply to remedial work outside of the scope of monthly fee inclusions above, or for system improvements and modifications as requested by the [redacted]

[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		

[redacted]

20. Interpretation

(a) In this Statement of Work, unless the contrary intention appears, the following definitions apply:

Term	Definition
Aimsun Live	Formerly Aimsun Online, Aimsun Live is the traffic prediction software
Hardware	The hardware set out in *M4MMS Hardware Architecture Design Document (ref1)*) set out in Attachment 2
Hourly Rates	Those rates set out in section 0.
Incident	An event that impacts the operation of the M4 MMS System, which may be software or hardware problems in the context of this document. A request for information related to the M4 MMS System is also classified, recorded, and responded to as an Incident.

[redacted]

Monthly Services	Those Services detailed in section 4.4.
M4SM	M4 Smart Motorway
M4 MMS or **MMS**	M4 Motorway Management System: The collection of software and hardware that communicates over the network to monitor and control the conditions of the M4SM and ensure safe passage of motorists. The components of the M4 MMS System are itemised in Table 5 – Supported Systems.
Software	The M4 MMS.
TfNSW	The Customer.
Tyco Projects	The Supplier.
TSS	A Sub-Contractor, formerly Transport Simulation Systems (now Aimsun), is delivering the model-based real-time decision support backend (Aimsun Live) for the M4 MMS.

(b) Terms in this Statement of Work which are not otherwise defined in this document have the meaning given to them in the ICTA.

Attachment 1 – M4MMS OPERATIOAL AND PROJECT CHANGE MATRIX

KEY: **R** = Responsible – must do/ provide the deliverable - there is usually one of these, but can be multiple **A** = Accountable – make sure the process/ step deliver the required outcome, make the final decision **C** = to be Consulted – has information and/or capability necessary to complete the work **I** = to be Informed – must be notified of results, but need not be consulted **S** = support to be provided by the vendor	CSO Change Management	CSO SDM	CSO Service Operations	TEI ITS Support Team (ITS Engineering)	Tyco	M4MMS Business & Project Management Stakeholders	CSO Commercial Team
Finalise business requirements for change(s)				C		A,R	
Review business requirements for change(s)				A,R	C	C	
Hold technical governance forum to review change(s) submitted by business				A,R	C	C	
Request Tyco for proposal for submitted change(s)				A,R	C	I	
Issue proposal for submitted change(s) to TfNSW (TEI ITS Support Team)				C	A,R	C	
Review proposal				A,R	C	C	
Obtain funding approval for proposal		I		A		A,R	
Engage Commercial team to progress with procurement		C		A,R		I	C
Contract Management and Issue PO to Tyco		C		C	I	I	A,R
Deliver change(s)		I		A	R	C	
Acceptance and sign-off from TfNSW		I		A,R		A,R	

Attachment 2 M4MMS Hardware Architecture Design Document (ref1)

Hardware Architecture
M4 Motorway Management System
TYCO Project CN0152
RMS Contract 15.3528.1205

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Rev	Date	Description	Prepared by	Reviewed by	Approved by
1	11/02/2019	First Release	Amit Golwala	Lewis Gardner	Fraser Maconald
2	01/07/2019	Updated with Aimsun and UAT02	Richard Harman	Lewis Gardner	Fraser Macdonald
3	03/07/2019	Updated in response to RMS comments on V2	Richard Harman	Lewis Gardner	Fraser Macdonald
4	29/08/2019	Updated Section 3	Amit Golwala	Fraser Macdonald	Fraser Macdonald
5	13/11/2019	Updated to reflect current deployments	Fraser Macdonald	Amit Golwala	Andrew Smith
6	16/03/2020	Updated the Architecture Diagram and added a section on Workstation System Requirements	Amit Golwala	Barry Chenh	Andrew Smith
7	31/12/2020	Added UAT2 Genetec Directory & Archiver Servers; Revisited all other sections	Amit Golwala	Lewis Gardner	Derrick Lenehan
8	19/02/2021	Changed memory and CPU allotments, added K8S servers and descriptions, moved C2C servers to ESS nodes	Lewis Gardner	Amit Golwala	Derrick Lenehan

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1. Preamble

1.1 Purpose

The M4 Motorway Management System (MMS) allows control and monitoring of traffic-related Information and Communication Technology (ICT) components of the M4 corridor. In addition to providing monitoring and control of traditional traffic ICT components (traffic display signs, vehicle detectors, emergency telephones and CCTV) the MMS also provides the Operators with access to environmental sensor station information.

The purpose of this document is to provide the detailed design of the hardware proposed which will be used to build the Motorway Management System (MMS) for the M4 corridor. It will be used to communicate the MMS Hardware Design Specification to all the involved parties in the project.

Refer to the M4 MMS Software Architecture document for an outline of the high-level architecture of the system and software that make up the MMS and is a prerequisite to this document.

1.2 Scope

The document covers design details of all MMS related hardware and shall aim to meet the requirements and standards set out.

1.3 References

In the table below, if a revision number of a document is specified then that revision applies, else the latest revision applies.

Ref No & Title	Doc No	Publisher
1. M4 MMS Software Architecture	IM0013-D-0002	TYCO
2. M4 MMS FDS	IM0013-D-0003	TYCO
3. M4 MMS Deployed Items Register	IM0013-D-0049	TYCO

1.4 Glossary and Definitions

For the purpose of this document, the following definitions and acronyms have the related meanings as set out below:

Term	Definition
C2C	Centre to Centre
DB	Database
HA	High Availability
I/O	Input / Output
ITS	Intelligent Transport System
MMS	Motorway Management System
MongoDB	Mongo Database
RMS	Roads and Maritime Services

2. Hardware Specifications

This section details the technical specifications of the hardware that will be used in the MMS system for several environments – Production, UAT1, UAT2 and DEV & Training.

2.1 Dell PowerEdge R730

The MMS system will use a Dell PowerEdge R730 Server which will be highly versatile, two-socket 2U rack server with impressive performance, a large memory and extensive I/O options. Please see the table below for more information on the features and technical specification of the Dell PowerEdge R730 Server.

Feature	PowerEdge R730 technical specification
Form Factor	2U rack height
Dimensions	Height: 8.73 cm (3.44 in) Width: 44.40 cm (17.49 in) Depth: 68.40 cm (26.92 in)
Processor	2 x Intel Xeon E5-2630 v4 2.2GHz, 8.0 GT/s QPI, Turbo, HT, 10C/20T (85W)
Processor Sockets	2
Cache	25 MB
Chipset	Intel C610 series chipset
RAID Controller	PERC H730 Integrated RAID Controller
NIC	Broadcom 5720 QP 1GB Network Daughter Card
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Remote Management	iDRAC8 Enterprise, integrated Dell Remote Access Controller, Enterprise
Systems Management	Dell OpenManage Essentials, Server Configuration Management
Software	VMware ESXi 6.5 (embedded Image on Flash Media)

For detailed information and datasheet of the hardware, please see Appendix 1: Dell PowerEdge R730 Specification or click this link – https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/documents/dell-poweredge-r730-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/Dell-PowerEdge-R730-and-R730xd-Technical-Guide-v1-7.pdf

2.1.1 ESX Server

The MMS system in the Production environment will run on the ESX servers. There will be 4 ESX servers setup in the Production environment and collectively they will run the MMS specific services – Essentials, Application, C2C, etc.

The ESX server will be a Dell PowerEdge R730 Server and will have the same features as listed in the table above. In addition, each ESX server will comprise of the following Memory and Hard Drives as detailed in the sections below.

2.1.2 DEV & TRAINING Server

The DEV & TRAINING server will host the two environments - Development and Training for the MMS system on the same server. Unlike ESX and UAT server, the DEV & TRAINING server will be an isolated from production network.

The DEV & TRAINING server will be a Dell PowerEdge R730 Server and will have the same features as listed in the table above. In addition, each DEV & TRAINING server will comprise of the following Memory and Hard Drives as detailed in the sections below.

2.1.1 UAT1 Server

The MMS system in the UAT1 environment will run on a single Dell PowerEdge R730 Server. The UAT1 environment will run all the MMS specific services – Essentials, Application, C2C, etc.

2.2 Dell PowerEdge R230

The Arbiter (Witness) server within the Production MMS system will run on the Dell PowerEdge R230 hardware, which is a powerful and efficient 1-socket rack server. Please see the table below for more information on the features and technical specification of the Dell PowerEdge R230 Server.

Feature	PowerEdge R230 technical specification
Form Factor	1U rack server
Dimensions	Height: 4.28 cm (1.67 in) Width: 43.40 cm (17.09 in) Depth: 49.50 cm (19.5 in)
Processor	Intel Xeon E3-1220 v6 3.0GHz, 4C/4T (85W)
Cache	8 MB
Chipset	Intel C610 series chipset
Memory	8 GB UDIMM
Hard Drives	500 GB 7.2K RPM SATA 3Gbps 3.5” Cabled Hard Drive
RAID Controller	PERC H330 Integrated RAID Controller
NIC	On-Board LOM 1GBE Dual Port
Power Supply	Single, Cabled Power Supply, 250W
Remote Management	iDRAC8 Enterprise, integrated Dell Remote Access Controller, Enterprise
Systems Management	Server Configuration Management
Software	VMware ESXi 6.5

Refer to section 4.5 for the detailed configuration.

For detailed information and datasheet of the hardware, please see Appendix 2: Dell PowerEdge R230 Specification or click this link – https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/Dell_PowerEdge_R230_SpecSheet_final.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/ja/jp/Dell-PowerEdge-R320Technical-Guide.pdf.

2.3 Dell PowerEdge R640

The Aimsun decision support capabilities will run on Dell PowerEdge R640 servers. These have been configured with dual high-performance CPUs, to allow multiple concurrent simulation calculations, and a high quantity of RAM to accommodate the high amount of model and traffic data used during processing. Please see the table below for more information on the features and technical specification of the Dell PowerEdge R640 Server.

Feature	PowerEdge R640 technical specification
Form Factor	1RU rack server
Dimensions	Max depth: 757.75mm
Processor	Intel Xeon Gold 6144 3.5G,8C/16T,10.4GT/s
Cache	24M Cache
Chipset	Intel C621
Memory	384RDIMM 2666MT/s Dual Rank
Hard Drives	Qty 2600GB 10K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive Qty 2 2TB 7.2K RPM SATA 6Gbps 512n 2.5in Hot-plug Hard Drive
RAID Controller	PERC H730P RAID Controller, 2GB NV Cache, Mini card
NIC	Intel X550 Dual Port 10GbE BASE-T & i350 Dual Port 1GbE BASE-T, rNDC
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Remote Management	iDRAC9,Enterprise
Systems Management	OME Server Configuration Management
Software	Ubuntu Server 16.04

Refer to sections 4.6, 4.7, 4.8, 4.9 and 6.2 for the detailed configuration of each server.

For detailed information and datasheet of the hardware, please see Appendix 3: Dell PowerEdge R640 Specification or click this link – https://i.dell.com/sites/csdocuments/Product_Docs/en/poweredge-r640-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/us/PowerEdge-R640-Technical-Guide.pdf.

2.4 Dell PowerEdge R330

The Genetec Directory Servers in the production environment will run on 2 PowerEdge R330 servers, with 1 Directory Server located at each datacentre. Both Genetec Directory Servers will have the same hardware configuration.

Please see the table below for more information on the features and technical specification of the Dell PowerEdge R330 Server.

Feature	PowerEdge R330 technical specification
Form Factor	1RU rack server
Dimensions	Max depth: 677.3mm
Processor	Intel Xeon E3-1230 v5 3.4GHz, 4C/8T, turbo (80W)
Cache	8M Cache
Chipset	Intel C236
Memory	8GB UDIMM, 2133MT/s, ECC
Hard Drives	Qty x2 120GB Solid State Drive SATA Boot 6Gbps 2.5in Hot-plug Drive,3.5in HYB CARR,13G
RAID Controller	PERC H330P RAID Controller
NIC	On-Board LOM 1GBE Dual Port (BCM5720 GbE LOM)
Power Supply	Dual Hot Plug Power Supplies 350W
Remote Management	iDRAC8,Enterprise
Systems Management	OME Server Configuration Management
Software	Windows 2012 R2

Refer to sections 4.10 and 4.12 for the detailed configuration of each server.

For detailed information and datasheet of the hardware, please see Appendix 4: Dell PowerEdge R330 Specification or click this link – https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/Dell_PowerEdge_R330_SpecSheet_final.pdf.

2.5 Dell PowerEdge R730xd

The Dell PowerEdge R730xd has the same capabilities as the R730 but offers expanded storage capacity, making it ideal for data-intensive applications that require ample storage and I/O performance such as video archiving.

The Genetec Archivers in the production environment will run on 2 PowerEdge R730xd servers, with 1 archiver server located at each datacentre. Both Genetec Archiver servers will have the same hardware configuration.

Feature	PowerEdge R730xd technical specification
Form Factor	2U rack height
Dimensions	Height: 8.73 cm (3.44 in) Width: 44.40 cm (17.49 in) Depth: 68.40 cm (26.92 in)
Processor	2 x Intel Xeon E5-2620 v4 2.1GHz,8.0GT/s QPI,Turbo,HT, 8C/16T (85W) Max Mem 2133MHz
Processor Sockets	2
Cache	20 MB
Chipset	Intel C610 series chipset
RAID Controller	PERC H730 Integrated RAID Controller
NIC	QLogic 57800 2x10Gb DA/SFP+, 2x1Gb BT Network Daughter Card
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Remote Management	iDRAC8 Enterprise, integrated Dell Remote Access Controller, Enterprise
Systems Management	Dell OpenManage Essentials, Server Configuration Management
Software	Windows 2012 R2

Refer to sections 4.11 and 4.13 for the detailed configuration of each server.

For detailed information and datasheet of the hardware, please see Appendix 5: Dell PowerEdge R730xd Specification or click this link - https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/documents/dell-poweredge-r730-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/Dell-PowerEdge-R730-and-R730xd-Technical-Guide-v1-7.pdf

2.6 Dell PowerEdge R740xd

The MMS system in the UAT2 environment will run on a single Dell PowerEdge R740xd Server. The UAT2 environment will run all the MMS specific services – Essentials, Application, C2C, etc.

Feature	PowerEdge R740xd technical specification
Form Factor	2U rack height
Dimensions	Height: 8.73 cm (3.44 in) Width: 44.40 cm (17.49 in) Depth: 71.5 cm (28.17 in)
Processor	2 x Intel Xeon Silver 4210 2.2G, 1 0C/20T, 9.6GT/s, Cache, Turbo, HT (85W) DDR4-2400
Processor Sockets	2
Cache	13.75 MB
Chipset	Intel C620 series chipset
RAID Controller	PERC H730P RAID Controller, 2G B NV Cache, Adapter
NIC	Broadcom 5720 Quad Port 1GbE
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Remote Management	iDRAC8 Enterprise, integrated Dell Remote Access Controller, Enterprise
Systems Management	Dell OpenManage Essentials, Server Configuration Management
Software	VMware ESXi 6.5 (embedded Image on Flash Media)

Refer to section 6.1 for the detailed configuration of the server.

For detailed information and datasheet of the hardware, please see Appendix 6: Dell PowerEdge R740xd Specification or click this link – https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/poweredge-r740xd-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/PowerEdge_R740_R740xd_Technical_Guide.pdf.

2.7 Dell PowerEdge R340

The Genetec Directory Server in the UAT2 environment will run on 1 PowerEdge R340 server located at the Parramatta datacentre.

Please see the table below for more information on the features and technical specification of the Dell PowerEdge R340 Server.

Feature	PowerEdge R340 technical specification
Form Factor	1RU rack server
Dimensions	Width: 43.40 cm (17.08 in) Depth: 54.4836 cm (21.45 in)
Processor	Intel Xeon E-2224 v3.4GHz, 4C/4T, turbo (71W)
Cache	8M Cache
Chipset	Intel C246
Memory	Qty x2 8GB 2666MT/s DDR4 ECC UDIMM
Hard Drives	Qty x2 1.2TB 10K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive
RAID Controller	PERC H330 RAID Controller
NIC	On-Board LOM 1GBE Quad Port (BCM5720 GbE LOM)
Power Supply	Dual Hot Plug Power Supplies 350W
Remote Management	iDRAC9,Enterprise
Systems Management	OME Advanced
Software	Windows 2012 R2

Refer to section 6.3 for the detailed configuration of the server.

For detailed information and datasheet of the hardware, please see Appendix 7: Dell PowerEdge R340 Specification or click this link – https://i.dell.com/sites/csdocuments/Product_Docs/en/poweredge-r340-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/csdocuments/Product_Docs/en/PowerEdge_R340_Technical_Guide.pdf.

2.8 Dell PowerEdge R740

The Genetec Archiver Server in the UAT2 environment will run on 1 PowerEdge R740 server located at the Parramatta datacentre.

Please see the table below for more information on the features and technical specification of the Dell PowerEdge R740 Server.

Feature	PowerEdge R740 technical specification
Form Factor	2U rack height
Dimensions	Height: 8.68 cm (3.44 in) Width: 43.40 cm (17.08 in) Depth: 73.75 cm (29.03 in)
Processor	2 x Intel Xeon Silver 4215 2.5G, 8C/16T, 9.6GT/s, Turbo, HT (85W) DDR4-2400
Processor Sockets	2
Cache	11 MB
Chipset	Intel C620 series chipset
RAID Controller	PERC H730P RAID Controller, 2G B NV Cache, Adapter, Low Profile
NIC	Broadcom 5720 Quad Port 1GbE BASE-T, rNDC
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Remote Management	iDRAC9 Enterprise, integrated Dell Remote Access Controller, Enterprise
Systems Management	Dell OpenManage Enterprise Advanced
Software	Windows 2012 R2

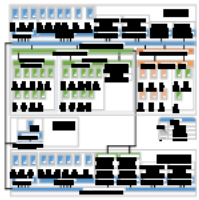
Refer to section 6.4 for the detailed configuration of the server.

For detailed information and datasheet of the hardware, please see Appendix 8: Dell PowerEdge R740 Specification or click this link – https://i.dell.com/sites/csdocuments/Product_Docs/en/poweredge-r740-spec-sheet.pdf.

For detailed information on the Technical Guide click this link - https://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/PowerEdge_R740_R740xd_Technical_Guide.pdf.

3. MMS System Hardware

[redacted]



[redacted]

3.1 Hardware Location

The hardware used in the Production environment are installed in 3 locations to ensure that the MMS system is always available, thus avoiding issues related to the single point of failure.

3.1.1 Hardware at Eveleigh

The following table lists the hardware installed at RMS Eveleigh:

Server	Description	Server Type	Power Connection	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Please refer to Deployed Item Register (ref 4) for IP Address details of above servers.

3.1.2 Hardware at Parramatta

The following table lists the hardware installed at RMS Parramatta:

Server	Description	Server Type	Power Connections	Network Connections	Rack Space
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Please refer to Deployed Item Register (ref 4) for IP Address details of above servers.

3.1.3 Hardware at Auburn

The following table lists the hardware installed at RMS Auburn:

Server	Description	Server Type	Power Connections	Network Connections	Rack Space
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Please refer to Deployed Item Register (ref 4) for IP Address details of above servers.

3.2 Virtual Servers

The MMS system will consist of several database and application instances which are described in the sub-sections below. Instead of running every instance on its own physical server, instances will run as virtual machines on a variable number of VMware servers. This best practice will reduce the operating costs, power consumption and networking requirements while improving remote management capabilities.

Please see the below sub-sections for the instances that will run as Servers, but on a virtual machine instead of a physical machine.

3.2.1 MongoDB Servers

The MongoDB Server will run the database services allowing active Essential Server to retrieve and store data. The following table lists the MongoDB servers that are part of the MMS system:

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.2 PostgreSQL Servers

The PostgreSQL Server will run the database services allowing active Application Server to retrieve and store data. The following table lists the PostgreSQL servers that are part of the MMS system:

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.3 Kubernetes & Message Queue Servers

Kubernetes (K8S) servers run the control plane (i.e. cluster configuration, monitoring and scheduling) for a K8S cluster. These servers also run ActiveMQ messaging servers. In the PROD environment, the K8S servers and the ActiveMQ servers are configured in a replicated, high availability setup.

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.4 MMS Servers

The MMS Servers run the MMS Core Services i.e. File Service, Security Manager, System Log, Fault Notification, Pythia Service, etc and Application Services i.e. Device Request, Situation Manager, Response Manager, Aimsun, Traffic Algorithms, etc. They also run the C2C Services.

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.5 Load Balancers

The Load Balancers are teamed up to have a single (shared) Virtual IP address for the External RMS systems. Each request from the external systems to the MMS system will come via the Load Balancer servers. Note Training Env has a single instance of Load balancer so it has no Virtual IP.

The following table lists the Load Balancers that are part of the MMS system:

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.6 Document Servers

The Document Server will run Subversion – which is a version control system that will be used for versioning of the MMS build files and a Document Server to manage the MMS project documents. The following table lists the Doc server that is part of the MMS system:

Server	Host	Description
M[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.7 Backup Servers

The Backup Server will be used for making and storing backups of Operational Data from the MMS system:

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.8 Workstations

Workstation are installed in various locations within the system and are used by the maintenance team to maintain the system.

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3.2.9 Arbiter

The Arbiter is installed as a virtual machine running on VMware ESXI. The deployment as a virtual machine allows for easier maintenance and upgrades compared to a "bare metal" installation.

Server	Host	Description
[redacted]	[redacted]	[redacted]

3.2.10 Reporting Servers

The Reporting Servers execute the reports and provide the KPI dashboard:

Server	Host	Description
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

4. PROD Hardware

The Production Environment consists of five (5) MMS Servers, four (4) Aimsun Servers and four (4) Genetec Servers.

MMS

MMS has 5 servers setup with VMware ESXi for deploying and serving virtual machines, with each physical server having multiple virtual machine setup within it.

For more details on the each server and its architecture, please see the sub-sections below.

AIMSUN

The Aimsun production solution consists of four (4) servers, each server will have a VMWare workstation used to run SCATS SIM. One pair of Aimsun servers will be located in the Eveleigh Datacentre (Aimsun 1 & 3), and the other pair will be hosted in the Parramatta Datacentre (Aimsun 2 &4). T

The Aimsun server pairs run in an Active/Active state with load balancing and failover between them managed by the Load Balancer (1 & 2) VMs. Each Aimsun server in each pair will be assigned one of two roles.

Role / Location	Controller	Executor
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

[redacted] and setup.

For more details on the each server and its infrastructure setup, please see the sub-sections below. IP addresses for each server may be found in the Deployed Item Register (ref 4).

Genetec

The[redacted]The [redacted]

The Genetec server pairs run in an Active/Standby state with failover between the pairs managed by the primary directory application. Each Genetec server in each pair will be assigned one of two roles.

Role / Location	Directory Servers	Archiver Servers
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

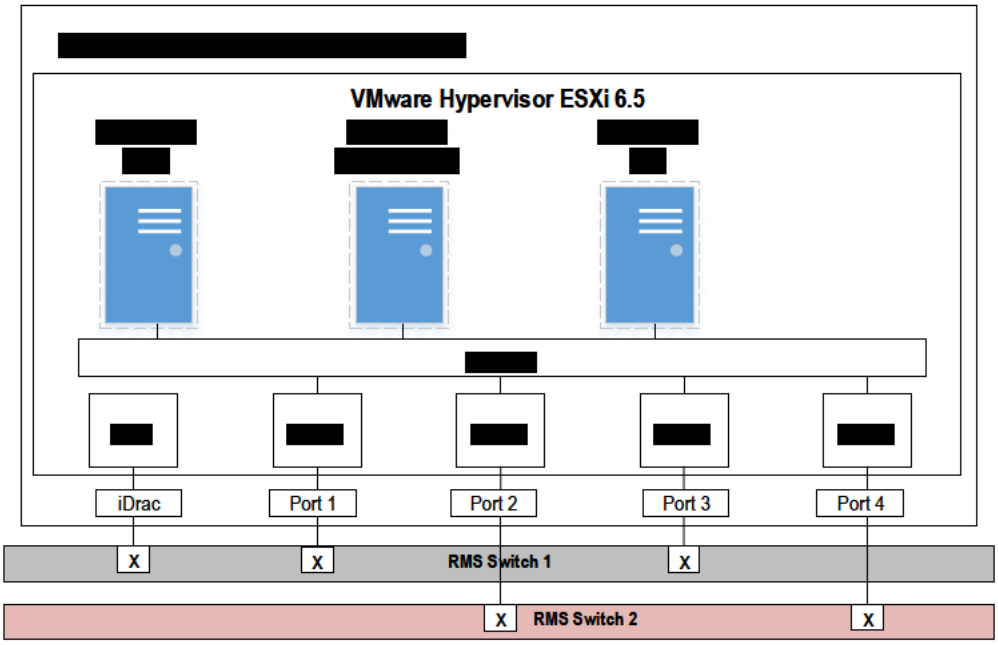
For more details on the each server and its infrastructure setup, please see the sub-sections below. IP addresses for each server may be found in the Deployed Item Register (ref 4).

4.1 ESX01 Server

The physical ESX01 Server will host the following virtual machines:

- Essential Server 1
- Mongo DB 1
- Load Balancer 1

For more details on the resources allocated to each virtual machine within the ESX01 server, please see the figure and tables below.

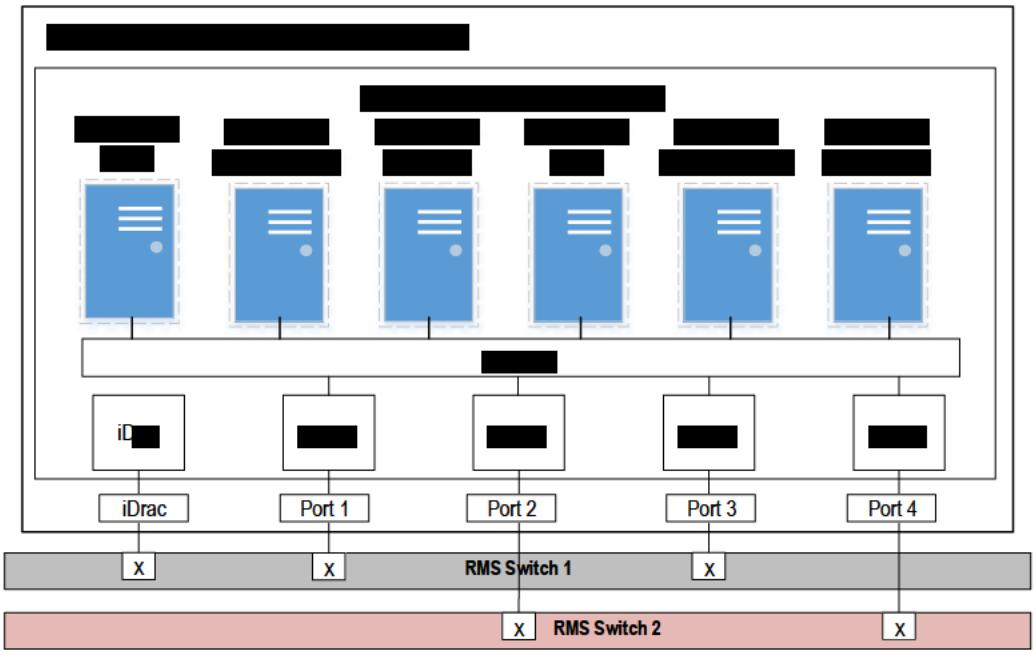


4.2 ESX02 Server

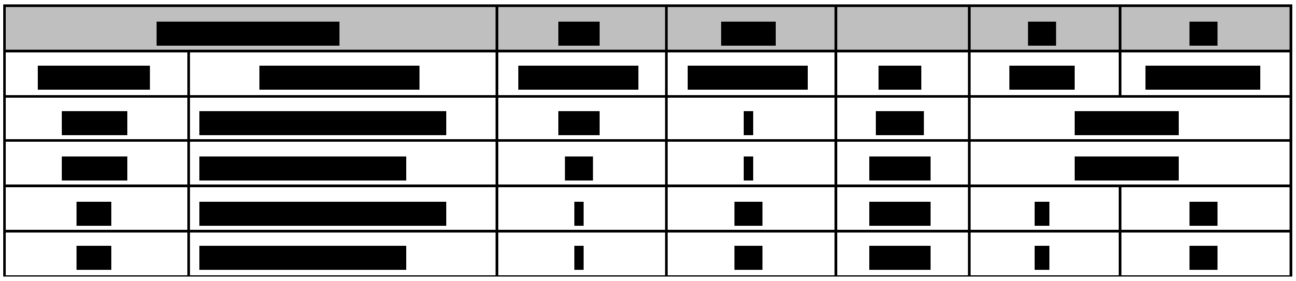
The physical ESX02 Server will host the following virtual machines:

- Application Server 1
- C2C Server 1
- Mongo DB 2
- Document Server 1
- PostgreSQL (RDBMS) 1
- Backup 2* (Cold Standby)

For more details on the resources allocated to each virtual machine within the ESX02 server, please see the figure and tables below.







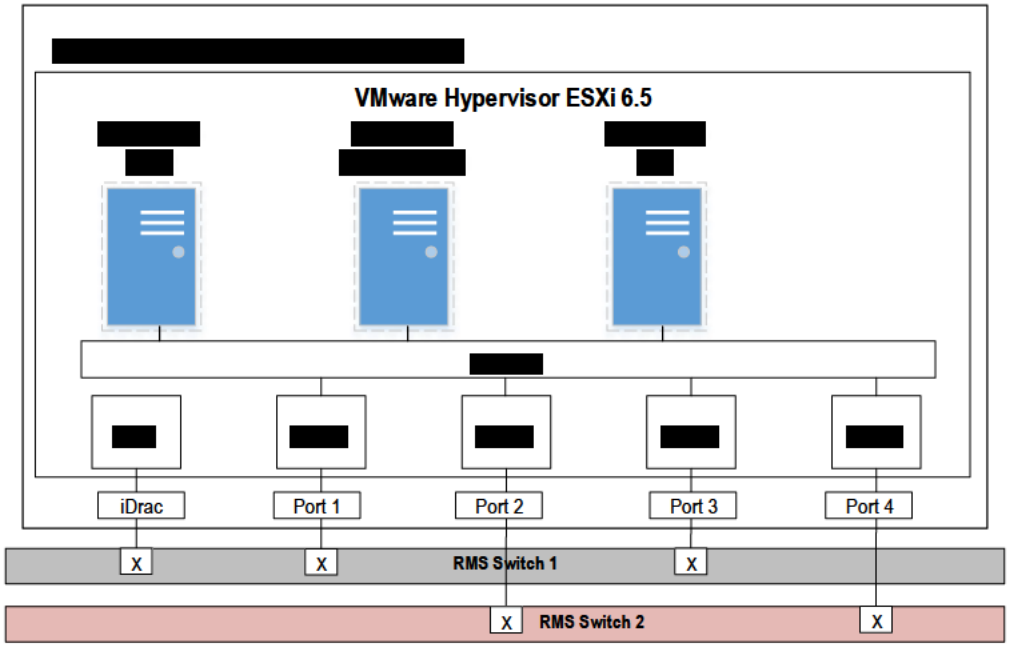
[redacted]

4.3 ESX03 Server

The physical ESX01 Server will host the following virtual machines:

- Essential Server 2
- Mongo DB 2
- Load Balancer 2

For more details on the resources allocated to each virtual machine within the ESX03 server, please see the figure and tables below.

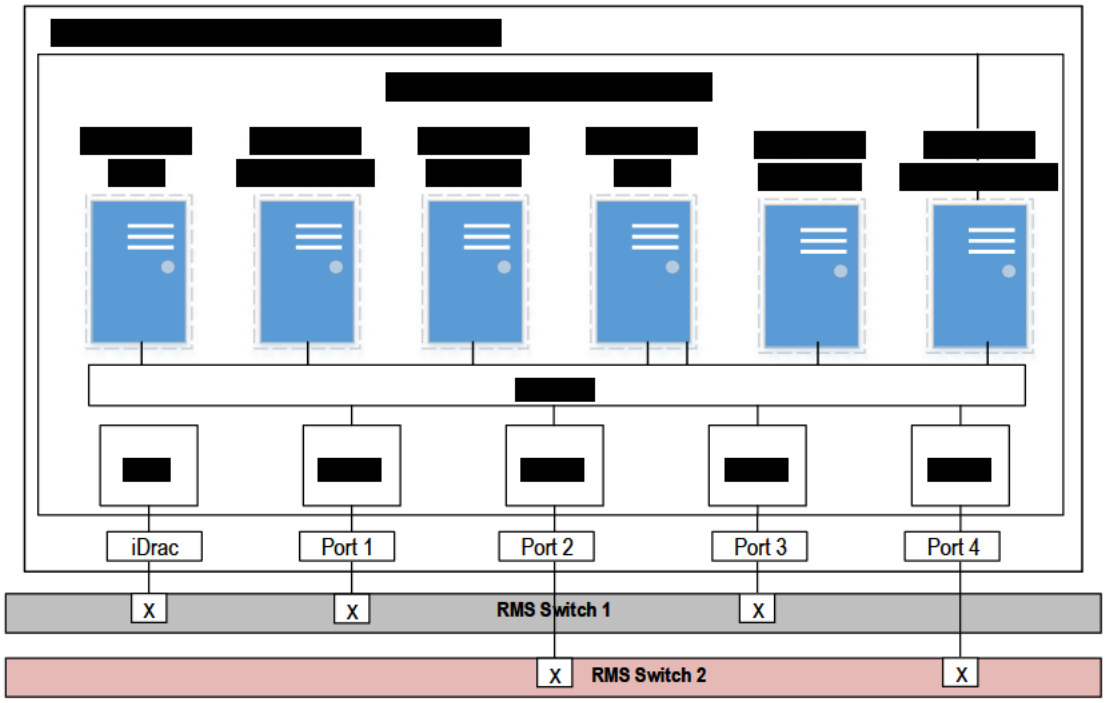


4.4 ESX04 Server

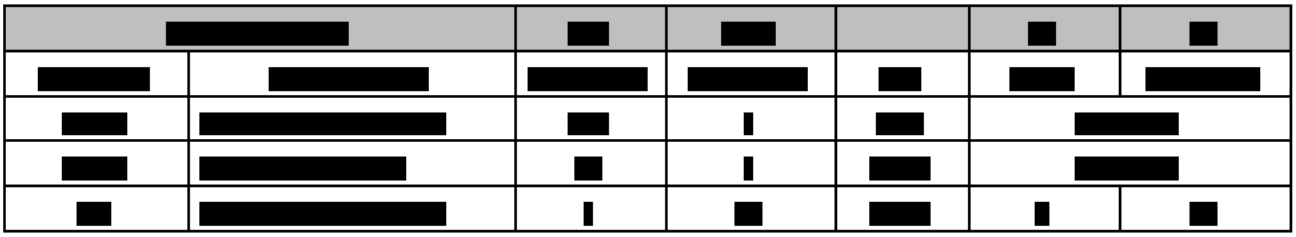
The physical ESX04 Server will host the following virtual machines:

- Application Server 2
- C2C Server 2
- Mongo DB 4
- Document Server 2* (Cold Standby)
- PostgreSQL (RDBMS) 2
- Backup 1

For more details on the resources allocated to each virtual machine within the ESX04 server, please see the figure and tables below.







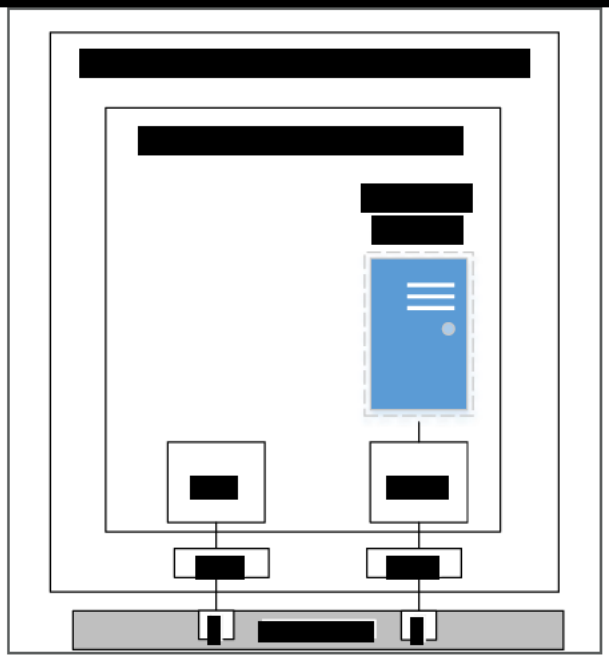
OS	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

[redacted]

4.5 ESX05 Arbiter Server

[redacted]

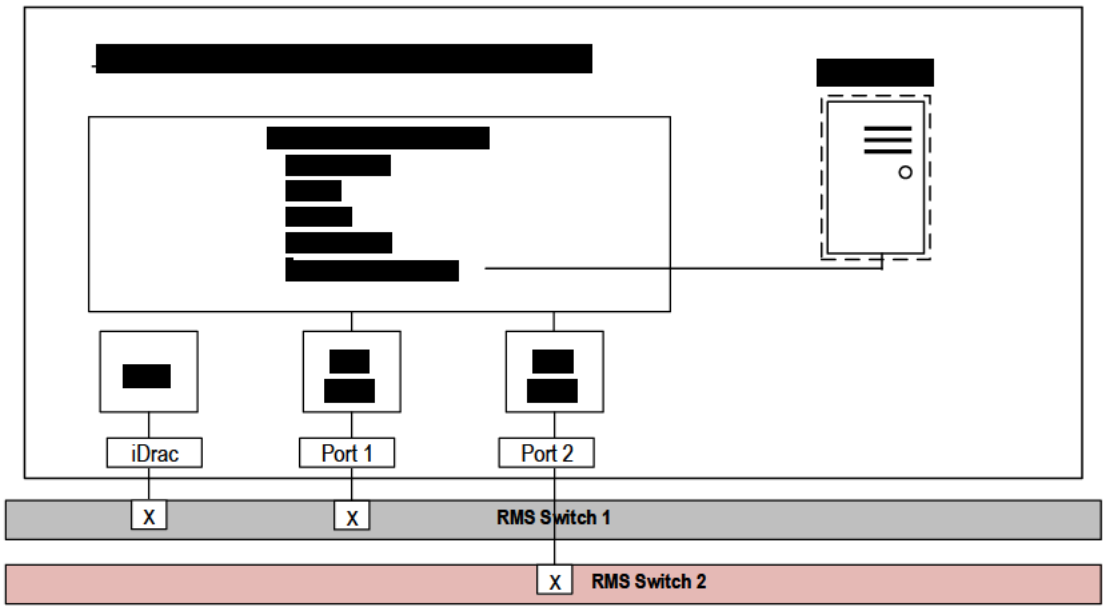


Server Resources				
[redacted]				
[redacted]				
[redacted]				
[redacted]				

[redacted]						
[redacted]						
[redacted]						
[redacted]						

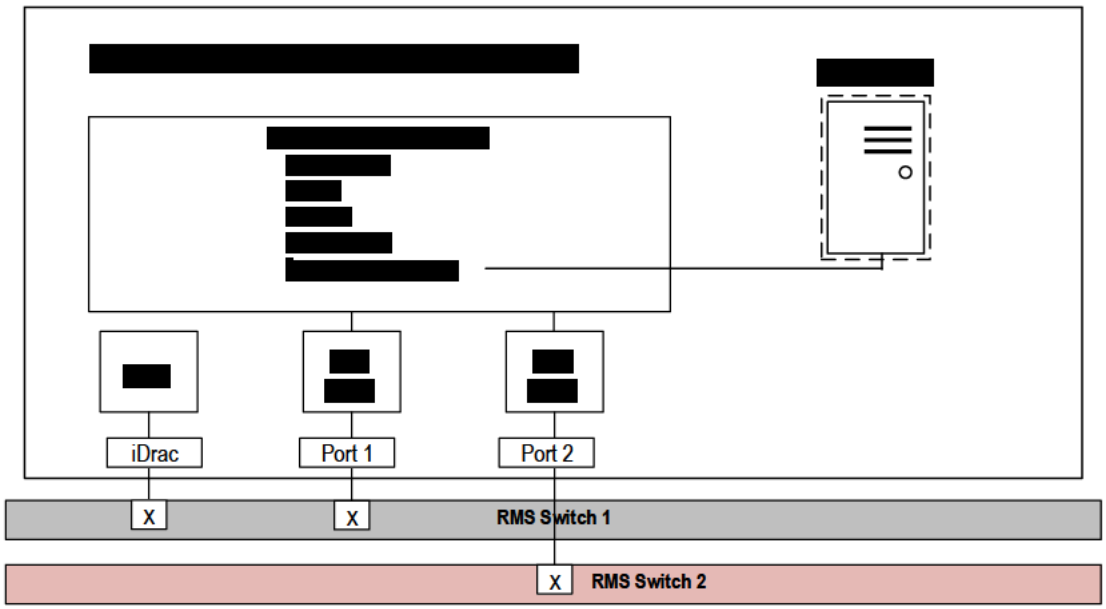
4.6 AIMSUN01 Server

For more details on the resources allocated to the AIMSUN 1 server, please see the figure and tables below.



4.7 AIMSUN02 Server

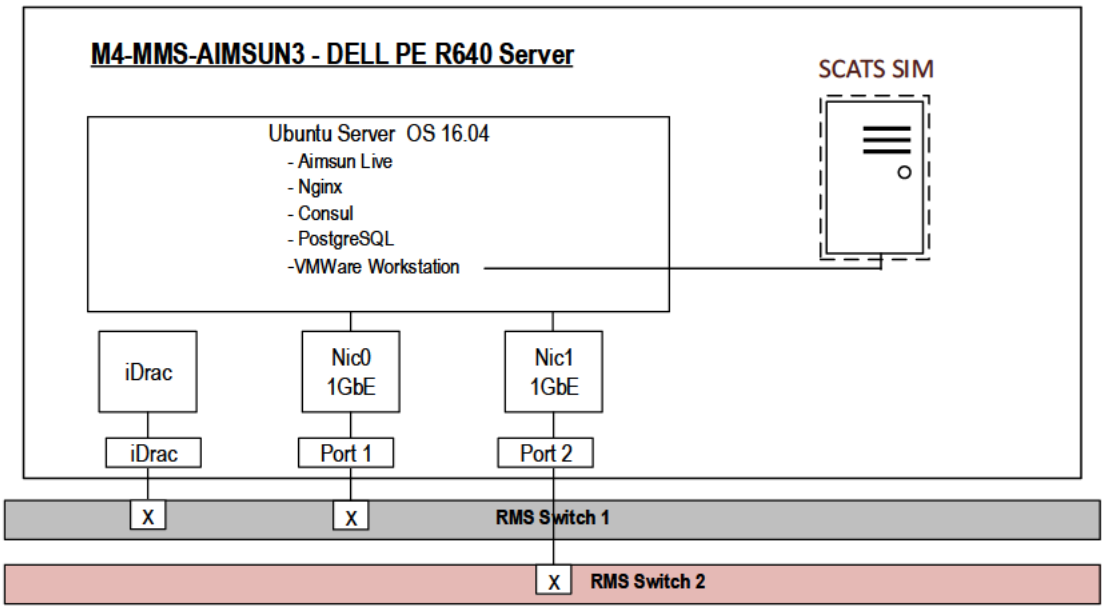
For more details on the resources allocated to the AIMSUN 2 server, please see the figure and tables below.



FREE:		**0**	**0**	**-**	**0**	**0**

4.8 AIMSUN03 Server

For more details on the resources allocated to the AIMSUN 3 server, please see the figure and tables below.



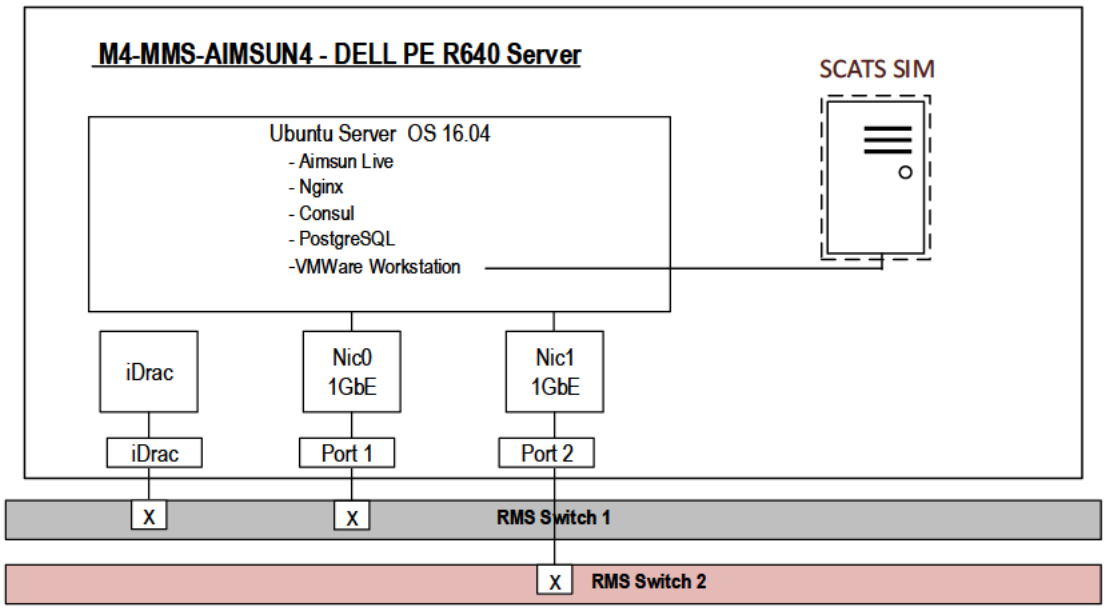
Server Resources				
CPU	**RAM**	**DISK 01**	**DISK 02**	**NIC**
2 x 8 Cores (32 vCores)	12 x 32 GB	DS01: 2 x 2 TB SATA 7.2K	DS02: 2 x 600 GB SAS 10K	2 x 10 GbE 2 x 1 GbE

Server Array Config					
Disk Size	**Count**	**Array Name**	**Array ID**	**RAID**	**Capacity (GB)**
2 TB	2	Application Datastore	DS01	1	2000
500 GB	2	Boot Datastore	DS02	1	500

M4-MMS-AIMSUN3		**2000**	**500**		**32**	**384**
Datastore	**VM Hostname**	**DS01 (GB)**	**DS02 (GB)**	**File**	**vCPU**	**RAM (GB)**
App / Boot	M4-MMS-AIMSUN2	1940	500	EXT4	28	368
App	M4-MMS-A2SCATS	60	-	EXT4	4	16
TOTAL:		**2000**	**500**	**-**	**32**	**384**
FREE:		**0**	**0**	**-**	**0**	**0**

4.9 AIMSUN04 Server

For more details on the resources allocated to the AIMSUN 4 server, please see the figure and tables below.



Server Resources				
CPU	**RAM**	**DISK 01**	**DISK 02**	**NIC**
2 x 8 Cores (32 vCores)	12 x 32 GB	DS01: 2 x 2 TB SATA 7.2K	DS02: 2 x 600 GB SAS 10K	2 x 10 GbE 2 x 1 GbE

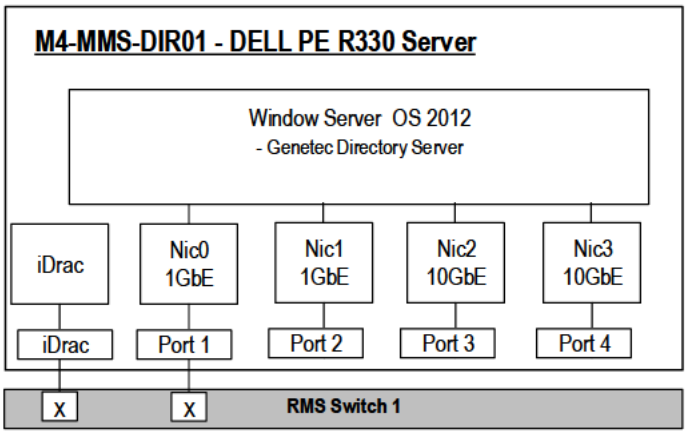
Server Array Config					
Disk Size	**Count**	**Array Name**	**Array ID**	**RAID**	**Capacity (GB)**
2 TB	2	Application Datastore	DS01	1	2000
500 GB	2	Boot Datastore	DS02	1	500

M4-MMS-AIMSUN4		**2000**	**500**		**32**	**384**
Datastore	**VM Hostname**	**DS01 (GB)**	**DS02 (GB)**	**File**	**vCPU**	**RAM (GB)**
App / Boot	M4-MMS-AIMSUN4	1940	500	EXT4	28	368
App	M4-MMS-A4SCATS	60	-	EXT4	4	16
TOTAL:		**2000**	**500**	**-**	**32**	**384**
FREE:		**0**	**0**	**-**	**0**	**0**

4.10 Genetec Directory 1 Server

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Directory 1 server, please see the figure and table below.



Server Resources				
CPU	**RAM**	**DISK 01**	**DISK 02**	**NIC**
1 x 4 Cores (8 vCores)	2 x 8 GB	DS01: 1 x 111.25 GB SATA	DS02: 1 x 111.25 GB SATA	2 x 1 Gbps (embedded Broadcom Gigabit Ethernet)

Server Array Config					
Disk Size	**Count**	**Array Name**	**Array ID**	**RAID**	**Capacity (GB)**
111.25 TB	2	RAID 1	Disk 0	1	111.25

4.11 Genetec Archiver 1 Server

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Archiver 1 server, please see the figure and table below.

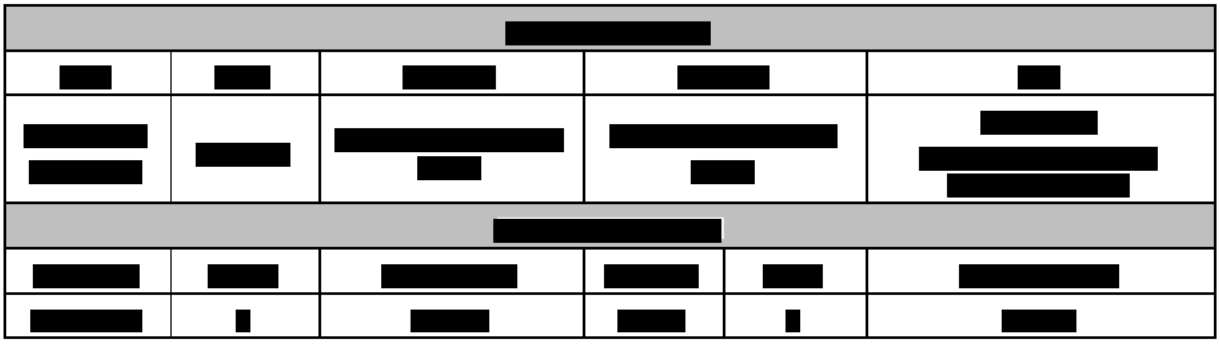


4.12 Genetec Directory 2 Server

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Directory 2 server, please see the figure and table below.





4.13 Genetec Archiver 2 Server

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Archiver 2 server, please see the figure and table below.



4.14 Workstation System Requirements

In order for a workstation to run the MMS Control Centre GUI, the following are the minimum system requirements:

- CPU: Quad Core i5
- RAM: 8 GB
- Hard Drive Space: 10 GB
- OS: Windows 7 / 10
- Standard Graphics

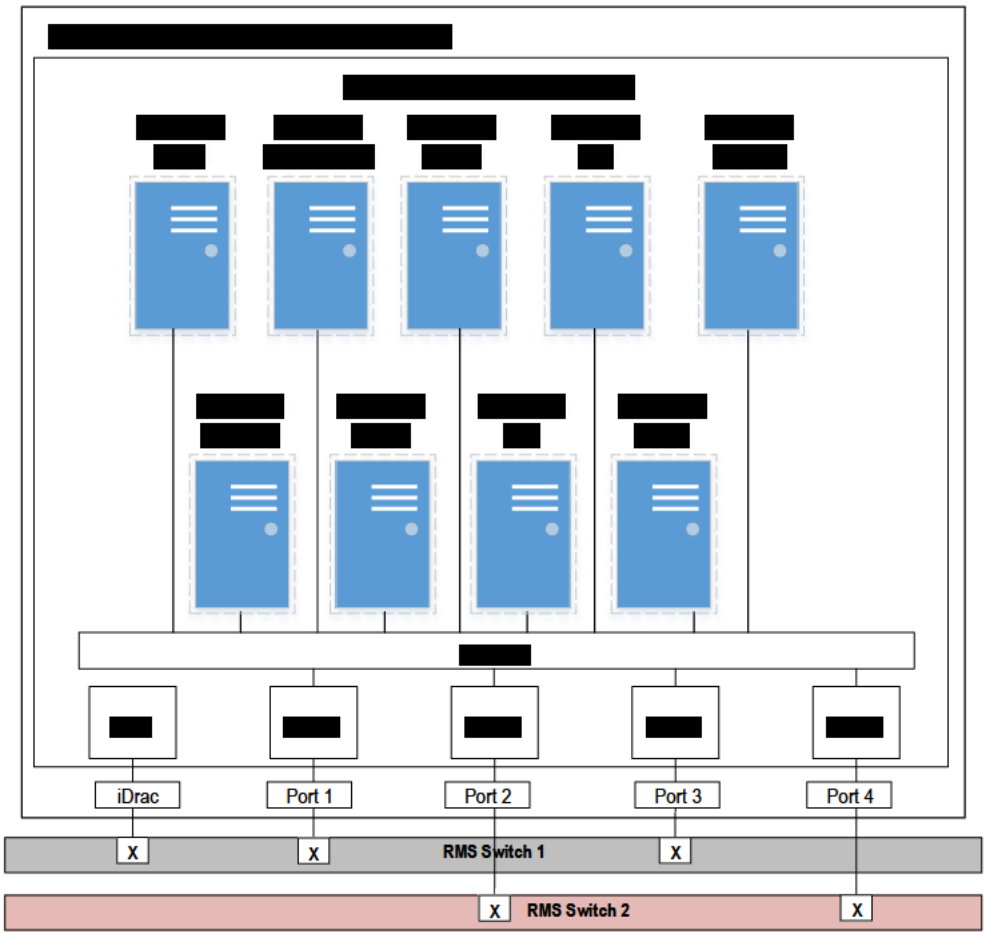
5. UAT Hardware

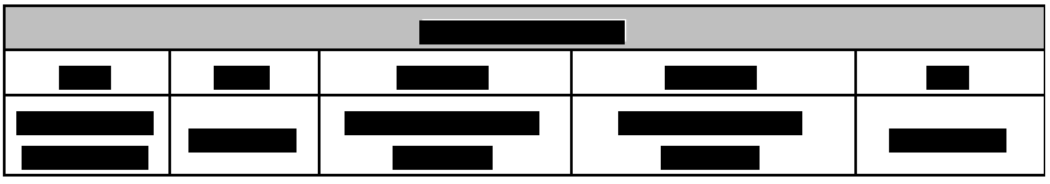
This section details the architecture of the hardware used in the UAT Environment of the MMS system.

The UAT Server will host the following virtual machines:

- UAT MMS Server
- UAT Web 1 (C2C1) Server
- UAT Web 2 (C2C2) Server
- UAT LB1
- UAT LB2
- UAT MONGODB
- UAT RDBMS (PostgreSQL)
- UAT BACKUP
- UAT WS

For more details on the resources allocated to each virtual machine within the UAT server, please see the figure and tables below.





[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]		[redacted]	[redacted]		[redacted]	[redacted]
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6. UAT2 Hardware

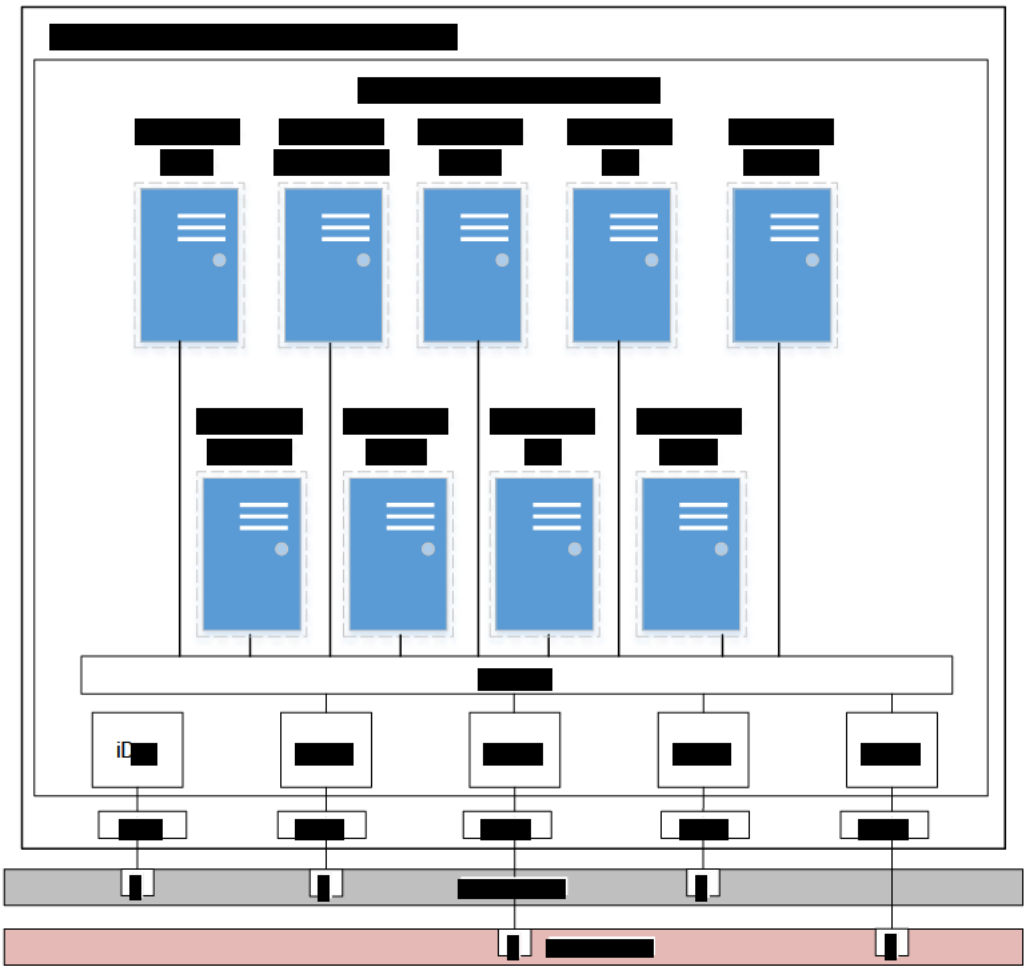
This section details the architecture of the hardware used in the UAT2 Environment of the MMS system.

6.1 MMS (MERIDIAN)

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted] resources allocated to each virtual machine within the UAT2 server, please see the figure and tables below.

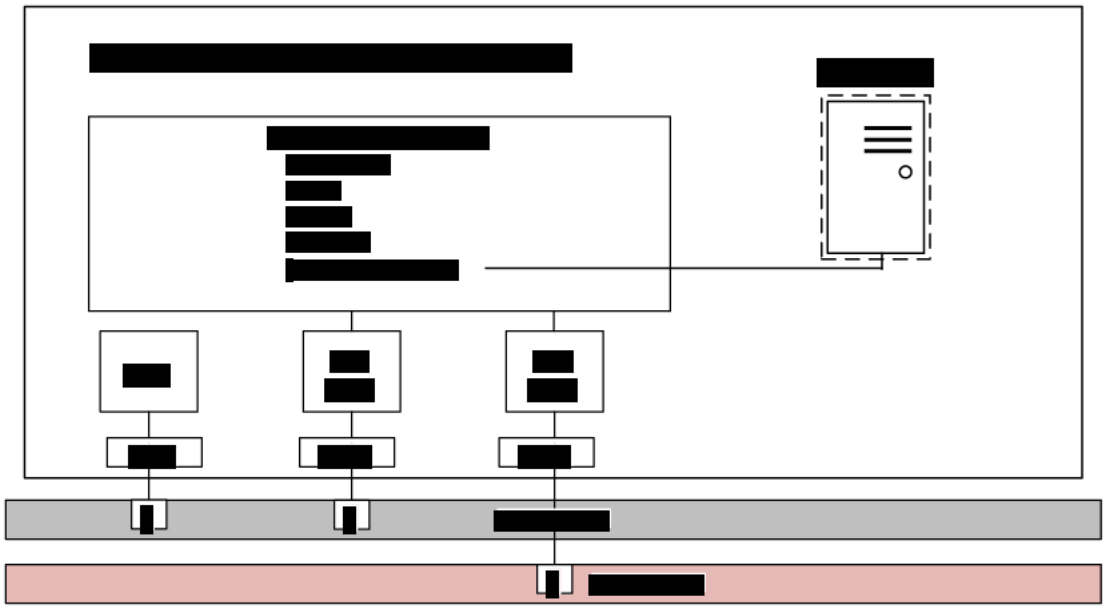

[redacted]
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Server Resources					
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[redacted]					
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

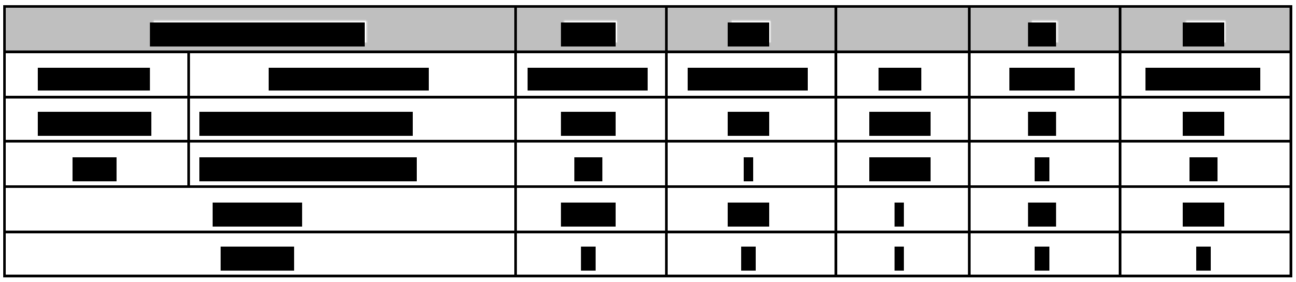
[redacted]		[redacted]	[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

6.2 AIMSUN05 TEST

A single Aimsun server will be deployed for use in the UAT2 environment: note this will not provide Aimsun failover functionality, as found in the Production environment. Unlike the Production environment, the two server roles, as described in Section 3.2, will be consolidated into the single server.





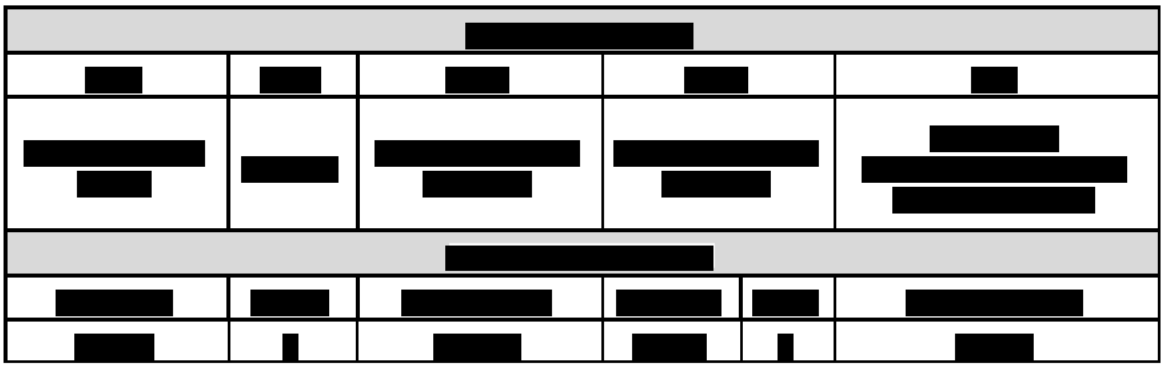


6.3 Genetec Directory 1

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Directory 1 server, please see the figure and table below.



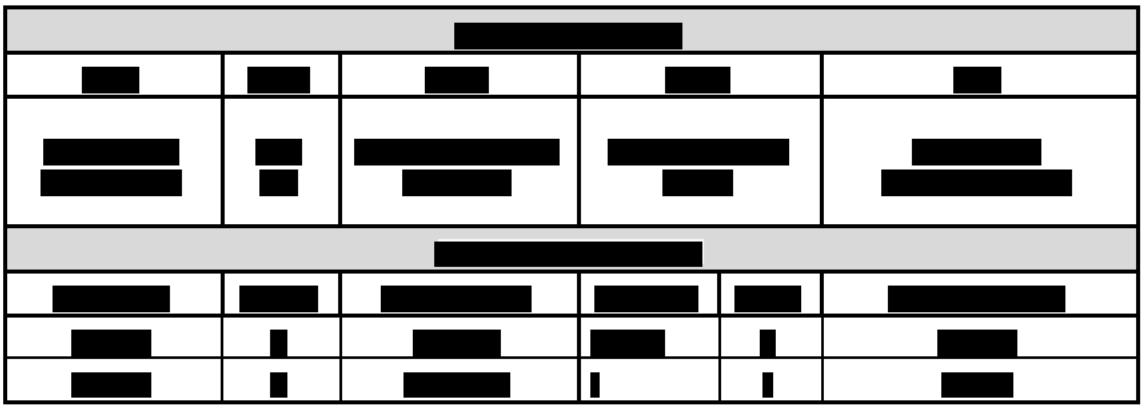


6.4 Genetec Archiver 1

There are no VMs hosted on this server.

For more details on the resources allocated to the Genetec Archiver 1 server, please see the figure and table below.





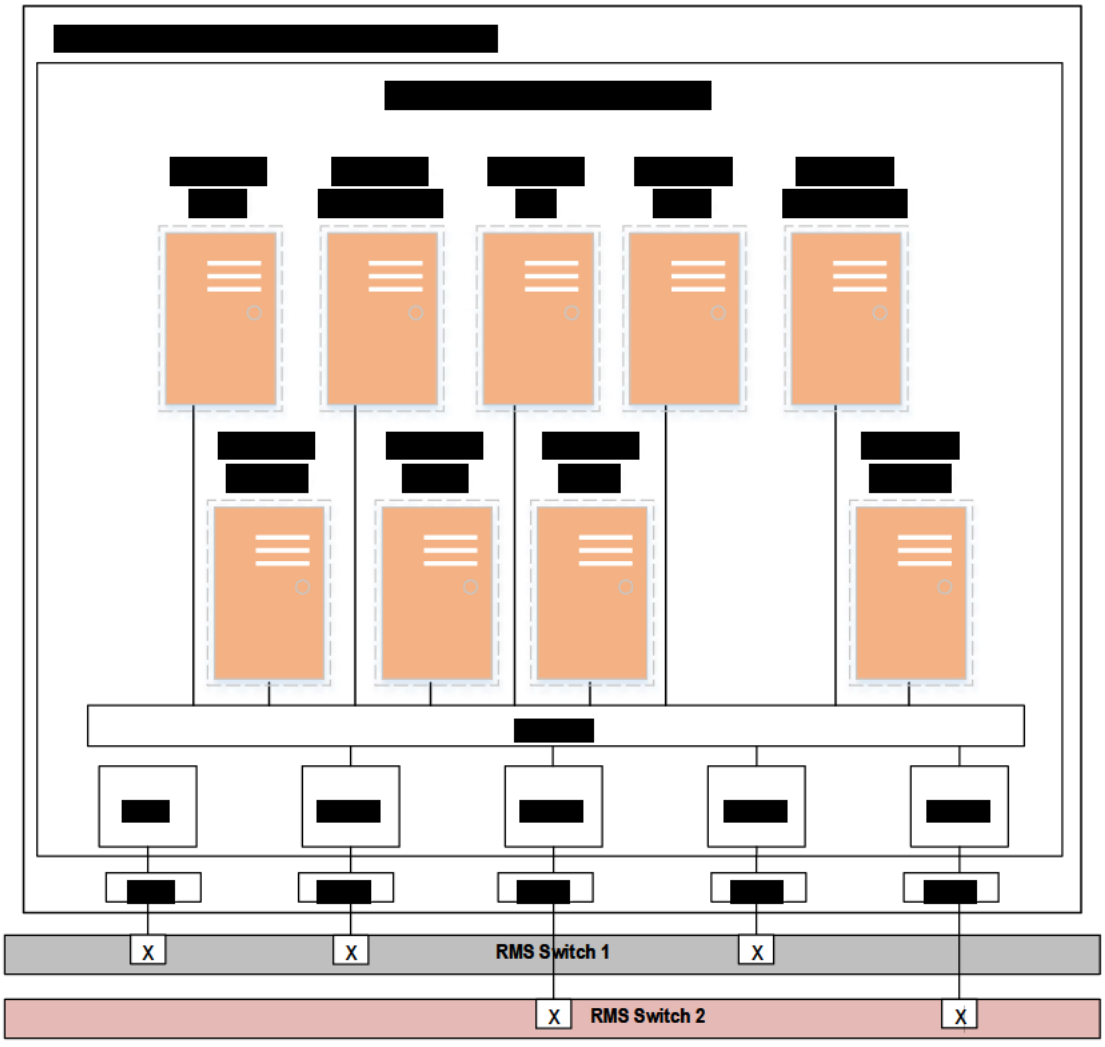
7. DEV & TRAIN Hardware

This section details the architecture of the hardware used in the Development & Training Environment of the MMS system.

The Development & Training environment will host the following virtual machines:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

For more details on the resources allocated to each virtual machine within the TRAINING server, please see the figure below.



Server Resources					
CPU	RAM	DISK 01	DISK 02		NIC
[redacted]	[redacted]	[redacted]	[redacted]		[redacted]
[redacted]					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

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[redacted]		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

8. Network Port & IP Address Requirements

8.1 Network Ports

The following equipment requires 1GbE base-t network ports to be provided on the RMS network;

#	Location	Description	Asset Name	Switch 1	Switch 2
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
			[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]	[redacted]	[redacted]

8.2 IP Addressing Requirements

The following tables provides a list of host that requires an IP address, Mask and gateway to be defined, these will be recorded within the Deployment Item Register (ref 4). Purpose column is provide to indicate the type of access need on the connection.

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

#	Location	Description	Host Name	Purpose
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Appendix 1: Dell PowerEdge R730 Specification



DELL EMC

POWEREDGE R730

A highly versatile, two-socket 2U rack server with impressive processor performance, a large memory footprint, extensive I/O options and a choice of dense, high performance storage or low-cost, high-capacity storage.

The PowerEdge R730 excels at a wide range of demanding workloads for midsize and large enterprises, such as data warehouses, e-commerce, virtual desktop infrastructure (VDI), databases and high-performance computing HPC) as a data node. When configured with 3.5" drives, the R730 provides up to 64TB of rapidly accessed storage for databases, business intelligence and HPC applications.

Deliver peak performance

Drive peak compute performance across a variety of workloads with the Intel® Xeon® processor E5-2600 v4 product family and state-of-the-art DDR4 memory. Boost data access for applications with up to 16 x 12Gbps SAS drives and high-performance dual RAID. Take advantage of advanced accelerators and GPUs to maximize performance in HPC, VDI and imaging environments.

Discover greater versatility

With 24 DIMMs of high-capacity, low-power DDR4 memory, seven PCI Express® (PCIe) 3.0 expansion slots and highly scalable local storage, the R730 is extremely flexible. Create a dense, resource-rich virtualization environment with up to 16 x 2.5" drives. Combine that with the R730's GPU capability to save infrastructure costs and consolidate management operations in a scalable and centralized virtual desktop environment. The GPU option also makes the R730 an excellent choice as a midrange medical imaging solution.

Maximize operational efficiency

PowerEdge servers let you construct and manage highly efficient infrastructures for data centers and small businesses. Accelerate time-to-production with automated deployment processes that use fewer manual steps and reduce the potential for error. Improve IT productivity with innovative at-the-server management tools like iDRAC Direct and iDRAC Quick Sync to deliver in-depth system health status and speed deployment. Optimize data center energy usage with improved performance-per-watt and more granular control of power and cooling.

Innovative management with intelligent automation

The Dell OpenManage systems management portfolio includes innovative solutions that simplify and automate essential server lifecycle management tasks — making IT operations more efficient and Dell EMC servers the most productive, reliable and cost effective. Leveraging the incomparable agent-free capabilities of the PowerEdge embedded Integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller technology, server deployment, configuration and updates are streamlined across the OpenManage portfolio and through integration with third-party management solutions.

Monitoring and control of Dell EMC and third-party data center hardware is provided by OpenManage Essentials and with anytime, anywhere mobile access, through OpenManage Mobile. OpenManage Essentials now also delivers Server Configuration Management capabilities that automate one:many PowerEdge bare-metal server and OS deployments, quick and consistent replication of configurations and ensure compliance to a predefined baseline with automated drift detection.

PowerEdge R730

- Latest Intel Xeon processor E5-2600 v4 product family with up to 22 cores
- Up to 24 DIMMs of high-capacity DDR4 memory
- Up to 7 PCIe 3.0 expansion slots
- Up to 2 internal GPU accelerators

Feature	PowerEdge R730 technical specification
Form factor	2U rack
Dimensions	H: 8.73 cm (3.44 in), W: 44.40 cm (17.49 in), D: 68.40 cm (26.92 in)
Processor	Intel® Xeon® processor E5-2600 v4 product family
Processor sockets	2
Cache	2.5MB per core; core options: 4, 6, 8, 10, 12, 14, 16, 18, 22
Chipset	Intel C610 series chipset
Memory[1]	Up to 3TB (24 DIMM slots): 4GB/8GB/16GB/32GB/64GB/128GB DDR4 up to 2400MT/s
I/O slots	Up to 7 x PCIe 3.0 plus dedicated PERC slot
RAID controllers	**Internal controllers:** PERC S130 (SW RAID), PERC H330, PERC H730, PERC H730P **External HBAs (RAID):** PERC H830 **External HBAs (non-RAID):** 12Gbps SAS HBA
Drive bays	**Internal hard drive bay and hot-plug backplane:** Up to 16 x 2.5" HDD: SAS, SATA, nearline SAS SSD: SAS, SATA Up to 8 x 3.5" HDD: SAS, SATA, nearline SAS SSD: SAS, SATA
Maximum internal storage[1]	HDD: SAS, SATA, nearline SAS SSD: SAS, SATA 16 x 2.5" – up to 29TB via 1.8TB hot-plug SAS hard drives 8 x 3.5" – up to 64TB via 8TB hot-plug NL SAS hard drives
Embedded NIC	4 x 1GbE, 2 x 10+2GbE, 4 x 10GbE NDC
Power supplies	Titanium efficiency 750W AC power supply; 1100W DC power supply; Platinum efficiency 495W, 750W, 1100W AC power supply;
Availability	ECC memory, hot-plug hard drives, hot-plug redundant cooling, hot-plug redundant power, internal dual SD module, single device data correction (SDDC), spare rank, tool-less chassis, support for high availability clustering and virtualization, proactive systems management alerts, iDRAC8 with Lifecycle Controller
Remote management	iDRAC8 with Lifecycle Controller, iDRAC8 Express (default), iDRAC8 Enterprise (upgrade) 8GB vFlash media (upgrade), 16GB vFlash media (upgrade)
Systems management	IPMI 2.0 compliant Dell OpenManage Essentials Dell OpenManage Mobile Dell OpenManage Power Center Dell OpenManage Integrations: - Dell OpenManage Integration Suite for Microsoft® System Center - Dell OpenManage Integration for VMware® vCenter™ Dell OpenManage Connections: - HP Operations Manager, IBM Tivoli® Netcool® and CA Network and Systems Management - Dell OpenManage Plug-in for Oracle® Database Manager
Rack support	ReadyRails™ II sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded hole racks, with support for optional tool-less cable management arm.
Operating systems	Microsoft Windows Server® 2008/2012 SP2, x86/x64 (x64 includes Hyper-V®) Microsoft Windows Server 2008/2012 R2, x64 (includes Hyper-V) Microsoft Windows HPC Server 2008 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux **Optional embedded hypervisors:** Citrix® XenServer® VMware vSphere® ESXi™ Microsoft Windows Server 2012, includes Hyper-V For more information on the specific versions and additions, visit Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.

[1] GB equals 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

Recommended services

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit Dell.com/itlifecycleservices.

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.*

Learn more at Dell.com/PowerEdge

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Appendix 2: Dell PowerEdge R230 Specification



DELL EMC

POWEREDGE R230

Powerful and efficient 1-socket rack server for small and medium businesses (SMB) and remote office/branch office (ROBO).

The Dell EMC PowerEdge R230 is an excellent first server or replacement server for driving applications in SMB. Compared to the previous-generation PowerEdge R220, the R230 delivers greater memory capacity, more hard drives and I/O slots, and accelerates data throughput and IOPs performance. The R230 also supports the full-featured, remote management of the integrated Dell Remote Access Controller (iDRAC8) with Lifecycle Controller, making it highly attractive for ROBOs of large institutions.

Discover greater versatility

Accommodate data growth over time with up to four internal 3.5-inch cabled or hot-plug hard drives. Expand memory capacity with four DIMM slots supporting up to 64GB of DDR4 memory to drive application performance and fast response times. Adapt flexibly to changing workload conditions with a virtualization-ready server supporting Microsoft® Windows Server® with Hyper-V® and VMware® vSphere® ESXi®.

Deliver powerful performance

Accelerate compute performance across a wide range of applications with a processor from the latest Intel® Xeon® processor E3-1200 v6 product family. Drive 50% faster clock speed with enhanced DDR4 memory compared to DDR3 which is 12.5% faster than the initial 2133 MT/s implementation of DDR4. Boost I/O data throughput with 2 x PCIe 3.0 slots driving 2x data throughput compared to PCIe 2.0. Deliver 2x IOPS performance with R230/PERC9 compared to the previous-generation R220/PERC8.

Maximize operational efficiency

Deploy smoothly and rapidly with Dell OpenManage systems management solutions. Easily monitor system health and behavior with the simple, intuitive OpenManage Essentials console. Gain additional levels of convenience and high-availability protection with hot-plug hard drives.

Innovative management with intelligent automation

The Dell OpenManage systems management portfolio includes innovative solutions that simplify and automate management tasks, making IT operations more efficient and more cost-effective throughout the server life cycle. Leveraging the incomparable agent-free capabilities of the embedded iDRAC with Lifecycle Controller, server deployment, configuration and updates are rapid and worry-free. Remote monitoring and control of the R230 is provided by OpenManage Essentials and can also enable anytime, anywhere mobile access, through OpenManage Mobile.

PowerEdge R230

- 1-socket rack server with a choice of latest Intel Xeon E3-1200 v6 processors
- Up to 4 x DDR4 DIMMs
- Up to 4 x 3.5" hard drives

Feature	Technical specification
Form factor	1U rack server
Dimensions and weight	H: 42.8 mm (1.67 in), W: 434.0 mm (17.09 in), D: 495 mm (19.5 in) w/o ear, w/o bezel Max weight: 10.6 kg (20.96 lb)
Processor	1 processor from the following product families: - Intel® Xeon® processor E3-1200 v6 product family - Intel Pentium® - Intel Core™ i3 - Intel Celeron®
Chipset	Intel C236
Operating system	Microsoft® Windows Server® 2016, Microsoft® Windows Server® 2012 Microsoft Windows Server 2012 R2, x64 Red Hat® Enterprise Linux® VMware® Vsphere® ESXi® SUSE® Linux Enterprise Server®
Memory	Architecture: Up to 2400MT/s DDR4 DIMMs Memory type: UDIMMs Memory module sockets: 4 Maximum RAM: Up to 64GB
Hypervisor support	Microsoft Windows Server with Hyper-V® VMware® vSphere® ESXi®
Storage	- 2.5" SATA 7.2k - 2.5" nearline SAS 7.2k - 2.5" 10k SAS HDDs - 2.5" 15K SAS HDDs - 2.5" SATA SSDs - 3.5" Enterprise SATA 7.2k HDDs - 3.5" nearline SAS 7.2k HDDs - 3.5" 7.2k SATA entry drives
Drive bays	2 x 3.5" cabled HDD 4 x 3.5" cabled HDD 4 x 3.5" hot-swap or 2.5" hot-swap in hybrid drive carrier
Slots	2 x PCIe 3.0 slots: x16 slot, full-height (1x8 3.0)+ x8 slot, low-profile (1x4 3.0)
RAID controllers	PERC S130, PERC H330, PERC H730, PERC H830
Network controller	Broadcom® 5720
Communications	2 x 1GbE LOM Click here for R230 supported network interface cards (NICs) and host bus adapters (HBAs) and scroll to "Additional Network Cards" section.
Power	250W cabled PSU
Chassis	- 2 x 3.5" cabled HDD 19.5" 1U chassis - 4 x 3.5" cabled HDD 19.5" 1U chassis - 4 x 3.5" hot-swap or 2.5" hot-swap in hybrid drive carrier
Management	**Systems management** - IPMI 2.0 compliant - Dell OpenManage Essentials - Dell OpenManage Mobile - Dell OpenManage Power Center **Remote management** iDRAC8 with Lifecycle Controller, iDRAC8 Express (default), iDRAC8 Enterprise (upgrade), 8GB vFlash media (upgrade), 16GB vFlash media (upgrade) Dell OpenManage Connections: - HP Operations Manager, IBM Tivoli® Netcool® and CA Network and Systems Management, Dell OpenManage Plug-in for Oracle® Enterprise Manager Dell OpenManage Integrations: - Dell OpenManage Integration Suite for Microsoft System Center, Dell OpenManage Integration for VMware vCenter®
Device access	5 total USB: Rear: 2 x USB 3.0 ports Front: 2 x USB 2.0 ports Internal: 1 x USB 3.0 port
Rack support	ReadyRails™ static rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded and 2-post racks.

Recommended services

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit Dell.com/itlifecycleservices.

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.*

Learn more at Dell.com/PowerEdge

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Appendix 3: Dell PowerEdge R640 Specification

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R640 SPEC SHEET

POWEREDGE R640

Uncompromising performance and density



The PowerEdge R640 is the ideal dual-socket, 1U platform for dense scale-out data center computing. The R640 combines density, performance and scalability to optimize application performance and data center density.

Maximize application performance and density

The scalable business architecture of the R640 is designed to maximize application performance and provide the flexibility to optimize configurations based on the application and use case. With the R640 you can create an NVMe cache pool and use either 2.5" or 3.5" drives for data storage. Combined with up to 24 DIMM's, 12 of which can be NVDIMM's, you have the resources to maximize application performance with the optimum configuration in only a 1U chassis.

- Simplify deployments and speed deployments with Dell EMC ready nodes for ScaleIO and VSAN.
- Maximize storage performance with up to 10 NVMe drives or 12 2.5" drives.
- Scale compute resources with 2nd Generation Intel® Xeon® Scalable processors and tailor performance based on your unique workload requirements.

Automate maintenance with Dell EMC OpenManage

The Dell EMC OpenManage™ portfolio helps deliver peak efficiency for PowerEdge servers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R640 is simply managed, freeing up time for high profile projects.

- Simplify management with the OpenManage Enterprise™ console, with customized reporting and automatic discovery.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Guard your data center with built in security

Every PowerEdge server is designed as part of a cyber resilient architecture, integrating security into the full server life cycle. The R640 leverages new security features built-into every new PowerEdge server strengthening protection so you can reliably and securely deliver accurate data to your customers no matter where they are. By considering each aspect of system security, from design to retirement, Dell EMC ensures trust and delivers a worry-free, secure infrastructure without compromise.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

PowerEdge R640

Deliver fast performance and reduce latency with NVMe drives

R640 Spec Sheet
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PowerEdge R640

Features	Technical Specification
Processor	Up to two 2nd Generation Intel® Xeon® Scalable processors, up to 28 cores per processor
Memory	24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2933MT/s, 3TB max Up to 12 NVDIMM, 192 GB Max Supports registered ECC DDR4 DIMMs only
Storage controllers	Internal controllers: PERC H330, H730p, H740p, Software RAID (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 240GB, 480GB External PERC (RAID): H640 12Gbps SAS HBAs (non-RAID): External - 12Gbps SAS HBA (non-RAID), Internal - HBA330 (non-RAID)
Drive bays	Front drive bays: Up to 10 x 2.5" SAS/SATA (HDD/SSD) with up to 8 NVMe SSD max 76.8TB or up to 10 NVMe drives max 64TB, or up to 4 x 3.5" SAS/SATA HDD max 56TB Rear drive bays: Up to 2 x 2.5" SAS/SATA (HDD/SSD), NVMe SSD max 15.36TB Optional DVD-ROM, DVD+RW
Power supplies	Titanium 750W, Platinum 495W, 750W, 1100W, and 1600W 48VDC 1100W, 380HVDC 1100W, 240HVDC 750W Hot plug power supplies with full redundancy option
Dimensions	Form factor: Rack (1U) Max depth: 757.75mm – For the 8 x 2.5" front bay drive configuration. 808.51mm – For the 4 x 3.5" or 10 x 2.5" front bay drive configurations (plus up to 2 rear drives).
Embedded management	IPMI 2.0 compliant iDRAC9 with Lifecycle Controller (Express, Enterprise) Quick Sync 2 wireless module optional
Bezel	Optional LCD bezel or security bezel
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight (available from BMC) Red Hat Ansible Connections: Nagios Core & Nagios XI Micro Focus Operations Manager I (OMI) IBM Tivoli Netcool/OMNIbus
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Secure Boot System Lockdown Secure erase
I/O & Ports	Network daughter card options 4 x 1GE or 2 x 10GE + 2 x 1GE or 4 x 10GE or 2 x 25GE Front ports: Video, 1 x USB 2.0, available USB 3.0, dedicated iDRAC Direct USB Rear ports: Video, serial, 2 x USB 3.0, dedicated iDRAC network port Video card: VGA, NVIDIA NVS310 available as PCIe card Up to 3 x Gen3 slots, all x16
Accelerator options	Up to 1 single-width GPU or up to 1 single-width FPGA See Dell.com/GPU for latest information.
Supported operating systems	Canonical® Ubuntu® LTS Citrix® XenServer® Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux SUSE® Linux Enterprise Server VMware® ESXi For specifications and interoperability details, see Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit Dell.com/ServiceDescriptions.

Learn more at Dell.com/PowerEdge

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Appendix 4: Dell PowerEdge R330 Specification



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POWEREDGE R330

Powerful and versatile 1-socket rack server for small and medium businesses (SMB) and remote office/branch office (ROBO).

The Dell EMC PowerEdge R330 is an excellent first server or replacement server for SMB and also highly attractive as an affordable ROBO server for large institutions. Compared to the previous-generation PowerEdge R320, the R330 supports DDR4 memory vs. DDR3, PERC9 vs. PERC8, the integrated Dell Remote Access Controller 8 (iDRAC8) vs. iDRAC7, and an Intel® Xeon® E3 processor vs. an Intel Xeon E5 in the previous-generation server.

Discover greater versatility

Harness data growth with up to four internal 3.5-inch cabled or hot-plug hard drives, or up to eight 2.5-inch hot-plug hard drives. Grow memory capacity through time with four DIMM slots supporting up to 64GB of DDR4 memory to drive application performance and rapid response times. Adapt flexibly to changing workload conditions with a virtualization-ready server supporting Microsoft® Windows Server® with Hyper-V®, VMware® vSphere® ESXi® and Red Hat® Enterprise Virtualization.

Deliver powerful performance

Accelerate system boot time with up to two optional 1.8-inch SSDs. Drive 50% faster clock speed with enhanced DDR4 memory compared to DDR3, which is 12.5% faster than the initial 2133 MT/s implementation of DDR4. Boost I/O data throughput with two PCIe 3.0 slots for 2x data throughput compared to PCIe 2.0. Deliver 2x IOPS performance with R330/PERC9 compared to the previous-generation R320/PERC8.

Maximize operational efficiency

Deploy smoothly and rapidly with Dell OpenManage systems management solutions. Easily monitor system health and behavior with simple, intuitive OpenManage Essentials console. Gain additional levels of convenience and high availability protection with hot-plug hard drives and power supplies.

Innovative management with intelligent automation

The Dell OpenManage systems management portfolio includes innovative solutions that simplify and automate management tasks, making IT operations more efficient and more cost-effective throughout the server lifecycle. Leveraging the incomparable agent-free capabilities of the embedded iDRAC with Lifecycle Controller, server deployment, configuration and updates are rapid and worry-free. Remote monitoring and control of the R330 is provided by OpenManage Essentials and can also enable anytime, anywhere mobile access through OpenManage Mobile.

PowerEdge R330

- 1-socket rack server with a powerful Intel Xeon E3-1200 v6 processor
- Up to 4 x DDR4 DIMMs
- Up to 4 x 3.5" hard drives or up to 8 x 2.5" hard drives

Feature	Technical specification	
Form factor	1U rack server	
Dimensions and weight	H: 42.8 mm (1.68 in) W: 482.4 mm (18.99 in) with rack latches; 434.0 mm (17.08 in) without rack latches D (includes bezel): 677.3 mm (26.66 in) with redundant power supply unit	Weight 4-drive bay chassis: 6.0 kg (13.22 lb) empty. 13.8 kg (30.42lb) maximum configuration 8-drive bay chassis: 6.4 kg (14.1lb) empty. 13.4 kg (29.54lb) maximum configuration
Processor	1 processor from the following product families: · Intel® Xeon® processor E3-1200 v6 product family · Intel Pentium® · Intel Core™ i3 · Intel Celeron®	
Chipset	Intel C236	
Operating system	Microsoft® Windows Server® 2016, Microsoft® Windows Server® 2012 Microsoft Windows Server 2012 R2, x64 Red Hat® Enterprise Linux® VMware® vSphere® ESXi® SUSE® Linux Enterprise Server	
Memory	Architecture: Up to 2400MT/s DDR4 DIMMs Memory type: UDIMMs Memory module sockets: 4 Maximum RAM: Up to 64GB	
Hypervisor support	Microsoft Windows Server with Hyper-V® VMware® vSphere® ESXi® Red Hat Enterprise Virtualization	
Storage	· 1.8" SSDs · 2.5" SATA SSDs · 2.5" SATA 7.2k · 2.5" SAS 15k HDDs	· 2.5" nearline SAS 7.2k · 2.5" SAS 10K HDDs · 3.5" Enterprise SATA 7.2k HDDs · 3.5" nearline SAS 7.2k HDDs
Drive bays	· Up to 4 x 3.5" cabled HDD plus optional 2 x 1.8" SSD cabled · Up to 4 x 3.5" hot-swap HDD · Up to 8 x 2.5" hot-swap HDD · UP to 4 x 2.5" hot-swap HDD (available via hybrid drive carrier)	
Slots	2 x PCIe 3.0 slots + 1 slot for internal storage	
RAID controllers	Internal controllers: PERC S130, PERC H330, PERC H730, PERC H830	
Network controller	2 x 1GbE	
Communications	2 x 1GbE LOM Click here for R330 supported network interface cards (NICs) and host bus adapters (HBAs) and scroll to "Additional Network Cards" section.	
Power	Up to 2 x 350W hot-plug redundant power supplies	
Management	**Systems management** · IPMI 2.0 compliant · Dell OpenManage Essentials · Dell OpenManage Mobile · Dell OpenManage Power Center **Remote management** iDRAC8 with Lifecycle Controller, iDRAC8 Express (default), iDRAC8 Enterprise (upgrade). 8GB vFlash media (upgrade), 16GB vFlash media (upgrade)	Dell OpenManage Connections: · HP Operations Manager, IBM Tivoli® Netcool® and CA Network and Systems Management, Dell OpenManage Plug-in for Oracle® Database Manager Dell OpenManage Integrations: · Dell OpenManage Integration Suite for Microsoft System Center, Dell OpenManage Integration for VMware vCenter®
Device access	5 total USBs: 2 front; 2 rear; 1 internal	
Rack support	ReadyRails™ II sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded hole racks, with support for optional tool-less cable management arm.	

Recommended services

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit Dell.com/itlifecycleservices.

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Appendix 5: Dell PowerEdge R730xd Specification



PowerEdge R730xd

An exceptionally flexible and scalable, two-socket 2U rack server that delivers high-performance processing and a broad range of workload-optimized local storage possibilities, including hybrid tiering.

Designed with an incredible range of configurability, the PowerEdge R730xd meets the needs of many different workloads with the latest Intel® Xeon® processor E5-2600 v4 product family, 24 DIMMs of high-performance DDR4 memory and a broad range of local storage options.

Drive peak performance

Accelerate application performance with the latest technologies and dynamic local storage. Scale quickly and easily with front-accessible devices, ranging from low-cost SATA hard drives to 1.8" ultra-fast, low-latency PowerEdge Express Flash NVMe PCIe SSDs. Use hybrid storage configurations to tailor the R730xd to your workload needs and implement tiered-storage efficiencies. Combine 24-drive capacity with dual- PERC capability to drive storage performance and take advantage of new Dell caching technologies to boost application performance even more.

Discover greater versatility

Unlike previous PowerEdge servers, the R730xd can be tailored for application performance by mixing high-speed 1.8" SSDs and low-cost, high-capacity 3.5" hard drives in a single hybrid chassis, enabling accelerated data access through in-server storage tiering.

- In its 24-drive, dual-PERC configuration, the R730xd can be an excellent database server delivering more than one million IOPS performance.
- Combine 26 drives with 24 DIMMs of memory and six PCI Express® (PCIe) expansion slots to provide a resource-rich virtualization environment.
- With up to four ultra-fast, ultra-low latency Express Flash NVMe PCIe SSDs, the R730xd can boost performance on critical workloads and share the cache with other server.
- In its low-cost 16 x 3.5" drive configuration with up to 128TB capacity, the R730xd is an excellent Microsoft® SharePoint® and Exchange® server for unified communications and collaboration (UC&C) and delivers the scale-out storage efficiency demanded by today's XaaS providers, Hadoop/big data users and co-location hosting.

Maximize operational efficiency

PowerEdge servers let you construct and manage highly efficient infrastructures for data centers and small businesses. Accelerate time-to-production with automated deployment processes that use fewer manual steps and reduce human error. Improve IT productivity in the data center with innovative at-the-server management tools, like iDRAC Quick Sync and iDRAC Direct to deliver in-depth system health status and speed deployment. Optimize data center energy usage with improved performance-per-watt and more granular control of power and cooling.

Innovative management with intelligent automation

The Dell OpenManage systems management portfolio includes innovative solutions that simplify and automate essential server lifecycle management tasks — making IT operations more efficient and Dell servers the most productive, reliable and cost effective. Leveraging the incomparable agent-free capabilities of the PowerEdge embedded integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller technology, server deployment, configuration and updates are streamlined across the OpenManage portfolio and through integration with third-party management solutions.

Monitoring and control of Dell and third-party data center hardware is provided by OpenManage Essentials and with anytime, anywhere mobile access, through OpenManage Mobile. OpenManage Essentials also delivers Server Configuration Management capabilities that automate one-to-many PowerEdge bare-metal server and OS deployments, quick and consistent replication of configurations and ensure compliance to a predefined baseline with automated drift detection.

PowerEdge R730xd

- Latest Intel Xeon E5-2600 v4 processors — up to 22 cores
- Up to 24 DIMMs DDR4 memory
- 6 distinct storage configurations
- Up to 6 PCIe 3.0 expansion slots
- Supports up to 4 Express Flash NVMe PCIe SSDs

Feature	PowerEdge R730xd technical specification
Form factor	2U rack
Processor	Intel® Xeon® processor E5-2600 v4 product family
Processor sockets	2
Dimensions	H: 8.73 cm (3.44 in.) x W: 44.40 cm (17.49 in.) x D: 68.40 cm (26.92 in.)
Cache	2.5MB per core; core options: 4, 6, 8, 10, 12, 14, 16, 18, 22
Chipset	Intel C610 series chipset
Memory[1]	Up to 1.5TB (24 DIMM slots): 4GB/8GB/16GB/32GB/64GB DDR4 up to 2400MT/s
I/O slots	Up to 6 x PCIe 3.0 slots plus dedicated RAID card slot
RAID controllers	**Internal controllers**: PERC H330, PERC H730, PERC H730P **External HBAs** (RAID): PERC H830 **External HBAs (non-RAID)**: 12Gbps SAS HBA
Drive bays	**Internal hard drive bay and hot-plug backplane:** Up to 16 x 3.5" SAS, SATA, nearline SAS, SSD + 2 x 2.5" drives Up to 18 x 1.8" SAS, SATA, nearline SAS, SSD drives + 8 x 3.5" SAS, SATA, nearline SAS, SSD drives, + 2 x 2.5" HDD Up to 26 x 2.5" SAS, SATA, nearline SAS, SSD, PCIe SSD drives
Maximum internal storage[1]	SAS, SATA, nearline SAS, SSD, PCIe SSD: Up to 81TB with 18 x 1.8" 960GB SATA SSD + 8 x 3.5" SATA/nearline SAS HDD Up to 46.8TB with 24 x 2.5" 1.8TB hot-plug SAS HDD + 2 x 2.5" 1.8TB hot-plug SAS HDD Up to 131.6TB with 12 x 3.5 8TB nearline SAS HDD + 4 x 3.5 8TB nearline SAS + 2 x 2.5 1.8TB SAS HDD or SSD
Embedded NIC	4 x 1GbE, 2x10+2GbE, 4 x 10GbE NDC
Power supplies	Titanium efficiency 750W AC power supply; 1100W DC power supply; Platinum efficiency 495W, 750W, 1100W AC power supply;
Availability	ECC memory, hot-plug hard drives, hot-plug redundant cooling, hot-plug redundant power, internal dual SD module, single device data correction (SDDC), spare rank, tool-less chassis, support for high availability clustering and virtualization, proactive systems management alerts, iDRAC8 with Lifecycle Controller
Remote management	iDRAC8 with Lifecycle Controller, iDRAC8 Express (default), iDRAC8 Enterprise (upgrade) 8GB vFlash media (upgrade), 16GB vFlash media (upgrade)
Systems management	IPMI 2.0 compliant Dell OpenManage Essentials Dell OpenManage Mobile Dell OpenManage Power Center Dell OpenManage Integrations: • Dell OpenManage Integration Suite for Microsoft® System Center • Dell OpenManage Integration for VMware® vCenter™ Dell OpenManage Connections: • HP Operations Manager, IBM Tivoli® Netcool® and CA Network and Systems Management • Dell OpenManage Plug-in for Oracle® Database Manager
Rack support	ReadyRails™ II sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded hole racks, with support for optional tool-less cable management arm.
Operating systems	Microsoft Windows Server® 2008/2012 SP2, x86/x64 Microsoft Windows Server 2008/2012 R2, x64 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux **Optional embedded hypervisors:** Citrix® XenServer® VMware vSphere® ESXi™ For more information on the specific versions and additions, visit Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit Dell.com/ServiceDescriptions.

[1] GB equals 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

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Learn more at ecauk.com/products/poweredge-r730xd-rack-server/

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Dell_PowerEdge_R730xd_SpecSheet

Appendix 6: Dell PowerEdge R740xd Specification

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R740xd SPEC SHEET



POWEREDGE R740xd

Maximize storage performance and scalability

The PowerEdge R740xd delivers a perfect balance between storage scalability and performance. The 2U two-socket platform is ideal for software defined storage, service providers or as virtual desktop infrastructure.

Maximize performance and capacity

The scalable system architecture behind the R740xd with up to 24 NVMe drives creates the ideal balance between scalability and performance. The R740xd versatility is highlighted with the ability to mix any drive type to create the optimum configuration of NVMe, SSD and HDD for either performance, capacity or both. The R740xd is the platform of choice for software defined storage and is the foundation for ScaleIO, VSAN or the PowerEdge XC.

- Maximize storage performance with up to 24 NVMe drives and ensure application performance scales to meet demands.
- Free up storage space using internal M.2 SSDs optimized for boot.
- Simplify and accelerate ScaleIO or VMware vSAN™ deployments with validated, pre-bundled and tailored Ready Nodes.
- Accelerate workloads with up to three double-width 300W GPUs, or up to six single-width 150W GPUs, or up to three double-width or up to four single-width FPGAs.

Automate maintenance with Dell EMC OpenManage

Dell EMC PowerEdge servers with OpenManage™ technology work at peak efficiency for PowerEdge servers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R740xd is simply managed, freeing up time for high profile projects.

- Simplify management with the New OpenManage Enterprise™ console, with customized reporting and automatic discovery.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Ensure server security from factory to you

Every PowerEdge server is designed as part of a cyber resilient architecture, integrating security into the full server life cycle. The R740xd leverages new security features built-into every new PowerEdge server strengthening protection so you can reliably and securely deliver accurate data to your customers no matter where they are. By considering each aspect of system security, from design to retirement, Dell EMC ensures trust and delivers a worry-free, secure infrastructure without compromise.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

PowerEdge R740xd

Choose the right resources to power your workloads with NVMe, GPU or FPGA options

R740xd Spec Sheet
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PowerEdge R740xd

Features	Technical Specification	
Processor	Up to two 2nd Generation Intel® Xeon® Scalable processors, up to 28 cores per processor	
Memory	24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2933MT/s, 3TB max Up to 12 NVDIMM, 192 GB Max Up to 12 Intel® Optane™ DC persistent memory DCPMM, 6.14TB max, (7.68TB max with DPCMM + LRDIMM) Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal controllers: PERC H730P, H740P, H330, Software RAID (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 240GB or 480GB External PERC (RAID): H840 12Gbps SAS HBAs (non-RAID): External - 12Gbps SAS HBA (non-RAID): Internal - HBA330 (non-RAID)	
Drive bays	Front bays: Up to 24 x 2.5" SAS/SATA (HDD/SSD), NVMe SSD max 184.32TB or up to 12 x 3.5" SAS/SATA HDD max 168TB Mid bay: Up to 4 x 2.5", max 30.72TB SAS/SATA (HDD/SSD), NVMe SSD max 25.6 TB or up to 4 x 3.5", max 56TB Rear bays: Up to 4 x 2.5", max 30.72TB SAS/SATA (HDD/SSD), NVMe SSD or up to 2 x 3.5" max 28TB SAS/SATA HDD	
Power supplies	Titanium 750W, Platinum 495W, 750W, 750W 240VDC,* 1100W, 1100W 380VDC* 1600W, 2000W and 2400W, Gold 1100W -48VDC	Hot plug power supplies with full redundancy Up to 6 hot plugs fans with full redundancy *Only available in China and Japan
Dimensions	Form factor: Rack (2U)	Height: 86.8m (3.42") Width*: 434mm (17.08") Depth*: 737.5mm (29.03") Weight: 33.1kg (73lbs.) *Dimensions do not include bezel
Embedded management	iDRAC9, iDRAC Direct, iDRAC RESTful API with Redfish Quick Sync 2 wireless module optional	
Bezel	Optional LCD Bezel or Security bezel	
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight Red Hat® Ansible Modules	Connections: Nagios® Core & Nagios® XI Micro Focus Operations Manager IBM Tivoli Netcool/OMNIbus
Security	TPM 1.2/2.0, TCM 2.0 optional Cryptographically signed firmware Secure Boot	System Lockdown (requires OpenManage Enterprise) Silicon Root of Trust Secure erase
I/O & Ports	Network daughter card options 4 x 1GbE or 2 x 10GbE + 2 x 1GbE or 4 x 10GbE or 2 x 25GbE Front ports: 1 x Dedicated iDRAC Direct Micro-USB, 2 x USB 2.0, 1 x USB 3.0 (optional) 1 x VGA Rear ports: 1 x Dedicated iDRAC network port, 1 x Serial, 2 x USB 3.0, 1 x VGA Video card: 2 x VGA Riser options with up to 8 PCIe Gen 3 slots, maximum of 4 x 16 slots	
Accelerator options	Up to three 300W or six 150W GPUs, or up to three double-width or four single-width FPGAs. GPU and FPGA options are available only on 24 x 2.5" drive chassis.	See Dell.com/GPU for latest information. *Some configurations support up to 2 GPUs with NVMes.*
Supported operating systems	Canonical® Ubuntu® Server LTS Citrix® Hypervisor Microsoft Windows Server® LTSC with Hyper-V Oracle® Linux	Red Hat® Enterprise Linux SUSE® Linux Enterprise Server VMware® ESXi For specifications and interoperability details, see Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.	
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information.	

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Appendix 7: Dell PowerEdge R340 Specification

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R340 SPEC SHEET



POWEREDGE R340

Accelerate Business Growth

The Dell EMC PowerEdge R340 is a single-socket 1U rack server designed for productivity and data intensive applications for remote office/branch offices.

Boost your business productivity

The Dell EMC PowerEdge R340 boosts business productivity, provides the flexibility to scale, and automates daily tasks. It is the ideal solution that allows you to focus on what matters: Accelerate your business growth. The R340 offers features to support your demanding and growing business needs.

- Accelerate your business with improved performance due to 100% more cores with Intel® Xeon® E-2200 processors, 11% increase in memory speed, and 20% more PCIe lanes.[1]
- Harness data growth with up to 8 x internal 2.5" or 4 x 3.5" hot-plug hard drives.
- Manage operational costs with Multi-Vector cooling which automatically calculates and delivers the proper airflow needed for optimal cooling.

Simplify your IT infrastructure

The Dell OpenManage portfolio offers innovations that simplifies management tasks, making IT operations efficient and cost-effective throughout the server lifecycle.

- The embedded iDRAC9 with Lifecycle Controller, server deployment, configuration and updates are fast and worry-free.
- Access your servers anywhere, anytime from your mobile device with OpenManage Mobile (requires OpenManage Enterprise).
- Resolve issues with up to 72% less IT effort using automated proactive and predictive technology from ProSupport Plus and SupportAssist.[2]

Keep your data safe

Every PowerEdge server is made with a cyber-resilient architecture, building security into the server's entire life cycle. Dell EMC is laser-focused on security (from design to end-of-life) to ensure trust and deliver worry-free, secure servers.

- Keep your data safe with software RAID.
- Maintain data safety with cryptographically-signed firmware packages and Secure Boot.
- Protect your server from malicious malware with iDRAC9 Enterprise Server Lockdown mode.
- Wipe all data from storage media quickly and securely with System Erase

PowerEdge R340

- Improved performance due to 100% more cores
- Scale with 17% more storage capacity
- Protect your server from malicious malware with iDRAC9 Enterprise Server Lockdown mode

1 Based on Dell EMC internal analysis comparing R340 vs the previous generation. September 2019.

2 Based on June 2018 Principled Technologies Report commissioned by Dell EMC, "Save time and IT effort resolving server hardware issues with ProSupport Plus and SupportAssist", compared to Basic Warranty without SupportAssist.

R340 Spec Sheet

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PowerEdge R340

Features	Technical Specification	
Processor	1 processor from the following: Intel® Xeon® E-2200 product family, Intel Pentium®, Intel Core i3®, Intel Celeron®	
Memory	4 x DDR4 DIMM slots, Supports UDIMM, up to 2666MT/s, 64GB Max. Supports registered ECC	
Storage controllers Internal boot	Internal controllers: PERC H730P, H330, HBA330 (non-RAID) Software RAID: PERC S140 External HBAs: 12Gbps SAS HBA (non-RAID) Boot Optimized Storage Subsystem (BOSS): 2 x M.2 240GB (RAID 1 or No RAID) or 1 x M.2 240GB (No RAID only) Internal Dual SD Module[3]: 2x microSD (16GB, 32GB or 64GB) or 1x microSD (16GB, 32GB or 64GB)	
Drive bays	Up to 8 x 2.5 hot-plug SATA, SAS (optional) or SSD Up to 4 x 3.5 hot-plug SATA, SAS (optional) or SSD	
Power supplies	Single or dual 350W (Platinum) or 550W (Platinum) hot-plug redundant power supplies	
Dimensions	Form factor: Rack (1U)	Chassis width: 434.00mm (17.08 in) Chassis depth: 595.63mm (23.45 in) (3.5" HHD config) Chassis depth: 544.836mm (21.45 in) (2.5" HHD config) Note: These dimensions do not include: bezel, redundant PSU Chassis weight: 13.6 kg (29.98 lb.)
Embedded management	iDRAC9 with Lifecycle Controller iDRAC Direct iDRAC RESTful API with Redfish	
Bezel	Optional security bezel	
OpenManage™ Software	OpenManage Enterprise	OpenManage Power Manager OpenManage Mobile
Integrations and connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight (available from BMC) Red Hat Ansible	Connections: Nagios Core & Nagios XI Micro Focus Operations Manager i (OMi) IBM Tivoli Netcool/OMNIbus
Tools	iDRAC Service Module OpenManage Server Administrator Dell EMC Repository Manager Dell EMC System Update	Dell EMC Server Update Utility Dell EMC Update Catalogs Dell EMC RACADM CLI IPMI Tool
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Silicon Root of Trust	Secure Boot System Lockdown (requires OpenManage Enterprise) System Erase
I/O & Ports	Networking Options: 2 x 1GbE LOM Network Interface Controller (NIC) ports Front ports: 1x USB 2.0, 1 x IDRAC micro USB 2.0 management port Rear ports: 2 x USB 3.0, VGA, serial connector	2 x PCIe Gen 3.0 slots: • One x8 slot low-profile, half-length with x4 slot width • One x16 slot low-profile/full-height, half-length with x8 bandwith
Supported operating systems	Citrix® XenServer® Microsoft® Windows Server® with Hyper-V (2016 and 2019) Red Hat® Enterprise Linux Ubuntu® Server LTS	SUSE® Linux Enterprise Server VMware® ESXi For specifications and interoperability details, see Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.	
Recommended support	ProSupport Plus for critical systems or ProSupport for comprehensive hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell EMC representative today for more information. Availability and terms of Dell EMC Services vary by region. For more information, visit Dell.com/ServiceDescriptions.	
Dell Financial Services	Deliver results with easy financing. Explore financial options that move at the speed of business. For more information, visit https://www.emc.com/products/how-to-buy/global-financial-services/index.htm.*	

3 ESXi (only OS supported)

Learn more at DellEMC.com/PowerEdge

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Appendix 8: Dell PowerEdge R740 Specification

DELL EMC

R740 SPEC SHEET



POWEREDGE R740

Optimized for workload acceleration

The PowerEdge R740 was designed to accelerate application performance leveraging accelerator cards and storage scalability. The 2-socket, 2U platform has the optimum balance of resources to power the most demanding environments.

Expand and optimize application performance

The scalable business architecture of the R740 can scale up to three 300W or six 150W GPUs, or up to three double-width or four single-width FPGAs. With up to 16 2.5" drives or 8 3.5" drives the R740 provides the versatility to adapt to virtually any application and provides the perfect platform for VDI deployments.

- Scale your VDI deployments with 3 double-width GPUs, supporting up to 50% more users when compared to R730.
- Free up storage space using internal M.2 SSDs optimized for boot.
- Scale compute resources with 2nd Generation Intel® Xeon® Scalable processors and tailor performance based on your unique workload requirements.

Automate systems management with OpenManage

The Dell EMC OpenManage™ portfolio helps deliver peak efficiency for PowerEdge servers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R740 is simply managed, freeing up time for high profile projects.

- Simplify management with the New OpenManage Enterprise™ console, with customized reporting and automatic discovery.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Rely on PowerEdge with built-in security

Every PowerEdge server is designed as part of a cyber resilient architecture, integrating security into the full server lifecycle. The R740 leverages new security features built-into every new PowerEdge server strengthening protection so you can reliably and securely deliver accurate data to your customers no matter where they are. By considering each aspect of system security, from design to retirement, Dell EMC ensures trust and delivers a worry-free, secure infrastructure without compromise.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

PowerEdge R740

Persistent Memory NVDIMM-N can increase database performance by 10x

R740 Spec Sheet
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PowerEdge R740

Features	Technical Specification	
Processor	Up to two 2nd Generation Intel® Xeon® Scalable processors, up to 28 cores per processor	
Memory	24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2933MT/s, 3TB max Up to 12 NVDIMM, 192 GB Max Up to 12 Intel® Optane™ DC persistent memory DCPMM, 6.14TB max (7.68TB max with DCPMM+ LRDIMM) Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal controllers: PERC H330, H730P, H740P, Software RAID (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 240GB, 480GB External PERC (RAID): H840 12Gbps SAS HBAs (non-RAID): External- 12Gbps SAS HBA (non-RAID), Internal- HBA330 (non-RAID)	
Drive bays	Front drive bays: Up to 16 x 2.5" SAS/SATA (HDD/SSD) max 122.88TB or up to 8 x 3.5" SAS/SATA HDD max 112TB Optional DVD-ROM, DVD+RW	
Power supplies	Titanium 750W, Platinum 495W, 750W, 750W 240VDC,* 1100W, 1100W 380VDC* 1600W, 2000W and 2400W, Gold 1100W -48VDC	Hot plug power supplies with full redundancy Up to 6 hot plugs fans with full redundancy *Only available in China and Japan
Dimensions	Form factor: Rack (2U)	Height: 86.8mm (3.4") Width: 434.0mm (17.08") Depth: 737.5mm (29.03") Weight: 28.6kg (63lbs.) *Dimensions do not include bezel
Embedded management	iDRAC9, iDRAC Direct, iDRAC RESTful with Redfish Quick Sync 2 wireless module optional	
Bezel	Optional LCD Bezel or Security bezel	
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight Red Hat® Ansible® Modules	Connections: Nagios® Core & Nagios® XI Micro Focus Operations Manager I IBM Tivoli Netcool/OMNIbus
Security	TPM 1.2/2.0, TCM 2.0 optional Cryptographically signed firmware Secure Boot	System Lockdown (requires OpenManage Enterprise) Secure erase Silicon Root of Trust
I/O & Ports	Network daughter card options 4 x 1GbE or 2 x 10GbE + 2 x 1GbE or 4 x 10GbE or 2 x 25GbE Front ports: 1 x Dedicated iDRAC Direct Micro-USB, 2 x USB 2.0, 1 x USB 3.0 (optional), 1 x VGA Rear ports: 1 x Dedicated iDRAC network port, 1 x Serial, 2 x USB 3.0, 1 x VGA Video card: 2 x VGA Riser options with up to 8 PCIe Gen 3 slots, maximum of 4 x 16 slots	
Accelerator options	Up to three 300W or six 150W GPUs, or up to three double-width or four single-width FPGAs.	See Dell.com/GPU for latest information.
Supported operating systems	Canonical® Ubuntu® Server LTS Citrix® Hypervisor Microsoft Windows Server® LTSC with Hyper-V Oracle® Linux	Red Hat® Enterprise Linux SUSE® Linux Enterprise Server VMware® ESXi For specifications and interoperability details, see Dell.com/OSsupport.
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.	
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit Dell.com/ServiceDescriptions.	

Learn more at Dell.com/PowerEdge

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Statement of Work 2 - WDSM Managed Motorway Solution

1. Statement of Work Details

(a) Statement of Work Name: WDSM Managed Motorway Solution.

(b) Statement of Work Number: 2.

2. Revision History

Version	Status	Date	Prepared By	Comments
1.00	Draft	27/01/2023	Kevin Muliady *Project Engineer*	Initial draft
1.10	Draft	30/01/23	Simon Moroney	Draft
1.20	Draft	21/02/23	Simon Moroney	Update with comments from Legal
1.30	Draft	14/03/2023	Ray Treuer	Updated as per comments.
1.4	Draft	28/04/2023	Tyco	
1.5	Draft	28/04/2023	TfNSW	
1.6	Draft	1/5/2023	Tyco	
1.7	Final	1/5/23	TfNSW	Final execution version

3. Introduction and overview of the Supplier's Activities

(a) The Supplier's Activities are the design, supply, installation, testing and commissioning of a Motorway Management System (MMS) instance for the Western Distributor Smart Motorway (WDSM) project.

(b) The core objectives of the Supplier's Activities are as follows:

(i) provide engineering services to design and install a new MMS instance for the WDSM project;

(ii) produce relevant documentation to support the engineering process; and

(iii) test, commission, and deploy the new MMS instance.

4. Services and Deliverables

(a) The Supplier must develop and deliver an MMS instance for the WDSM project in accordance with this SOW and further described in Attachment 1 – *'TSI-PJ-008 Statement of Work MMS'*;

(b) The Supplier must perform the following Services:

(i) Project Management;

(ii) Design & Engineering;

(iii) Implementation;

(iv) System Integration;

(v) apply formal project management techniques in support of project;

(vi) Testing & Commissioning; and

(vii) Training.

(c) The Supplier must provide the following Deliverables:

(i) supply, configuration, and installation of the Licensed Software;

(ii) develop software & design hardware for integration of the following subsystems:



(iii) apply a Graphic User Interface (GUI);

(iv) perform verification and validation activities;

(v) training of TfNSW staff on operation & maintenance of the system; and

(vi) produce required documentation as outlined in Annex A of Attachment 1 – *'TSI-PJ-008 Statement of Work MMS'*.

(d) The Supplier must provide the following Licensed Software in accordance with the corresponding Licensing Model for the License Period set out below:

(i) [redacted]

[redacted]

(e) The Customer is entitled to Updates and New Releases for the Licensed Software as part of the licence. Clause 4 of The Software Module (Non-Cloud) terms apply. Out-of-Scope Services and Deliverables are:

(i) supply and installation of system hardware;

(ii) supply, installation, and configuration of MMS Local Area Network (LAN); and

(iii) and other excluded services outlined in Attachment 3 – *'WDMS MMS Instance Exclusions and Assumptions'*.

(f) The Supplier must provide the following Documentation:

(i) Project Management Plan (PMP);

(ii) Project Fortnightly Status Report (FSR);

(iii) Master Project Schedule (MPS);

(iv) Design & Equipment Compliance Certificate;

(v) Quality Management Plan (QMP);

(vi) Configuration Management Plan (CMP);

(vii) Risk Management Plan (RMP);

(viii) Software Development Plan (SDP);

(ix) System Design Review (SDR) package;

(x) SDR minutes

(xi) Critical Design Review (CDR) package;

(xii) System Integration Readiness Review (SIRR) package;

(xiii) SIRR minutes;

(xiv) System Test Readiness Review (STRR) package;

(xv) STRR minutes;

(xvi) Functional Configuration Audit (FCA) package;

(xvii) FCA minutes;

(xviii) Detailed Design Document(s) (DDD);

(xix) GUI Design Specification (GDS);

(xx) Work Breakdown Structure (WBS);

(xxi) Integration Procedures;

(xxii) Verification, Validation, Delivery & Commissioning Plan;

(xxiii) Test Strategy (TS);

(xxiv) Test Procedures (TP);

(xxv) Test Reports (TR);

(xxvi) Test Logs (TL);

(xxvii) Drawings & Documents;

(xxviii) Software Release Notes (SRN);

(xxix) Maintenance Manual;

(xxx) Operators Manual;

(xxxi) Training Package;

(xxxii) Defects and Issues Register; and

(xxxiii) RVTM.

5. Specifications

5.1 The Specifications for design, engineering, and implementation of the MMS are as specified in:

(a) Attachment 2 – *'WDSM requirement set v1.3 _TfNSWWorkshopReview_6Dec22'*.

(b) Attachment 3 -*'WDMS MMS Instance Exclusions and Assumptions'* version 1, 23 Dec 2022.

5.2 The following requirements listed as exclusions in attachment 3 are not excluded from this SOW and the requirements are to be delivered by the supplier:

(a) REQ-0195;

(b) REQ-0278; and

(c) REQ-0713.

6. Customer Supplied Items (CSI)

(a) The Customer will provide the CSI as set out in the table below:

Item No.	CSI
1.	Supply and installation of physical servers to host virtual machines required for the WDSM MMS environments required by this SOW.
2.	Remote access to the server virtual machines during implementation of the WDSM MMS.

7. Timeframes and Dates for Delivery

(a) The Supplier must deliver the Services and Deliverables in accordance with the Dates for Delivery set out in Attachment 4 – Program of Works.

8. Key Milestones

(b) The following dates constitute Key Milestones:

Key Milestone ID	Key Milestone	Date
M[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

9. Transition-In and Transition-Out Services

(a) The Supplier must undertake a transition activity when transitioning to the operation environment.

(b) The Supplier must undertake the activities listed in the SRS and Scope of Work, which cover transition from Deployment to Operations during the transition activity.

(c) The Supplier must prepare a Transition and Acceptance Management Plan (TAMP), which outlines the transition and acceptance strategy, processes, personnel, tools, equipment, technology and any support services required. The TAMP must also identify appropriate stakeholders who would ultimately accept the Systems, acceptance criteria and the processes to gain acceptance.

(d) The Supplier must accomplish the transition from "current" to "new", with minimal to no disruptions to ongoing operations. The Supplier must also identify any changes to "current" documentation, equipment, personnel, tools and processes and, in consultation with relevant Customer stakeholders, update, replace or modify these elements to ensure satisfactory operation under the "new" Systems.

(e) Depending on the project size, duration and number of specific Systems, the Customer may agree to divide the transition stage across a number of transition stages covering the transition of specific Systems or certain capability. The Contractor must follow the same processes for each transition stage (if staggered) and must ensure that all necessary activities and deliverables have been accepted before the Systems can be used within an operational environment.

10. Roles and responsibilities

10.1 JCI(Tyco) Contacts.

Amit Golwala	Primary Contact / Project Manager	First point of contact for service / Technical support – call escalation	amit.golwala-ext@jci.com Mobile: 0468 468 517
Lewis Gardner	Software Architect	Technical support - SME	lewis.gardner@jci.com Mobile: 0419 800 519
Ryan Keegan	Transportation Leader	Escalation: Senior Management	ryan.keegan@jci.com Mobile: 0467 815 298

10.2 TfNSW Contacts.

Contact Name	Role	Purpose	Contact Details
Ray Treuer	Director Service Delivery	Service owner for the MMS	Ray.TREUER@ transport.nsw.gov.au Mobile: 0411 286 577
Simon Moroney	Infrastructure & Hosting Manager	Manages overall scope, Contractor performance and liaison for technical specifications for the Contract.	Simon.Moroney@ transport.nsw.gov.au Mobile: 0437 356 122
Vu Nguyen	ITS Systems Engineering Manager	Integration Management and escalation.	Vu.HOANG.TRAN.NGUYEN @ transport.nsw.gov.au Mobile: 0439 260 697
Nick Patras	Director ITS Engineering	Technical Management and escalation.	Nick.PATRAS@ transport.nsw.gov.au Mobile: 0411 657 504

11. Business Contingency Plan

Not applicable.

12. Project Plan and management

Attachment 1 – '*TSI-PJ-008 Statement of Work MMS*' contains requirements for all Management and Planning documentation.

13. Stages and methodology

For stages and work/contract methodology, refer to:

(i) Attachment 1 – '*TSI-PJ-008 Statement of Work MMS*'; and

(ii) Attachment 4 – 'Program of Works'.

14. Acceptance Testing

Attachment 1 – '*TSI-PJ-008 Statement of Work MMS*' for all testing requirements and deliverables.

15. Governance arrangements

Contractual works will be subject to IPNAC governance, which will be headed by Customer (WDSM Alliance working under IPNAC). Contractual works will be in support of this governance process.

16. Assumptions and dependencies

(a) Assumptions are listed in Attachment 3 – 'WDMS MMS Instance Exclusions and Assumptions' version 1, 23 Dec 2022.

(b) The following requirements listed as exclusions in attachment 3 are not excluded from this SOW and functionality to be delivered by the supplier:

(i) REQ-0195;

(ii) REQ-0278; and

(iii) REQ-0713.

17. Service Level agreement

Refer to Attachment 1 – '*TSI-PJ-008 Statement of Work MMS*' for Service, DLP and ongoing service/maintenance requirements.

18. Pricing

(a) The Supplier will be entitled to submit a Correctly Rendered Invoice to the Customer upon the completion of each of the following milestones:

#	Description	%	Price (ex. GST)	Price (inc. GST)
[redacted]				

The above pricing has been adjusted to exclude the works agreed to be delivered under CRN-080 under the Existing Agreement (see section 7 of the Additional Conditions in the Agreement).

[redacted]				

*Each additional device licence will be subject to the Meridian per-device Licence fees as per the table below and will increase by 3% annually each year from the contract commencement date;

	Controller devices	Connected devices
CO[redacted]		

NOTES ON PRICING

(a) Above pricing does not include 'Phase 2' works, which will not form a part of WDSM MMS scope at the time of authoring this document.

19. Interpretation

(a) Terms in this Statement of Work which are not otherwise defined in this document have the meaning given to them in the ICTA.

20. Attachments

The following documents are attached to this Statement of Work

#	Document Title	Document Description
1	TSI-PJ-008 Statement of Work MMS	Statement of Work document provided to supplier during tendering
2	WDSM requirement set v1.3 _TfNSWWorkshopReview_6Dec22	List of system requirements provided to supplier during tendering
3	WDSM MMS Instance Exclusions and Assumptions	List of exclusions and assumptions, provided by Supplier as part of proposal
4	Program of Works	Tyco Supplier Program of Works.

Attachment 1

INTELLIGENT TRANSPORT SYSTEMS

TRAFFIC SYSTEMS

Statement of Work MMS

Western Distributor Smart Motorway

Document No: TSI-PJ-008
Issue: B
Dated: 27/03/2023

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Title:	Statement of Work MMS – Western Distributor Smart Motorway
Document no:	TSI-PJ-008
Version:	B
Date:	27/03/2023

Revision history

Version	Date	Details	Author
A	05/10/2022	FOR PRICING	ITS
B	27/03/2023	Updated Section 2.2, TfNSW installing Hardware, Contractor installing Virtual Machines and Software.	Ray Treuer

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1 INTRODUCTION

1.1 Purpose

This document describes the Statement of Work (SoW) activities and the minimum requirements to be met by the Contractor in the design, supply, installation, testing and commissioning of the Central Corridor MMS instance for the WDSM Project.

The Central Corridor MMS instance will be referred within this document as the “CMMS”

1.2 Scope

This document lists the activities to be undertaken by the Contractor that cover the Project Management, Engineering, Quality and other relevant areas needed to deliver the CMMS. The document covers the following areas:

a. Key Delivery Requirements;
b. Specialty Engineering Requirements; and
c. Defects Liability Period

Further details and guidance are provided in Annex B of this document to the Contractor in the development of the various deliverables where the Contractor requires assistance or does not have standard templates.

1.3 Project Overview

The Western Distributor Smart Motorway Project is to be delivered as a part of the Smart Motorways Program of Works and will provide a suite of Smart Motorway functionalities between Milsons Point and Rozelle. The Project covers well-known sections of Sydney’s road network including Bradfield Highway (Sydney Harbour Bridge), the Western Distributor and Anzac Bridge.

The provision of Smart Motorway functionality will improve the management of the Corridor and address congestion and vehicle incident challenges. The proposed upgrades include vehicle and incident detection, variable speed limits signs, lane use management signs and additional CCTV coverage. Dynamic direction signage will also be installed to provide greater operational flexibility and improve driver decision making. The proposed Intelligent Transport System devices will be operated through a central Smart Motorway Control System, the CMMS.

The objectives of the Project are to:

a. Increase network resilience
b. Enhance travel time and reliability
c. Improve traffic safety and incident management
d. Enhance the transport customer experience
e. Optimise transport asset utilisation and investment

The proposed Project will deliver benefits to motorway users, as well as the broader road network and community.

The Intelligent Transport Systems (ITS) Project Team is tasked with supporting the Western Distributor Smart Motorway (WDSM) Project in delivering the ITS and other related program of works including:

a. Project Management including Project Management Office (PMO) services;
b. System Integration Management;
c. Test and Commissioning;
d. Systems Level Design
e. Communication Network Design; and
f. Detector Design.

A key component of this delivery is the implementation of a CMMS.

1.4 Document Overview

This Document is divided into the following definable components:

a. REFERENCES – Documentation and Standards
b. SYSTEM DESCRIPTIONS – Overall System breakdown
c. TECHNICAL MANAGEMENT PROCESS – Tasks, Roles & Responsibilities
d. SYSTEMS ENGINEERING PROCESS – Consistent with the overall System
e. APPENDICES – Information supporting the plan

1.5 Interface with other documents

This document is part of a Contract with the CMMS Supplier and has links with the CMMS Systems Requirements Specification (SRS).

1.6 References and Applicable Documents

- System Specification Requirements
- M1SMWD_ITS Project Team Brief, Rev 1.0
- Concept of Operations for M1 North Smart Motorways Project, Rev 2.1
- DC TS902 Ed 1 Rev 0 Systems Engineering Processes
- QA Specification TS020 - ITS Communications System
- (ASA) T MU HF 00001 ST Human Factors Integration – General Requirements
- (AS) 7470:2016 Human Factors Integration in Engineering Design - General Requirements
- T MU AM 01002 MA Maintenance Requirements Analysis Manual
- ITS Design (50%)

1.7 Standards

- System Life Cycle Processes ISO/IEC15288:2015
- Safety System Assurance Program/AS61508
- Guidelines for Configuration Management AS/ISO 10007:2017
- Human Factors Standards Compliance ISO/TR 18529
- Human Centres Design ISO 9241-210
- RMS 17.076 Design Safety – Lifecycle Management

- TfNSW D&C Q6 Quality Management System (Type 6)

1.8 Definitions and Glossary of Terms

The following definitions and abbreviations are used in this report:

Term	Definition
AGP	Assurance & Governance Plan
AID	Automated Incident Detection
CCTV	Closed Circuit TV
CDR	Critical Design Review
CMP	Configuration Management Plan
CMS	Changeable Message Signs
ConOps	Concept of Operations
DDS	Dynamic Directional Sign
EAC	Estimate at Completion
EHFA	Early Human Factors Analysis
FAT	Factory Acceptance Test
FMECA	Failure Mode Effects and Criticality Assessment
HF	Human Factors
HFI	Human Factors Integration
HFIP	Human Factors Integration Plan
HFIR	Human Factors Issues Register
HFWG	Human Factors Working Group
HWRS	Hardware Requirements Specification
IRP	Incident Response Plan
IRR	Implementation Readiness Review
ISLUS	Integrated Speed, Lane Usage Sign
IFC	Issued for Construction
ITS	Intelligent Transport Systems
LTI	Lost Time Injury
LUS	Lane Usage Sign
M&E	Mechanical & Electrical
O&M	Operations & Maintenance
PDR	Preliminary Design Review
PFMEA	Process Failure Mode and Effects Analysis
RACI	Responsible, Accountable, Consulted, Informed
RAMS	Reliability, Availability, Maintainability and Safety
RMS	Roads and Maritime Services, a former New South Wales government agency absorbed into TfNSW (cf) on 1 December 2019.
RTM	Requirements Traceability Matrix
RVM	Requirements Verification Matrix
SAT	Site Acceptance Test

SDP	Software development Plan
SEMP	Systems Engineering Management Plan
SIMP	Systems Integration Management Plan
SIRR	Systems Integration Readiness Review
SIT	System Integration Testing
SRS	Systems Requirements Specification
SSDD	Sub-system Design Description
SSMP	Safety System Management Plan
SWRS	Software Requirements Specification
SWTC	Scope of Works and Technical Criteria
TAMP	Transition and Acceptance Management Plan
TfNSW	Transport for New South Wales
TRAP	Technical Review and Audit Plan
TRR	Test Readiness Review
TSI	Traffic Systems Integration
UAT	User Acceptance Test
VCRM	Verification Cross Reference Matrix
VMS	Variable Messaging Sign
WDSM	Western Distributor Smart Motorway

2 KEY DELIVERY REQUIREMENTS

2.1 General

a. This section describes the minimum SoW requirements to be met by the Contractor in the design, supply, installation, testing and commissioning of the CMMS.

b. The Contractor must manage and deliver the activities outlined in this document and provide the deliverables listed within this document and listed in the Contractor Deliverable Requirements List (CDRL) Annex A.

c. Where appropriate and agreed upon by the Principal, the Contractor can submit the relevant information as part of other relevant deliverables/documents or sections to avoid the development of excess and duplicated documentation as some of the information will only be brief. Existing company documentation is accepted to be used for this project as long as it is accurate, applicable and relevant.

d. The Principal is after information and deliverables that are concise, brief and accurate. Where appropriate and agreed upon by the Principal, some deliverables may be used to serve a number of requirements but this needs to be highlighted by the Contractor.

2.2 Supplies

a. The CMMS delivered by the Contractor must meet the technical requirements detailed in the SRS.

b. The Contractor must perform the supply and installation of System software.

c. All Dell PowerEdge R710 units will be free issue items to the Contractor from the Principal, for the purpose of the following clauses.

d. The Contractor must perform the necessary installation of virtual servers and software, with coordination provided by the Principal at the following locations:

   i. TMC Building Everleigh

   ii. Back Up Area as nominated by the Principal

   iii. At connection points to the TfNSW Network (Nodes)

   iv. As required by the Design

e. The Contractor must perform the supply, install and commissioning of one (1) CMMS Production System including but not limited to:

2.3 Interfaces

a. The Contractor must develop software and hardware to support the future integration of the following subsystems or modifications to existing or future subsystems as shown in Table 1.

Table 1 List of WDSM CMMS Interfaces

System	CMMS Interface Required
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

b. The Principal is currently conducting trials to inform decisions as to alternative devices capable of vehicle data collection and automatic incident detection. As such, the Contractor must develop software and hardware to support the integration of the following ITS devices, as an inclusion in the AID and VDS subsystems:

[redacted]

b. Motorway Boundaries

System	CMMS Interface Required
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]	[redacted]

2.4 Project Management

2.4.1 General

a. The Contractor must apply formal project management techniques in support of the design, installation, testing and commissioning of the System. All documents in following clauses require Principal review and approval.

2.4.2 Project Management Plan

a. The Contractor must develop a Project Management Plan (PMP). The Contractor Project Management Plan must meet requirements in the Deliverable Description detailed in Annex B.

b. The Project Management Plan must detail how the installation, implementation and commissioning activities will comply with the TfNSW Safety and Operational Constraints.

c. The Project Management Plan must detail the Contractor's risk management process and procedures, list significant risks and issues associated with the scope of Contractor works and detail the strategy for the management of the identified risks and issues.

d. The Contractor must submit for review by the TfNSW all revisions to the Project Management Plan and/or referenced documentation prior to adopting these revisions.

2.4.3 Project Progress Report

a. The Contractor must provide a Project Progress Report (PPR) in accordance with the requirements set out in the Deliverable Description for the PPR as specified in Annex B.

b. The PPR must be delivered to the Principal two (2) business days before the Fortnightly Progress Meeting.

2.4.4 Project Progress Meeting

a. The Contractor must conduct a Project Progress Meeting (PPM) on a fortnightly basis or at a time as agreed between the Principal and Contractor.

b. The PPM may be held in person or by virtual means.

c. The Contractor must record the minutes of the PPM and distribute a copy to the attendees and other agreed personnel within 3 business days after completion of the meeting. Minutes must include set of defined actions and assign personnel to actions.

2.4.5 Project Schedule

a. The Contractor must adhere to the Project objectives and timeframes set out in Table 2 Project Milestones. Contract Documents schedule is available in Annex A and is to be read in conjunction with Table 2 Project Milestones. Dates shown in Table 2 Project Milestones are subject to change as Principal requires, and in consultation with the Contractor.

Table 2 Project Milestones

Milestone	Deliverable	Baseline Dates Required
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

b. The Contractor must provide a detailed project schedule that is updated fortnightly for presentation to the Principal with the PPR meeting the requirements of the Deliverable Description in Annex B.

2.4.6 Communication

a. Formal communication between Principal and Contractor must occur within the Correspondence Management System as nominated by the Principal.

b. Any discussions, collaboration, changes or decisions not documented through the Correspondence Management System will not be upheld by the Principal.

c. Informal discussion, collaboration and exchange of ideas is encouraged between Principal and Contractor, however any outcomes of these interactions must be formalised by following the procedures in this document and outcomes and actions documented within Correspondence Management System.

2.4.7 Project Risk Management

a. The Contractor must establish, execute and maintain a project risk register to identify risks, develop risk mitigation strategies and monitor and control project risk. The risk register should be reviewed and updated regularly at the PPM.

2.5 Configuration Management

2.5.1 General

a. The Contractor must prepare a Configuration Management Plan (CMP), outlining the configuration management process to be undertaken for the project in accordance with AS/ISO 10007 .

b. The CMP must define the methodology used to identify and manage documents, hardware and software configuration items for the project. The Configuration Management (CM) process is used to achieve the following:

i. Development and delivery of Systems, and associated supplies necessary to support the Systems;

ii. Identification of the methods, procedures and controls used to assure effective configuration identification, configuration change control, status accounting and audits of the total configuration, including hardware and software configuration items.

2.5.2 Configuration Baselines

a. For Systems projects such as this, the System is usually developed in stages and managed as a number of configuration baselines. A configuration baseline is a deliverable set of documentation which describes the System at a point of time of its design life cycle.

b. The Contractor must develop the Configuration baselines to enable the Systems development to be reviewed in a logical path by following the processes in this Specification and formalising agreement with relevant stakeholders prior to the next design stage and baseline. Once documents are baselined and agreed upon by the Principal, formal change management control is required.

c. Typical configuration baselines applicable to Systems are:

iii. Functional Baseline (FBL) - defines the functionality and performance requirements of the Systems, including Sub-systems specifications and their interface characteristics. It also documents the Systems capability, functionality and overall performance;

iv. Allocated Baseline (ABL) - defines the configuration items which constitute the System and how they are allocated and assigned across lower-level configuration items. The functionality and performance of each configuration item identified at this level is described in its preliminary design stage;

v. Product Baseline (PBL) - defines the as-constructed and delivered products, consisting of Work-As-Executed (WAE) drawings, manuals, test documentation etc.

d. The Contractor must develop appropriate configuration baselines to cover Systems design development. The Contractor must indicate in the CMP the contents of these baselines, when they are set in the project life cycle and how they align with various Design Stages outlined in this SoW.

e. The Contractor must maintain traceability of changes and action items resulting from technical reviews and audits.

f. The Contractor must supply a Bill of Materials (BoM) that details each item of equipment (hardware and software) supplied by the Contractor meeting the requirements outline in the Deliverable Description in Annex B.

2.6 Information Management

a. The Contractor must provide a list of the documentation developed and delivered as part of meeting the requirements of this document.

2.7 Quality Assurance

a. The Contractor must maintain a Defects and Issues Register throughout the project and must provide a copy of the final register, or timely updates as required, as part of the validation process. This register must also capture all the issues and problems which occurred during various technical processes and activities. The Defects and Issues Register must be provided on a monthly basis.

b. The Defects and Issues Register must include the following details:

   i. unique defect/issue number;

   ii. activity (where an issue occurred, e.g. technical review, integration, installation, design and inspection);

   iii. title;

   iv. description;

   v. proposed resolution;

   vi. defective item identification, including version;

   vii. workaround (if applicable);

   viii. proposed closure date;

   ix. closure date;

   x. acceptance date;

   xi. comments/status.

2.8 Technical Processes

2.8.1 Systems Engineering Plan

a. The Contractor must develop and submit to the Principal the Systems Engineering Management Plan (SEMP) as the primary engineering document that will be used to define, control, direct and integrate all engineering activities during the project.

b. The SEMP must meet the Deliverable Description requirements in Annex B and implemented with the Principal's approval. **Note:** The Principal can provide a template to assist the Contractor with the development of the SEMP.

2.8.2 Other Management Plans

a. The Contractor must provide to the Principal a copy of their standard company plans unless, covered by plans developed specifically for this project, for:

   i. Quality Management;

   ii. Configuration Management;

   iii. WHS;

   iv. Systems Integration Management;

   v. Risk Management; and

   vi. Software Development.

b. The Contractor must support the Principal to audit these procedures as they relate to the project at any time. The Principal will provide the Contractor with 28 days notice if an audit is required.

c. The Contractor must modify their standard plans and processes in n response to issues in the procedures identified by the principal .

2.8.3 Design Authority

a. The Contractor must exercise complete Design Authority to design, develop, produce and verify the Works.

b. The Contractor must perform the role of Design Authority for the CMMS Product.

c. Any approval or endorsement by the Principal to a design does not relieve the Contractor of its responsibility as the Design Authority.

2.8.4 Design & Equipment Compliance Certificate

a. The Contractor must provide to the Principal Design & Equipment Compliance Certificate signed by the assigned Contractor Design Authority personnel, which certifies that the System design, software and equipment complies, subject to the exceptions quoted thereon, with the specified requirements and standards stated within this Contract.

b. The Contractor must, through issue of the Design & Equipment Compliance Certificate certify:

   i. the delivered System is in full compliance with the requirements of the requirements of this document and the System Requirements Specifications;

ii. any outstanding defects and approved deviations or waivers with the requirements of this document and the System Requirements Specifications;

iii. the delivered System is represented by an appropriate technical data package (comprising Bill of Material drawings, Drawing Register, test reports, operations and maintenance manuals, system configuration details, Detailed Design Document and other Technical Data); and

iv. the delivered System can be safely and satisfactorily operated and maintained in accordance with the contractor provided documentation. This includes the provision of Safety In Design, and associated workshops and other SID undertakings.

Note: The Principal can provide a guidance in the development of the certificate with the Contractor does not have a company standard document or template.

2.8.5 Technical Reviews and Audits

a. The Contractor must complete a program of Technical Reviews and Audits with the Principal and/or Principal's representative. The Technical Review and Audit program must include the following, with further requirements detailed in Annex J.

i. Systems Requirements Review (SRR) – review and confirmation of the SRS, lower level specifications, system architecture (functional and physical), assessment of the design impact, initial Safety In Design review and system level risks and opportunities;

ii. Critical Design Review (CDR) - confirmation that the design complies with all requirements and standards and the design is ready for implementation;

iii. Integration Readiness Review (IRR) – confirmation of the maturity of the System in development and the activities to be undertaken as part of the integration;

iv. Test Readiness Review (TRR) - confirmation that the System and necessary test equipment, documentation and personnel are available to begin formal verification of the Principal's System Functional and Performance Requirements and that there is a high level of confidence that the testing will be successful;

v. Functional Configuration Audit (FCA) - confirmation that all the functions required under the Principal's System Functional and Performance Requirements have been met; and

vi. Physical Configuration Audit (PCA) - confirmation of all hardware, software and documentation has been delivered and complies with the Design and Construct Contract.

b. The Principal anticipates that each of the above reviews will take approximately two (2) eight (8) hours (advice).

c. The Contractor must convene and conduct each of the reviews at the Principal's place of work or by virtual methods. The reviews may be combined with a regular Project Fortnightly Progress Meeting.

d. The Contractor must record the minutes of the Technical Reviews and Audits and provide a copy for Principal endorsement within five (5) business days of the event.

2.9 Needs and Requirements Definition

a. The Contractor must review and validate the TfNSW developed ConOps document and ensure the requirements in the ConOps are addressed by the SRS and design.

b. The Contractor must review the SRS requirements against the requirements derived from the ConOps activities and identify any conflicts. All conflicts identified must be identified, agreed with TfNSW and resolved during design development to provide an outcome that complies with the requirements of the ConOps.

2.10 System Requirements Definition

a. The Contractor must undertake a System requirements definition activity.

b. The Contractor must, on the basis of the needs and requirements in the ConOps and SRS, establish lower level system level technical requirements (where required), including functional and performance requirements, System constraints and quality factors.

c. The Contractor must prepare requirements specifications covering any all hardware and software requirements. The Contractor must undertake a requirements analysis to ensure that the developed requirements are unique, clear and unambiguous and can be tested and verified. This is part of the SRR activity.

d. The Contractor must manage the requirements throughout various project stages. This must include baselining the specifications and initiating configuration management process to ensure that any changes to requirements are clarified and agreed by all stakeholders.

e. The Contractor must manage traceability between various requirements documents and their allocation as the design develops. The Contractor must provide a Requirements Traceability Matrix (RTM), which shows requirements traceability between developed specifications and design, where possible.

f. The Contractor must use a suitable and recognised requirements management tool for all requirements management and provide the necessary reports and outputs from this tool to support the activities described in this Specification. **Note**: Further guidance and direction will be provided as TfNSW may use their own tool and provide access to the Contractor.

g. The tool must be a commercially available software platform with requirements management as its primary function. The requirements management tool must establish traceability between the requirements at various levels.

h. The requirements management tool must be used to capture and manage verification and validation analysis, issues, design decisions, engineering changes, Technical Performance Measures, requirement clarification requests, project status and configuration audit results.

i. RTM and Requirements Verification Matrix (RVM) may be combined in a single matrix.

j. Requirements engineering activities must be performed in accordance with ISO/IEC/IEEE 29148.

k. The Contractor must capture all necessary System level design and decisions made to provide an integrated System and prepare a Sub-system Design Description (SSDD) document. The SSDD document must detail the System or Sub-system wide design, operating environment, System and Sub-system architecture design, human machine interfaces, external interfaces and any System level design decisions made.

l. In support of the requirements analysis, the Contractor must produce the following:

    i. Systems Requirements Specification (SRS);

    ii. Software Requirements Specification (SWRS);

    iii. Hardware Requirements Specification (HWRS);

    iv. SRS RTM;

    v. SRS RVM;

    vi. SSDD;

vii. a monthly output file from the requirements management tool in a native format, which is compatible with other similar requirements management tools for the duration of the project;

viii. Specifications Tree, illustrating the specifications envisaged to be developed and their relationship with each other;

ix. Layout Drawings (concept), covering the design at a conceptual level to ensure that Systems requirements can be supported by the physical and functional design.

Note: The System must be verified in accordance with the test methods listed in Annex I.

2.11 Architecture Definition

a. The Contractor must undertake an architecture definition activity.

b. The Contractor must, on the basis of the requirements developed during the Systems requirements definition stage, derive relevant lower level Sub-systems requirements and develop a Systems architecture design, both in functional and physical aspects. The Systems architecture design must include both hardware and software elements and must be developed to ensure that requirements can be met by a physical architecture, physical Systems and/or components.

c. During this stage, derived functional and performance requirements must be allocated to each functional and physical element in the architecture. Systems requirements must be reviewed through an iterative process to ensure that high-level requirements are complied with.

d. The Contractor must capture Systems requirements which apply to the interfaces and control and/or monitoring of other equipment. These requirements must form part of the requirements of Systems Engineering processes.

e. The Contractor must assess the impact which the “new” design has on the existing infrastructure, equipment, operational and maintenance processes and services and capture these in a Design Impact Statement (DIS) document. This document must also include a checklist to ensure that the full impact of the project on the existing asset has been assessed and captured for future reference.

f. The Contractor must identify necessary Systems interfaces and the network communications topology and carry out specialists engineering activities (such as Human Factors (HF), System Safety and Cybersecurity) at a high-level to ensure suitability of the design.

g. In developing the Systems architecture design, the Contractor must produce the following:

i. Sub-system Requirements Specifications (SSRS);

ii. System functional design (system structure)/Functional Architecture Design;

iii. Systems physical design (system composition)/Physical Architecture Design;

iv. DIS;

v. Interface Definitions, including Interface Control Document (ICD) and N2 Diagram;

vi. HF Specification;

vii. Network Architecture Design, including the Topology Diagram, Equipment Connection Diagram, High-level Design documents and Cables and Conduits Plans - initial;

viii. Layout Drawings (concept), covering design at a conceptual level to ensure that Systems requirements can be supported by the system design;

ix. Power and communications single line diagrams;

x. HF Design, including human machine interface - initial;

xi. RAM analysis - initial;

xii. Asset Register - initial;

xiii. Safety Assurance;

xiv. Drawings and Documents List - initial;

xv. Asset Management Strategy - initial;

xvi. Updated RTM, showing traceability between SRS and SSRS requirements;

xvii. Updated RVM, providing analysis against SSRS requirements;

xviii. Security Architecture Design.

h. The Contractor must use the architecture design as the basis and design input for the Design Definition activity.

2.12 Design Definition

a. The Contractor must undertake a design definition activity.

b. The Contractor must, on the basis of the system design developed during system definition stage, develop the detailed design. The detailed design must provide sufficient Systems and equipment information and data which enable the products to be built, manufactured, constructed and installed.

c. The Contractor must develop the design by an iterative process, to satisfy functional and physical architecture(s) requirements, Systems requirements and high-level requirements. The Contractor must align the design documentation produced during this activity with the architecture design elements and show the traceability between activities.

d. For projects implemented post-opening, The contractor must perform and document a change impact analysis, to determine the impact of changes to the system associated with a new design, upon the existing product baseline.

e. The Contractor must design all necessary Systems interfaces, network communications designs and specialists engineering activities, e.g. HF, RAM, Safety Assurance and Security, at a detailed design level to ensure suitability of the design.

f. Due to the nature of the design definition stage, potential alignment with other disciplines, the level of details required and the need to engage stakeholders and users, the design definition stage must comprise at least the preliminary and final design stages to ensure that the detailed design aligns with project requirements and user expectations before the final design is completed.

g. In support of developing the preliminary design, the Contractor must produce the following:

    i. Layout Drawings - preliminary;

    ii. Installation Process - preliminary;

    iii. Design calculations, electrical, mechanical and structural - preliminary;

    iv. Network Design, including detailed design documents - preliminary;

    v. Software Design documents - preliminary;

    vi. HF Design - preliminary;

    vii. Cables and Conduits Plans - preliminary;

viii. Power and Communications Single Line Diagrams - preliminary;

ix. Cables Schedules - preliminary;

x. Interface Requirements Specification (IRS)/Interface Control Document (ICD) - preliminary;

xi. RAM analysis - preliminary;

xii. Drawings and Documents List - preliminary;

xiii. Asset Register – preliminary meeting the requirements outlined in Annex E.

h. In support of developing the final detailed design, the Contractor must produce the following:

i. Layout Drawings - final;

ii. Installation Design - final;

iii. Design calculations - final;

iv. Network Design, including detailed design documents - final;

v. Software Design documents - final;

vi. HF Design - final;

vii. RAM analysis - final;

viii. Cables and Conduits Plans - final;

ix. Power and Communications Single Line Diagrams - final;

x. Cables Schedules - final;

xi. IRS/ICD - final;

xii. Product Detailed Design Drawings meeting the requirements in Deliverable Description in Annex B ;

xiii. Drawings and Documents List - final;

xiv. Product Specifications;

xv. Asset Register - final;

xvi. Safety Assurance Artefacts.

2.13 Graphical User Interface Design Specification

a. The Contractor must develop a Graphic User Interface (GUI) that is acceptable to the TfNSW Operators. The Contractor must supply a GUI Design Specification (GDS) that describes the GUI design aspects of the CMMS.

b. The Contractor, as part of the design process, must co-ordinate a series of workshops with the TfNSW Operators and personnel as nominated by the Principal to develop and document the new GUI design. The Contractor must begin these workshops once the draft GUI Design Specification has been reviewed and endorsed by the Principal.

c. The Contractor must produce a test procedure that verifies the content of the GDS.

d. Further requirements on the development of the GDS is found in the Deliverable Description in Annex B.

2.14 System Analysis

a. The Contractor must undertake System analysis activities during the design process to assist in making design decisions, selecting products, developing cost effective solutions and optimisation of necessary processes.

2.15 Implementation

2.15.1 General

a. The Contractor must undertake an implementation activity that also includes installation.

b. The Contractor must, on the basis of the detailed design, provide specified Systems, products or services (both hardware and software) which meet the specified Systems, architecture design and detailed design requirements.

c. The Contractor must develop an Implementation Plan, which outlines implementation strategy, processes, personnel, tools, equipment, technology and any support services required for implementation.

d. The Contractor must assess current Systems, equipment and services and, where possible, ensure commonality and interoperability between “current” and “new” Systems/items.

e. In support of executing the implementation stage, the Contractor must produce the following:

    i. Implementation Plan;

    ii. Implementation Guidelines;

iii. Hardware and Software;

iv. Specified Systems/products.

f. The Contractor must undertake an Implementation Readiness Review (IRR) with relevant stakeholders to assess readiness to commence the implementation stage, based on the outputs delivered from earlier stages, awareness and acceptance of applicable risks and any known issues. The IRR can be a desktop documentation review, a formal stakeholder's meeting/workshop or a combination of both.

2.15.2 Cabling and Patching

a. The Contractor must supply, install, terminate, connect, label and test all cabling needed to achieve the requirements of this this document and other documented requirements and in accordance with (IAW) Australian Standards.

b. The Contractor must re-label, as required, all existing cabling where the existing cable labelling is inconsistent with the System cable numbering and identification scheme implemented under this Contract.

c. The Contractor must supply, install and/or modify all cable termination panels, including fibre optic and co-axial cable patch panels in the identified equipment rooms, as required to satisfy the requirements of this specification.

2.15.3 Installation

a. The Contractor must develop installation procedures for Systems/equipment installed under the operational environment.

b. The Contractor must install all equipment in the identified Control Centre required to conduct the work scope.

c. The Contractor must migrate any existing equipment connected to the existing MMS and that is to be used in the System.

d. The Contractor must supply, install and commission equipment racks and panels as required to satisfy the requirements of this specification.

e. The Contractor may use existing spare rack capacity in equipment rooms, subject to Principal approval (advice).

f. The Contractor must supply any temporary racks or shelving as necessary during installation and System migration to maintain a safe working environment that does not hinder normal maintenance activities. Need to determine who is doing what.

2.16 Integration

a. The Contractor must undertake a Systems integration activity.

b. The Contractor must, on the basis of the detailed design, provide an integrated single System, involving the interfacing and integration of specified lower level Systems and products (both hardware and software), which meets the requirements of the specified Systems, architecture design and detailed design.

c. The Contractor must develop a Systems Integration Management Plan (SIMP), which outlines the integration strategy, processes, personnel, tools, equipment, technology and any support services required. The SIMP must assign the party or identify the organisation who is assigned the responsibility for ensuring that all System elements can be interfaced and integrated into a single System, i.e. the Systems Integrator.

d. The Contractor must assess current Systems, equipment and services and, where possible, prepare a Systems integration strategy suitable for the operational environment. The Systems integration stage may be executed at off site premises (development site), using techniques, tools and equipment which replicate as close as possible the current operational environment.

e. The Contractor must plan Systems integration testing and develop and maintain the testing procedures and reports.

f. The Contractor must also integrate the design solution with other existing infrastructure and program of Works.

g. In support of executing the integration stage, the Contractor must produce the following:

    i. SIMP;

    ii. Systems Integration Test Plan;

    iii. Systems Integration Test Procedure;

    iv. Systems Integration Test Report;

    v. Specified Systems/products with the aim of systems integration

h. The Contractor must undertake a Systems Integration Readiness Review (SIRR) with relevant stakeholders to assess readiness to commence the integration stage, based on the outputs delivered from earlier stages, awareness and acceptance of applicable risks and any known issues. The SIRR can be a desktop documentation review, a formal stakeholder's meeting/workshop or a combination of both.

2.17 Verification

2.17.1 General

a. Verification and validation activities are dealt with in this Specification as separate activities for consistency with AS/NZS ISO/IEC/IEEE 15288.

b. The Contractor must undertake verification activities to ensure that the Systems and equipment delivered by the project meet specified requirements. The Contractor must provide Objective Quality Evidence (OQE) to substantiate the verification. Responsibilities for Verification and Validation activities are covered in Annex G.

c. The Contractor must develop a Testing and Commissioning Plan in accordance with this document and the requirements listed under the Deliverable Description in Annex B. This Plan must identify the organisation responsible for ensuring that all Systems elements have undergone the necessary testing and commissioning activities, and that these activities support the Contract Program and the implementation and integration strategy.

d. For projects implemented post-opening, the Contractor must assess current Systems, equipment and services and, where possible, develop a testing and commissioning strategy suitable for the operational environment. The testing may be executed at off site premises (development site), using techniques, tools and equipment which replicate as close as possible the current operational environment.

e. The Contractor must plan testing activities and maintain the testing procedures and reports.

f. The Contractor must develop a Requirements Verification Matrix (RVM) to manage traceability between specified requirements and relevant acceptance tests, other tests and associated artefacts which form part of the verification and validation regime. RVM must contain details of verification analysis, verification results and issues relevant to each requirement.

g. The Contractor must use RVM to carry out various configuration audit/s (functional and physical).

h. Depending on project size, duration and number of Systems, there may be a number of testing and commissioning stages covering these Systems. The Contractor must prepare documentation and OQE for each System/product and must collate all the respective documents into a single acceptance test procedure and test report.

i. The Contractor must perform testing and commissioning activities in a staged manner in accordance with requirements in Annex E.

j. The Contractor must develop the following:

   i. Testing and Commissioning Plan in accordance with the SWTC;

   ii. RVMs for various specifications, including Systems, Sub-systems and interface specifications;

   iii. Testing and Commissioning documentation, as outlined in the SWTC and Annexure TS902/E, including software qualification testing documentation;

   iv. Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA) for specific Systems/products in accordance with the audit regime defined in the CMP.

k. The Contractor must undertake a Test Readiness Review (TRR) with the relevant stakeholders to assess readiness to commence the testing and commissioning stage, based on the output delivered from earlier stages, awareness and acceptance of applicable risks and any known issues. The TRR can be a desktop documentation review, a formal stakeholder's meeting/workshop or a combination of both.

2.17.2 Test Log

a. The Contractor must maintain a Test Log of all testing activities completed under this Contract that details the execution of each Test Procedure in accordance with this document and the requirements listed under the Deliverable Description in Annex B.

b. The Test Log must be supplied for inspection by the Principal.

2.17.3 Testing

a. The Contractor must develop, conduct, support and report upon the verification activities to demonstrate compliance to the SRS. Verification and Validation stages are described in Annex G.

b. The Contractor is encouraged to organise the test program to focus initially on those parts of the design that are considered to have the greatest risk (advice).

c. Each acceptance test must be performed in a controlled, repeatable and verifiable manner without interfering or requiring modification of any part of the System which has already been accepted.

d. At the conclusion of an acceptance test, the System and any associated Subsystems or the existing MMS must be capable of being returned to its state prior to the acceptance test.

e. The Contractor must advise the Principal of the details (time, place, etc) of all test activities in the Test and Commissioning Plan.

f. The Contractor must provide twenty (20) days notice (time, place, etc) of all formal test activities listed in the Test and Commissioning Plan.

g. The Principal must review all test documentation prior to the initiation of any formal testing.

h. The Principal must witness all formal test activities being conducted to demonstrate and verify compliance with the SRS.

i. The Operators must witness all GUI tests and scenario testing to demonstrate and verify compliance with the GUI Design Specification.

j. The Contractor must supply all test equipment, materials and labour to perform all tests

2.17.4 Principal's Tests

a. The Contractor must support the Principal's scenario test program which will be run after all acceptance testing has been completed. The Principal's Systems responsibilities are outlined in Annex D.

b. Upon successful completion of all other testing and commissioning of the System, the Principal will run an operational test whereby the System will be monitored during a seven (7) day week for any abnormal operations not previously uncovered during the previous tests.

2.17.5 Test Failures and re-testing

a. If any item subject to an acceptance test fails to satisfy its acceptance criteria, the Principal may require the acceptance test, or any part of it, to be repeated.

b. The Contractor must remedy the cause or causes giving rise to the failed acceptance tests within fourteen (14) days or as agreed with the Principal.

c. The failed acceptance tests must be repeated and commence as soon as practicable after the cause or causes giving rise to the failure are remedied, unless otherwise agreed with the Principal.

2.17.6 Test Specifications and Procedures

a. For each test activity detailed in the Test and Commissioning requirements, the Contractor must prepare Test Procedures in accordance with this document and the requirements listed under the Deliverable Description in Annex B..

2.17.7 Test Reports and Certificates

a. On the completion of each test the Contractor must submit a Test Report, within five (5) working days in accordance with this document and the requirements listed under the Deliverable Description in Annex B.

b. The Contractor must supply test certificates and records of all tests carried out under this Contract.

2.17.8 Defect and Failures

a. In the event of the system, or any part thereof, failing to meet the contractual requirements and/or the specification, all costs incurred in making good the system and of carrying out further tests must be borne by the Contractor.

b. During the Defects Liability Period, the Contractor must rectify any failures in accordance the requirements listed in this document.

2.18 Transition

2.18.1 General

a. The Contractor must undertake a transition activity when transitioning to the operation environment.

b. The Contractor must, on the basis of the verified Systems, provide the services required under the operational environment. This activity also includes providing all necessary supporting functions, activities, deliverables and tools to allow the Systems to be fully operational and able to meet the specified Systems requirements, both in functions and performance, architecture design and detailed design requirements.

c. The Contractor must undertake the activities listed in the SWTC, which cover transition from Construction to Operations during the transition activity.

d. The Contractor must prepare a Transition and Acceptance Management Plan (TAMP), which outlines the transition and acceptance strategy, processes, personnel, tools, equipment, technology and any support services required. The TAMP must also identify appropriate stakeholders who would ultimately accept the Systems, acceptance criteria and the processes to gain acceptance.

Note: TfNSW can provide guidance on the level of information required in a TAMP. It is not expected the TAMP to be a detailed document.

e. The Contractor must accomplish the transition from “current” to “new”, with minimal to no disruptions to ongoing operations. The Contractor must also identify any changes to “current” documentation, equipment, personnel, tools and processes and work with relevant stakeholders to update, replace or modify these elements to ensure satisfactory operation under the “new” Systems.

f. Depending on the project size, duration and number of specific Systems, the transition stage may be divided across a number of transition stages covering the transition of specific Systems or certain capability. The Contractor must follow the same processes for each transition stage (if staggered) and must ensure that all necessary activities and deliverables have been accepted before the Systems can be used within an operational environment.

g. The Contractor must deliver the following:

   i. TAMP;

   ii. RVMs for various specifications, including Systems, Sub-systems and interface specifications;

   iii. Final inspection walkthrough checklist;

   iv. Defects and Issues Register;

   v. Work-As-Executed drawings;

   vi. Software Release Notes;

   vii. Asset Register, including spares listing - final;

   viii. Training of O&M staff;

   ix. O&M Manuals;

   x. Equipment Manuals;

   xi. Support Documentation set, consisting of documentation not provided as part of the manuals and drawings set. It may cover equipment schedules, impacted drawings lists etc;

   xii. Maintenance Training Program;

   xiii. Operations Training Program;

   xiv. FCA Report of complete transitioned System;

   xv. PCA Report of complete transitioned System;

xvi. Designer and Equipment Certificate of Conformity;

xvii. Warranty details;

xviii. Support concept during warranty period and post-warranty period;

xix. Spares delivery;

xx. Support and test equipment.

h. All the documentation prepared during this stage must be sent to relevant stakeholders for review.

2.18.2 Documentation and Drawings Requirements

2.18.2.1 General

a. The Contractor must deliver drawings and documentation in accordance with this document and the requirements listed under the Deliverable Description in Annex B..

b. The Contractor must make all document and drawings deliveries under a formal email to the Principal to assist with traceability.

c. All data delivered to the Principal must be identified by the Document Identification Number, the contract number, a document reference number, revision, title and date of issue.

d. All technical documentation and drawings must comply with the following:

i. contain configuration control information (table of all revisions listing author, date of change and scope of change);

ii. have a unique reference number following a documented referencing procedure;

iii. meet basic documentation standards (page numbers, paragraph numbers, table of contents, introduction/purpose); and

iv. comply with a Data Item Description covering the content of the document.

e. All subsystem dependencies must be defined in technical documentation.

f. The Contractor shall be responsible for all costs associated with document and drawing configuration management and maintenance.

g. All equipment delivered must be inspected by relevant stakeholders to ensure that all equipment is of acceptable quality and safety standards under the operational environment.

h. The Contractor must undertake a Transition Readiness Review (TrRR) to assess readiness to commence the transition stage, based on the output delivered from earlier stages, awareness and acceptance of applicable risks and any known issues. The Contractor must demonstrate that all risks and hazards have been identified, assessed and addressed before the installation activity can commence.

i. The TrRR can be a desktop documentation review, a formal stakeholder's meeting/workshop, a site inspection or a combination thereof.

2.18.2.2 Document Approvals and Reviews

a. Where 0 indicates that a document is to be submitted by the Contractor to the Principal for review, then the Principal will provide the Contractor with notice in writing or email that the document is either approved or rejected. All document review by the Principal will be completed within ten (10) Business Days of the deliverable being received by the Principal.

b. Where a draft version of a document is scheduled for delivery prior to approval or acceptance of a final version, the Contractor shall comply with the following requirements:

    i. the draft version shall contain information on all of the topics pertinent to the data item; and

    ii. the extent of coverage of the topics shall be commensurate with the status of design, development or installation of the supplies at the time delivery of the data item is due.

c. Where a document is revised or updated, the document must include markings of all changes made since the previous release of the data item and a revision list summarising the changes made since the previous release.

2.18.2.3 Drawing Deliveries and Drawing Register

a. The Contractor must create new "Work As Executed" (WAE) drawings as necessary to accurately describe the as installed configuration of the System at Practical Completion.

b. The Contractor must deliver to the Principal one (1) hard copy and one (1) softcopy of each modified and newly created WAE drawing in MicroStation or AutoCAD compatible format.

c. The Contractor must use specified TfNSW drawing templates for all drawings modified or created as part of the Works under the Contract.

d. The Contractor must deliver to the Principal a Drawing Register that lists every drawing created or amended as part of the Works under the Contract and provide the following details:

   i. drawing number;

   ii. drawing title;

   iii. status;

   iv. revision number; and

   v. revision date.

e. The Drawing Register is to be provided in Microsoft Excel formats.

f. The Contractor must obtain new drawing numbers from the Principal.

2.18.3 Software Release Notes

a. The Contractor must provide with each formal release of the software a set of Software Release Notes in accordance with this document and the requirements listed under the Deliverable Description in Annex B..

b. The Contractor must provide the Software Release Notes in electronic format on the same media as the System software.

2.18.4 Hypercare

a. For the use of this document, Hypercare is defined as care which is immediate in nature, has the ability or specialist expertise to diagnose and rectify a issues which may arise in the performance or issues which may impede the normal operation of the CMMS.

b. The Contractor must provide Hypercare support for a continuous four week period, commencing once the System becomes operational. During this period, the Contractor must provide an elevated 24/7 onsite system support, including where necessary and agreed by the Principal, deployment of system related workarounds, to ensure business continuity and minimise operational disruptions until permanent solutions are deployed.

c. The Hypercare support must enable an orderly transition into business as usual O&M/Through Life Support arrangements for the Systems.

2.18.5 Maintenance Manual

a. The Contractor must supply a Maintenance Manual for the System in accordance with this document and the requirements listed under the Deliverable Description in Annex B. **Note**: This may be updating the current existing manual.

b. The System Maintenance Manual must detail the routine and on-condition maintenance, troubleshooting and configuration of any new or modified equipment and software installed under this Contract.

c. The Contractor must deliver a set of manufacturer's maintenance manuals as attachments to the System Maintenance Manual for each piece of hardware or software delivered.

2.18.6 Operators Manual

a. The Contractor must supply an Operators Manual for the System in accordance with this document and the requirements listed under the Deliverable Description in Annex B.

b. The Operators Manual must include all Configuration Data.

c. The Operators Manual must include operators manuals for all new hardware, software and third party software delivered as attachments to the System Operators Manual.

2.18.7 Training

2.18.7.1 General

a. The Contractor must provide training to enable the Principal and its subcontractors to maintain and operate the System post installation.

b. The training package must be of a standard that enable the Principal to perform employee operator training in the future (i.e. "train the trainer"). **Note**: Training will also cover system scalability, how CMMS interfaces with other systems and how the system can be enhanced for further potential future requirements.

2.18.7.2 Operator Training

a. The Contractor must provide Operator training for up to fifteen (15) TfNSW nominated staff at the MCCB or other nominated site accepted by the Principal. The Training must be delivered to the Operators in multiple training sessions of three (3) to four (4) people per session.

b. The Operators, once trained by the Contractor, must be able to operate the System over a twenty-four (24) hour rotational shift to ensure compliance with the Principal's Project Requirements. Contractor training must be sufficient to ensure this criteria is met.

c. Actions to be performed by Operators will be defined by the Contractor's operational documentation but is anticipated to include:

   i. observation and management of TfNSW road network operations;

   ii. notification and management of field device faults and alarms;

   iii. notification and management of TfNSW incidents;

   iv. management of traffic management plans;

   v. emergency response; and

   vi. reporting.

2.18.7.3 Maintainer Training

a. The Contractor must provide maintenance training for up to five (5) TfNSW nominated staff at the MCCB or other nominated site accepted by the Principal.

b. The staff, once trained by the Contractor, must be able to complete maintenance to the System to ensure compliance with the contracted specifications.

c. Maintenance actions to be performed by TfNSW maintenance staff will be defined by the Contractor's support concept and must include, but is not limited to:

   i. troubleshooting to identify problems at the System and Subsystem level;

   ii. management of System;

   iii. replacement of any and all failed components within the System;

   iv. configuration of replaced components and confirmation of correct operation following replacement of failed module(s);

   v. inspections and minor routine maintenance as required;

   vi. database maintenance, administration and updates;

   vii. updates to the GUI screens; and

d. addition of new devices of the same type already installed.

2.19 Validation

a. The Contractor must undertake a validation activity as part of the Testing and Commissioning process to ensure that the Systems and equipment delivered by the project meet user objectives, outcomes and stakeholders requirements under the operational environment. The Contractor must submit OQE traced to the requirements to substantiate the validation. Some validation activities may be conducted prior to some of the transition activities.

b. The Contractor must produce the following:

    i. Testing and Commissioning Plan (same plan required under Verification); and

    ii. Operational Readiness Evaluation Plan.

2.20 Operation

a. The Contractor must undertake operation activity in accordance with this document.

b. The Contractor must ensure that all enabling functions are available and that the Systems can perform their services and meet specified Systems, architecture design and detailed design requirements.

c. The Contractor must ensure that enabling functions are implemented from “current” to “new”, with minimal disruptions to ongoing operations. The Contractor must also identify any changes to “current” documentation, equipment, personnel, tools and processes. The Contractor must work with relevant stakeholders to update, replace or modify existing items if necessary to ensure satisfactory operation under the “new” Systems.

d. The Contractor must work closely with “current” environment and O&M staff to ensure that all items are captured.

e. The Contractor must deliver the following:

    i. O&M Plan;

    ii. Issue Management - capturing and resolving of operational issues. Note: This may be covered by current process and tools.

2.21 Maintenance

a. The Contractor must undertake maintenance activity in accordance with the criteria within this document.

b. The Contractor must ensure that all enabling functions are available and that the Systems are sustainable and can meet their stated availability and specified Systems, architecture design and detailed design requirements.

c. For projects implemented post-opening, the Contractor must ensure that enabling functions are implemented from “current” to “new”, with minimal to no disruptions to ongoing operations. The Contractor must also identify any changes to “current” documentation, equipment, personnel, tools and processes.

d. The Contractor must work with relevant stakeholders to update, replace or modify existing items if necessary to ensure satisfactory operation under the “new” Systems. The Contractor must work closely with “current” environment and O&M staff to ensure that all items are captured.

e. The Contractor must deliver the following:

iii. O&M Plan;

iv. Issue Management, capturing and resolving of maintenance issues.

2.22 Disposal

a. The Contractor must undertake disposal activity for the Systems in accordance with the Through Life Support Management Plan (TLSP) (refer Clause 4.16).

b. The TLSP must include criteria and processes for safe disposal.

2.23 Through Life Support

a. The Contractor must prepare a TLSP.

b. The TLSP must capture all the requirements necessary to support, sustain and update the Systems so that they can function as required during their design and operational life.

2.24 Requirements and Test Management Database

a. The Contractor must maintain a requirements and test management database (RTMD) for the duration of the Contract.

b. The Contractor must describe the intended use of the RTMD in the SEMP.

c. The Contractor must use the RTMD to automatically generate the RTM and RVM artefacts required by this Specification.

d. The Contractor must provide the Principal and Project Verifier with remote access to the RTMD, including the ability to generate reports for the duration of the Contract.

e. At the end of the Contract, the Contractor must deliver the RTMD to the Principal. The RTMD must include:

i. all utilities, macros, scripts, tools, reports, templates etc required to operate and maintain the RTMD;

ii. all documentation required to rebuild, operate and maintain the RTMD, including a database design description;

iii. details of the Administrator (or equivalent level) user accounts.

f. If the RTMD is provided as an online service, the Contractor must transfer the online service account/licence to the Principal. The party responsible for all fees and charges for the first twelve months from the date of transfer must be as identified in the Project Deed.

g. The Contractor must make the RTMD available for auditing on a periodic basis to assist in ensuring data integrity. The audits must determine if the correct specification versions are being used by all parties and that the requirements are fully traced and verified for compliance.

3 SPECIALTY PROCESSES

3.1 General

a. Specialist engineering activities are either unique to Systems or require specialist knowledge, experience, processes, methods or tools to execute.

b. The Contractor must deliver the specialist documentation required under this document.

3.2 System Safety

a. The Contractor must undertake System Safety Assurance activities to provide confidence that the delivered Systems:

i. are safe for all stakeholders, e.g. motorists and O&M staff;

ii. meet the specified availability and operations requirements under the operational environment;

iii. cover access paths, infrastructure to equipment and any support and test equipment required.

b. The Contractor must implement a System Safety Program (SSP).

c. SSP must be implemented as part of the design process and must identify intrinsic hazards which initially exist and hazards which arise through the life of the System.

d. SSP must include analysis of hazards, development of mitigation and management strategies for each hazard, integration of requirements for mitigation strategies into design and product deliverables, verification of the implementation of mitigation and management strategies for the delivered products, and the provision of appropriate reports for each phase and at the completion or delivery of products.

e. SSP must include provisions for hazard tracking, from identification through to verification of mitigation and management strategies.

f. The Contractor must develop a System Safety Program Plan (SSPP), which covers System safety processes, personnel, tools, stakeholders and acceptance processes to be undertaken, as part of the SSP. The SSPP must also include proposed Safety in Design (SiD) processes and how they align with the SSP.

g. The Contractor must implement the SSP in accordance with AS 61508.1.

h. In support of the SSP, the Contractor must produce the following:

    i. SSPP.

    ii. Initial Safety Assessment - based on comprehensive hazard scenarios, this assessment must cover initial hazards identification, probable mitigations and preliminary assessment of risk reduction measures. This assessment outcome must cover high-level design issues, use of appropriate standards, design methodology and development of safety requirements and safety features.

    iii. Preliminary Hazard Assessment - this assessment must cover review of preliminary design, identification of hazards from design resilience, robustness, installation, testing, operations, maintenance and disposal points of view and determination of appropriate control measures.

    iv. Hazard Assessment - this assessment must cover review of critical aspects of detailed design to ensure that necessary control measures are captured in the design and that appropriate safety verification activities are undertaken.

i. When undertaking the Safety Assessment activities, the Contractor must comply with the following:

    i. Determination of hazards and risks must be in accordance with AS 61508 and must include qualitative methods, such as Hazard and Operability Studies (HAZOPS) and Failure Modes Effects and Criticality Analysis (FMECA), and quantitative methods, such as Fault Tree Analysis (FTA) and Layer of Protection Analysis (LOPA).

ii. Determination and allocation of safety requirements for the Systems must comply with AS 61508.1.

iii. Where allocated a Safety Integrity Level (SIL), a control System must be considered as a safety-related control System and engineered in accordance with AS 61508.1-7.

iv. The definitions of Systems architectural description must be in accordance with AS 61508.2.

v. The definitions of Systems software architectural description must be in accordance with AS 61508.2.

vi. Safety requirements for Systems software functions must be in accordance with AS 61508.3.

vii. The safety requirements specification must indicate for each safety function whether it is a continuous, high or low demand function, its demand rate, its tolerable failure rate and its SIL to provide the required risk reduction. Integrity requirements allocation must be performed prior to Systems development and must be available as an input to Systems design.

viii. Where Safety Assessment reveals that no SIL is required for a safety function or risk mitigation measure, the engineering design and implementation processes used must, as a minimum, comply with SIL 1 to AS 61508. Requests for any waivers to this requirement supported by detailed justification must be submitted to the Principal for acceptance.

Note: The above requirements are for guidance only. A review of the level of safety assurance required for this project will be assessed between the Contractor and TfNSW. Once determined it will be applied to the level of assurance and detailed required to ensure the System is safe.

ix. Final Inspection Walkthrough - this activity covers a final walkthrough with relevant stakeholders (designers, O&M staff) to ensure that the final installed product is safe to operate and maintain.

x. Safety Assessment Report(s) - this document must cover the overall SSP undertaken for the project, and must include all related necessary artefacts developed as part of the project in one document. It must also include the final list of residual hazards to be transferred to the user for management during the O&M stage.

j. Systems must be developed in accordance with the determined or specified SIL in accordance with AS 61508.

3.3 Systems Integration Management

a. The Contractor must undertake Systems integration management activity.

b. The Contractor must ensure appropriate management of the system integration activity and that the integration stage provides the capability to meet specified Systems requirements.

c. The Contractor must appoint a Systems Integrator for the integration of the various Systems and the delivery of an integrated System.

d. During the Systems integration management activity, the Contractor must consider the following:

   i. Clear acknowledgement and identification of Systems integration design activities for the project and all associated activities.

   ii. Clear identification of the agencies and individuals responsible for Systems integration across the entire Systems deliverables for the project, i.e. the Systems Integrator for the project. This includes integration of all internal Systems elements, as well as integration of the Systems provided with other Systems, i.e. external Systems provided by TfNSW or others.

   iii. The role of individual “black box” or Sub-system elements suppliers, i.e. subcontractors supporting the Systems Integrator, in the overall Systems integration function.

   iv. The need for well-defined and documented interface specifications for System elements and Sub-systems (addressing multiple levels within the Open Systems Interconnection OSI 7-layer model).

   v. The need for clearly defined work boundaries between differing System elements vendors.

   vi. The appropriate level of Systems integration design effort required to ensure the successful integration of Sub-system elements into the overall System and the achievement of overall System performance requirements.

   vii. For mature Commercial-Off-The-Shelf (COTS) products, the level of customisation, configuration, and adaptation required to account for their operations under the unique operational and installation environment of the project.

   viii. The appropriate level of Systems integration testing required to ensure the successful integration of Sub-system elements into the overall System to enable its performance requirements to be achieved.

ix. Identification of specific Systems integration risks for the project.

3.4 Human Factors

a. The Contractor must undertake a Human Factors (HF) activity, covering the interaction of personnel operating, maintaining or using the equipment (visual, audio and tactile) with the designed and implemented Systems and products.

b. The Contractor must specify HF requirements and ensure that they form part of the Systems requirements and are managed as part of Systems Engineering methodology.

c. For projects implemented post-opening, the Contractor must ensure that the design of the “new” projects factors in “current” HF features and ensure that these are implemented from “current” to “new”.

d. The Contractor must deliver the following:

i. HF Specification;

ii. HF Design - preliminary;

iii. HF Design - final.

e. The Contractor must engage relevant stakeholders, such as O&M staff and HF Subject Matter Experts (SMEs), in design review process and during project life cycle.

f. The Contractor must develop prototype(s), mock ups, trials etc to enable early engagement and input from users so as to ensure that the HF aspect is fit for purpose and meets the user’s needs. These activities must be planned and executed to support the Contract Program.

3.5 Reliability, Availability and Maintainability

a. The Contractor must undertake a Reliability, Availability and Maintainability (RAM) activity, which must include an analysis to verify the RAM of the complete motorway and specific Systems, in accordance with the requirements of this document.

b. The Contractor must establish with the stakeholders an agreed definition of System failure as the basis for availability analysis.

c. The specified availability criteria must become the key design parameters for Systems design process, including the identification and selection of appropriate Sub-systems.

d. Reliability and availability criteria and associated iterative design practices must be adopted as the basis for the RAM analysis undertaken by the Contractor.

e. The Contractor must adopt industry standard design practices, along with the use of appropriate industry standard computer design tools, for developing RAM analysis.

f. RAM analysis must include availability requirements identified for each key Sub-system component.

g. The RAM analysis must include reliability modelling at a functional level to verify compliance to availability requirements specified in the SRS. Each function must be modelled “end to end” and include all systems, sub-systems, interfaces, services and field equipment required to perform the function.

h. RAM analysis must also cover disaster recovery aspects, including:

    i. the use of duplicated and physically isolated operational command and control Systems, central processing Systems and data storage facilities;

    ii. the use of redundant sources of electricity, communications paths, and other essential services.

i. The Contractor must document RAM analysis during design and provide the documentation to stakeholders for review.

j. For projects implemented post-opening, the Contractor must ensure that “current” maintainability, capability and processes are considered when developing RAM analysis.

k. The Contractor must produce the following:

    i. RAM analysis - initial;

    ii. RAM analysis - preliminary;

    iii. RAM analysis - final.

l. The Contractor must engage specialist RAM SMEs during design review and project life cycle, and use necessary tools to ensure that appropriate RAM analysis is carried out.

m. If requested, the Contractor must submit RAM calculations and/or model in native format.

n. The Contractor must perform a FMECA in accordance with TfNSW manual T MU AM 01002 MA, as amended by TfNSW Technical Note – TN 016:2017.

o. **Note**: The Contractor can use equivalent Contractor process/template or can be based on assessment that have been done on similar applications.

p. The Contractor must verify that the outcomes from the FMECA analysis to mitigate the consequences of failures in safety and/or mission critical systems have been incorporated into the design.

q. The Contractor must produce the following:

i. FMECA analysis - initial;

ii. FMECA analysis - preliminary;

iii. FMECA analysis - final.

3.6 5.6 Security and Cybersecurity

a. The Contractor must undertake security activity, covering physical, cyber and governance security aspects, to ensure that the Systems provided are operated and accessed with appropriate security features and meet the requirements of this document.

b. The Contractor must prepare design and provide Systems and associated infrastructure in accordance with the following standards:

i. ISO/IEC 27000;

ii. AS ISO 31000;

iii. HB 167;

iv. AS/NZS 2201 (All Parts);

v. AS 4806;

vi. TfNSW standard T MU SY 10012 ST.

c. The Contractor must engage specialist security SMEs during design review and project life cycle to ensure that appropriate security measures are implemented.

d. In relation to Cybersecurity, the Contractor must comply with the requirements of the NSW Government Cybersecurity Policy, ensuring that:

(i) Cyber security requirements are built into procurements and into the early stages of projects and the system development life cycle (SDLC);

(ii) Systems or enhancements include processes for audit trails and activity logging to assess the accuracy and integrity of data including processes for internal fraud detection;

(iii) Systems include monitoring tools to allow for adequate incident identification of, and response to, cyber incidents.

(iv) TfNSW will employ independent Penetration Testing of the system. The Contractor must rectify all security issues identified during Penetration Testing as a pre-requisite for acceptance into service.

3.7 Environmental Conditions

a. The Contractor must undertake an environmental conditions activity, covering the environmental conditions and elements to which the Systems will be exposed after installation and during operation. The activity must also cover any environmental requirements specified, such as those in Specification TfNSW TSI-SP-016, other TfNSW dedicated equipment specifications and the requirements in this document.

b. The Contractor must specify the applicable environmental conditions under which the equipment will be required to operate and still meet the allocated functional and performance requirements. Environmental conditions must form part of the initial requirements analysis and must be stated as operational constraints. Any derived requirements must be managed as part of Systems Engineering processes.

c. The Contractor must engage environmental conditions SMEs during design review and project life cycle to manage various environmental conditions as shown in the Design, including, but not be limited to, the following:

i. vibration;

ii. temperature;

iii. humidity;

iv. dust;

v. weather;

vi. Electromagnetic Interference (EMI)/Electromagnetic Compatibility (EMC).

vii. Note: It is assumed the equipment supplied will be standard COTS equipment installed and operated under environmentally controlled rooms. As such, there should not be any specific or unique environmental conditions to be met.

4 DEFECT LIABILITY PERIOD SUPPORT

4.1 General

a. The Contractor must provide one (1) full-time and continuous Contractor representative on-site at TfNSW or locally for twelve (12) months. The onsite Contractor representative must be capable of supporting and resolving System configuration defects and restoring the System to a fully operational condition in the event of a degraded system event. The onsite Contractor must be available to support local System configuration changes, as directed by the Principal, including but not limited to the following:

   i. Development and import of Traffic Management Plans;

   ii. Development and import of System alarms and alarm notes;

   iii. Development or modification of System graphics;

   iv. Modification of System reports;

   v. Update of System Notification Contacts and Groups; and

   vi. Development of local System Operation and Maintenance work instructions and procedures.

b. The support scope during the DLP will include the following:

   i. Helpdesk;

   ii. Defect Rectification;

   iii. Maintenance;

   iv. Enhancement and Upgrade;

   v. Third Party Support;

   vi. Configuration Management; and

   vii. Reports.

4.2 Helpdesk

a. The Contractor must provide a Helpdesk facility with the following requirements:

   i. available twenty-four (24) hours a day, seven (7) days a week;

   ii. log and categorise System Defects and Faults;

   iii. manage Defect and Fault rectification; and

iv. manage Support provided for application software, operating system, third party software (database, GUI and reports) and hardware.

b. All Defects and Faults must be reported to the Helpdesk.

c. The Helpdesk must categorise Defects and Faults into the following categories:

i. Critical (Defect/Fault) - Control and Monitoring affected and no acceptable work-around available;

ii. Blocker (Defect/Fault) - Control and Monitoring affected and acceptable work-around available;

iii. Major (Defect/Fault) – Business Function; and

iv. Minor (Defect/Fault) – Other. Need to align with our current terminology.

d. Defects and Faults must be accepted by the Helpdesk by the following communication methods:

i. Telephone;

ii. E-mail; and/or

iii. Current methods/process or tools.

e. The Helpdesk must be provide one standard contact phone number and e-mail address for logging Defects and Faults. **Note**: There might be an existing process that will be used to cover the above requirements. This will be acceptable to TfNSW.

4.3 Response Requirements

a. The response and rectification times for each of the Defect and Fault categories are listed below in Table 2.

Fault Category	Response Time	Interim Rectification Time	Complete Rectification Time
Cri[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		
[redacted]	[redacted]		
[redacted]	[redacted]		

[redacted]

Table 2 – Response Requirements

4.4 Defect Rectification

a. The Contractor must rectify any Defects that are discovered during the Defect Liability Period that cause the System not to be compliant with the SRS and technical documentation developed as part of this document.

4.5 Maintenance

4.5.1 General

a. The Contractor must provide Support during the Defect Liability Period to ensure that the System remains:

   i. Reliable;

   ii. Available;

   iii. Maintainable;

   iv. Scalable;

   v. Cost Effective; and

   vi. Supportable.

b. Maintenance of the System will be performed jointly by the Contractor and the Principal. The responsibilities of the Principal are detailed in Annex 1.

4.5.2 General Software Upgrades

a. The Contractor must perform regular upgrades and patches to the System software during the Defect Liability Period to ensure the requirements in this document are achieved. All costs are to be borne by the Contractor.

4.5.3 Preventative Maintenance

a. The Contractor must conduct preventative maintenance activities to the System during the Defect Liability Period to ensure the requirements in this document are achieved. All costs are to be borne by the Contractor.

4.5.4 Maintenance of Development Environment

a. The Contractor must maintain a software development environment during the Defect Liability Period to enable debugging, development and compiling of the application source code.

4.5.5 Maintenance of Test Environment

a. The Contractor must maintain a software test environment during the Defect Liability Period to enable debugging, development and compiling of the application source code.

4.5.6 Regular Server Rebuild

a. The Contractor must execute a full rebuild of a System server and a System workstation, including a full re-compile of the relevant application software no more that two weeks before the end of the Defect Liability Period. This will ensure that all elements of the software are correctly documented and configuration managed.

4.5.7 Regular Failover Testing

a. The Contractor must test and demonstrate compliance with the requirements of the failover performance of the System before the end of the Defect Liability Period.

4.5.8 Third Party Support

a. The Contractor must manage and bear the cost of any Third Party required to support the System during or before the Defect Liability Period, including but not limited to the following:

i. hardware faults and warranty claims;

ii. software support; and

iii. ongoing third party licenses.

4.6 Configuration Management

4.6.1 General

a. The Contractor must maintain Configuration Management of the System software and hardware during the Defect Liability Period.

4.6.2 Maintenance of Source and Compiled Software

a. The Contractor must manage all source and compiled code (including third party products), throughout the Defect Liability Period. This includes the ability to deliver previous revisions of compiled code.

4.6.3 Support Documentation

a. The Contractor must maintain Configuration Management of the System Support documentation, including but not limited to:

i. Operators Manual;

ii. Maintenance Manual;

iii. System Design Documents;

iv. Bill of Materials;

v. SRS;

vi. Test Procedures; and

vii. Drawings.

4.6.4 Change Management System

a. The Contractor must use the current change management system to manage changes.

b. The Contractor must register the changes in accordance with Annex F requirements for the complete project delivery including the DLP.

Note: TfNSW is planning to set up appropriate change management process that the Contractor will abide with.

4.6.5 Reports

4.6.5.1 Defect/Fault Log

a. The Contractor must maintain a Defect/Fault Log of all System Defects and Faults that have been reported to the Helpdesk that includes the following information:

i. time and date that Defect or Fault was reported to the Helpdesk;

ii. name of individual who raised the Defect or Fault;

iii. Defect or Fault category;

iv. Defect or Fault status (investigating, solved, patched, fixed etc.);

v. estimated time to rectify and summary of performance to response criteria;

vi. estimated effort required for non Defects;

vii. external resources required to support any test and commissioning activity; and

viii. a brief summary of proposed rectification, including any disruption to TfNSW operations.

ix. Note: Existing process and systems may be used.

4.6.5.2 CMMC Status Report

a. The Contractor must provide a CMMS Status Report, or on a regular basis as agreed with the Principal, that covers the following:

   i. current Defect/Fault Log;

   ii. summary of any completed or planned System maintenance in the previous or forthcoming month; and

   iii. summary of any completed or planned System upgrades or patches in the previous or forthcoming month.

4.6.5.3 Service Level Summary Report

a. The Contractor must measure and record Contractor performance against the Support Levels specified in Annex C for each monthly period during the Defect and Liability Period.

b. The Contractor must provide a monthly Service Level Summary Report to the Principal with the CMMS Status Report.

4.6.6 Standards and Regulations

4.6.6.1 General

a. Design, material and workmanship must be in accordance with the appropriate Australian Standard and Codes and the requirements of all authorities and other approving bodies.

b. Where no appropriate Australian Standard exists, the relevant International or IEC Standard must be used.

c. The standards, requirements, advice and regulation of all pertinent regulatory authorities must be complied with.

d. Wherever a Standard Specification or Code is specified in this Design and Construct Contract, it must mean the latest edition and/or amendment of that Specification or Code at the date of Contract Signature, irrespective of a particular edition referred to in this Specification. The Standard Specification referred to in this Specification must be considered to be part of the Contract Documents insofar as they apply to the Works of this Design and Construct Contract.

ANNEX A – CONTRACT DOCUMENT REQUIREMENTS LIST (CDRL)

CDRL	Data Item Description (DID)	SOW Clause	Title	Principal Review Required	Delivery Schedule
CDRL-1	DID-001	2.4.2	Project Management Plan (PMP)	Yes	21 days after Contract Signature
CDRL-2	DID-002	2.4.3	Project Fortnightly Status Report (FSR)	-	As necessary
CDRL-3	DID-003	2.4.3	Master Project Schedule (MPS)		21 days after Contract Signature
CDRL-4	NS	2.9	Design & Equipment Compliance Certificate	-	At FCA
CDRL-5	DID-004	2.8.1	Systems Engineering Management Plan (SEMP)	Yes	28 days after Contract Signature
CDRL-6	NS	2.8.2	Quality Management Plan (QMP) Configuration Management Plan (CMP) Risk Management Plan (RMP) Software Development Plan (SDP)	Yes	28 days after Contract Signature
CDRL-7	DID-005	A.1.1.1f	Bill of Materials (BoM)	Yes	14 days prior to PDR
CDRL-8	NS	**Error! Reference source not found.**	Preliminary Design Review (PDR) package PDR minutes	-	14 days prior to PDR 14 days after PDR
CDRL-9	NS	**Error! Reference source not found.**	System Design Review (SDR) package SDR minutes	-	14 days prior to SDR 14 days after SDR
CDRL-10	NS	**Error! Reference source not found.**	System Integration Readiness Review (SIRR) package SIRR minutes	-	14 days prior to SIRR 14 days after SIRR
CDRL-11	NS	**Error! Reference source not found.**	System Test Readiness Review (STRR) package STRR minutes	-	14 days prior to STRR 14 days after STRR
CDRL-12	NS	**Error! Reference source not found.**	Functional Configuration Audit (FCA) package FCA minutes	-	7 days prior to FCA 7 days after FCA
CDRL-13	NS	**Error! Reference source not found.**	Physical Configuration Audit (PCA) package PCA minutes	-	7 days prior to PCA 7 days after PCA
CDRL-14	DID-006	**Error! Reference source not found.**	System Requirements Specification (SRS)	Yes	14 days prior to PDR

CDRL	Data Item Description (DID)	SOW Clause	Title	Principal Review Required	Delivery Schedule
CDRL-15	DID-007	**Error! Reference source not found.**	System Interface Document (SID)	Yes	14 days prior to SDR
CDRL-16	DID-008		Software Requirements Specification (SWRS)	Yes	14 days prior to SDR
CDRL-17	DID-009		Hardware Requirements Specification (HWRS)	Yes	14 days prior to SDR
CDRL-18	NS	**Error! Reference source not found.**	Discovery Plan (DP)	Yes	14 days prior to PDR
CDRL-19	DID-011	**Error! Reference source not found.**	Detailed Design Document(s) (DDD)	Yes	Draft: 14 days prior to PDR Final: 14 days prior to SDR
CDRL-20	DID-012	**Error! Reference source not found.**	GUI Design Specification (GDS)	Yes	14 days prior to SDR
CDRL-21	DID-013	**Error! Reference source not found.**	Through Life Support Plan (TLSP)	Yes	14 days prior to SDR
CDRL-22	DID-014	**Error! Reference source not found.**	Work Breakdown Structure (WBS)	Yes	14 days prior to SDR
CDRL-23	NS	**Error! Reference source not found.**	Integration Procedures	Yes	14 days prior to SIRR
CDRL-24	DID-015	**Error! Reference source not found.**	Verification, Validation, Delivery & Commissioning Plan	Yes	Draft: 14 days prior to SDR Final: 14 days prior to SIRR
CDRL-25	DID-016	2.17.6	Test Specifications (TS)	Yes	Draft: 14 days prior to SIRR Final: 14 days prior to STRR
CDRL-26	NS		Test Procedures (TP)	Yes	Draft: 14 days prior to SIRR Final: 14 days prior to STRR
CDRL-27	DID-017	2.17.7	Test Reports	Yes	14 days after testing has been completed
CDRL-28	DID-018	**Error! Reference source not found.**	Test Logs	-	14 days after testing has been completed

CDRL	Data Item Description (DID)	SOW Clause	Title	Principal Review Required	Delivery Schedule
CDRL-29	DID-019	**Error! Reference source not found.**	Drawings & Documents	-	14 days prior to FCA
CDRL-30	DID-020	**Error! Reference source not found.**	Software Release Notes	-	With each formal software release.
CDRL-31	DID-021	2.18.5	Maintenance Manual	Yes	20 days prior to the initiation of training At Practical completion
CDRL-32	DID-022	2.18.6	Operators Manual	Yes	20 days prior to the initiation of training At Practical completion
CDRL-33	NS	2.18.7	Training Package	Yes	14 days prior to the initiation of training

NS = Not Specified – format and content to conform to Contractor's internal quality system standards.

ANNEX B - DELIVERABLE DESCRIPTIONS

B.1 Deliverable Description - PROJECT MANAGEMENT PLAN

Description/Purpose

The Project Management Plan (PMP) defines and authorises the organisation, system and procedures to be implemented by the Contractor for the management of the Contract. The content of the PMP shall be developed using the following structure and description as a guide.

Project Definition and Scope

Provide a brief Project background. Describe the Contractor's approach to Project management and the objectives of this approach. Provide references to contractual and internal company directives which authorise the work to be undertaken and appoints the Project Manager. List the precedence of documents associated with the Contract including internal company documents. Provide a list of, or provide reference to, all contractual deliverables. Describe the major milestones which define the complete program of contracted work. Provide reference to the acceptance criteria for the contractual deliverables. Include, or provide reference to, the Project Statement of Work, Work Breakdown Structure and the Master Program Schedule. Provide a summary statement of significant penalties which could be imposed by the Principal under the terms of the Contract.

Project Organisation

Nominate the Contractor Key Personnel responsible for ensuring that the Project satisfies contractual obligations and company objectives, and that it is effectively managed. Provide a Project organisation chart showing all lines of management, including the direct relationship between Contractor and Principal staff. Define the functions and responsibilities of the different groups which comprise the Project team. Define the authority and responsibility of all Contractor's Key Personnel positions within the team. Provide a brief summary of the skills, qualifications and experience of Contractor's Key Personnel nominated for positions within the Project. List all key external organisations with responsibility for accomplishment of contract work scope accompanied by a description of their assigned work. Describe all internal and external reporting relationships. Define the process for all communications with the Principal and Subcontractors.

Project Administration

Describe, by reference to a plan or otherwise, the scope, composition and timing for all formal technical reviews. Describe the scope, composition and timing for all formal Contractor internal and Subcontractor reviews. Describe the scope, attendees and timing for all formal Project management status meetings and regular internal progress meetings. Describe all regular Principal and internal Project reports required.

Project Controls

Describe the processes for cost and schedule performance management. Describe the approach to sub-contractor management including the processes for work definition, performance assessment and quality management. Define, by reference to a plan or otherwise, the processes and procedures to be applied for risk management and quality management. Describe the responsibilities of all formal review meetings which have an formal review function. Describe the formal reviews to be undertaken including, but not limited to, SRR, CDR, SIRR, SIRR, FCA, and PCA. Describe the key technical documents to be produced as a result of the systems design process. Describe the procedures to be applied for configuration management of technical data and documentation; in particular, describe arrangements for maintenance and control of system baseline configuration(s) and specify the range of configuration management documents which will be used. Specify the entry and exit criteria for each formal review to be undertaken.

Quality

Describe the quality management protocols to be deployed throughout the duration of the project and throughout the ongoing support. In particular, describe specific quality requirements, tests or procedures to demonstrate performance of the Contract. The quality procedures shall also include details of the proposed system for controlling, as applicable, documentation, subcontracts, data configuration, traceability, records, technical data, design, software production, transition, testing and commissioning and operational acceptance testing.

Technical Management

Define, by reference to a plan or otherwise, the processes and procedures to be applied for systems engineering, maintenance and support, hardware development and manufacture, software development, integration and installation, test and acceptance.

Project Completion

Describe the approach to completion planning, evaluation, commissioning and handover.

In addition to the general requirements above the PMP must cover the following items:

- Key Personnel, including organisational and individual roles, responsibilities and accountabilities for the completion of the project;
- project management systems (technical, schedule, budget and risk) to be applied to the project;
- engineering management systems to be applied to the project;
- quality management system to be applied to the project;
- configuration and change management systems to be applied to the project, including defects and failures;
- the execution strategy for the project, including all stages and activities, including their sequencing and timing.
- all risk reduction activities;

- all design, installation, testing and commissioning activities;
- all project management and systems engineering activities;
- all deliverables including equipment, data and documentation;
- all Quality Management activities;
- all transition activities, including but not limited to training for TfNSW Operational and Maintenance staff; and
- all OH&S and induction activities as specified in the TfNSW Operational and Safety Constraints (reference to be inserted).

B.2 Deliverable Description – PROJECT PROGRESS REPORT

Description/Purpose

The Project Fortnightly Status Report (FSR) provides reports on all subjects relating to management of the Contract and work progress. A new FSR shall be produced each fortnight and shall be formally presented and discussed at the Fortnightly Progress Meeting (FPM) for that fortnight.

Content

Each FSR shall include:

- an executive summary;
- a summary of progress on each work package including the completion status of all deliverables;
- a summary of activities completed during the previous month;
- a summary of activities forecast to be completed during the next month;
- a summary of Contract payment profile showing Contract payments to date and payments remaining;
- a summary of Actions arising from previous FPM and any outstanding actions from all previous FPMs; and
- a summary of risks or issues which may affect the Project.

B.3 Deliverable Description - PROJECT SCHEDULE

Description/Purpose

The Master Project Schedule (MPS) identifies all major activities and their culminating milestones, including delivery of CDRLs, training, software and hardware. The content and structure of the MPS shall be developed using the following structure and description as a guide.

GANTT Chart

The content of the MPS shall consist of a Gantt representation of a complete critical path network. The model shall exhibit the following characteristics:

- there are no constraint dates;
- lowest level tasks have both predecessors and successors;
- over 80% of the relationships are 'finish to start';
- the immediate (3) month schedule must contain no task that has duration of greater than twenty (20) working days;
- the immediate one (1) month schedule must contain no task that has duration of greater than ten (10) working days.

Milestones

Milestones shall be included in the MPS for completion of all major technical and Project reviews, forecast delivery dates for all Data Items and items of Supplies, and completion dates for all significant activities. In addition to the detailed schedule, a summary chart showing milestones and summary activities only shall be provided.

Milestones should include, but not be limited to:

- planning / project management activities;
- Project Authority activities, including hardware acquisition, installation and commissioning tasks;
- software installation and commissioning;
- software development activities;
- software development process milestones, including provision for iterative development;
- software and system integration activities;

- application data configuration activities;
- application data validation;
- testing activities including System Testing, User Acceptance Testing and any provision for regression testing;
- user consultation activities for functionality, transition, testing and commissioning, etc;
- demonstration of progress milestones;
- formal reviews (system requirements review, system design review, test readiness review, etc);
- formal acceptance points;
- progress meetings;
- staff training; and
- delivery of data and documentation.

Activities

Activities represented shall be consistent with the WBS and Statement of Work.

Resources

The MPS shall include a resource assignment for all activities. Resources required from external parties shall be clearly identified.

B.4 Deliverable Description - SYSTEMS ENGINEERING MANAGEMENT PLAN

Description/Purpose

The Systems Engineering Management Plan (SEMP) describes the complete, integrated technical effort which the Contractor will apply to define, control, direct and integrate all engineering activities during the project. The SEMP incorporates all tasks to be conducted as part of that technical effort, including subcontracted tasks. The content of the SEMP shall be developed using the following structure and description as a guide.

Systems Engineering Organisation. Provide an overview of the systems engineering processes to be applied to the total project engineering effort. Specify the responsibilities and authority for each position within the project engineering organisation. Nominate the position which carries the overall responsibility of system Design Authority and any other positions which have Design Authority delegation for system sub-elements. Describe the intended approach to controlling sub-contractor engineering effort.

Requirements Analysis. Describe the requirements analysis process which will be followed to capture, analyse, change and manage requirements. Specify the entry and exit criteria for the Preliminary Design Review (PDR).

System Synthesis. Describe the design process which will be followed to ensure that the resultant system and interface design meets all constraints and is capable of performing all functions necessary to meet system requirements. Specify the entry and exit criteria for the System Design Review (SDR).

Software Engineering. Describe the software management and engineering processes to be applied to the software development effort including tools, development environment, requirements management and change control.

Safety in Design. Describe the design process which will be followed to ensure that the resultant system will be safe to operate and maintain.

System Integration. Describe the overall approach which will be taken to system integration. Outline the major integration steps in a staged project implementation. Describe the level of pre-site integration which will be carried out and any other measures which will help to reduce integration risk, including the following topics:

- Description of the incremental activation of operational capability, with reference to the Master Program Schedule and the Test and Commissioning Plan;
- Objectives of any trials, demonstrations and simulations, including the role planned for the Simulator/Emulator Sub-System at each stage of System rollout; and
- Identification of key risk milestones and ‘hold points’ in the program.

Test and Acceptance. Describe the overall approach and philosophy to system test and acceptance. List the documentation related to test and acceptance which will be produced during the project. Specify the entry and exit criteria for the Test Readiness Reviews (TRR) for FAT, SAT, UAT and Operational Trials.

Control. Describe the responsibilities of all review boards which have an engineering review function. Describe the formal engineering reviews to be undertaken including, but not limited to, SRR, SDR and TRR. Describe the key technical documents to be produced as a result of the systems engineering process. Describe the procedures to be applied for configuration management of technical data and documentation; in particular, describe arrangements for maintenance and control of system baseline configuration(s) and specify the range of configuration management documents which will be used.

B.5 Deliverable Description – BILL OF MATERIALS

Description/Purpose

The Bill of Materials (BoM) provides a summary of all equipment (hardware and software) supplied by the Contractor.

Content

The BoM must include the following details for each item of equipment:

- manufacturer;
- supplier;
- part number;
- version (if applicable);
- serial numbers;
- description;
- other characteristics as applicable (i.e. firmware and power requirements);
- quantity supplied;
- software/firmware Revision;
- special test equipment; and
- reference to design and OEM documents.

B.6 Deliverable Description - SYSTEM REQUIREMENTS SPECIFICATION

Description/Purpose

The System Requirements Specification is derived from the Principal's System Functional and Performance Requirements and enables the Contractor to define the System requirements for designers at a component level.

Content

The System Requirements Specification must include the following:

- verification method; and
- trace to System Principal's Functional and Performance Specification.

B.7 Deliverable Description – SYSTEM INTERFACE DOCUMENT

Description/Purpose

The Software Interface Document (SID) identifies and describes all internal and external interfaces to the MMS.

Content

The SID must include at a minimum, the following:

- General Interface description;
- Reference Documents;
- Physical Interface Specification (physical interface description, physical interface redundancy and physical interface configuration setup);
- Data Interface Specification (data interface model, applicable data interface standards, network addressing interface control, data message definitions);
- Interface Implementation (implementation scope, implementation context, system modes, mode transitions, error handling, communication alarms, communication error statistics, data interface redundancy, failover and error recovery, server startup and failover, data interface configuration setup, and loopback simulation); and
- Implementation Notes.

B.8 Deliverable Description – SOFTWARE REQUIREMENTS SPECIFICATION

Description/Purpose

A Software Requirements Specification must be supplied for each MMS internal and external interface identified in the SID. Interface information to be included in the document must enable a third party to re-design the System interface using only the information provided in the document.

Content

Each SRS must include at a minimum, the following:

- description of interface (purpose, source destination, type of information transmitted);
- electrical properties;
- software protocols (to the level of individual characters and bits);
- rates, bandwidth, IP addresses, CRC checks where applicable;
- addressing of parties involved in the communications; and
- sequence diagram of message sequences with System, including but not limited to:
  - (i) start up of communications;
  - (ii) failover of communications to redundant server;
  - (iii) graceful/non-graceful termination of communications; and
  - (iv) other significant sequence not documented in Subsystem /internal/external interface documents.

B.9 Deliverable Description – HARDWARE REQUIREMENTS SPECIFICATION

Description/Purpose

A Hardware Requirements Specification (HWRS) must be supplied for each item of hardware supplied by the Contractor.

Content

Each HWRS must include at a minimum, the following:

- Description of hardware (purpose and functions);
- Configuration incl peripheral details;
- Power requirements;
- Communication interface details including network configuration and address details;
- Performance (memory capacity, hard-disk capacity, Video card and CPU speed);
- System redundancy;
- Environmental limits (temperature, humidity, noise and vibration);
- MTBF;
- Quantity;
- Installation support infrastructure requirements; and
- Installed location/s.

B.10 Deliverable Description - 010 DETAILED DESIGN DOCUMENT

Description/Purpose

The Detailed Design Document (DDD) provides a description of the system that has been specified by the system Functional Performance Specification. The DDD identifies the major components of the system and discusses the functions being undertaken by these components. The DDD provides the traceability of the development of the system design and includes discussion of any trade-offs that resulted in the proposed architecture. The content of the DDD shall be developed using the following structure and description as a guide.

System Overview

This section shall briefly state the purpose and general nature of the system; summarise the history of system development, operation, and maintenance; identify developer and support agencies; identify current and planned operating sites; and list other relevant documents.

System-Wide Decisions

This section shall be divided into paragraphs as needed to present system-wide design decisions; that is, decisions about the system's behavioral design (how it will behave, from a user's point of view, in meeting its requirements, ignoring internal implementation) and other trade-offs affecting the selection and design of system components. Examples of system-wide design decisions are the following:

- Design decisions regarding inputs the system will accept and outputs it will produce, including interfaces with other systems, configuration items, and users.
- Design decisions on system behavior in response to each input or condition, including actions the system will perform, response times and other performance characteristics, description of physical systems modeled, selected equations/algorithms/ rules, and handling of disallowed inputs or conditions.
- Design decisions on how system databases/data files will appear to the user.
- Selected approach to meeting safety, security, and privacy requirements.
- Design and construction choices such as physical size, colour, shape, weight, materials, and markings.
- Other system-wide design decisions, such as the selected approach to providing the user interface, operator workload assessments, required flexibility, availability, and maintainability.

System Architecture

This section is written in terms of organising a system into subsystems, and organising a subsystem into hardware and software components and manual operations. This section shall:

- Identify the hardware and software components of the system, and manual operations.
- State the purpose of each component and identify the system requirements and system wide design decisions allocated to it.
- Identify each component's development status/type, if known (such as new development, existing component to be reused as is, existing design to be reused as is, existing design or component to be reengineered, component to be developed for reuse, component planned for Build N, etc.) For existing design or components, the description shall provide identifying information, such as name, version, documentation references, location, etc.
- For each computer system or other aggregate of computer hardware resources identified for use in the system, describe its computer hardware resources (such as processors, memory, input/output devices, auxiliary storage, and communications/ network equipment)

Concept of Execution

This section shall describe the concept of execution among the system components. It shall include diagrams and descriptions showing the dynamic relationship of the components; i.e, how they interact during system operation.

Interface Design

This section shall be divided into subparagraphs to describe the interface characteristics of the system components. It shall include both interfaces among the components and their interfaces with external entities such as other systems, configuration items, and users.

Failure Modes

This section shall document the results of undertaking Failure Modes, Effects and Criticality Analysis (FMECA), including the range, importance and content of fault alerts or messages presented to all user interfaces.

System Standards

This section defines common processes, techniques, tool and conventions that will be used throughout the project to maximise efficiencies and introduce uniformity throughout the project.

Physical Database

This section defines the actual database to be used by the system. The process to ensure data accuracy is also described in this section.

Interfaces

This section is written in terms of identifying all interfaces and describing the interface characteristics.

Performance

This section is written in terms of describing how the reliability, availability, capacity and performance of the system is based on the architecture proposed in the System Description.

Requirements Traceability

This section shall contain:

- Traceability from each system component identified in this DDD to the system requirements allocated to it.
- Traceability from each system requirement to the system components to which it is allocated.

Content

The DDD must include at a minimum the following:

- design calculations and drawings;
- installation and ‘As Installed’ drawings at both the physical and logical level;
- installation and mounting details for the System equipment and cabling;
- logical network definitions at both system and detail level including but not limited to VLANs, IP addresses and interfaces;
- general arrangement drawings of the relevant room or building showing new or changed equipment rack/cabinet or equipment locations;

- for each new and modified equipment rack/panel, equipment rack layout diagrams showing the positions and dimensions of each piece of equipment in the rack;
- cable diagrams and termination schedules for all new equipment and existing equipment which interface with new equipment;
- cable schedules;
- software architecture and software deployment diagrams;
- summary of interfaces internal to the System (including third party products);
- specific functionality developed or modified for MMS Project that is not documented in other documents;
- database schema and entity/relationship diagram;
- details of the individual software components within the System (code, size, role);
- memory usage (what written to disk, what stored in real time memory);
- maintainability (failure modes, diagnostics and fault management);
- supportability (upgrades) of System;
- System performance; and
- redundancy structures and System states and modes (including the system initialisation).

B.12 Deliverable Description – GUI DESIGN SPECIFICATION

Description/Purpose

The primary purpose of the GUI Design Specification (GDS) is to describe the MMS specific implementation of the GUI environment, including the GUI Environment Features and User Interactions, Default Desktop Layout and Custom Implementation of Graphic Displays, including general display conventions and specific display designs.

Content

The GUI Design Specification must include, at a minimum, the following:

- a standard layout for all GUI screens;
- a common set of colours for the annunciation of icon and alarm status;
- a common set of icons;
- a common set of names;
- a summary map or tree of all screens and how they will be accessed (not their content);
- a common layout of GUI screens across the displays;
- the design of every GUI screen:
  - (v) all icons, colours, maps, text boxes on the page;
  - (vi) the static behaviour associated with the page; and
  - (vii) the dynamic behaviour associated with the page.
- any relationships between information displayed on different pages; and
- limitations associated with the GUI (i.e. only a certain number of windows can be displayed at any single point in time, docked or undocked windows).

B.13 Deliverable Description – THROUGH LIFE SUPPORT PLAN

Description/Purpose

The Through Life Support Plan (TLSP) describes the effort which the Contractor will apply to identify the through-life logistic support requirements for the complete System, including the provision of logistic support for the System from installation through the Defect and Liability Period and for a further period of ten (10) years. The content of the TLSP shall be developed using the following structure and description as a guide.

Maintenance and Support Program

Describe the project activities which will identify, define, develop and provide support for the System at the most economical cost. Describe the general maintenance concept for the System in terms of levels of maintenance, staff numbers and repair facilities. Describe the procedures to ensure that configuration control is maintained. Describe the different levels of System support which are available throughout a 24 hour per day, 7 day continuous period. Describe the scope of preventive maintenance tasks. Describe the operation of the system 'Help Desk' facility. Describe the level of support available specifically for software problems.

Logistic Support Analysis

Describe the procedures for undertaking logistic support analysis including the determination of:

- a repair policy for each item of hardware and software supplied,
- spares holding and locations,
- support and test equipment,
- technical data and documentation,
- support staff numbers, locations and required competencies, and
- training requirements including training aids.

Obsolescence Management

Describe the activities which will identify, define, develop and provide support for the System. Describe the procedures to ensure that configuration control is maintained. Describe the different levels of System support which are available throughout a 24 hour per day, 7 day continuous period. Describe the scope of preventive maintenance tasks. Describe the level of support available specifically for software problems.

Reliability, Maintainability and Availability

Describe the procedures to be followed to help ensure that the system maintains the required level of performance and reliability.

Training

Describe the range of training courses to be provided, including the scope and timing for each course.

Documentation

Provide a summary of the documentation which will be provided with the system for maintenance, operation and training purposes. Indicate what documentation will be developed specifically for the System.

Support Hours

24 hours per day, 7 days of the week during the Support Term.

B.14 Deliverable Description – Test and Commissioning Plan

Description/Purpose

The Test and Commissioning Plan describes the plan and activities associated with the following:

- Verification and Validation including;
- Validation of requirements through design reviews (Technical Discovery, SDR, TRRs);
- Verification traceability linking SRS requirements to specific test, review and audit activities that demonstrate compliance in full;
- Test approach to ensure complete requirements coverage in formal testing and safely conduct integration testing in a brownfields site;
- Delivery & Commissioning, outlining the process by which the final product will be brought online with minimal impact on road users.

Verification and Validation

Provide a description of the overall Verification and Validation plan for the project showing the range of requirement documents (FPS, SRS and SWRS) and the intended approach to Validating the accuracy and coverage of the requirement suite, and Verifying the product meets these requirements.

Phases: Provide a description of the phases of the Verification and Validation Strategy. These should include the design review and formal test program as a minimum.

Each phase should describe the expected test activities by module and provide an explanation of how the design baseline will be controlled through design reviews and the process by which the implemented design will be clearly traceable back to SRS requirements at each project phase. Entry criteria and expected deliverables are to be listed for each phase.

Personnel, site and equipment requirements should be clearly defined (including personnel competency and availability requirements as well as any site and equipment availability, services and location requirements. This must include the time, duration and location of any test stubs, special test equipment, emulator or simulators required.

Modules: Provide a description of the modules into which the design, development and test effort will be divided. Each module should describe the individual test components necessary for that module (i.e. Object Inspection, Object Test, Functional Test). For each test component for each module describe the personnel, site and equipment requirements needed for successful completion of testing.

Interdependencies: Provide an outline which phase each module test component will be conducted in (ideally as a database or spreadsheet to allow ordering by phase, test or component). Provide a diagram showing dependencies between module development and test component completion.

Constraints / Risks: Provide an overview of consolidated constraints and risks on or arising from the test program as outlined.

Resourcing / Scheduling: Based on the individual resource and timing requirements provide an overview of the expected resource requirements and proposed schedule of events for the test program.

Delivery & Commissioning

Provide a description of the intended delivery and commissioning plan including any staging or build-up plans. This should include for each stage the personnel, equipment and site requirements. Personnel requirements should include the competency and availability requirements of staff for preparation activities, installation and cutover activities, and ongoing support activities for each stage. Equipment requirements should include the equipment to be installed, other equipment installation / configuration dependencies, and services (power, water, air conditioning) needed. Site requirements should include office spaces, storage and staging area requirements and actual installation site requirements.

Interdependencies: Provide an overview of any equipment installation or site development interdependencies as well as a list of any known inter-project dependencies. Provide a detailed summary of expected services required to enable planning, procurement and installation activities to be commenced at the start of development.

Constraints / Risks: Provide an overview of consolidated constraints and risks on or arising from the delivery & Commissioning program as outlined.

Resourcing / Scheduling: Based on the individual resource and timing requirements provide an overview of the expected resource requirements and proposed schedule of events for the delivery & Commissioning program.

B.16 Deliverable Description – TEST SPECIFICATIONS

Description/Purpose

A.1.1.2 For each test activity detailed in the Test and Commissioning Plan the Contractor must prepare a Test Specification.

Content

A.1.1.3 Each Test Specification must contain the following:

- test activity unique identifier, name and revision;
- objectives and purpose of the test;
- test scope (including traceability to Principal's Functional and Performance Specification requirements);
- test assumptions and constraints;
- required test equipment and resources;
- details of any work permit and traffic management plans required;
- test pass and fail criteria;
- the configuration and setup under which the test will be conducted;
- System Test Procedures;
- definition of test baseline;
- expected results; and
- rectification procedures if expected results are not achieved.

B.17 Deliverable Description – TEST REPORTS

Description/Purpose

For each test activity detailed in the Test and Commissioning Plan the Contractor must supply a Test Report.

Content

Each Test Report must include the following details:

- test activity unique identifier, name and revision;
- requirements addressed;
- date, start time and finish time of test activity;
- test configuration;
- whether test is being conducted for the first time or whether it is a retest;
- test observations;
- test results against pass or fail criteria;
- cumulative status of all requirements passed and failed and reference to the relevant test procedure (separate document);
- acceptance criteria evidence; and
- problem description and recommended solution.

B.18 Deliverable Description – TEST LOG

Description/Purpose

The Contractor must maintain a Test Log of all completed testing on the system.

Content

The Test Log must contain the following:

- date, start time and finish time for each uniquely identified test activity and specification;
- unique test activity and specification identifier;
- test pass and fail status;
- any unexpected events or transgressions from the procedure; and
- unique identifiers for any defects or problems raised during the test activity.

B.19 Deliverable Description – DRAWINGS & DOCUMENTS

Drawing Formats

All digital files will only be accepted in either AutoCAD or Microstation format and will meet the criteria as set-out below.

Microstation

Digital drawings supplied in Microstation format:

- drawing units must be in meters;
- standard fonts or Standard True Type fonts are to be used, if another is used it is to be supplied with the files and noted that a non standard font is being supplied;
- a TfNSW ‘A3’ panel will be supplied, and drawings will only be accepted on these panels;
- drawings are to be scaled accordingly to suit the ‘A3 format’;
- all text to be legible when plan reproduced at ‘A3’; and
- digital files are to be supplied in Version 7 or 8 of Microstation (versions after this can not and will not be accepted).

AutoCAD

Digital drawings supplied in AutoCAD format:

- drawing units must be in meters;
- standard fonts or Standard True Type fonts are to be used, if another is used it is to be supplied with the files and noted that a non standard font is being supplied;
- a ED ‘A3’ panel will be supplied, and drawings will only be accepted on these panels;
- drawings are to be scaled accordingly to suit the ‘A3 format’;
- all text to be legible when plan reproduced at ‘A3’; and
- digital files are to be supplied in a Version up to 2004 AutoCAD (versions after this can not and will not be accepted).

B.20 Deliverable Description – SOFTWARE RELEASE NOTES

Description/Purpose

The Contractor must supply Software Release Notes for each new formal release of software.

Content

The Software Release Notes must include, but are not limited to:

- referenced documents;
- description of the release including:
  - (i) software release version number;
  - (ii) contents including the version of each Computer Software Configuration Item (CSCI); and
  - (iii) packaging.
- software and configuration changes;
- regression testing completed;
- known issues;
- installation instructions;
- new issues and problems;
- details of the development environment including software compiler used; and
- details of the deployment environment including compatible operating system.

B.21 Deliverable Description – MAINTENANCE MANUAL

Description/Purpose

The Contractor must supply a Maintenance Manual that details the routine and on-condition maintenance, troubleshooting and configuration of any new or modified equipment and software supplied by the Contractor.

Content

The Maintenance Manual must include all maintenance instructions (work instructions) which TfNSW maintenance staff may be required to perform, including but not limited to:

- system failover (from active to hot standby);
- disaster recovery (production to development systems);
- addition of new GUI screens;
- addition of new devices of the same type;
- System cold start; and
- System rebuild (from newly delivered hardware).

The Contractor must deliver a set of manufacturer's maintenance manuals as attachments to the System Maintenance Manual for each piece of hardware delivered.

B.22 Deliverable Description – OPERATORS MANUAL

Description/Purpose

The Contractor must supply an Operators Manual that supports the day to day operation of the MMS by the Operators.

Content

The Operators Manual must detail procedures for:

- day-to-day operation of the System;
- System set-up and configuration; and
- System troubleshooting and diagnosis.

The Operators Manual must include all Configuration Data.

The Operators Manual must include operators manuals for all new hardware and third party software delivered as attachments to the System Operators Manual.

The Operators Manual must include all work instructions which System users may be required to perform, including but not limited to:

- generation and maintenance of plans;
- generating new reports;
- management of an incident; and
- supervisor functions.

ANNEX C - SERVICE LEVELS

The Contractor is responsible for achieving the following Service Levels during the Defect and Liability Period.

#	Service Level	Description	Service Level Summary Report Criteria
1	**System Availability**	The In-Service Availability (ISA[1]) of the MMS must be not less than 99.995%.	Any occurrence during the reporting month of the System being unavailable.
2	**System Reliability**	The System must be reliable and not transition to a degraded state.	Any occurrences during the reporting month of the System transitioning to a degraded state.
3	**Helpdesk - Log Fault**	The Helpdesk must be contactable twenty-four (24) hours a day, seven (7) days a week to log all System Defects and Faults reported by the Principal or its representatives.	Any occurrence during the reporting month of the Helpdesk being uncontactable to log a Defect or Fault.
4	**Helpdesk - Response time**	For all Defects and Faults classified as Critical the Helpdesk must provide a response to the Principal with a plan to solve the Defect or Fault within thirty (30) minutes of being logged by the Helpdesk.	Any occurrence during the reporting month of the Helpdesk not providing a response to the Principal with a plan to solve a Defect or Fault within thirty (30) minutes of the Defect or Fault being logged by the Helpdesk.
5	**Helpdesk -Interim Rectification time**	For all Defects or Faults classified as Critical the Contractor must complete any interim works required to restore the full control and monitoring function of the System within two (2) hours of being logged by the Helpdesk.	Any occurrence during the reporting month of the Contractor not completing any interim works required to restore the full control and monitoring function of the System within two (2) hours of a Defect or Fault being logged by the Helpdesk.
6	**Helpdesk - Complete Rectification time**	For all Defects or Faults the Contractor must complete all works required to correct the root cause of the Defect or Fault, including software upgrade, installation, verification and regression testing of the System within 48 hours (for Critical), 10 days (for Blocker), or a period negotiated and accepted by the Principal (for all Defects or Faults), of being logged by the Helpdesk.	Any occurrence during the reporting month of the Contractor not completing all works required to correct the root cause of a Critical or Blocker Defect or Fault, within the Principal's accepted response time.
7	**System Reports**	The Contractor must provide a complete Monthly MMS Status Report to the Principal by the first Business Day of the following month.	Any occurrence of complete Monthly MMS Status Report not provided to the Principal by the first Business Day of the following month.

Notes: 1. ISA is defined in the Principal's Project Requirements.

ANNEX D - PRINCIPAL'S SYSTEM RESPONSIBILITIES

Maintenance

- Limited to routine maintenance, system diagnostics and hardware component replacement that can be performed IAW Contractor supplied System Operator and Maintenance manuals that does not require specialist knowledge of the System or training in addition to that provided by the Contractor.
- Confirm correct operation of the System after any maintenance action.
- Provide VPN Remote access to the System for monitoring purposes by Contractor.

Spares & Consumables

- Return faulty items for repair or replacement to Manufacturer.

Other Support

- Management of MMS Support Agreement.
- MMS status monitoring.
- Development of new System GUI screens.
- Addition of further System entities or attributes.
- Backup and restore database.
- Disable or enable Subsystem interfaces.
- Administer user types and settings.

ANNEX E - ASSET REGISTER TEMPLATE

DeviceID (equipment id)	Device Name	Device Type	Host System	Controller ID	ParentDeviceID	Firmware Version	Serial No	Comms Type	Comms Number	Location Street	Location Direction	Location Suburb	Location Description	Long	Lat

ANNEX F - ENGINEERING CHANGE REGISTER

No	Title	Item Status	Description	Owner	Date Raised	Security	Originator	Safety	Security	System	Equipment	Engineering Authority	Status	Action	Comments

ANNEX H - VERFICATION AND VALIDATION STAGES

Type Approval

For equipment that are type approved in accordance with procedure TS201 and factoring any relevant exclusions, as listed on the type approval certificate, the equipment has met the necessary TfNSW requirements. Therefore, equipment compliance does not need to undergo the processes detailed in this specification as if it were a developmental item. Type approved equipment will be subject to the processes detailed in this specification when integrated as part of a system. List of approved equipment is found in procedure TS200.

For equipment and system solutions that are project approved in accordance with procedure TS202 and factoring any relevant exclusions, as listed on the project approval certificate, the equipment and system solution has met a number of TfNSW requirements. Therefore, equipment and system solution compliance only needs to cover the relevant the activities detailed in this specification to cover the TfNSW requirements that are not covered by the project approval process.

Test Stage Description

General

The Verification and Validation activities will be executed in a systematic and progressive manner commencing with individual equipment testing at the factory level culminating in the testing of all the units integrated together and controlled by the Traffic Control Operators. The various test steps are outlined below.

Factory Acceptance Testing

All equipment delivered, as part of the project will undergo some level of Factory Acceptance Testing (FAT) to ensure the equipment delivered has been built as per the design and has left the factory is a working, compliant condition.

For the first of type, the equipment will be tested to verify most, if not all of the technical requirements specified in the specifications, where practical. There will be some requirements that can only be tested once interfaced with the power and network communications backbone and/or other Systems. These tests cannot be fully tested at FAT but will be tested during the later test stages.

For the remaining units – rolled out as a production run - only a subset of testing will be required providing a level of confidence that the equipment is functioning and is safe to operate. It is assumed each unit is built to the same quality and standards exhibiting the same functionality and as such a full set of FAT test steps is not necessary.

Another part of FAT will cover Quality inspection of the individual units. These inspections will check the equipment has been built in accordance with the standards specified in the specifications and equipment detail drawings. These checks will inspect the look and feel and workmanship of the finished product and ensure it is has the necessary quality finish to be delivered to the project and installed on the Asset.

Site Acceptance Testing

Site Acceptance Testing (SAT) will be performed as part of the installation and power up (Set to Work) activities performed on site when the equipment is installed on the road, on various structures or in the back end equipment rooms. The SAT will cover two main areas. The first will ensure the equipment is connected to the power source correctly and can be powered up with no issues. Once power is established the SAT will cover the interface testing of the equipment with the network communications backbone and/or other Systems where required.

As with the FAT testing, inspection of the installation will occur to check the equipment has been installed in accordance with the standards specified in the specification and equipment installation drawings. These checks will look at the workmanship of the finished installed product and ensure it is has the necessary quality finish to be delivered to complete SAT. A walk through of the SiD register against the installed equipment would be performed to identify any residual risks.

System Integration Testing

System Integration Testing (SIT) is an important step in the overall Test Program providing the opportunity to test the ability for individual Sub Systems to be controlled and/or managed by an Operational System that is controlled by the Traffic Controllers. Integration Testing will occur once SAT testing has been completed for individual Sub Systems and the MMS has been updated to accept these Sub Systems.

Type Certification

Type Certification is an activity that assesses and certifies the equipment's design and tests against the requirements and standards specified in the Sub-System Specifications. Type Certification only occurs for one set of equipment and requires personnel with the appropriate technical background and expertise to review all the evidence provided by the designer to certify the equipment.

The Contractors will certify their equipment and will provide a Design and Equipment Compliance Certificates, forming part of the Type Certification activity.

User Acceptance Testing

User Acceptance Testing is performed once all the Systems have undergone Integration Testing and are to be tested in an operational environment ensuring they are integrated and can be operated in a logical manner. User Acceptance Testing will require Traffic Controllers to participate in the test and to validate the traffic management plans and other high level requirements.

The majority of the User Acceptance Testing will be conducted with the equipment out on the field/road in a greenfield site and set in simulation mode in a brownfield site. On occasions when appropriate traffic management is in place – that is, during maintenance periods – testing with the equipment in live or normal mode may be done.

Operation, Test and Evaluation

Once User Acceptance Testing is completed an Operation, Test and Evaluation (OTE) period may be conducted whereby the Traffic Controllers will be using the new equipment in a live road. This period will provide the opportunity for the operators to validate the Systems as a complete entity in a full live environment. TfNSW will be responsible for this stage.

ANNEX I - VERFICATION AND VALIDATION METHODS

Analysis: Analysis is the use of established technical or mathematical models or simulations, algorithms, or other scientific principles and procedures to provide evidence that the item meets its stated requirements Systems Engineering Management Plan WDSM (Unsigned printed copies of this document are uncontrolled)

Inspection: Inspection is observation using one or more of the five senses, simple physical manipulation, and mechanical and electrical gauging and measurement to verify the item conforms to its specified requirements

Demonstration: Demonstration is the actual operation of an item to provide evidence that it accomplishes the required functions under specific scenarios

Test: Test is the application of scientific principles and procedures to determine the properties or functional capabilities of items

ANNEX J - TECHNICAL REVIEW AND AUDIT REQUIREMENTS

4.6.6.2 Systems Requirements Review (SRR)

a. The purpose of SRR is to ensure that the technical requirements and system level design are understood by all parties with acceptable risk and that the design can proceed to detail design. The review also confirms that the correct design options have been selected, interfaces identified and verification methods have been satisfactorily assigned.

b. The objective of the review is to:

(i) evaluate the progress, technical adequacy and risk resolution of the selected design solution;

(ii) determine that the requirements and system level design compatibility with performance and engineering specialty requirements; and

(iii) establish the existence and compatibility of the physical and functional interfaces between the System and internal and external interfaces.

c. The entry criteria to SRR are:

(i) System Specifications

(ii) System Specification RVM

(iii) System Architecture Diagrams (draft)

(iv) Initial Safety Assessment

(v) Review of Technical Risks.

d. The exit criteria to SRR are:

(i) Minutes of Meeting - approved

(ii) Agreed set of deliverables

(iii) Technical Authority approval to progress design

(iv) Agreed list of risks, issues to flow onto next stage.

(v) Safety Issues agreed and approved for next stage

(vi) Agree draft functional and physical architecture.

4.6.6.3 Critical Design Review (CDR)

a. The purpose of the CDR is to mitigate project risk and provide the necessary level of confidence that the design is ready for implementation.

b. The objectives of the CDR are to:

(i) verify that the design as detailed in the Detailed Design Document fulfils the SRS and other derived requirements;

(ii) confirm that the proposed design is expected to meet the functional and performance requirements;

(iii) confirm how Safety in Design has been performed by the Contractor;

(iv) confirm the GUI design;

(v) show that the design is verifiable and that the risks have been identified, characterised and mitigated where appropriate;

(vi) evaluate the progress, technical adequacy and risk resolution (on a technical, cost and schedule basis) of the design solution; and

(vii) evaluate the compatibility of the physical and functional interfaces between the System and internal and external interfaces.

c. Entry criteria for the CDR is as follows:

(i) Final Sub-System Specifications

(ii) Equipment Lists

(iii) Interface Design Document (IDD)/System Interface Document(SID)/Interface Control Document (ICD)

(iv) Final System Functional and Physical Architecture

(v) Detail Drawings

(vi) Requirement Verification Matrix (RVM)

(vii) Draft Test Plan

(viii) Draft Test Procedures

(ix) plans for installation, integration, verification, validation and transition of the System; and

(x) GUI detail design;

(xi) draft Bill of Material;

(xii) draft copy of the Test Specifications and Procedures; and

d. At the CDR the Contractor is to present the following:

(i) an overview of the system design, including status, system architecture, Safety in Design, equipment selection, design decisions, design alternatives (if any) and interfaces;

(ii) a draft of the Integration and Test Plan, including status, Quality Management activities, the scope of testing to be completed during each stage and the scope of reliance on pre-existing test and analysis data;

(iii) details of test and verification activities;

(iv) non-compliances with contractual requirements; and

(v) identified risks and open issues, and their prioritisation, mitigation strategies and status.

e. The exit criteria for the CDR is as follows:

(i) Minutes of Meeting - approved

(ii) Agreed set of deliverables

(iii) Technical Authority approval to progress design

(iv) Agreed list of risks, issues to flow onto next stage.

(v) Safety Issues agreed and approved for next stage

(vi) Agree detail design

4.6.6.4 Integration Readiness Review (SIRR)

a. The purpose of the IRR is to mitigate project risk by ensuring that the project is ready for integration with the existing Subsystems and road side equipment.

b. The objectives of the IRR are to:

(i) verify the maturity and robustness of the System through a revision of test results;

(ii) confirm that the proposed integration, test and transition planning is workable; and

(iii) confirm all requirements for personnel, support, access to facilities and test equipment are well understood.

c. Entry criteria for the IRR is as follows:

(i) closeout of all issues raised at the CDR;

(ii) submission of all necessary System Installation, Integration and Commissioning Procedures (refer **Error! Reference source not found.**);

(iii) submission of the draft System Test Procedures;

(iv) submission of necessary Work Permits;

(v) submission of an updated copy of the VVDCP; and

(vi) list of any risks and non-compliances to the System design that are intended to be resolved as part of the integration.

d. The exit criteria for the IRR is as follows:

(i) agreed set of Principal's Scenario tests;

(ii) Principal has completed review of the documents listed at **Error! Reference source not found.**; and

(iii) minutes of the SIRR, drafted by the Contractor, must be approved by the Principal.

4.6.6.5 Test Readiness Review

a. The purpose of the TRR is to mitigate project risk by ensuring that the project is ready for formal test and verification activities at the TfNSW MCCB.

b. The Contractor must convene, with the Principal and/or the Principal's Representative, a STRR prior to the commencement of any formal testing of the System Functional and Performance Requirements.

c. A separate STRR is required for each formal release of the System software. In these secondary and subsequent cases the review focuses on the changes that have been made and their intended impact based on the prior round of testing completed.

d. The entry criteria for each STRR is as follows:

(i) closeout of all issues raised at the SIRR;

(ii) evidence of the successful completion of the System Integration (all equipment in a known/baseline state);

(iii) submission of the System Test Procedures;

(iv) dry run results of the System Test Procedures;

(v) any updates or modifications to the VVDCP; and

(vi) list of all known risks and non-compliances to the System design.

e. At each STRR the Contractor must present the following:

(i) an overview of test and verification activities completed in the preceding stage and a summary of all test results completed thus far;

(ii) an overview of Work Permits, schedule for all planned testing activities, traffic management requirements and compliance with Operational and Safety Constraint requirements;

(iii) a set of dry run test results demonstrating that there is a high level of confidence that all planned testing will be successful;

(iv) details of how operation of the existing TfNSW systems will be impacted;

(v) details of contingency plans and back-out strategies;

(vi) details of Quality Management activities; and

(vii) identified risks and open issues applicable to the project stage, mitigation strategies and status.

f. The exit criteria for each TRR is:

(i) Principal has completed review of the documents listed at **Error! Reference source not found.**;

(ii) minutes of the STRR, drafted by the Contractor, must be approved by the Principal; and

(iii) agreement that installation, commissioning, testing, verification and contractor internal Quality Management activities are mature such that there is minimal risk in proceeding to installation, commissioning, testing and verification.

4.6.6.6 Functional Configuration Audit (FCA)

a. The purpose of the FCA is to confirm that the System meets all the requirements of the Design and Construct Contract. The major focus of the FCA is to confirm that all inspection and testing is complete and that testing demonstrates that contractual requirements have been satisfied. This includes the scenario testing conducted by the Principal.

b. The entry criteria for each FCA is as follows:

(i) closeout of all issues raised at the STRR;

(ii) STRR has been successfully completed;

(iii) delivery of source code;

(iv) all tests have been completed without non- compliance (unless otherwise approved by the Principal);

(v) summary report of all open system defects;

c. the Contractor has delivered all test reports, test results, the test log, and a Requirements Verification Matrix that includes all requirements traceability as detailed below in Figure 1; and

d. the Contractor has delivered the Design & Equipment Compliance Certificate.

e. At FCA the Contractor must present an overview of test outcomes across the full range of test activities, including completeness, deviations in test procedures, test failures and defects. The Contractor must also detail each of the requirements listed on the Design & Equipment Compliance Certificate for which a waiver is sought.

f. The Contractor must resolve any discrepancies, issues, defects or failures either resulting from testing activities or raised at FCA.

g. The exit criteria for each FCA is as follows:

(i) Principal has completed review of the documents listed at **Error! Reference source not found.**;

(ii) minutes of the FCA, drafted by the Contractor, must be approved by the Principal; and

(iii) all discrepancies, issues, defects and failures must be closed-out.

4.6.6.7 Physical Configuration Audit

a. The purpose of the PCA is to verify that the "As Built" definition of the System conforms to the technical documentation that defines the System (Bill of Materials, Detailed Design Document, maintenance and test documentation).

b. All hardware and software discrepancies found between documentation and drawings and the physical installation must be reported to the Principal for assessment. For each discrepancy, the Principal will determine whether:

(i) the physically installed equipment identified as part of the discrepancy is to be replaced such that it complies with the documentation and drawings; or

(ii) the documentation and drawings are to be amended to align with the physical installation.

c. Any discrepancies found during the PCA must be rectified at the Contractor's expense.

d. The entry criteria for each PCA is as follows:

(i) closeout of all issues raised at the FCA; and

(ii) the Contractor has delivered all contractual documentation.

e. The exit criteria for each PCA is as follows:

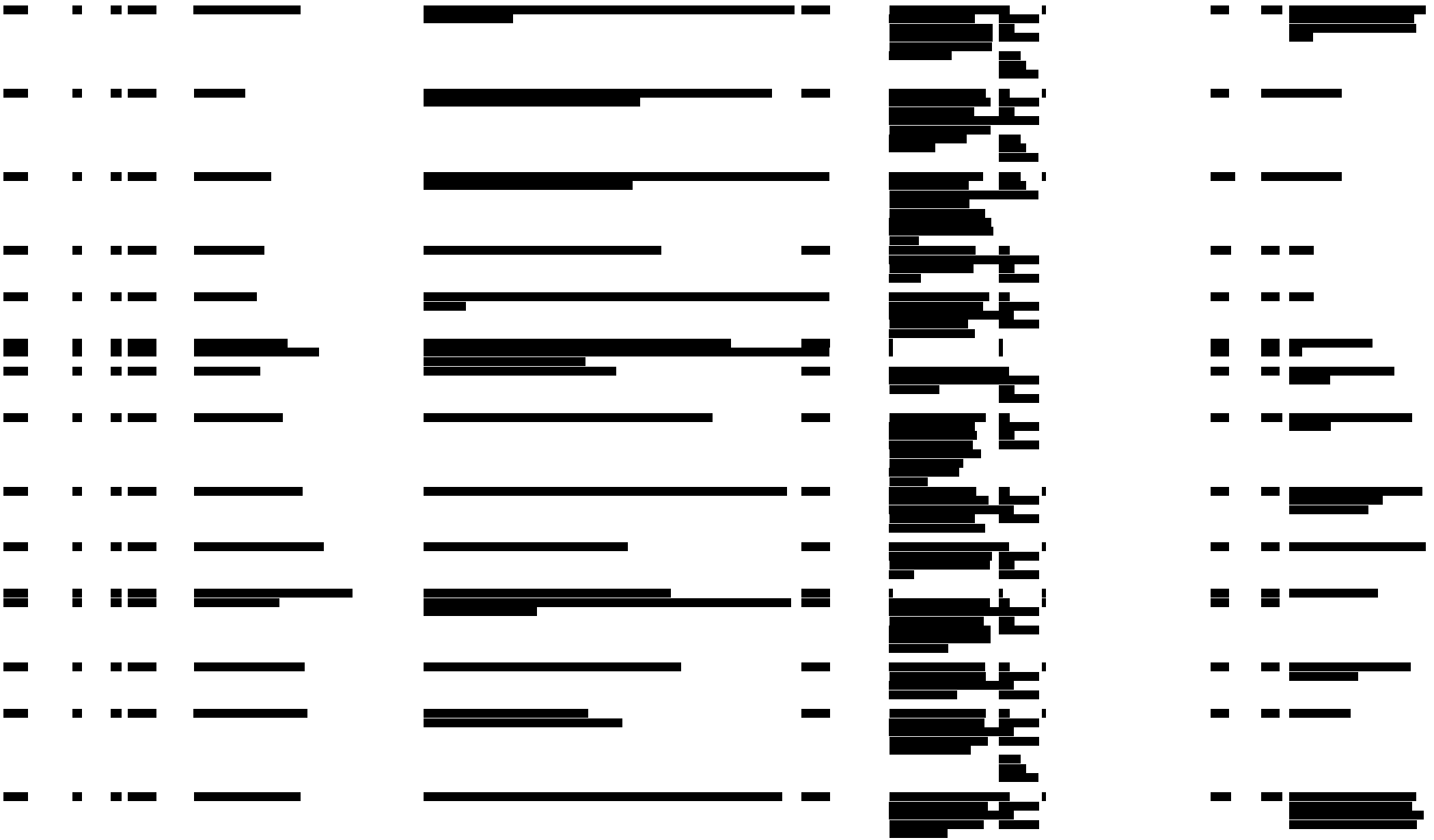
(i) minutes of the PCA, drafted by the Contractor, must be approved by the Principal;

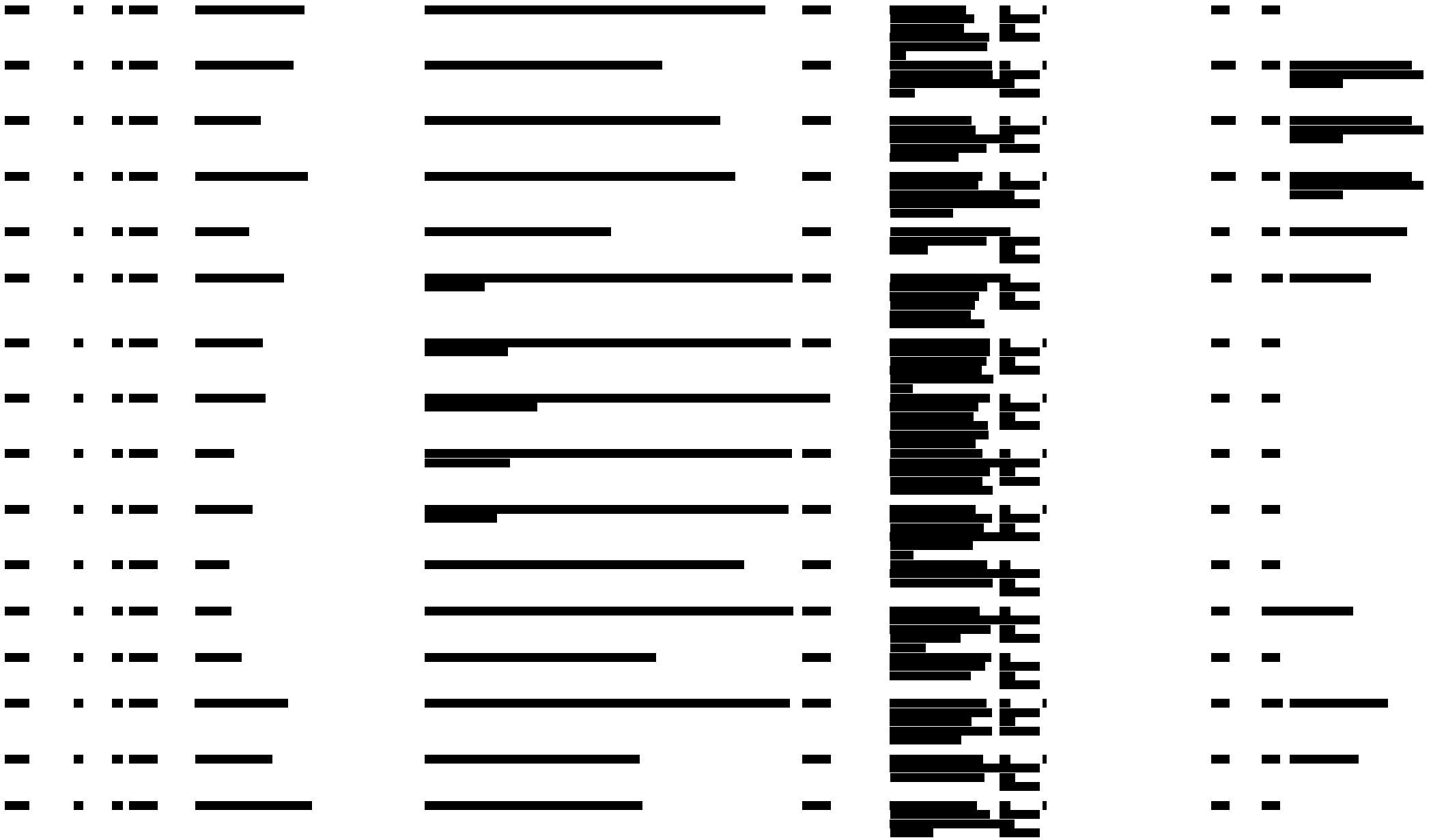
(ii) the Principal must be satisfied that discrepancies found during PCA have been closed-out satisfactorily; and

(iv) the Principal must be satisfied that the PCA activities provide confidence that the documentation and drawings are an accurate reflection of the physically installed equipment.

[redacted]

Genesys ReqId	Project	Seq#	Original ReqId	Genesys Title	Clause	[redacted]
[redacted]						

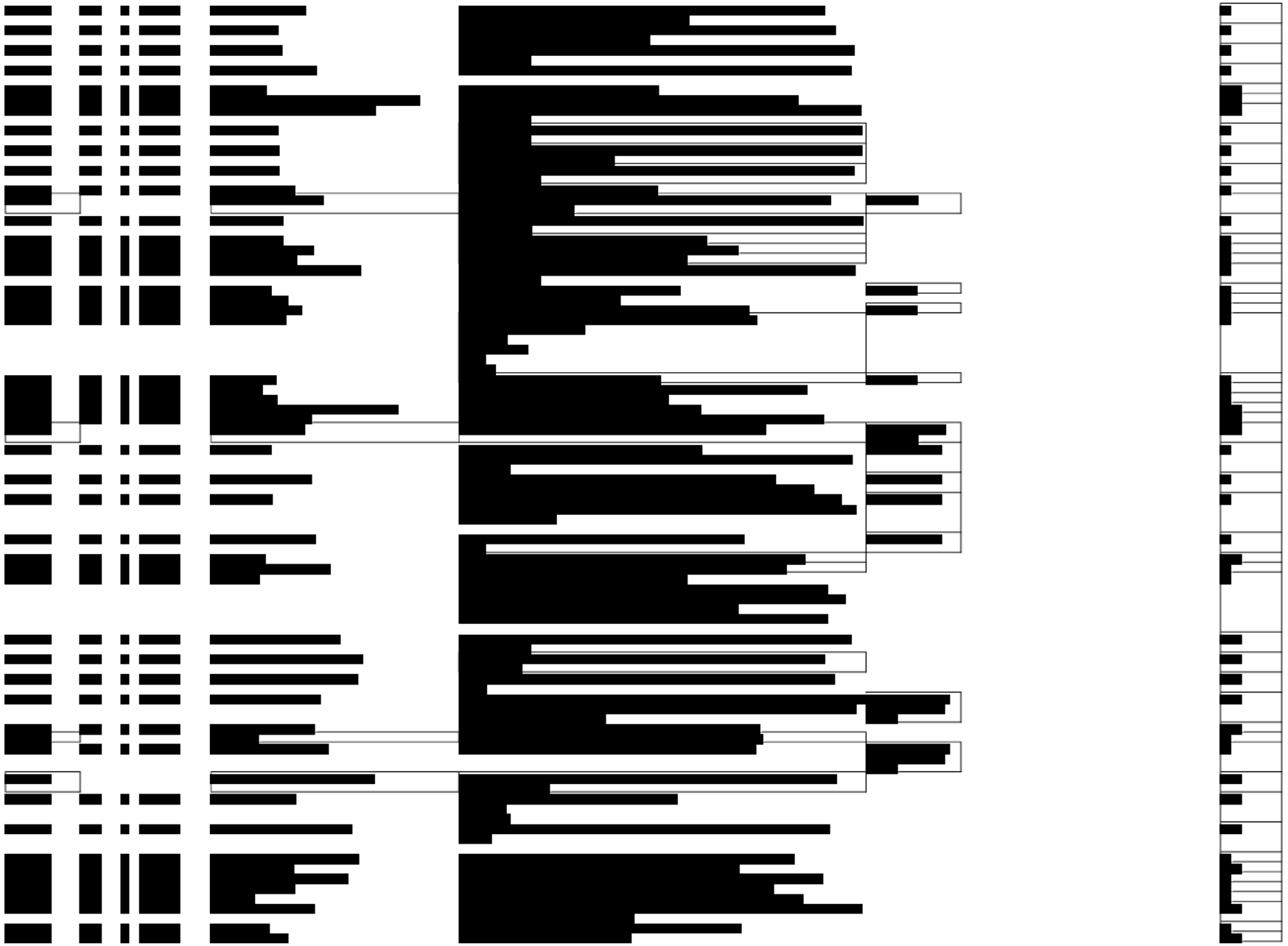


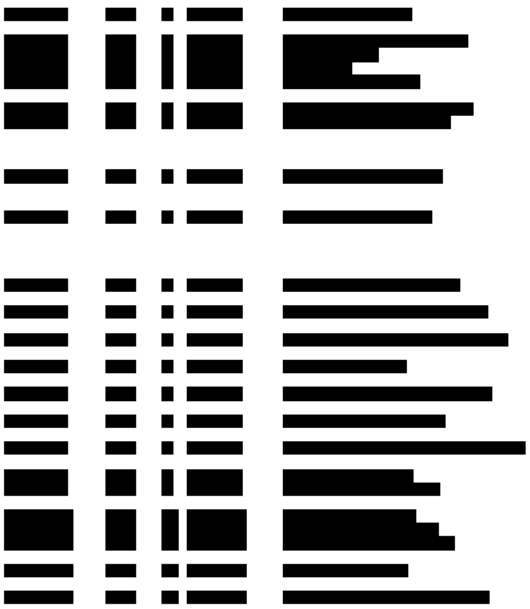




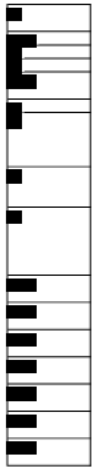


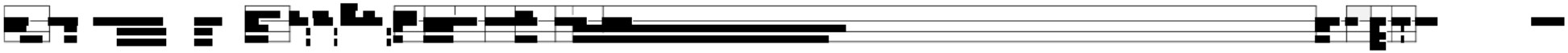












OFFICIAL

Attachment 3

WDSM MMS

Western Distributor Smart Motorway – Motorway Management System

Document Title:	**WDSM MMS Instance Exclusions and Assumptions**
Version:	**2**
Date:	**27 Apr 2023**
Status:	**Released**
Author:	**Amit Golwala**
Reviewer:	**Ryan Keegan**

DOCUMENT CONTROL

Ver	Date	Description	Prepared by	Reviewed by	Approved by
1	23 Dec 2022	First Release	Amit Golwala	Ryan Keegan	Amit Golwala
2	27 Apr 2023	Added two new Sections - 2.2 and 4	Amit Golwala	Ryan Keegan	Amit Golwala

1. Preamble

1.1 Purpose

The purpose of this document is to list the exclusions and assumptions that are factored in when pricing the scope for the new MMS instance meant for the Western Distributor Smart Motorway (WDSM).

For pricing details, please refer to the ***WDSM MMS Instance Pricing*** document.

1.2 References

Please refer to the table below for the list of related documents:

No.	Ref No & Title	Doc No (rev no)	Publisher
1.	WDSM requirement set v1.3_TfNSWWorkshopReview_6Dec22	Version 1.3 Dated 06/12/2022	TfNSW
2.	TSI-PJ-008 WDSM MMS SoW A DRAFT	TSI-PJ-008 Dated 05/10/2022	TfNSW
3.	WDSM MMS Instance Pricing	Dated 23/12/2022	JCI / Tyco
4.	WDSM MMS Hardware Architecture	IM0017-D-0002	JCI / Tyco

2. Exclusions

2.1 Requirements – Exclusions

There are some requirements in ***WDSM requirement set v1.3_TfNSWWorkshopReview_6Dec22*** that are excluded from the scope.

2.1.1 M4SM Requirements

Please find the list of M4SM Requirements in the table below that are excluded from the WDSM pricing:

Requirement #	Requirement Description
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
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2.1.2 WDSM Requirements

Please find the list of WDSM Requirements in the table below that are excluded from the WDSM pricing:

Requirement #	Requirement Description
RE[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

2.2 Requirements – Commented

There are some requirements in ***WDSM requirement set v1.3_TfNSWWorkshopReview_6Dec22*** for which an additional comment is added and agreed between Tyco and TfNSW dated 27th APR 2023.

Please find the list of M4SM Requirements in the table below and the additional comments in the Detailed column:

Genesys ReqId	M4 Req Status	short	Detailed
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

2.3 WDSM MMS SoW – Exclusions

There are some clauses and deliverables in ***TSI-PJ-008 WDSM MMS SoW A DRAFT*** that are excluded from the scope:

2.3.1 Clauses

- Section 2.2 Supplies which states the following is excluded:
  a. The CMMS delivered by the Contractor must meet the technical requirements detailed in the SRS.
  b. The Contractor must perform the supply and installation of System hardware, software and associated mounting, power and equipments, cabling and accessories at all applicable locations that is not shown in (c) below.

c. All Dell PowerEdge R710 units will be free issue items to the Contractor from the Principal, for the purpose of the following clauses.

d. The Contractor must perform the necessary installation of equipment and connections, with coordination provided by the Principal at the following locations:

   i. TMC Building Everleigh

   ii. Back Up Area as nominated by the Principal

   iii. At connection points to the TfNSW Network (Nodes)

   iv. As required by the Design

e. The Contractor must perform the supply, installation, configuration, testing and commissioning of one (1) MMS Ethernet Local Area Network (LAN), including but not limited to:

   i. Two (2) Layer 3 network switches (1 pair of stacked switches), Cisco 3750 or equivalent, including dual power supply, equipment cabinet and racking, power and communication cables and power distribution unit; and

   ii. All optical fibre communication links between the stacked network switches will be supplied, installed, terminated and commissioned by the Principal (advice).

f. The Contractor must perform the supply, install and commissioning of one (1) CMMS Production System including but not limited to:

2.3.2 Deliverables

The following documents listed in the Contract Document Requirements List (Annex A) are excluded:

CDRL	DID	SOW Clause	Title	Principal Review Required
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

3. Assumptions

3.1 WDSM MMS SoW – Assumptions

The following assumptions are made for the clauses and deliverables in ***TSI-PJ-008 WDSM MMS SoW A DRAFT***:

- Section 3.6 5.6 Security and Cybersecurity:

[redacted]

- Contract Document Requirements List:

  The following are the assumptions:

  - [redacted]
  - [redacted]
  - [redacted]

3.2 Other – Assumptions

- [redacted]
- [redacted]
- [redacted]
- [redacted]

4. Future Scope Items

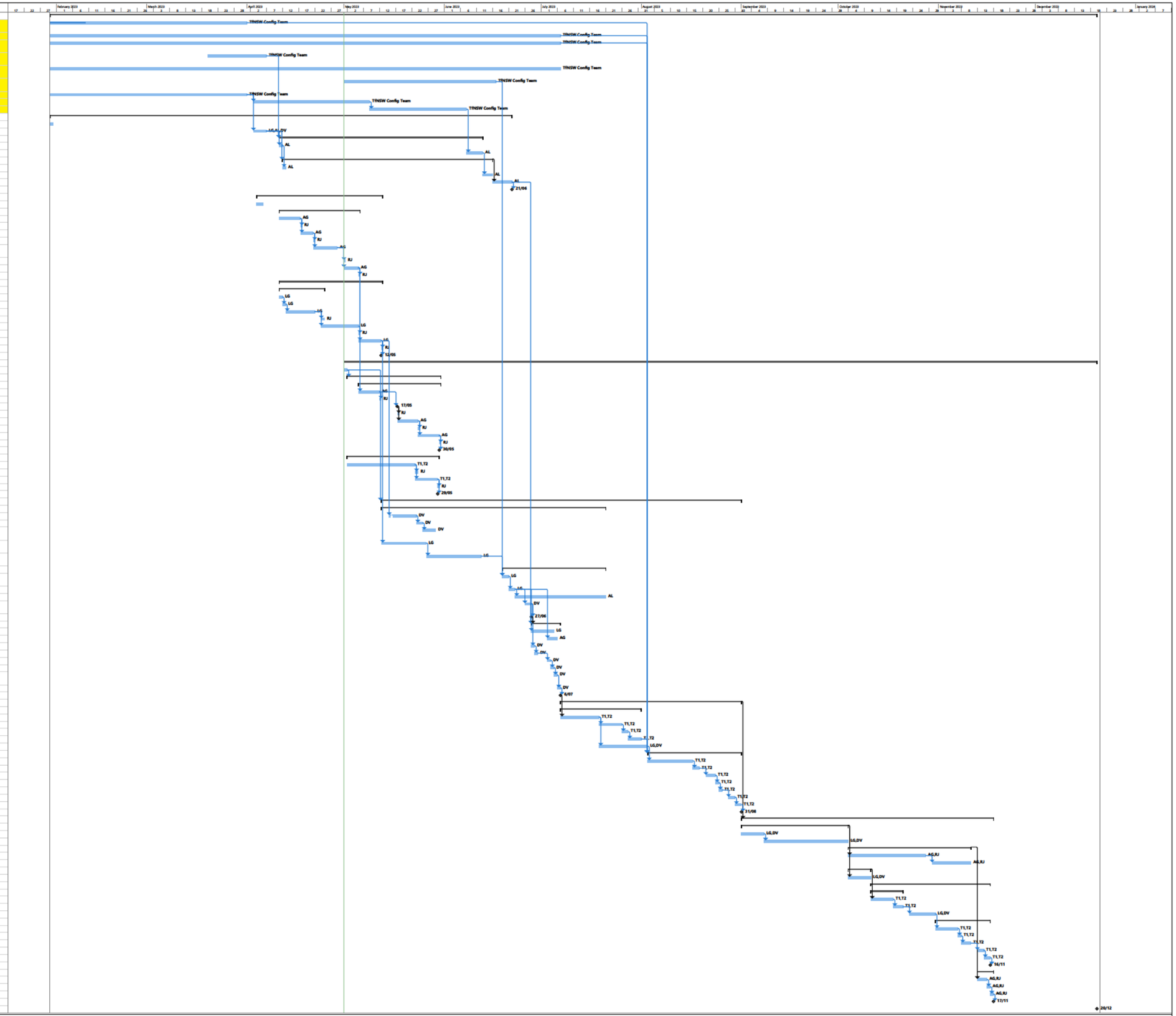
The following items are not included in the current proposal and will be introduced as future scope:

- **Interface with AID and Non-Intrusive Detectors:**
  Development of a new driver that interfaces with the AID (Automatic Incident Detection) Server and the Non-Intrusive Detectors is parked as future scope. Tyco have not received a protocol document from TfNSW for this interface.

- **Interface with ELCS:**
  Development of a new driver that interfaces with the ELCS Server for TIDAL FLOW traffic is parked as future scope. Tyco have not received a protocol document from TfNSW for this interface.

- **Implementation of Business Rules:**
  Development / Scripting of WDSM BUSINESS RULES (Response Plans) is parked as future scope. Tyco have not received a TIMP (Traffic Incident Management Plan) from TfNSW for this work.

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		**WDSM Project Schedule**	**228 days**	**Mon 30/01/23**	**Wed 20/12/23**		
2		**WDSM Hardware - Procurement, Rack Mounting, Setting Up, Connecting to Network, Provide Remote Access**	**45 days**	**Mon 30/01/23**	**Fri 31/03/23**		**TfNSW Config Team**
3		**Setup physical controllers and devices at Warehouse**	**110 days**	**Mon 30/01/23**	**Thu 6/07/23**		**TfNSW Config Team**
4		**Work on MMS Configuration - Devices, Schematics, Presets, etc.**	**110 days**	**Mon 30/01/23**	**Thu 6/07/23**		**TfNSW Config Team**
5		**Network Configuration including network switch, ports, firewall rules, etc.**	**14 days**	**Mon 20/03/23**	**Thu 6/04/23**		**TfNSW Config Team**
6		**Setup and Configure nodes to interfaces with MMS - DDS, PEGA, C2C Node**	**110 days**	**Mon 30/01/23**	**Thu 6/07/23**		**TfNSW Config Team**
7		**Provide AutoCAS files which will be the basis for the GIS Map**	**34 days**	**Mon 1/05/23**	**Fri 16/06/23**		**TfNSW Config Team**
8		**Setting up Eveleigh Hardware**	**45 days**	**Mon 30/01/23**	**Fri 31/03/23**		**TfNSW Config Team**
9		**Setting up Rozelle Hardware**	**23 days**	**Mon 3/04/23**	**Mon 8/05/23**	**8**	**TfNSW Config Team**
10		**Setting up Parramatta Hardware**	**21 days**	**Tue 9/05/23**	**Wed 7/06/23**	**9**	**TfNSW Config Team**
11		**CRN-078 M4 MMS - WDSM Hardware & Installations**	**99 days**	**Mon 30/01/23**	**Wed 21/06/23**		
12		**CR signed by both parties**	1 day	Mon 30/01/23	Mon 30/01/23		
13		**Set up PROD VMs**	4 days	Mon 3/04/23	Thu 6/04/23	8	LG,AL,DV
14		**UAT2 Environment - 10 VMs**	**43 days**	**Tue 11/04/23**	**Mon 12/06/23**	**5,13**	
15		**Workstation VMs**	1 day	Tue 11/04/23	Tue 11/04/23	13	AL
16		**Other VMs**	3 days	Thu 8/06/23	Mon 12/06/23	10	AL
17		**UAT1 Environment - 10 VMs**	**45 days**	**Wed 12/04/23**	**Thu 15/06/23**	**13**	
18		**Workstation VMs**	1 day	Wed 12/04/23	Wed 12/04/23	15	AL
19		**Other VMs**	3 days	Tue 13/06/23	Thu 15/06/23	16	AL
20		**TRAINING Environment - 15 VMs**	4 days	Fri 16/06/23	Wed 21/06/23	17	AL
21		**Completion of VM Setup and Installations**	0 days	Wed 21/06/23	Wed 21/06/23	20	AG
22		**CRN-080 M4 MMS - WDSM Initial Documentation**	**26 days**	**Tue 4/04/23**	**Fri 12/05/23**		
23		**CR signed by both parties**	2 days	Tue 4/04/23	Wed 5/04/23		
24		**Project Planning Documentation**	**18 days**	**Tue 11/04/23**	**Fri 5/05/23**		
25		**Project Management Plan (PMP)**	4.5 days	Tue 11/04/23	Mon 17/04/23		AG
26		**Review - PMP**	0.5 days	Mon 17/04/23	Mon 17/04/23	25	RJ
27		**Master Project Schedule (MPS)**	4 days	Mon 17/04/23	Fri 21/04/23	25	AG
28		**Review - MPS**	0.5 days	Fri 21/04/23	Fri 21/04/23	27	RJ
29		**Verification, Validation, Delivery & Commissioning Plan (VVDCP)**	4.5 days	Fri 21/04/23	Fri 28/04/23	27	AG
30		**Review - VVDC**	0.5 days	Mon 1/05/23	Mon 1/05/23	29	RJ
31		**Test Strategy (TS)**	4.5 days	Mon 1/05/23	Fri 5/05/23	29	AG
32		**Review - TS**	0.5 days	Fri 5/05/23	Fri 5/05/23	31	RJ
33		**Project Design Documentation**	**23 days**	**Tue 11/04/23**	**Fri 12/05/23**		
34		**Detailed Design Documentation**	**10 days**	**Tue 11/04/23**	**Mon 24/04/23**		
35		**Software Architecture Design Document (SAD)**	1 day	Tue 11/04/23	Tue 11/04/23		LG
36		**Hardware Architecture Design Document (HAD)**	1 day	Wed 12/04/23	Wed 12/04/23	35	LG
37		**Functional Design Specification (FDS)**	7 days	Thu 13/04/23	Fri 21/04/23	36	LG
38		**Review - SAD, HAD, FDS**	1 day	Mon 24/04/23	Mon 24/04/23	37	RJ
39		**GUI Design Specification (GDS)**	8.5 days	Mon 24/04/23	Fri 5/05/23	37	LG
40		**Review - GDS**	0.5 days	Fri 5/05/23	Fri 5/05/23	39	RJ
41		**Requirements Traceability Matrix (RTM)**	5 days	Fri 5/05/23	Fri 12/05/23	31	LG
42		**Review - RTM**	0.5 days	Fri 12/05/23	Fri 12/05/23	41	RJ
43		**Completion of Design Documentation**	0 days	Fri 12/05/23	Fri 12/05/23	41	
44		**TfNSW Tyco ICT Agreement**	**166 days**	**Mon 1/05/23**	**Wed 20/12/23**		
45		**ICTA Signing**	1 day	Mon 1/05/23	Mon 1/05/23		
46		**Documentation**	**21 days**	**Tue 2/05/23**	**Tue 30/05/23**	**45**	
47		**Planning Documentation**	**17.5 days**	**Fri 5/05/23**	**Tue 30/05/23**		
48		**System Engineering Management Plan (SEMP)**	4.5 days	Fri 5/05/23	Thu 11/05/23	31	AG
49		**Review - SEMP**	0.5 days	Fri 12/05/23	Fri 12/05/23	48	RJ
50		**Quality Management Plan (QMP)**	0 days	Thu 11/05/23	Wed 17/05/23	48	AG
51		**Review - QMP**	0.5 days	Wed 17/05/23	Wed 17/05/23	50	RJ
52		**Configuration Management Plan (CMP)**	4.5 days	Wed 17/05/23	Tue 23/05/23	50	AG
53		**Review - CMP**	0.5 days	Wed 24/05/23	Wed 24/05/23	52	RJ
54		**Software Development Plan (SDP)**	4.5 days	Wed 24/05/23	Tue 30/05/23	52	AG
55		**Review - SDP**	0.5 days	Tue 30/05/23	Tue 30/05/23	54	RJ
56		**Completion of Planning Documentation**	0 days	Tue 30/05/23	Tue 30/05/23	54	AG
57		**Testing Documentation**	**20.5 days**	**Tue 2/05/23**	**Tue 30/05/23**		
58		**Testing Procedures (TP)**	15 days	Tue 2/05/23	Mon 22/05/23		T1,T2
59		**Review - TP**	1 day	Tue 23/05/23	Tue 23/05/23	58	RJ
60		**Test Traceability Matrix (TTM)**	5 days	Tue 23/05/23	Mon 29/05/23	58	T1,T2
61		**Review - TTM**	0.5 days	Tue 30/05/23	Tue 30/05/23	60	RJ
62		**Completion of Testing Documentation**	0 days	Mon 29/05/23	Mon 29/05/23	60	AG
63		**Release - 1.0**	**78.5 days**	**Fri 12/05/23**	**Thu 31/08/23**	**45**	
64		**Design & Implementation**	**48.5 days**	**Fri 12/05/23**	**Thu 20/07/23**		
65		**Implement Fault Viewer**	5 days	Mon 15/05/23	Tue 23/05/23	41	DV
66		**Implement MongoDB backend for Alert Manager**	2 days	Tue 23/05/23	Thu 25/05/23	65	DV
67		**Configure MSID prefix for Incidents and Response IDs**	1 day	Thu 25/05/23	Mon 29/05/23	66	DV
68		**Allocate and configure DB and MessageQ VMs incuding HA, backup and monitoring services**	10 days	Fri 12/05/23	Fri 26/05/23	41	LG
69		**Allocate and configure Meridian services and external interface adapters - PEGA, DDS, etc.**	10 days	Fri 26/05/23	Mon 12/06/23	68	LG
70		**GIS Map Updates**	**24 days**	**Mon 19/06/23**	**Thu 20/07/23**		
71		**Implement single-file spatial model import/export format**	2 days	Mon 19/06/23	Tue 20/06/23	69,7	LG
72		**Update map/spatial model configuration tools**	2 days	Wed 21/06/23	Thu 22/06/23	71	LG
73		**Import/Draw Maps and Roads**	20 days	Fri 23/06/23	Thu 20/07/23	72	AL
74		**Implement Pythia backend for RNM Preset Service**	2 days	Mon 26/06/23	Tue 27/06/23	72	DV
75		**Completion of Design & Implementation**	0 days	Tue 27/06/23	Tue 27/06/23	74	AG
76		**Deployment**	**7 days**	**Wed 28/06/23**	**Thu 6/07/23**	**75,30**	
77		**Finalise VM configuration**	5 days	Wed 28/06/23	Tue 4/07/23	72	LG
78		**Software Release Notes (SRN)**	3 days	Mon 3/07/23	Wed 5/07/23	72	AG
79		**VmWare ESXi network cabling and configuration**	1 day	Wed 28/06/23	Wed 28/06/23	74	DV
80		**Create K8S cluster and namespaces**	1 day	Thu 29/06/23	Thu 29/06/23	79	DV
81		**Build and deploy WDSM GUI**	1 day	Mon 3/07/23	Mon 3/07/23	80	DV
82		**Add new ZookKeeper process to ARBITER node**	1 day	Tue 4/07/23	Tue 4/07/23	81	DV
83		**Add new MongoDB and RDBMS arbiter processes to ARBITER node**	1 day	Wed 5/07/23	Wed 5/07/23	82	DV
84		**Add new services to Zabbix monitoring**	1 day	Thu 6/07/23	Thu 6/07/23	83	DV
85		**Completion of Deployment**	0 days	Thu 6/07/23	Thu 6/07/23	84	AG
86		**Testing**	**40 days**	**Fri 7/07/23**	**Thu 31/08/23**		
87		**Internal Testing**	**17 days**	**Fri 7/07/23**	**Mon 31/07/23**		
88		**Internal Testing - Cycle 1**	8 days	Fri 7/07/23	Tue 18/07/23	85	T1,T2
89		**Internal Testing - Cycle 2**	5 days	Wed 19/07/23	Tue 25/07/23	88	T1,T2
90		**Internal Testing - Cycle 3**	2 days	Wed 26/07/23	Thu 27/07/23	89	T1,T2
91		**Internal Testing Report**	2 days	Fri 28/07/23	Mon 31/07/23	90	T1,T2
92		**Defect Fixing**	10 days	Wed 19/07/23	Wed 2/08/23	88	LG,DV
93		**IFAT Testing (Integrated FAT)**	**21 days**	**Thu 3/08/23**	**Thu 31/08/23**	**91,2,3,4**	**AG**
94		**IFAT Testing - Cycle 1**	10 days	Thu 3/08/23	Wed 16/08/23	92	T1,T2
95		**IFAT Test Report - Cycle 1**	2 days	Thu 17/08/23	Fri 18/08/23	94	T1,T2
96		**IFAT Testing - Cycle 2**	3 days	Mon 21/08/23	Wed 23/08/23	95	T1,T2
97		**IFAT Test Report - Cycle 2**	1 day	Thu 24/08/23	Thu 24/08/23	96	T1,T2
98		**IFAT Testing - Cycle 3**	1 day	Fri 25/08/23	Fri 25/08/23	97	T1,T2
99		**IFAT Test Log Collection**	2 days	Mon 28/08/23	Tue 29/08/23	98	T1,T2
100		**IFAT Test Report - Final**	2 days	Wed 30/08/23	Thu 31/08/23	99	T1,T2
101		**Completion of IFAT Testing**	0 days	Thu 31/08/23	Thu 31/08/23	100	
102		**Release - 2.0**	**56 days**	**Fri 1/09/23**	**Fri 17/11/23**	**86**	
103		**Design & Implementation**	**23 days**	**Fri 1/09/23**	**Tue 3/10/23**		
104		**Design WDSM Specific features**	5 days	Fri 1/09/23	Thu 7/09/23		LG,DV
105		**Implement WDSM Specific features**	18 days	Fri 8/09/23	Tue 3/10/23	104	LG,DV
106		**Manuals**	**28 days**	**Wed 4/10/23**	**Fri 10/11/23**		
107		**Operators Manual**	15 days	Wed 4/10/23	Fri 27/10/23	103	AG,RJ
108		**Administrators (Maintenance) Manual**	10 days	Mon 30/10/23	Fri 10/11/23	107	AG,RJ
109		**Deployment**	**5 days**	**Wed 4/10/23**	**Tue 10/10/23**		
110		**Deploy WDSM Specific features**	5 days	Wed 4/10/23	Tue 10/10/23	103	LG,DV
111		**Testing**	**27 days**	**Wed 11/10/23**	**Thu 16/11/23**		
112		**Internal Testing**	**8 days**	**Wed 11/10/23**	**Fri 20/10/23**		
113		**Internal Testing - Cycle 1**	5 days	Wed 11/10/23	Tue 17/10/23	109	T1,T2
114		**Internal Testing - Cycle 2**	3 days	Wed 18/10/23	Fri 20/10/23	113	T1,T2
115		**Defect Fixing**	6 days	Mon 23/10/23	Mon 30/10/23	114	LG,DV
116		**UAT Testing**	**13 days**	**Tue 31/10/23**	**Thu 16/11/23**		
117		**UAT Testing - Cycle 1**	5 days	Tue 31/10/23	Mon 6/11/23	115	T1,T2
118		**UAT Test Report - Cycle 1**	1 day	Tue 7/11/23	Tue 7/11/23	117	T1,T2
119		**UAT Testing - Cycle 2**	3 days	Wed 8/11/23	Fri 10/11/23	118	T1,T2
120		**UAT Test Log Collection**	2 days	Mon 13/11/23	Tue 14/11/23	119	T1,T2
121		**UAT Test Report - Final**	2 days	Wed 15/11/23	Thu 16/11/23	120	T1,T2
122		**Completion of UAT Testing**	0 days	Thu 16/11/23	Thu 16/11/23	121	AG
123		**Training**	**5 days**	**Mon 13/11/23**	**Fri 17/11/23**		
124		**Training Manual / Slides**	3 days	Mon 13/11/23	Wed 15/11/23	106	AG,RJ
125		**Conduct Operators Training**	1 day	Thu 16/11/23	Thu 16/11/23	124	AG,RJ
126		**Conduct Administrators Training**	1 day	Fri 17/11/23	Fri 17/11/23	125	AG,RJ
127		**Completion of Training**	0 days	Fri 17/11/23	Fri 17/11/23	126	AG
128		**GO LIVE**	0 days	Wed 20/12/23	Wed 20/12/23		



Project: Master Project Schedul
Date: Mon 1/05/23

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

Annexure C to Order Form – Additional Conditions

If there is any inconsistency between the terms in this Additional Conditions Annexure and any other terms of this Agreement, the terms in this Annexure will prevail to the extent of such inconsistency.

All the capitalised items have the same meaning as given under the Core Terms unless as otherwise defined.

1. Additional Orders and Further Statements of Work

Item 10 and clause 3.3

1.1. This Additional Condition applies where specified in Item 10 of the Order Form.

1.2. The parties acknowledge agree that where this Additional Condition applies, the Customer may from time to time require the Supplier to:

(a) increase the volume or quantum of Services and/or Deliverables, by following the process set out in clause 3.3; or

(b) carry out additional Supplier's Activities, including providing:

(i) an increased volume or quantum of Services and/or Deliverables; or

(ii) providing new, additional, different or alternative services and deliverables that relate to this Agreement and that are within the scope of the Modules selected in the Order Form,

by following the process set out below in this Additional Condition.

Further Statements of Work

1.3. If, at any time during the Term, the Customer requires the Supplier to carry out additional Supplier's Activities as contemplated by this Additional Condition, the Customer may, in its sole discretion, submit a written notice to the Supplier:

(a) attaching a draft Further Statement of Work

(b) requesting the Supplier to prepare and submit to the Customer a draft Further Statement of Work,

in each case substantially in the form of Schedule 3, or such other template reasonably required by the Customer.

1.4. On receipt of a written notice from the Customer under this Additional Condition, the Supplier must, acting reasonably and in good faith, work with the Customer to promptly negotiate and finalise the terms and conditions of the Further Statement of Work.

1.5. No Further Statement of Work will be binding on the Customer or the Supplier unless it has been executed by an authorised representative of each party.

1.6. Each Further Statement of Work entered into between the Customer and the Supplier constitutes a binding Further Statement of Work, under which the Supplier must provide the Supplier's Activities set out or referred to in that Further Statement of Work.

1.7. Except to the extent agreed by the parties in writing, any increased Deliverables and/or Services and/or additional Supplier's Activities under a Further Statement of Work must be supplied for the

same rates and charges specified in the Initial Statement of Work or the Payment Schedule (as applicable).

1.8. The parties agree that each time the Customer and the Supplier enter into a Further Statement of Work, that Further Statement of Work forms part of this Agreement and will not constitute a separate contractual relationship between the parties.

1.9. No Further Statement of Work may be entered into under this Agreement, after the termination or expiration of this Agreement.

Term of Further Statements of Work

1.10. The parties acknowledge and agree that:

(a) the term of each Further Statement of Work (i.e. the Further Statement of Work Term) will be specified in each Further Statement of Work; and

(b) notwithstanding the Term of this Agreement, each Further Statement of Work will be subject to the terms and conditions of this Agreement, and continue for the Further Statement of Work Term (which, for clarity, may expire before, on or after the Term).

Termination of Statements of Work

1.11. The parties acknowledge and agree that in circumstances where

(a) the Customer has the right to terminate this Agreement or reduce its scope (whether at Law or under the terms and conditions of this Agreement), the Customer may in its sole discretion elect to terminate or reduce the scope of this Agreement (including all Statements of Work) or may terminate or reduce the scope of a particular Statement of Work or Statements of Work only; and

(b) the Supplier has the right to terminate this Agreement, unless otherwise agreed in writing by the Customer, the Supplier is permitted to terminate the whole of this Agreement (including all Statements of Work) only, unless otherwise expressly agreed in writing by the Customer.

Definitions and Interpretation

1.12. Where this Additional Condition applies, the following words and phrases have the following meanings when used in this Agreement:

Further Statement of Work means any further Statement of Work entered into in accordance with this Additional Condition.

Further Statement of Work Term means the term of a Further Statement of Work, as set out in that Statement of Work.

Initial Statement of Work means the Statement of Work (if any) set out or referred to in Annexure B to Schedule 2.

1.13. Where this Additional Condition applies, the following rules of interpretation apply to this Agreement unless the contrary intention appears:

(a) references in this Agreement to an 'Additional Order' are deemed to include a refence to each Further Statement of Work;

(b) references in this Agreement to 'Statement of Work' are deemed to include a refence to the Initial Statement of Work (if any) and/or each relevant Further Statement of Work (as applicable);

(c) each Further Statement of Work is deemed to be incorporated into the Order Form; and

(d) unless expressly amended by the relevant Further Statement of Work, each Item in the Order Form applies to each Further Statement of Work.

2. Baseline Cost Plan

2.1. In relation to any Supplier's Activities that are to be provided on a time and materials basis by the Supplier under a SOW, the Supplier will:

(a) prepare a resource and estimated cost plan based on the agreed baseline schedule set out in Schedule 4 Payment Schedule ("**Baseline Cost Plan**");

(b) on a fortnightly basis or as otherwise agreed in the applicable SOW: provide a report to the Customer that tracks (i) actual costs incurred against planned baseline costs to date; and (ii) forecast total cost at completion of the work against planned baseline total cost at work completion, as stated in the Baseline Cost Plan (including explaining any variances (over and under) of more than 5% against Baseline Cost Plan at project completion; and

(c) update the Baseline Cost Plan according to mutually agreed changes by the Parties. For clarity, any changes to the Baseline Cost Plan must be agreed through the Change Control Procedure in Clause 10 of the Core Terms.

2.2. The Supplier acknowledges that:

(a) the Customer may, at any time acquire services and/or deliverables that are the same as or similar to the Supplier's Activities described in the Specifications from any other supplier; and

(b) except for the Services and Deliverables to be provided by the Supplier set out in an agreed and signed SOW, this Agreement does not entitle the Supplier to receive any work from the Customer, or restrict the Customer in any way from engaging any other service provider to provide services and/or deliverables that are the same as or similar to the Supplier's Activities described in the Specifications.

3. Other termination rights by the Customer

3.1. In addition to any other rights the Customer may have in relation to termination under the Agreement, the Customer may by at least 20 Business Days' notice in writing to the Supplier terminate this Agreement for any or no reason. Any notice provided by the Customer to terminate this Agreement under this clause 3.1, will also be taken to be notice to terminate all SOWs in effect at the time, unless otherwise specified in that notice. The Customer will have no liability arising from termination. For clarity, all SOWs that are effective as at the termination date will be terminated on termination of this Agreement by the Customer's notice to terminate this Agreement under this clause 3.1 unless otherwise specified in that notice. Any SOW(s) that are specified in that notice as not terminated will continue on the terms of this Agreement, until they expire or are otherwise terminated.

3.2. In addition to any other rights the Customer may have in relation to termination under a SOW, the Customer may by at least 10 Business Days' notice in writing to the Supplier terminate a SOW for any or no reason. The Customer will have no liability arising from termination. However, the Customer will be liable for payment of the amount payable for any Supplier Activities performed by the Supplier under the SOW before the date the SOW is terminated. For clarity, any SOWs not

specified in the Customer's notice of termination under this clause 3.2 will continue on the terms of this Agreement, until they expire or are otherwise terminated.

3.3. In addition to any other rights the Customer, if a Nominated Personnel provided by the Supplier fails to comply with any of the requirements specified in the applicable SOW, the Customer:

(a) may immediately terminate the SOW by giving written notice to the Supplier without compensation of any kind to the Supplier; and

(b) will only be liable under the SOW to pay only for the Supplier's Activities performed by the relevant Nominated Personnel, in accordance with the SOW.

3.4. Further to clause 3.3, the Supplier agrees that such Nominated Personnel will not be supplied to the Customer for any future SOW unless otherwise agreed by the Customer in writing.

3.5. Termination of this Agreement or a SOW under this clause 3 will not affect the Parties' rights or obligations under the Agreement or SOW (as the case may be) before it was terminated.

4. Set off

4.1. Replace subclause 24.7(a) of this Agreement in its entirety with the following new subclause 24.7(a):

'***24.7 Set off***

(a) The Customer may, on giving 5 Business Days' written notice to the Supplier, deduct from any amount otherwise due to the Supplier and from any security held by the Customer:

(i) *any debt or other liquidated amount due from the Supplier to the Customer; or*

(ii) *any Claim to money which the Customer may have against the Supplier whether for damages (including Liquidated Damages) or otherwise,*

under or in connection with this Agreement.'

5. Security of Critical Infrastructure Act

5.1. The Supplier:

(a) acknowledges that the Customer has, or may in the future have, assets that are Critical Infrastructure Assets governed by the SOCI Act; and

(b) if any Services or Deliverables relate to a Critical Infrastructure Asset, must:

(i) retain and provide to the Customer such records and reports as may be required, and

(ii) comply with any direction of the Customer,

for the purposes of the Customer complying with the SOCI Act or associated directions or orders of an Authority.

5.2. If a Risk Management Program is required in connection with any Deliverables or Services, the Supplier must:

(a) on request by the Customer, provide reasonable assistance to the Customer in:

(i) drafting, reviewing and updating its Risk Management Program; and

(ii) preparing its annual report on the Risk Management Program as required under the SOCI Act; and

(b) comply with the Risk Management Program, as updated by the Customer and notified to the Supplier.

6. Acknowledgement of Existing Software Licences

6.1. Notwithstanding anything in this Agreement (including any Statement of Work) the Supplier acknowledges, agrees and confirms:

(a) the Customer has been granted and continues to hold a non-revocable, perpetual and royalty-free licence (or sublicence, as the case may be) on terms previously agreed; and

(b) subject to 6.1(a) above, nothing in this Agreement is intended to vary, amend or otherwise impact the Customer's licence,

to use each of the following software applications:

Software Application Name	**Licensor or Sub-licensor**
"TYCO Meridian"	TYCO Projects Australia Pty Ltd ABN 70 092 471 737
"Genetec"	Genetec Inc.
"Aimsun Next" "Aimsun Live"	Aimsun S.L.U., TIN B-61504775

7. Ongoing Change Requests under Previous Agreement

7.1. In this additional condition:

(a) "**Previous Agreement**" means the Customer Contract between the Customer and the Supplier for the Motorway Management System (Contract Number 15.3528.1205) dated 12 October 2016; and

(b) **"Ongoing Change Request"** means each of the following change requests entered into under the Previous Agreement:

CR Number	**Total value of Change Request**
C[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

CR[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

7.2. The parties acknowledge and agree that clause 39.5 of the Core Terms does not apply to the Previous Agreement in respect of each Ongoing Change Request. The Previous Agreement remains in place, effective and continues to govern each Ongoing Change Request until the time that each Ongoing Change Request has been completed and each of the parties have successfully discharged their obligations under that Ongoing Change Request, at which time clause 39.5 of the Core Terms will apply to the Previous Agreement in respect of that Ongoing Change Request.

7.3. Any documentation or other designs delivered by the Supplier under CRN-076 or CRN-080 will form part of the Specifications under this Agreement.

7.4. [redacted]

8. **Benefit for, and use by, the Transport Cluster**

8.1. The Supplier acknowledges and agrees that:

(a) the Deliverables and the Services are to be provided to, and for the benefit of, the Customer and the Transport Cluster, and that the Customer and each member of the Transport Cluster may make use of the Deliverables and Services and other items or activities under and in accordance with this Agreement;

(b) any obligation of the Supplier under this Agreement to perform an act or supply any Deliverable, Service or other item or activity is an obligation to perform that act or supply that Deliverable, Service, item or activity for the benefit of the Customer and each member of the Transport Cluster;

(c) a breach of Agreement or negligence by the Supplier in relation to performance or failure to perform this Agreement may result in a Loss being suffered by the Customer and other members of the Transport Cluster;

(d) in addition to entering into this Agreement in its own right, the Customer also enters into this Agreement as agent for each member of the Transport Cluster for the sole purpose of:

(i) each member of the Transport Cluster obtaining (and being able to enforce directly or through the Customer) any rights granted to the Customer; and

(ii) each member of the Transport Cluster obtaining (and being able to enforce directly or through the Customer) the benefit of the indemnities in this Agreement,

as if references to the Customer under this Agreement include each member of the Transport Cluster;

(e) for the purpose of this Agreement, the Customer is deemed to be acting as the trustee of the benefits expressed to be given to each member of the Transport Cluster under this Agreement and with their respective authority; and

(f) any obligation of the Customer under this Agreement may be performed by the Customer or any member of the Transport Cluster.

8.2. The Supplier:

(a) acknowledges that any Claim it makes arising out of or relating to this Agreement must be made against the Customer and not against any other member of the Transport Cluster;

(b) will not make a Claim against any member of the Transport Cluster (other than the Customer) arising out of or relating to this Agreement; and

(c) agrees that Losses suffered by a member of the Transport Cluster arising from a breach of this Agreement, or other act or omission (including negligence) by the Supplier are deemed to be the Losses of, and recoverable by, the Customer for the purposes of this Agreement, as if those Losses were suffered by the Customer itself.

8.3. The Customer holds the benefit of the Supplier's obligations under this Agreement as principal and on trust for each member of the Transport Cluster.

8.4. In addition to and without limiting the rights granted under any other provision in this Agreement, the Customer and each member of the Transport Cluster are entitled to use the Deliverables, Services and other items or activities for all purposes necessary to enable the Customer and each member of the Transport Cluster to carry out their respective business, functions and operations, including to administer, update or process its own data or the data of the Transport Cluster.

8.5. The Customer is entitled to exercise all rights, powers, authorities, discretions or remedies conferred on the Customer by this Agreement or any law as if the Customer were the sole beneficiary of the undertakings, promises, representations, indemnities and warranties made and obligations owed by the Supplier under this Agreement.

8.6. Each member of the Transport Cluster may enforce any right or term of this Agreement that is provided for the benefit of the Customer, under and in accordance with this Agreement.

8.7. **Transport Cluster** means Transport for NSW (including Roads and Maritime Services), Sydney Trains, NSW Trains, Sydney Metro, State Transit Authority of NSW, Sydney Ferries, Transport Service, Transport Asset Holding Entity, the Office of Transport Safety Investigations and any other government agency or department that currently forms, may in the future form, part of the NSW Government's Transport cluster portfolio.

9. Amendments to Core Term and Schedule 1

9.1. The parties agree to amend the Core Terms and Schedule 1 of the ICTA in accordance with this clause.

(a) (**Security of Critical Infrastructure Act**)

(i) (**Confidentiality**)

(A) The following paragraph is inserted in clause 23 (Confidentiality) after paragraph 23(a)(iii)(E):

"*F. where requested by or required to be disclosed to an Authority in connection with the SOCI Act*."

(B) The following paragraph is inserted in clause 23 (Confidentiality) after paragraph 23(a)(iii):

"*(iv) in the case of the Supplier or its Personnel, where the information is Protected Information, not make a record of, disclose or otherwise use it except as is permitted under the SOCI Act*."

(ii) (**Security Incident**)

(A) The following subclause is inserted in clause 22 (Security Incidents) after subclause 22.2:

"***22.3 Critical Infrastructure Assets - Notification of SOCI Cyber Security Incidents***

(a) Without limiting the rest of this clause 22, the Supplier must notify the Customer within 4 hours if it becomes aware of any grounds to believe or suspect that a SOCI Cyber Security Incident has occurred or is imminent. Each notification must (to the extent then known, after making reasonable inquiries) include:

(i) the nature and details of the SOCI Cyber Security Incident;

(ii) the kinds of information and assets affected (or suspected to be affected) by the SOCI Cyber Security Incident;

(iii) the impact of the SOCI Cyber Security Incident on the availability, integrity, reliability or confidentiality of an asset; and

(iv) any actions that have been undertaken and/or are recommended to be taken by the Supplier, the Customer and/or persons who are or may be affected by the SOCI Cyber Security Incident.

(b) The Supplier must continue to provide to the Customer all information and assistance requested by the Customer relating to the SOCI Cyber Security Incident."

(b) (**Amended definitions**) The following definitions in clause 1.1 (Definitions) of Schedule 1 are deleted in their entirety and replaced with:

(i) **Confidential Information** means information that:

(A) is by its nature confidential;

(B) is communicated by the discloser of the information (**Discloser**) to the recipient of the information (**Recipient**) as confidential;

(C) the Recipient knows or ought to know is confidential; or

(D) relates to or comprises the:

(1) financial, corporate or commercial information of any party;

(2) affairs of a third party;

(3) strategies, practices or procedures of the State of New South Wales or any information in the Supplier's possession relating to a Government Agency; or

(E) is Protected Information,

but excludes information:

(F) in the public domain, unless it came into the public domain due to a breach of confidentiality;

(G) independently developed by the Recipient; or

(H) in the possession of the Recipient without breach of confidentiality by the Recipient or other person.

(ii) **Security Incident** means in relation to this Agreement:

(A) any unauthorised (whether under this Agreement or otherwise) or unlawful use of, loss of, access to, alteration of, or disclosure of Customer Data or Personal Information within the Supplier's or its Personnel's possession or control (including any data and information stored on the Supplier's equipment or in the facilities used by the Supplier to carry out the Supplier's Activities, or any unauthorised or unlawful access to such equipment or facilities);

(B) any notifiable data breach under the Privacy Laws;

(C) any Denial of Service Attack;

(D) the occurrence of circumstances indicating it is reasonably likely that any of the circumstances under paragraphs (a) to (c) have occurred;

(E) any similar events relating to Customer Data or Personal Information which trigger, or are likely to trigger, contractual reporting obligations or legal reporting obligations to an Authority or which would require a response or action under this Agreement, at Law or under any of the Policies, Codes and Standards;

(F) any SOCI Cyber Security Incident; or

(G) any alleged or suspected occurrence of any of the above events or circumstances.

(c) (**New definitions**) The following definitions are inserted in clause 1.1 (Definitions) of Schedule 1:

(i) Business Critical Data means:

(A) Personal Information that relates to at least 20,000 individuals; or

(B) information relating to any research and development in relation to a Critical Infrastructure Asset; or

(C) information relating to any systems needed to operate a Critical Infrastructure Asset; or

(D) information needed to operate a Critical Infrastructure Asset; or

(E) information relating to risk management and business continuity (however described) in relation to a Critical Infrastructure Asset.

(ii) Critical Infrastructure Asset has the meaning given in section 9 of the SOCI Act.

(iii) **Protected Information** has the meaning given in section 5 of the SOCI Act.

(iv) **Risk Management Program** means any risk management program prepared by or on behalf of the Customer under the SOCI Act.

(v) **SOCI Act** means the *Security of Critical Infrastructure Act 1988* (Cth), and all associated rules, directions, orders and regulations issued pursuant to the SOCI Act.

(vi) **SOCI Cyber Security Incident** has the meaning given in section 12M of the SOCI Act.

Schedule 3 – Statement of Work Template

1. Statement of Work Details

(a) Statement of Work Name: [*Insert*].

(b) Statement of Work Number: [*Insert*].

(c) Purchase Order Number and Agreement reference (where available): [*Insert*].

2. Revision History

Version	Status	Date	Prepared By	Comments
[Insert version number; e.g. version 1.0]	[Insert; e.g. Draft / Final]	[Insert date]	[Insert Name and Title]	[Briefly summarise the nature of the revision]

3. Introduction and overview of the Supplier's Activities

(a) The Supplier's Activities are to [*Insert*].

(b) The core objectives of the Supplier's Activities are as follows:

(i) [*Insert*]; and

(ii) [*Insert*].

4. Approved Off-Shore Service Locations

The Supplier must not, and must ensure that its Personnel do not, transfer, store process, access, disclose or view Customer Data (including Personal Information) outside of New South Wales, other than from the following 'Approved Off-shore Service Locations':

#	Site Address	Deliverables to be provided/Services to be performed	Customer Data (including Personal Information) to be transferred, stored, processed, accessed, disclosed or viewed	
1.		[*insert*]	[*insert*]	[*insert*]
2.		[*insert*]	[*insert*]	[*insert*]

5. On-Shore Service Locations

The Supplier must only supply the Deliverables and Services from or at locations within New South Wales that are:

(a) the Sites;

(b) specified below; or

(c) otherwise notified to the Customer in writing.

#	Site address	Deliverables to be provided/ Services to be performed
1.	[*insert*]	[*insert*]
2.	[*insert*]	[*insert*]

6. Services and Deliverables

(a) The Services to be provided are:

(i) [*Insert*]; and

(ii) [*Insert*].

[Specify with sufficient detail the type of Services to be provided - e.g. Support Services (and the type of Support Services); Managed Services; Systems Integration Services; Development Services; Professional Services; Data Services and/or training Services etc.]

(b) The Deliverables to be provided are:

(i) [*Insert*]; and

(ii) [*Insert*].

[*Specify comprehensively and with sufficient detail the Deliverables (including any Document Deliverables) to be provided. Both parties should be able to determine what elements comprise a Deliverable.*]

(c) Out-of-Scope Services and Deliverables are:

(i) [*Insert*]; and

(ii) [*Insert*].

[Note: It is very important to be consistent in the naming that is used for the Supplier's Activities, including the Deliverables and Services, throughout the Statement of Work and the other Schedules, as it is essential to be able to easily identify the same activity, Service, Deliverable in the other places within the Agreement where there is a reference to it, including where a Deliverable is:

(i) ***subject to Acceptance Testing;***

(ii) ***part of a milestone (including a payment milestone);***

(iii) ***part of a Stage; and/or***

(iv) ***subject to Liquidated Damages (that is, a Key Milestone).]***

7. Specifications

The Specifications for [*Insert Deliverable/Service*] include:

(c) [*Insert*]; and

(d) [*Insert*].

[List all the Specifications that the Supplier must comply with in providing the Services and Deliverables. If the Specifications are referenced in a separate document clearly reference and attach that document here.]

[Note: This section must be completed using specific details and avoiding generalities. Where the Specifications have evolved over time and are included in more than one document, it is best practise to reduce the Specifications to a single document. However, where the Specifications are described in more than one document, specify any order of priority that will apply in the event of a conflict or inconsistency within the relevant documents that comprise the Specifications.]

8. Customer Supplied Items (CSI)

(a) The Customer will provide the CSI as set out in the table below:

Item No.	CSI
1.	***[Specify the particulars of the CSI and, if applicable, specify whether any CSI is "Critical CSI" by including the words "Critical CSI" in brackets after each item of Critical CSI.]***
2.	
3.	

(b) List any associated requirements that apply to CSI.

[Note: A CSI may be: office access, desks etc. (specify location, standards, times of access); Hardware or software (specify equipment, capacity, versions of software and dates of availability); VPN access or other remote access (specify capacity and hours available).]

9. Timeframes and Dates for Delivery

The Supplier must deliver the Services and Deliverables in accordance with the Dates for Delivery set out in the below table.

Deliverable/Service	Timeframe and Date for Delivery
[*Insert*]	[*Insert Date for Delivery*]

[Insert the dates (or relevant timeframes) by which each Service and Deliverable listed in the Order Form, including this Statement of Work, must be provided to the Customer (including, where applicable, any Services Period).

Note: The descriptors in the Project Plan must be consistent with the descriptors above to the extent applicable.]

10. Key Milestones

The following dates constitute Key Milestones:

Key Milestone ID	Key Milestone	
[*Insert*]	[*Insert*]	[*Insert*]

[Specify the Key Milestones in the table above. If Liquidated Damages apply, remember to complete Item 29 in Part A of the Order Form.]

11. Transition-In Services

[Insert and clearly describe any Transition-In Services that the Supplier must perform and specify the timeframe for performance of these obligations. Please also describe in this section, with sufficient detail, any processes and/or mechanisms that the Customer requires the Supplier to follow in providing the Transition-In Services.]

12. Transition-Out Services

[*Insert any Transition-Out Services that the Supplier must perform and specify the timeframe for performance of these obligations. Please also describe in this section, with sufficient detail, any processes and/or mechanisms that the Customer requires the Supplier to follow in providing the Transition-Out Services.***]**

13. Roles and responsibilities

[Describe the roles and responsibilities of the parties in carrying out the Supplier's Activities.]

14. Business Contingency Plan

[State whether a Business Contingency Plan is required and if so, the timeframe within which a plan must be developed and presented to the Customer for approval. Note that the plan must meet the requirements of clause 25.2.]

15. Project Plan and management

[Set out or attach any Project Plan that applies, whether the Supplier is required to prepare and submit a Project Plan to the Customer and, where applicable, the details that it must cover.]

16. Stages and methodology

[Describe the Stages and/any methodology (for example, waterfall, agile) that the Customer requires the Supplier to follow in carrying out the Supplier's Activities.]

17. Acceptance Testing

[Describe details in relation to the form and conduct of Acceptance Tests which should apply in addition to the processes set out in clause 14, or any variations to the Acceptance Testing processes and procedures provided for in that clause.]

18. Governance arrangements

[Describe any governance arrangements that apply to the performance of the parties' respective obligations.]

19. Assumptions and dependencies

[Exhaustively describe any assumptions or dependencies which apply to the provision of the Services or the supply of the Deliverables. All assumptions and dependencies are subject to the Customer's approval and must be clearly described.]

20. Service Level agreement

[Insert the Service Levels or Service Level agreement that will apply to the arrangement. If necessary, this could be inserted as an attachment to this Statement of Work. The Service Level agreement should cover the following matters (to the extent applicable):

- ***details of the relevant Service Levels or key performance indicators (including, for example, resolution and response times);***
- ***escalation points; and***
- ***whether any service credits or service rebates apply, as well as any other consequences for failing to meet Service Levels.***

All Service Levels should be described with sufficient clarity to avoid confusion.]

21. Pricing

[If the Payment Schedule is not being utilised, insert the rate card and price details here or in the relevant sections of Part A of the Order Form. If you are also completing the Payment Schedule or the other parts of the Order Form, you must ensure that the details identified here and in the Payment Schedule and in the other parts of the Order Form are consistent. Use the following suggested format where milestone payments apply.]

(a) The Supplier will be entitled to submit a Correctly Rendered Invoice to the Customer upon the completion of each of the following milestones:

Milestone Payment Number	Description	Price (ex. GST)	GST Amount	Price (inc. GST)
Milestone 1	Describe Milestone 1	[Insert]	[Insert]	[Insert]

Milestone Payment Number	Description	Price (ex. GST)	GST Amount	Price (inc. GST)
Milestone 2	Describe Milestone 2			
Milestone 3	Describe Milestone 3			
	Total			

OR

(b) The Customer agrees to pay the Supplier [#monthly/quarterly/other] for the Services/Deliverables provided.

22. Interpretation

(a) In this Statement of Work, unless the contrary intention appears:

[Insert any applicable definitions that apply to the Statement of Work. Terms that are defined in the ICTA do not need to be defined again.]

(b) Terms in this Statement of Work which are not otherwise defined in this document have the meaning given to them in the ICTA.

Schedule 4 - Payment Schedule

The applicable fees and charges payable by the Customer are as set out in the relevant Statement of Work.

Schedule 5 - Change Request Form

Change Request number	*[Number the Change Request to assist with tracking Change Requests and administrating the Agreement.]*
Purchase Order Number and Agreement reference	*[Where available, insert a reference to the applicable Purchase Order number and the Agreement reference number to which the Change Request relates.]*
Effective date for Change Request	*[Insert the date on which the parties agree the Change Request will become effective.]*
Details of Change Request	*[Insert a sufficiently detailed description of the Change Request, including which sections of the Statement of Work will be changed by the Change Request. Please attach a more detailed scope document to this Change Request, if required.]*
Specifications	*[Insert any changes to the Specifications, including any additional Specifications.]*
Plans	*[If applicable, outline the effect the Change Request will have on any Plans, such as the Project Plan. To the extent that it is appropriate to replace any Plans with new Plans, please attach those to this Change Request.]*
Date for Delivery and Key Milestones	*[List any new or amended Dates for Delivery and identify whether any of these dates constitute Key Milestones.]*
Effect on Price	*[If applicable, specify how the Change Request will affect the Price.]*
Nominated Personnel	*[Specify any changes to the Nominated Personnel.]*
Implementation	*[Outline in sufficient detail how the Change Request will be implemented.]*
Effect on Customer Users	*[Outline the effect, if any, of the change to the Customer Users.]*
Other matters	*[List any other matters that are relevant to the Change Request or that the Customer has requested are covered by this Change Request.]*
List documents that form part of this Change Request	*[Insert list.]*

Customer	**Supplier**
Name (Print):	Name (Print):
Signature:	Signature:
Date:	Date:

Schedule 6 - Deed of Confidentiality and Privacy

Given by: **[*Insert full name of Recipient (insert ABN, if applicable)*]** of **[*Insert address of Recipient*]** (**Recipient**)

In favour of: **[*Insert full name of Customer (insert ABN)*]** (**Customer**)

Made: on the date the Recipient executes this Deed (**Date of this Deed**).

Background

A The [Insert name of the Supplier] and the Customer have entered into an ICT Agreement dated on or about the date of this Deed (**Agreement**) pursuant to which the Supplier must carry out certain activities (**Supplier's Activities**).

B The Recipient has been engaged, contracted or may provide works or services in connection with the Agreement.

C The Customer has agreed that the Recipient may access or receive certain Confidential Information and/or Personal Information on the terms and conditions of this Deed and for the Permitted Use.

1. Definitions and Interpretation

1.1 Definitions

In this Deed:

Confidential Information means information that:

(a) is by its nature confidential;

(b) is communicated by the Customer as being confidential;

(c) the Recipient knows or ought to know is confidential; or

(d) relates to or comprises the:

(i) financial, corporate and commercial information of the Customer;

(ii) affairs of a third party; or

(iii) strategies, practices and procedures of the State of New South Wales and any information in the Recipient's possession relating to a Government Agency,

but excludes information:

(e) in the public domain, unless it came into the public domain due to a breach of confidentiality;

(f) independently developed by the Recipient; or

(g) in the possession of the Recipient without breach of confidentiality by the Recipient or other person.

Customer Data means all data (including metadata) and information relating to the Customer or any Government Agency and the operations, facilities, customers, clients, personnel, assets and programs of the Customer and any Government Agency, including Personal Information,

in whatever form that information may exist and whether created, captured, collected, entered into, stored in, generated by, controlled, managed, retrieved, transferred, transmitted, printed, processed or produced as part of carrying out the Supplier's Activities, but excluding any Performance Data.

Deed means this deed poll.

Government Agency means any of the following:

(a) a government sector agency (within the meaning of the *Government Sector Employment Act 2013* (NSW));

(b) a New South Wales Government agency;

(c) any other public authority that is constituted by or under an Act or that exercises public functions for or on behalf of the State of New South Wales (other than a State owned corporation); or

(d) any State owned corporation prescribed by regulations under the *Public Works and Procurement Act 1912* (NSW).

Performance Data means automatically generated metadata, not including any Personal Information or Confidential Information of the Customer or a Government Agency that:

(a) is incidentally generated by a computer system in the course of its normal operation;

(b) relates to the performance or operation of that computer system; and

(c) arises in the course of the performance of the Supplier's Activities.

Permitted Use has the meaning given to that term in clause 3(a) of this Deed.

Personal Information means information or an opinion about an identified individual (that is, a natural person) or an individual who is reasonably identifiable whether the information or opinion is:

(a) true or not; and

(b) recorded in a material form or not.

Privacy Laws means:

(a) the *Privacy Act 19*88 (Cth);

(b) the *Privacy and Personal Information Protection Act 1998* (NSW);

(c) the *Health Records and Information Privacy Act 2002* (NSW);

(d) any legislation (to the extent that such legislation applies to the Customer, the Recipient or the Supplier) from time to time in force in:

(i) any Australian jurisdiction (which includes the Commonwealth of Australia and any State or Territory of Australia); and

(ii) any other jurisdiction (to the extent that the Customer or any Personal Information or the Supplier or the Recipient is subject to the laws of that jurisdiction),

affecting privacy or Personal Information, provided that the Recipient ensures that it complies at all times with the Privacy Laws applicable in New South Wales to the extent relevant to the Recipient's activities; and

(e) any ancillary rules, guidelines, orders, directions, directives, codes of conduct or other instruments made or issued under any of the legislation referred to in paragraphs (a), (b), (c) and (d), as amended from time to time.

1.2 Interpretation

In this Deed:

(a) headings are for convenience only and do not affect interpretation;

(b) an obligation or liability assumed by, or a right conferred on, two or more persons binds or benefits them jointly and severally;

(c) a reference to a "person" includes an individual, the estate of an individual, a corporation, an authority, an association or a joint venture (whether incorporated or unincorporated), a partnership and a trust;

(d) a reference to a party includes that party's executors, administrators, successors and permitted assigns, including persons taking by way of novation and, in the case of a trustee, includes a substituted or an additional trustee;

(e) a reference to a document (including this Deed) is to that document as varied, novated, ratified or replaced from time to time;

(f) a reference to a statute or statutory provision includes a statutory modification or re-enactment of it or a statutory provision substituted for it, and each ordinance, by-law, regulation, rule and statutory instrument (however described) issued under it;

(g) a word importing the singular includes the plural (and vice versa), and a word indicating a gender includes every other gender;

(h) a reference to a clause is a reference to a clause of this Deed;

(i) if a word or phrase is given a defined meaning, any other part of speech or grammatical form of that word or phrase has a corresponding meaning; and

(j) "including", "in particular" and words of equivalent expression are not words of limitation.

2. Access and non-disclosure

(a) The Recipient acknowledges and agrees that:

(i) in the course of performing duties under the Agreement, it may receive or have access to Confidential Information and/or Personal Information;

(ii) compliance with this Deed and the protection of Confidential Information and Personal Information are of paramount importance to the Customer; and

(iii) the obligations in this Deed are for the benefit of the Customer and the Customer may enforce the obligations under this Deed.

(b) The Recipient must not disclose any Confidential Information or Personal Information that it receives or obtains in connection with the Agreement or the

Supplier's Activities except with the consent of the Customer or as otherwise authorised under the Agreement or this Deed.

(c) If the Customer grants its consent for the Recipient to disclose Confidential Information or Personal Information, it may impose conditions on that consent. In particular, the Customer may require that the Recipient obtain the execution of a deed in these terms by the person to whom the Recipient proposes to disclose the Personal Information or Confidential Information.

(d) The Recipient's obligations under this Deed will not be taken to have been breached to the extent it is required by law to disclose the Confidential Information or Personal Information. However, if the Recipient is required by law to disclose any Confidential Information or Personal Information, the Recipient must, before doing so, immediately notify the Customer and comply with any reasonable directions or requirements given by the Customer.

3. Recipient's obligations

(a) The Recipient must only use Confidential Information and Personal Information that it receives or obtains in connection with the Agreement or the Supplier's Activities for the sole purpose of carrying out duties under the Agreement (**Permitted Use**).

(b) The Recipient must:

(i) safeguard and protect all Confidential Information and Personal Information;

(ii) not copy or reproduce Confidential Information or Personal Information for purposes other than the Permitted Use;

(iii) not sell, let for hire, assign rights in or otherwise commercially dispose of any Confidential Information or Personal Information;

(iv) not commercialise or otherwise exploit any Confidential Information or Personal Information; and

(v) take all necessary precautions to prevent the loss; unauthorised use, disclosure or other misuse of Confidential Information and Personal Information in its possession or control.

3.2 Comply with Privacy Laws

Where the Recipient receives or obtains access to any Personal Information in connection with the Agreement or the Supplier's Activities, the Recipient must comply with all applicable Privacy Laws, including the *Personal Information Protection Act 1998* (NSW) in respect of that Personal Information, regardless of whether the Recipient is legally bound to comply with those Privacy Laws.

3.3 Security measures

Without limiting any other obligation under this Deed or at law, the Recipient must ensure that any Confidential Information or Personal Information in its possession or control is kept secure at all times, including by:

(a) where the Recipient has access to Confidential Information or Personal Information by password or other secure means, not disclosing that password or means of access to any other person unless it has been authorised in writing to do so by the Customer; and

(b) complying with the security requirements under the Agreement or as notified by the Customer to the Recipient.

3.4 Breach of obligations

If the Recipient becomes aware of any actual, threatened or suspected breach of this Deed, including by any of the Recipient's personnel, the Recipient must:

(a) immediately notify the Customer in writing and take all steps necessary to remedy, prevent or stop the actual, threatened or suspected breach of this Deed and comply with any reasonable directions issued by the Customer regarding any unauthorised use or disclosure of the Confidential Information or Personal Information; and

(b) provide such other assistance as may be reasonably required by the Customer, including in relation to any claim or proceedings that the Customer may bring against any third party for unauthorised use or disclosure of the Confidential Information or Personal Information.

3.5 Return of Confidential Information and Personal Information

If requested by the Customer, the Recipient must:

(a) promptly and securely return to the Customer all documents and other physical records of Confidential Information or Personal Information in its or its personnel's possession, custody or control;

(b) securely delete the Confidential Information and Personal Information from any computer system or other device operated or controlled by, or which may be accessed by, the Recipient;

(c) where applicable, comply with any Customer policies and procedures in respect of the destruction or return of any Confidential Information and Personal Information; and

(d) comply with any reasonable directions issued by the Customer in respect of the Confidential Information and Personal Information.

4. Remedies

The Recipient acknowledges that:

(a) damages may not be an adequate remedy for the Customer for any breach of this Deed by the Recipient; and

(b) the Customer is entitled to seek injunctive relief as a remedy for any breach or threatened breach of this Deed by the Recipient, in addition to any other remedies available at law or in equity under, or independently of, this Deed.

5. General

5.1 No exclusion of law or equity

This Deed must not be construed to exclude the operation of any principle of law or equity, including in relation to the protection and preservation of the confidentiality of Confidential Information.

5.2 Waiver

The Recipient acknowledges and agrees that:

(a) no waiver by the Customer of one breach of any obligation or provision under this Deed will operate as a waiver of another breach of the same or of any other obligation or provision; and

(b) none of the provisions under this Deed will be taken either at law or in equity to have been varied, waived, discharged or released by the Customer unless by its express consent in writing.

5.3 Governing Law

This Deed will be governed by, and construed in accordance with, the laws in force in the State of New South Wales, Australia. The Recipient submits to the exclusive jurisdiction of the courts of New South Wales, Australia and the courts competent to determine appeals from those courts.

5.4 Continuing obligations

The obligations of the Recipient under this Deed continue after the completion or termination of any employment, engagement or assignment in respect of the Permitted Use.

5.5 Revocation or amendment

This Deed may not be revoked or otherwise modified or amended without the prior written consent of the Customer.

Executed as a deed poll:

[Note: Delete the execution block that is not applicable.]

[If the Recipient is an individual]

Signed, sealed and delivered by **[*insert full legal name of Recipient*]** in the presence of:

Signature of witness	Signature of Recipient
Full name and position of witness	Full name and position of Recipient
	Date

[If the Recipient is a company]

Executed by **[*Insert*] ABN [*Insert ABN*]** in accordance with section 127 of the *Corporations Act 2001* (Cth):

Signature of director	Signature of director/company secretary
Full name of director	Full name of director/company secretary
Date	Date

Schedule 7 - Escrow Deed – Not Applicable

Schedule 8 - Performance Guarantee – Not Applicable

Schedule 9 - Financial Security – Not Applicable

Services Module

	**Guidance note**: This Services Module may be used for the provision of ICT Services (Non-Cloud), including: • Support Services for both Hardware and Software (but not Licensed Software or Software as a Service); • Development Services; • Systems Integration Services; • Data Services; • Professional Services; • Managed Services; • Services relating to training; and • the additional and ancillary Services and Deliverables specified in this Module. This Module should not be used to procure Software Support Services with respect to Licensed Software. Instead, for such Services, the Customer should use the Software Module (Non-Cloud) which covers Services with respect to Licensed Software and Software Support Services for Licensed Software. The Hardware and Other ICT Deliverables also includes Hardware Support Services. Either this Module or the Hardware and Other ICT Deliverables could be used for the provision of such Support Services. If the Customer is not procuring Hardware and if Hardware Support Services are being procured with other Services within the scope of this Module, it is preferable to use this Module to reduce the number of Modules that you need to complete. Please refer to the Digital.NSW ICT Purchasing Framework User Guide for more details in relation to the use of this Module.

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Services Module

Background

A. This Module forms part of the Digital.NSW ICT Purchasing Framework.

B. The purpose of this Module is to set out the specific terms and conditions which apply to the provision of ICT Services and related or ancillary goods and services.

C. The specific Services and Deliverables that the Supplier will provide under the Agreement are described in the Order Form.

PART A: PRELIMINARIES

1. General

1.1 Scope

The Supplier must provide the Services and associated Deliverables described in the Order Form on the terms of this Module and the other terms of the Agreement.

1.2 Acknowledgements

The parties acknowledge and agree that the:

(a) obligations in this Module supplement, and are in addition to, the parties' other rights and obligations under the Agreement. Except to the extent expressly provided in the Agreement, nothing in this Module is intended to limit or restrict any other provision under the Agreement; and

(b) Customer is relying on the Supplier's expertise in providing the Services under this Module.

1.3 Services Period

Except for Support Services, all Services under this Module must be provided for the Term or for such other period specified in the Order Form (**Services Period**).

PART B: SUPPORT SERVICES

2. Provision of Support Services

2.1 Application

This Part B applies where it is specified in the Order Form that the Supplier will provide Support Services.

2.2 Support Period

All Support Services under this Module must be provided for the Support Period.

2.3 General

(a) The Supplier must carry out the Support Services specified in the Order Form.

(b) The Supplier must carry out all Support Services:

(i) in accordance with the requirements in this Part B and any additional requirements specified in the other Order Documents;

(ii) to meet any applicable Service Levels;

(iii) in a manner that is consistent with the Customer's operating requirements (if any) and the Specifications; and

(iv) in a manner that causes minimal disruption to Customer Users and the Customer's operations.

2.4 Help desk

(a) If the Order Form specifies that the Supplier will provide help desk Services, the Supplier must provide help desk Services during the times of operation and in accordance with the Specifications and any other requirements of the Agreement.

(b) The Supplier must:

(i) respond to, and investigate, requests to the help desk in a timely and efficient manner and in accordance with any requirements and Service Levels specified in the Order Documents; and

(ii) ensure the help desk is provided by Personnel who are sufficiently qualified and experienced to resolve and escalate issues.

3. Software Support Services

3.1 Application

This clause 3 applies where it is specified in the Order Form that the Supplier will provide Software Support Services.

3.2 Updates and New Releases

(a) This clause 3.2 applies where the Supplier provides Software Support Services and Updates and/or New Releases form part of those Software Support Services.

(b) The Supplier must offer and provide the Customer all:

(i) Updates applicable to the Software; and/or

(ii) New Releases applicable to the Software,

at no additional cost and when the Update and/or New Release becomes available, except where otherwise specified in the Order Form (in relation to either Updates or New Releases, or both).

(c) All Updates and New Releases that the Supplier provides must conform to the security and other requirements of the Agreement and must not reduce or diminish the functionality, performance or availability of the Software.

(d) To the extent reasonably practicable, the Supplier must:

(i) provide the Customer with written notice of all Updates and New Releases prior to installation; and

(ii) if requested to do so by the Customer, at the Supplier's sole cost (unless otherwise specified in the Order Form), demonstrate the extent to which the relevant Update and New Release is capable of providing the functionality and performance specified in the Specifications and Order Documents (including, where available, through the provision of release notes pertaining to the Update and New Release).

(e) Subject to clauses 3.2(f) and 3.2(g), the Customer is under no obligation to accept, approve or permit the installation (whether manually or automatically applied) of any Update or New Release offered by the Supplier pursuant to this clause 3.2 and a refusal by the Customer to implement an Update or New Release will not affect the Customer's entitlement to the Deliverables and Services.

(f) Notwithstanding the above, the Customer must accept any Update that is designed to correct or redress a security vulnerability that is affecting the Software (**Security Correction**) but only to the extent that the Update complies with clause 3.2(c) and such other conditions specified in the Order Form.

(g) If the Customer rejects the offer by the Supplier of an Update or New Release (other than any Security Correction), the Supplier must (unless otherwise specified in the Order Form) continue to maintain the version of the Software that the Customer is using for 18 months (or such other period as specified in the Order Form) from the date that the Customer provides written notice to the Supplier of the rejection of the Update or New Release. After this period, the parties acknowledge and agree that:

(i) the Software may have its usefulness reduced over time;

(ii) the Supplier may not be able to remedy any Defects in the Software; and

(iii) the Supplier is not responsible for any Defect in the Software, nor any incident, outage or breach of any Service Level, which would not have occurred had the Update or New Release been installed.

(h) If the Customer accepts an Update or New Release the:

(i) Specifications with respect to the Software will be deemed to be amended to the extent that the specifications for the Update and New Release supersede the existing Specifications;

(ii) Supplier must promptly update the User Documentation to the extent required to reflect the Update and New Release and, once updated, promptly provide a copy to the Customer;

(iii) Supplier must deliver the Update and New Release in a timely manner and in accordance with any timeframes agreed between the parties in writing; and

(iv) Agreement will continue to apply in all respects to the Update and New Release.

3.3 No restriction

Nothing in this clause 3 is intended to reduce or restrict the Supplier's obligations to respond to and redress Defects and Security Incidents (including through the provision of appropriate patches for security vulnerabilities). Such matters must be completed in accordance with any applicable Service Levels and all other requirements of the Agreement.

4. Support Services for Hardware and Other ICT Deliverables

4.1 Application

This clause 4 applies where it is specified in the Order Form that the Supplier will supply Support Services with respect to the Hardware and/or Other ICT Deliverables.

4.2 Provision of Support Services

The Supplier must carry out the Support Services with respect to the Hardware and/or Other ICT Deliverables specified in the Order Form. These Support Services may include either Preventative Maintenance or Remedial Maintenance (or both), as well as such other Support Services specified in the Order Form.

4.3 Preventative Maintenance

(a) Where specified in the Order Form, the Supplier must carry out Preventative Maintenance to ensure that the Deliverables remain in good working order and comply with the Specifications and other requirements of the Agreement.

(b) Preventative Maintenance will be carried out outside Business Hours or at such other times as specified in the Order Form or agreed by the Customer in writing.

(c) Except to the extent specified in the Order Form, as part of Preventative Maintenance the Supplier must:

(i) maintain the Deliverable and any Machine Code to a standard that ensures continued performance in accordance with the Specifications and other requirements of the Agreement;

(ii) make available all necessary fixes, patches, upgrades and new releases and enhancements for the Machine Code and other software components incorporated within the Deliverable; and

(iii) detect problems in relation to the Deliverables and minimise their occurrence,

including undertaking system checks, replacing any unserviceable parts (excluding consumable items), cleaning and, where necessary, lubricating and adjusting mechanical and electro-mechanical devices in accordance with any manufacturer's instructions.

(d) The Customer may, acting reasonably, postpone Preventative Maintenance with at least five Business Days' notice in writing to the Supplier's Representative. Where this occurs, the parties will co-operate with each other to reschedule the Preventative Maintenance on a date and time mutually agreed between the parties.

4.4 Engineering changes

(a) Unless otherwise specified in the Order Form, the Supplier must make available to the Customer all engineering changes to any Hardware and Other ICT Deliverables that:

(i) are designed to improve the safety, performance and reliability of the Deliverables; and

(ii) the Supplier generally makes available to its other customers.

(b) The Supplier must give the Customer advance written notice of all proposed engineering changes in accordance with any notice period specified in the Order Form. This notice should include sufficient particulars about the proposed engineering changes to enable the Customer to determine whether to implement the proposed engineering changes.

(c) Except where any engineering changes are classified by the Supplier or the manufacturer as being mandatory to ensure product security or safety in accordance with the Agreement (**Mandatory Engineering Changes**), the Customer may, at its sole discretion, elect not to proceed with any engineering changes.

(d) For any engineering changes that the Customer proceeds with, the Customer may (at its sole discretion) elect to either:

(i) procure the Supplier to, at its own cost, provide a "user installable part" which the Customer must promptly Install in accordance with the Supplier's, and any manufacturer's, instructions; or

(ii) allow the Supplier to Install the engineering change, at the Supplier's own cost.

(e) The Supplier must:

(i) perform relevant tests to demonstrate that the engineering change has been successfully implemented and, if requested by the Customer, provide written confirmation of such tests;

(ii) if requested by the Customer, explain to the Customer the reason for, and demonstrate to the Customer the effect of, the engineering change; and

(iii) promptly following performance of the engineering change, make any necessary updates to the User Documentation in accordance with the Agreement.

(f) Except for Mandatory Engineering Changes, a refusal of the Customer to implement an engineering change will not affect the Customer's entitlement to the Deliverables and Services under the Agreement.

4.5 Remedial Maintenance

(a) Where specified in the Order Form, the Supplier must provide Remedial Maintenance as specified in the Order Form and in accordance with the requirements of this clause 4.5.

(b) The Supplier must promptly, after being notified of a Defect or problem in relation to a Deliverable (including any Machine Code):

(i) repair or restore the Deliverable to enable it to operate in accordance with the Agreement;

(ii) comply with any applicable Service Levels and response times specified in the Order Documents;

(iii) to the extent that it is practical to do so, implement appropriate measures to minimise disruption to Customer Users and the Customer's operations during the provision of Remedial Maintenance; and

(iv) comply with any other requirements specified in the Agreement.

(c) The Supplier must:

(i) perform relevant tests to demonstrate that the Remedial Maintenance has been successfully implemented and, if requested by the Customer, provide written confirmation of such tests;

(ii) if requested by the Customer, explain to the Customer the reason for, and demonstrate to the Customer the effect of, the Remedial Maintenance; and

(iii) promptly following performance of the Remedial Maintenance make any necessary updates to the User Documentation in accordance with the Agreement.

PART C: OTHER SERVICES

5. Development Services

5.1 Application

This clause 5 applies where it is specified in the Order Form that the Supplier will supply Development Services.

5.2 Performance requirements

The Supplier must provide the Software Solution and carry out the Development Services to ensure that the Software Solution is compatible with the Customer Environment and complies with the Specifications and other requirements specified in the Order Documents.

5.3 Design process

(a) This clause 5.3 applies where it is specified in the Order Form that the Supplier must prepare a design specification with respect to the provision of the Software Solution and the Development Services (**Design Specification**).

(b) The Supplier must prepare a Design Specification for the Customer's approval by the date specified in the Order Documents or as otherwise agreed by the Customer in writing. The Design Specification must:

(i) be based on, and consistent with, the Specifications;

(ii) enable the Software Solution to be installed within the Customer Environment; and

(iii) provide a detailed technical explanation of how the Software Solution will provide the functions specified in the Specifications, including, as applicable, details of the processes, visual displays, screen layouts, system flowcharts, user interfaces and data flows.

(c) The Design Specification will, when approved by the Customer in writing, become part of the Specifications.

(d) For clarity, the Design Specification is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the Design Specification, including any updates to it.

5.4 Development process

(a) The Supplier must carry out the Development Services:

(i) to ensure minimal disruption to the Customer and Customer Users; and

(ii) in a controlled and traceable manner to maintain the integrity and traceability of all changes to the Software at all stages of development.

(b) Without limiting the generality of clause 5.4(a), the Supplier must ensure that:

(i) it identifies and documents all changes to the Software that it or its Personnel make or implement; and

(ii) any changes to the Software are developed and documented in a way which would enable future modification or development to the Software Solution without further reference to the Supplier.

(c) In the User Documentation, the Supplier must reference and document procedures to be undertaken in relation to the detection and remediation of development errors, faults and other Defects identified in respect of the Software Solution.

(d) The Supplier must continually monitor and assess the quality of all Development Services against any applicable Service Levels and any other criteria set out in the Specifications (including the Design Specification) and the Order Documents.

5.5 Alternative project delivery methodology

The parties may, in an Order Form, specify an alternative project design and development methodology to that set out in clauses 5.3 and 5.4, in which case that alternative project methodology will apply to the performance of the Development Services.

5.6 Warranties in relation to Development Services

The Supplier warrants that, without limiting any other warranties or commitments made by it in the Agreement, it:

(a) has established quality assurance arrangements for the provision of the Development Services; and

(b) will comply with, and maintain, those quality assurance arrangements for so long as it is providing Development Services under the Agreement.

6. Systems Integration Services

6.1 Application

This clause 6 applies where it is specified in the Order Form that the Supplier will provide Systems Integration Services.

6.2 Provision of Systems Integration Services

(a) The Supplier must provide the Systems Integration Services specified in the Order Documents. Except to the extent otherwise set out in the Order Documents, the Systems Integration Services will include:

(i) designing, providing, configuring, installing and testing the System; and

(ii) carrying out all other Systems Integration Services specified in the other Order Documents.

(b) The Supplier must carry out all Systems Integration Services in accordance with clause 6 and the other requirements of the Agreement.

(c) Except to the extent otherwise specified in the Order Documents, the Supplier will assume primary project management and control in relation to all Systems Integration Services, including:

(i) coordinating the Supplier's Activities with the Customer and Other Suppliers (where applicable); and

(ii) managing project risks and discharging responsibilities which are identified as the Supplier's responsibility in the Order Documents.

(d) The Supplier must perform the Systems Integration Services at the times, and in accordance with the requirements, set out in the Order Documents (including any approved SI Plan and SI Specifications).

6.3 SI Plan and SI Specifications

(a) The Supplier must, prior to performing the Systems Integration Services, prepare and deliver to the Customer for its approval:

(i) a systems integration implementation plan for carrying out the Systems Integration Services (**SI Plan**); and

(ii) specifications for the System (**SI Specifications**).

(b) The SI Plan requirements and the SI Specifications will be specified in the Order Form.

(c) Where the requirements for the SI Plan are not specified in the Order Form, the SI Plan must, at a minimum, include:

(i) an assessment and definition of:

A. the Customer Environment;

B. the System;

C. all relevant interfaces that are necessary in order for the System to properly interface with the Customer Environment;

D. the Customer's requirements and expectations in respect of the Systems Integration Services, including the Customer's business requirements and any objectives to be met by the Supplier in carrying out the Systems Integration Services;

E. the roles and responsibilities of the parties; and

F. any resources (including Customer Supplied Items) required to carry out the Systems Integration Services;

(ii) a strategy for the delivery of the Systems Integration Services that is appropriate for the Customer's needs, including the staging and implementation of the Systems Integration Services and associated testing;

(iii) a Data Migration Plan (where applicable); and

(iv) such other details specified in the other Order Documents.

(d) Unless otherwise specified in the Order Form, the SI Specifications must, at a minimum, include:

(i) detailed technical and functional specifications for the System; and

(ii) such other details specified in the other Order Documents.

(e) For clarity, the SI Plan and SI Specifications are Document Deliverables. Clause 8 (Document Deliverables) of the Agreement therefore applies to the SI Plan and SI Specifications, including any updates to them.

6.4 Warranties in relation to Systems Integration Services

The Supplier warrants that:

(a) all components of the System will properly combine and interact with each other in accordance with the SI Specifications and other applicable requirements of the Agreement; and

(b) the System will be properly installed in accordance with any approved SI Plan.

7. Data Services

7.1 Application

This clause 7 applies where it is specified in the Order Form that the Supplier will provide Data Services.

7.2 Customer Provided Data

(a) Unless otherwise specified in the Order Form, to enable the Supplier to carry out the Data Services, the Customer will use its reasonable endeavours to extract and provide the Customer Provided Data to the Supplier:

(i) in the format specified in the Order Form; and

(ii) at the times (including within any timeframes) and in accordance with any other requirements specified in the Order Documents.

(b) The Customer acknowledges and agrees that the Supplier's ability to carry out the Data Services may depend in whole or in part on the completeness and quality of the Customer Provided Data.

(c) If the Supplier identifies any errors or issues in relation to the Customer Provided Data (including due to data transmission issues), the Supplier must:

(i) advise the Customer's Representative as soon as the Supplier becomes aware of the issue;

(ii) co-operate with the Customer to resolve the issue; and

(iii) not commence the Data Services until the issue has been resolved to the Customer's reasonable satisfaction.

(d) The Supplier acknowledges and agrees that Customer Provided Data is "Customer Data" as defined in Schedule 1 of the Agreement. For clarity (and without limiting those obligations in relation to Customer Data specified in Part C (Data and Security) of the Agreement):

(i) the Supplier obtains no right, title or interest with respect to any Customer Provided Data, other than a right to use Customer Provided

Data for the sole purpose of carrying out the Supplier's Activities in accordance with the Agreement;

(ii) as between the Supplier and the Customer, all rights in, and in relation to, Customer Provided Data remain with the Customer at all times and are not transferred; and

(iii) the Supplier must not dispose of any Customer Provided Data other than in accordance with the Agreement.

7.3 Further restrictions

The Supplier and its Personnel must not attempt to use the Customer Provided Data in a manner that is contrary to the Privacy Laws or that attempts (without the Customer's express written authorisation) to:

(a) extract any Personal Information from the Customer Provided Data; or

(b) de-identify any Customer Provided Data.

7.4 Backups

(a) Unless otherwise specified in the Order Form, the Customer must:

(i) take a complete backup of the Customer Provided Data; and

(ii) test and retain the backup referred to in clause 7.4(a)(i),

prior to giving a copy of the Customer Provided Data to the Supplier.

(b) Once Customer Provided Data is supplied to the Supplier or (where applicable) extracted by the Supplier, the Supplier:

(i) is solely responsible for taking and backing up the Customer Provided Data; and

(ii) must ensure that all backups of Customer Provided Data:

A. occur securely and in accordance with the Agreement, including any requirements specified in the Order Form;

B. occur regularly and at the intervals or timeframes specified in the Order Documents; and

C. are undertaken in a manner which enables the Customer Provided Data to be accurately and completely restored, in the event of any damage to, or loss of, that Customer Provided Data.

7.5 Data cleansing

If the Order Form states that data cleansing is to be performed by the Supplier, the Supplier must cleanse the Customer Provided Data by:

(a) eliminating records that are clearly duplicates;

(b) correcting misspellings and errors;

(c) ensuring that there are consistent descriptions, punctuation and syntax; and

(d) resolving any other obvious inaccuracies, omissions or inconsistency issues,

to meet the level of accuracy and consistency stated in the Order Documents.

7.6 Data analysis

(a) If the Order Form states that the Supplier is to provide data analytics Services with respect to the Customer Provided Data, the Supplier must conduct such analytics and, where specified in the Order Form, provide the Customer with the data analytics report(s).

(b) The Supplier must complete the data analytics Services at the times, and in accordance with the requirements, specified in the Order Documents.

7.7 Data migration

(a) If the Order Form states that data migration Services must be performed by the Supplier, the Supplier must:

(i) perform the data migration Services described in the Order Form. Unless otherwise specified in the Order Form, the data migration Services must include:

A. implementation of all activities set out in the Order Form and the Data Migration Plan for the migration of the Customer Provided Data;

B. completion of all necessary pre-migration activities to ensure the smooth migration of Customer Provided Data in accordance with the Agreement, including this clause 7;

C. development of appropriate business contingency arrangements should the migration of the Customer Provided Data not be successful; and

D. testing and acceptance of the migrated data in accordance with the requirements specified in the Order Documents; and

(ii) prepare a Data Migration Plan for the Customer's approval by the relevant Date for Delivery with respect to how the Supplier will effectively, securely and efficiently carry out any data migration activities in accordance with the requirements of the Agreement (**Data Migration Plan**).

(b) The Data Migration Plan must include (unless otherwise specified in the Order Documents):

(i) an assessment and definition of the:

A. existing Customer systems from which the Customer Provided Data is to be extracted; and

B. Customer’s data migration goals;

(ii) a data migration strategy that is appropriate for the Customer’s needs and covers all appropriate planning and timetabling issues associated with the provision of the Data Services including the:

A. identification of the Data Services to be performed;

B. staging and implementation of the Data Services; and

C. preparation/pre-migration activities to be performed;

(iii) a description of any data conversion proposed to be undertaken as part of the data migration strategy and of the activities required to be performed; and

(iv) such other details specified in the other Order Documents.

(c) For clarity, the Data Migration Plan is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the Data Migration Plan, including any updates to it.

7.8 Tools and Methodologies

(a) Where the Data Services are to be performed using software, software tools, object libraries, methodologies or other tools owned by the Supplier or any other party (**Tools and Methodologies**), the Supplier must, at the Customer's request, provide the Customer with an overview of the Tools and Methodologies.

(b) Where the Tools and Methodologies are required to perform the Data Services, or the Customer requires access to any of them after the completion of the Data Services, the Supplier must:

(i) where the Supplier owns any Tools and Methodologies, provide the Customer with a licence to use those Tools and Methodologies on the same licence terms as specified in clause 17 (Intellectual Property) of the Agreement; and

(ii) where any Tools and Methodologies are owned by a third party, comply with clause 17.7 (Third party Intellectual Property Rights) of the Agreement in relation to those Tools and Methodologies.

8. Other Professional Services

8.1 Application

This clause 8 applies where it is specified in the Order Form that the Supplier is to provide Professional Services.

8.2 General

(a) The Supplier must provide the Professional Services in accordance with these Module Terms and the requirements set out in the Order Form.

(b) The Professional Services must be provided to meet the Specifications, standards and Dates for Delivery under the Agreement.

8.3 Timeframe for provision

Where the Supplier is providing the Professional Services at the Site, the Professional Services will be provided during Business Hours or at such other times as specified in the other Order Documents or agreed by the Customer in writing.

9. Managed Services

9.1 Application

This clause 9 applies where it is specified in the Order Form that the Supplier will provide Managed Services.

9.2 General

(a) The Supplier must provide the Managed Services in accordance with these Module Terms and the requirements set out in the other Order Documents.

(b) The Managed Services must be provided to meet the Specifications, standards and Dates for Delivery under the Agreement.

9.3 Transition-In Services

(a) Without limiting clause 7 (Transition-In) of the Agreement, where the Order Form specifies that the Supplier will provide Transition-In Services, the Supplier must (unless otherwise specified in the Order Form):

(i) perform due diligence to understand the Customer's goals, requirements and expectations with respect to the provision of the Managed Services; and

(ii) develop a Transition-In Plan that:

A. sets out the Supplier's understanding of the Customer's requirements in relation to the Managed Services and the objectives to be met by the Supplier;

B. specifies the Customer Users who will be supported by the Managed Services;

C. specifies any assets or items that may need to be procured in connection with the provision of the Managed Services;

D. specifies any resources required (including any Customer Supplied Items or Customer assistance); and

E. includes such other matters as specified in the Order Documents.

(b) The due diligence and other Transition-In Services must be commenced without delay and completed by the date specified in the Order Documents or as otherwise agreed by the Customer in writing.

(c) If, after completing the due diligence and other Transition-In Services, the Supplier reasonably determines that any:

(i) aspect of the Managed Services are different to that set out in the Order Documents; or

(ii) assumptions set out in the Order Documents are not true,

then the Supplier may provide the Customer with a Change Request to vary the scope of the Managed Services to the sole extent reasonably necessary to reflect the true extent and nature of the Managed Services. Any such Change Requests

will be addressed in accordance with the Change Control Procedure under the Agreement.

9.4 Procedures Manual

(a) Where specified in the Order Form, the Supplier must provide to the Customer for approval a procedures manual for the carrying out of the Managed Services (**Procedures Manual**). The Procedures Manual must be provided by the date specified in the Order Documents.

(b) The Procedures Manual must specify:

(i) the governance processes, procedures and protocols for dealing with the Customer and any third parties;

(ii) the procedures and proposals for managing Security Incidents;

(iii) the procedures and protocols for identifying and managing risks;

(iv) the procedures and protocols to identify and rectify Defects or failures in the delivery of the Managed Services; and

(v) such other details specified in the Order Form.

(c) For clarity, the Procedures Manual is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the Procedures Manual, including any updates to it.

9.5 Managed Third Party Contracts

(a) This clause 9.5 applies where it is specified in the Order Form that the Supplier will assume responsibility for the management and performance of any Managed Third Party Contracts.

(b) The Supplier must perform the Supplier's Activities with respect to each Managed Third Party Contract as described in this clause 9.5 and the other Order Documents or as otherwise agreed between the parties in writing.

(c) The Supplier must use its best efforts to obtain the novation of each Managed Third Party Contract by the date specified in the Order Documents or as otherwise agreed by the Customer in writing. If a Managed Third Party Contract cannot be novated by this date:

(i) the Supplier must use its best efforts to procure the right to assume management responsibility on behalf of the Customer in respect of the Customer’s rights and obligations under the relevant Managed Third Party Contract and the Customer must provide all reasonable assistance to the Supplier in that regard; and

(ii) if the Supplier cannot procure the rights specified in clause 9.5(c)(i), the parties will consult and co-operate with each other in order to agree and implement appropriate workarounds or other alternative solutions to enable the Supplier to provide the Managed Services. Such workarounds or other alternative solutions may include, if agreed by the parties, the Supplier entering into an agreement directly with the relevant Managed Third Party Contract supplier.

(d) Unless and until a Managed Third Party Contract has been properly novated to the Supplier in accordance with the Agreement, the Supplier must not without the express written approval of the Customer:

(i) vary, terminate, repudiate, extend or exercise any rights under the Managed Third Party Contracts;

(ii) waive or purport to waive any rights of the Customer under the Managed Third Party Contracts;

(iii) grant any consent or approval, or exercise any of the Customer's rights under the Managed Third Party Contracts; or

(iv) purport to act for, or on behalf of, the Customer or bind the Customer in any respect, whether at Law or in contract.

(e) The Supplier must immediately notify the Customer's Representative in writing of any actual, suspected or alleged:

(i) breach;

(ii) Claim;

(iii) dispute; or

(iv) matter or circumstance that impacts the Customer's or Supplier's rights and remedies (as applicable),

under, or in connection with, any Managed Third Party Contract.

(f) The Supplier must, if requested by the Customer, provide all necessary support and assistance required by the Customer in relation to the investigation, resolution and management of any of the matters or circumstances specified in clause 9.5(e).

(g) Unless otherwise specified in the Payment Particulars, all costs associated with the management and novation of Third Party Contracts form part of the Price for the provision of the Managed Services.

(h) The parties may specify an alternative approach in relation to the administration of Managed Third Party Contracts in the Order Form, in which case they will comply with that alternative approach.

9.6 Assets

(a) This clause 9.6 applies where the Order Form specifies that a transfer of Assets is required to carry out the Managed Services.

(b) From the date specified in the Order Form (or at such other time as agreed by the Customer), title to the Assets will be transferred from the Customer to the Supplier to enable the Supplier to provide the Managed Services. Once the transfer occurs, risk in the transferred Assets passes to the Supplier and the Supplier will be fully responsible for the Assets, including their condition and ongoing maintenance.

(c) The Customer warrants that, upon title passing to the Supplier in accordance with clause 9.6(b), the Assets will pass to the Supplier free and clear of all liens, security interests, mortgages and other encumbrances.

9.7 Transition-Out Services

Without limiting clause 31 (Transition-Out Services) of the Agreement, where the Order Form specifies that the Supplier will provide Transition-Out Services, the Supplier must (unless otherwise specified in the Order Form):

(a) assist the Customer to transition the Managed Services to a new service provider or to the Customer; and

(b) if requested by the Customer:

(i) assist the Customer to obtain the novation or assignment of the Managed Third Party Contracts to a new service provider or to the Customer;

(ii) deal with any Assets that were used in the provision of the Managed Services in accordance with the Customer's reasonable requirements; and

(iii) grant or assist the Customer (or new service provider) to procure sufficient rights and licences to continue using assets, software or other Materials used in the provision of the Managed Services.

PART D: GENERAL

10. Training

10.1 Training Services

(a) This clause 10 only applies where it is specified in the Order Form that the Supplier will provide training Services or Deliverables.

(b) Unless otherwise specified in the Order Documents, the Supplier must:

(i) provide training Services and any training materials at the times and in accordance with the requirements specified in the Order Documents; and

(ii) prepare and submit to the Customer's Representative for approval, by the date specified in the Order Documents, a training Plan for carrying out the training Services. The training Plan must:

A. describe the type of training Services to be provided (for example, user training, "train-the trainer" training or awareness training);

B. describe how the training will be delivered;

C. specify the responsibilities of both parties in connection with the training, including any Customer Supplied Items to be provided in connection with the training;

D. specify any maximum and/or minimum number of attendees per training course; and

E. include such other detail as specified in the Order Documents.

(c) For clarity, the training Plan is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the training Plan, including any updates to it.

(d) Training will occur at the location(s) specified in the Order Documents or such other location(s) agreed by the Customer in writing.

10.2 Training Reports

(a) Where specified in the Order Form, the Supplier must provide the Customer's Representative with written reports in relation to the provision of training Services (**Training Reports**). Unless otherwise specified in the Order Form, the Training Reports must cover:

(i) the status of the training;

(ii) any issues that the Supplier has encountered in delivering the training;

(iii) any "lessons learnt" or areas for future improvement; and

(iv) such other details as set out in the Order Form.

(b) The Training Reports must be provided by the Supplier on a fortnightly basis for the duration of the training Services or at such other intervals as set out in the other Order Documents.

11. Additional and ancillary Deliverables and Services

11.1 Provision of additional and ancillary Deliverables and Services

The Supplier must supply:

(a) any additional or related Deliverables or Services specified in the Order Documents, including (where specified):

(i) installation Services; and

(ii) the provision of Non-ICT Services and associated Deliverables; and

(b) all other goods and services that are incidental or ancillary to the provision of the Services under this Module and that are required to ensure that the Services comply with the Specifications and other requirements of the Agreement.

11.2 Requirements

The Supplier must provide all additional, related, incidental and/or ancillary Deliverables and Services specified in clause 11.1 in accordance with all applicable requirements and timeframes under the Agreement.

12. Records

(a) The Supplier must keep and maintain full and accurate records of all Services provided under this Module in accordance with the Agreement and this clause 12.

(b) Unless otherwise specified in the Order Documents, the records must include the following details:

(i) any issues in relation to the Services that have arisen or been reported by the Customer;

(ii) a record of any Deliverables provided as part of the Services, including the:

A. date provided;

B. quantity provided; and

C. name and (where applicable) serial number of the Deliverables;

(iii) any repairs, replacements or other remedial action taken by the Supplier or its Personnel in relation to any Deliverables (or parts or components) that have been supplied as part of the Services;

(iv) any Delays associated with the provision of the Services and the reason for those Delays;

(v) any actions that the parties need to take, or decisions that need to be made, to ensure the provision of the Services in accordance with the requirements of the Agreement;

(vi) the progress of the Services against any Project Plan; and

(vii) such other records in relation to the Services that are specified in the Order Form.

(c) Without limiting the generality of the foregoing, where the Supplier provides any:

(i) Development Services, the Supplier must keep records that adequately detail and describe all changes to the Software; and

(ii) Managed Services, the Supplier must keep records relating to all actions and tasks the Supplier has taken, and the requests or communications it has made, with respect to any Managed Third Party Contracts.

(d) The Supplier must, at its sole cost, provide copies of the records required to be maintained and kept under this clause 12 to the Customer's Representative in accordance with the times set out in the Order Documents or as otherwise reasonably required by the Customer.

13. Exceptions

(a) The Supplier is not liable for any failure of the Services or associated Deliverables to comply with the Agreement to the extent arising as a result of:

(i) any Critical CSI not operating in accordance with the Agreement;

(ii) any misuse of the Services or associated Deliverables by the Customer;

(iii) in relation to Support Services for Hardware or Other ICT Deliverables, the Customer not implementing any Mandatory Engineering Changes;

(iv) in relation to Development Services for Software, the Customer's combination, operation or use of the relevant Software with any other product, equipment, software or document of the Customer or a third party except where:

A. such combination, operation or use is authorised under the Agreement;

B. the Supplier supplied the Software on the basis that it can be combined, operated or used with the Customer's or relevant third party products; or

C. such combination, operation or use should have been reasonably anticipated by the Supplier having regard to the

nature and purpose of the Development Services and the associated Software;

(v) damage caused by the operation of any Deliverables other than in accordance with any recommended and reasonable operating procedures specified in the Order Form and User Documentation; or

(vi) any Virus, Denial of Service Attack or other malicious act that adversely affects the Services or associated Deliverables (or any software installed on the Deliverables or connected to them), except to the extent that the Virus, Denial of Service Attack or other malicious act was:

A. introduced or carried out by the Supplier or its Personnel;

B. caused or contributed to by any wrongful act or omission of the Supplier or its Personnel; or

C. due to the Supplier or its Personnel breaching the Agreement, including any failure to comply with the security obligations under the Agreement.

(b) The Customer may, at its sole discretion, request the Supplier to provide Services in respect of correcting or resolving any of the issues set out in clause 13(a) and, if so, the Supplier must provide such Services on a time and materials basis, based on the rates and charges specified in the Payment Particulars or as otherwise agreed between the parties in writing. However, any issue that results from one or more of the circumstances specified in clauses 13(a)(iv)A to 13(a)(iv)C or clauses 13(a)(vi)A to 13(a)(vi)C must be rectified at the Supplier's sole cost and in accordance with the Agreement.

Annexure A: Definitions and interpretation

1. Definitions and interpretation

1.1 Definitions

Terms used in this Module have the meaning set out in Schedule 1 (Definitions and interpretation) of the Agreement, unless otherwise defined below:

Agreement has the meaning given to it in the ICT Agreement entered into under the NSW Government's Digital.NSW ICT Purchasing Framework, of which this Module forms a part.

Assets means the physical assets and items specified in the Order Form (or as otherwise agreed between the parties in writing) which are to be transferred to the Supplier in accordance with clause 9.6.

Customer Provided Data means the Customer Data provided by the Customer to the Supplier (or extracted by the Supplier as part of providing the Supplier's Activities) and in respect of which the Supplier is to provide the Data Services. Customer Provided Data includes any data derived or generated from the Customer Provided Data as a result of the provision of the Supplier's Activities.

Data Migration Plan has the meaning given to this term in clause 7.7(a)(ii).

Data Services means any data Services specified in the Order Form to be provided by the Supplier in respect of the Customer Provided Data.

Design Specification has the meaning given to this term in clause 5.3(a).

Development Services means the Software development Services as described in clause 5.

Hardware means the physical ICT equipment, including all components and parts, specified in the Order Form which is to be acquired or maintained under the Agreement (as the case may be) and any substituted equipment, components or parts.

Install means the installation and set-up of the Hardware in accordance with this Module, including the integration of the Hardware into the Customer Environment, and **Installation** has a corresponding meaning.

Machine Code means any microcode, basic input/output system code (called "BIOS"), utility programs, device drivers, diagnostics, firmware and any other code, delivered with the Hardware for the purpose of enabling the Hardware to function as specified in the Order Form and Order Documents. Machine Code excludes the operating system and any Licensed Software that is provided pursuant to the Software Module under the Agreement.

Managed Services means the managed services as described in clause 9.

Managed Third Party Contracts means a contract, deed or agreement with a third party as specified in the Order Form (or such other third party contracts, deeds or agreements as agreed between the parties in writing).

Mandatory Engineering Changes has the meaning given to this term in clause 4.4(c).

Module means this document (including Annexure A), which is the Services Module (Non-Cloud) under the Agreement.

Non-ICT Services means Services that form part of the Supplier's Activities, but which do not comprise ICT Services or Deliverables.

Other ICT Deliverables means ICT Deliverables and components and parts other than:

(a) Licensed Software provided under the Software Module;

(b) Hardware; or

(c) Deliverables provided under the Cloud Module.

Preventative Maintenance means scheduled maintenance Services required to be performed by the Supplier in accordance with clause 4.3 to ensure that the Hardware and Other ICT Deliverables remain in working order in accordance with the Specifications and other requirements of the Agreement.

Procedures Manual has the meaning given to this term in clause 9.4(a).

Professional Services means the professional Services required to be provided by the Supplier as described in the Order Form.

Remedial Maintenance means unscheduled maintenance Services required to be performed by the Supplier pursuant to clause 4.5 to restore the Hardware and Other ICT Deliverables to a condition allowing performance in accordance with the Specifications and other requirements of the Agreement.

Security Correction has the meaning given to this term in clause 3.2(f).

Services Period has the meaning given to this term in clause 1.3.

SI Plan has the meaning given to this term in clause 6.3(a)(i).

SI Specifications has the meaning given to this term in clause 6.3(a)(ii).

Software means, in relation to this Module, the software specified in the Order Form that is subject to the Software Support Services and/or Development Services, and where applicable, includes the Software Solution.

Software Solution means the Software to be implemented, developed or created by the Supplier for the Customer as stated in the Order Form.

Software Support Services means the support and maintenance Services to be provided by the Supplier in respect of the Software and as specified in the Order Form.

Support Period means the period during which the Supplier will provide the specific category of Support Services as specified in the Order Form or as otherwise agreed between the parties in writing.

Support Services means the support and maintenance Services to be provided by the Supplier in respect of the Supported Deliverables and as specified in the Order Form.

Supported Deliverables means the Software, Hardware and other Deliverables (as well as all associated components and parts) that are specified in the Order Form and in respect of which the Supplier will provide the Support Services.

System means the system specified in the Order Form (or as otherwise agreed by the parties in the SI Plan). The System comprises the software, hardware and other ICT infrastructure to be integrated with the Customer Environment.

Systems Integration Services means the Services for Systems integration specified in the Order Form or other Order Documents and which is to be provided by the Supplier.

Tools and Methodologies has the meaning given to this term in clause 7.8(a).

Training Reports has the meaning given to this term in clause 10.2(a).

1.2 Interpretation

Unless as otherwise expressly specified, in this Module:

(a) the rules of interpretation set out in Schedule 1 (Definitions and interpretation) of the Agreement will apply to this Module; and

(b) a reference to a clause or Part is a reference to a clause or Part in this Module.

Software Module (Non-Cloud)

	**Guidance note:** This is the Software Module (Non-Cloud). It is to be used to procure: • Licensed Software; and/or • Software Support Services for Licensed Software. As with the other Modules, it can also be used to procure additional and ancillary Deliverables and Services. This Module includes provisions that are not otherwise covered by the ICT Agreement, but which are specific to Software (Non-Cloud). If the Customer is procuring software support Services for software other than Licensed Software, the Customer should use the Services (Non-Cloud) Module. If the Customer is procuring software development Services, the Supplier should use the Services Module (Non-Cloud), which includes specific provisions relating to the development of software. Please refer to the Digital.NSW ICT Purchasing Framework User Guide for more details in relation to the use of this Module.

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Software Module (Non-Cloud)

Background

A. This Module forms part of the Digital.NSW ICT Purchasing Framework.

B. The purpose of this Module is to set out the specific terms and conditions which apply to the provision of Licensed Software, Software Support Services and related or ancillary goods and services.

C. The specific Deliverables and Services that the Supplier will provide under the Agreement are described in the Order Form.

PART A: PRELIMINARIES

1. General

1.1 Scope

The Supplier must provide the Licensed Software, Software Support Services and associated Deliverables described in the Order Form on the terms of this Module and the other terms of the Agreement.

1.2 Acknowledgements

The parties acknowledge and agree that the:

(a) obligations in this Module supplement, and are in addition to, the parties' other rights and obligations under the Agreement. Except to the extent expressly provided in the Agreement, nothing in this Module is intended to limit or restrict any other provision under the Agreement; and

(b) Customer is relying on the Supplier's expertise in providing the Deliverables and Services under this Module.

PART B: SOFTWARE LICENSING

2. Licensed Software

2.1 Provision of Licensed Software

(a) Except where otherwise specified, this Part B applies where it is specified in the Order Form that the Supplier will provide Licensed Software.

(b) By the Dates for Delivery (or as otherwise agreed between the parties in writing), the Supplier must deliver or provide the Customer with access to (as applicable):

(i) the Licensed Software;

(ii) User Documentation that:

A. contains sufficient information to enable the Customer and Permitted Users to use the Licensed Software for the Permitted Purpose and in the manner contemplated under the Agreement; and

B. complies with clause 8.4 (User Documentation) of the Agreement; and

(iii) any Third Party Components or other Deliverables that are specified in the Order Form or are needed to operate the Licensed Software in accordance with the Agreement.

(c) Unless the Order Form specifies that the Supplier is responsible for installing the Licensed Software, the Customer:

(i) is responsible for downloading (if applicable) and/or installing the Licensed Software; and

(ii) must perform the installation in accordance with any instructions in the User Documentation or other instructions specified in the Order Documents.

(d) Where the Supplier makes the Licensed Software and User Documentation available for download from a website, the Supplier must provide the Customer with the relevant access codes by the date specified in the Order Form, or where no date is specified, on the Commencement Date.

2.2 Installation by the Supplier

Where the Order Form specifies that the Supplier is to install the Licensed Software, the Supplier must:

(a) properly install the Licensed Software within the Customer Environment and at the times, and in accordance with the requirements, specified in the Order Documents (or as otherwise agreed between the parties in writing); and

(b) following installation, carry out all necessary tests to ensure that the installed Licensed Software complies with the Specifications and operates in accordance with all requirements of the Agreement.

2.3 Backups

(a) Unless otherwise specified in the Order Form:

(i) prior to loading data into the Licensed Software, the Customer must take and maintain adequate backups of the data that is loaded into the Licensed Software; and

(ii) the Supplier must reasonably assist the Customer in relation to any transfer or restoration of such data and in relation to any backups made by the Customer.

(b) Where it is specified in the Order Form that it is the Supplier's responsibility to backup any data that is loaded into the Licensed Software, the Supplier must:

(i) perform an initial backup of such data;

(ii) take and maintain adequate and regular backups of such data ; and

(iii) carry out any other Data Services relevant to data backup specified in the Order Documents.

(c) A backup undertaken under clause 2.3(b) must be undertaken in a manner which enables the relevant data to be accurately and completely restored, in the event that any failure of the Licensed Software causes damage to, or loss of, that data.

3. Licensing

3.1 Licence Period

(a) The Supplier provides the Customer with a licence to use the Licensed Software:

(i) for the Licence Period (including any Extended Periods); or

(ii) where a perpetual licence is granted, on a perpetual basis.

(b) The Customer may, at its sole discretion, exercise one or more options to extend the Licence Period for any Extended Period specified in the Order Form, by giving the Supplier a notice in writing at least 15 Business Days prior to the end of the then-current Licence Period or such other notice period as may be specified in the Order Form.

3.2 Licensing model

(a) The parties agree that the licensing model specified in the Order Form applies to the Licensed Software being provided under the Agreement.

(b) Where the Licensed Software is licensed on a User Licensing Model, the following terms apply, unless otherwise expressly stated in the Order Form:

(i) there is no cap on the number of Permitted Users who may access and use the Licensed Software, except where otherwise specified in the Order Form; and

(ii) where the Order Form specifies that there is a cap on the number of Permitted Users, the Customer:

A. must ensure that only the number of Permitted Users specified in the Order Form (or as otherwise agreed between the parties in writing) use the Licensed Software; and

B. may, at its sole discretion, increase the number of Permitted Users at any time during the Licence Period (or while a licence is in place to use the Licensed Software), subject to paying the additional licence fees in accordance with the rates and charges specified in the Payment Particulars.

(c) Where the Licensed Software is not licensed on a User Licensing Model, the Customer must ensure that it does not exceed any applicable consumption or other ceiling with respect to use of the Licensed Software as specified in the Order Form. The Customer may, at its sole discretion, increase its consumption or ceiling at any time during the Licence Period (or while a licence is in place to use the Licensed Software), subject to paying the additional licence fees in accordance with the rates and charges specified in the Payment Particulars.

3.3 Scope of licence

(a) Notwithstanding clauses 17.2, 17.4 and 17.5 of the Agreement, the parties agree that the licence rights with respect to the Licensed Software will be on the terms specified in this Module.

(b) Unless otherwise specified in the Order Form, the Supplier grants (or must procure a grant) to the Customer and its Personnel a non-exclusive licence to access and use the Licensed Software for any purpose in connection with:

(i) the Customer performing its obligations, and exercising its rights, under the Agreement;

(ii) the full use of the Licensed Software as contemplated under the Agreement, including, where applicable, installing, operating, supporting, enhancing, upgrading and maintaining the Licensed Software or integrating it with other software, systems, equipment or infrastructure owned, operated or maintained by the Customer or a Government Agency;

(iii) the performance of tests and other quality assurance processes, including Acceptance Tests, in relation to the Licensed Software and associated Deliverables or systems that may integrate or interoperate with the Licensed Software;

(iv) the carrying out, or exercise, of the functions or powers of the Customer, a NSW Government Agency or the Crown; or

(v) such other Permitted Purpose specified in the Order Form.

(c) For clarity, the Customer may use or make such number of copies of the Licensed Software as are reasonably required for:

(i) evaluation and training;

(ii) backup or disaster recovery;

(iii) archiving or record-keeping;

(iv) security purposes;

(v) the Customer's internal business or operational purposes; or

(vi) exercising any of the Customer's rights at Law or under the Agreement.

(d) The Customer may sub-license or transfer its rights under clause 3.3 to any class of Permitted Users. The Customer must use its reasonable endeavours to ensure that Permitted Users only access and use the Licensed Software for the Permitted Purpose and in accordance with this Module.

(e) The parties acknowledge and agree that:

(i) the rights and licences specified in this clause 3.3 are included in the Price and will be provided to the Customer and Permitted Users on a royalty-free basis and at no additional charge to the Customer and Permitted Users, unless otherwise specified in the Order Form;

(ii) the Customer obtains no right, title or interest with respect to the Licensed Software, except to the extent expressly set out in the Agreement, including in this clause 3.3; and

(iii) nothing in this Module is intended to exclude or restrict any rights that the Customer has at Law, including under Part III, Division 4A of the *Copyright Act 1968* (Cth).

4. Updates and New Releases

4.1 Application

This clause 4 applies where:

(a) it is specified in the Order Form that the Customer is entitled to Updates and/or New Releases for the Licensed Software as part of the licence; or

(b) the Supplier provides Software Support Services and Updates and/or New Releases form part of those Software Support Services.

4.2 Updates and New Releases

(a) The Supplier must offer and provide the Customer all:

(i) Updates applicable to the Licensed Software; and/or

(ii) New Releases applicable to the Licensed Software,

at no additional cost and when the Update and/or New Release becomes available, except where otherwise specified in the Order Form (in relation to either Updates or New Releases, or both).

(b) All Updates and New Releases that the Supplier provides must conform to the security and other requirements of the Agreement and must not reduce or diminish the functionality, performance or availability of the Licensed Software.

(c) To the extent reasonably practicable, the Supplier must:

(i) provide the Customer with written notice of all Updates and New Releases prior to installation; and

(ii) if requested to do so by the Customer, at the Supplier's sole cost (unless otherwise specified in the Order Form), demonstrate the extent to which the relevant Update and New Release is capable of providing the functionality and performance specified in the Specifications and Order Documents (including, where available, through the provision of release notes pertaining to the Update and New Release).

(d) Subject to clauses 4.2(e) and 4.2(f), the Customer is under no obligation to accept, approve or permit the installation (whether manually or automatically applied) of any Update or New Release offered by the Supplier pursuant to this clause 4.2 and a refusal by the Customer to implement an Update or New Release will not affect the Customer's entitlement to the Deliverables and Services.

(e) Notwithstanding the above, the Customer must accept any Update that is designed to correct or redress a security vulnerability that is affecting the Licensed Software (**Security Correction**) but only to the extent that the Update complies with clause 4.2(b) and such other conditions specified in the Order Form.

(f) If the Customer rejects the offer by the Supplier of an Update or New Release (other than any Security Correction), the Supplier must (unless otherwise specified in the Order Form) continue to maintain the version of the Licensed Software that the Customer is using for 18 months (or such other period as specified in the Order Form) from the date that the Customer provides written notice to the Supplier of the rejection of the Update or New Release. After this period, the parties acknowledge and agree that:

(i) the Licensed Software may have its usefulness reduced over time;

(ii) the Supplier may not be able to remedy any Defects in the Licensed Software; and

(iii) the Supplier is not responsible for any Defect in the Licensed Software, nor any incident, outage or breach of any Service Level, which would not have occurred had the Update or New Release been installed.

(g) If the Customer accepts an Update or New Release the:

(i) Specifications with respect to the Licensed Software will be deemed to be amended to the extent that the specifications for the Update and New Release supersede the existing Specifications;

(ii) Supplier must promptly update the User Documentation to the extent required to reflect the Update and New Release and, once updated, promptly provide a copy to the Customer;

(iii) Supplier must deliver the Update and New Release in a timely manner and in accordance with any timeframes agreed between the parties in writing; and

(iv) Agreement will continue to apply in all respects to the Update and New Release.

4.3 No restriction

Nothing in this clause 4 is intended to reduce or restrict the Supplier's obligations to respond to and redress Defects and Security Incidents (including through the provision of appropriate patches for security vulnerabilities). Such matters must be completed in accordance with any applicable Service Levels and all other requirements of the Agreement.

5. Transfer of licences

5.1 Transfer rights

If the Customer has paid for the Licensed Software in advance and the number of Permitted Users that it has paid for exceeds the Customer's requirements at any time, the Customer may sub-licence and transfer its excess licences and associated licensing rights and obligations under the Agreement to any Government Agency or other Eligible Customer specified in the Order Form.

5.2 Effect of transfer

Transfers under clause 5.1 will:

(a) take effect from the effective transfer date as notified by the Customer to the Supplier in writing; and

(b) be on the same licensing terms and conditions as this Module or such other terms as agreed by the parties in writing. From the effective transfer date, the Government Agency (or, where applicable, other Eligible Customer) will be deemed to be a Permitted User under this Module.

6. Additional licensing conditions

6.1 Restrictions

(a) Except to the extent permitted by Law or by the Agreement, the Customer must not without the Supplier's written consent:

(i) remove or alter any copyright or other proprietary notices on the Licensed Software;

(ii) sell, lease, licence, sub-licence, assign or transfer the Licensed Software to any third party;

(iii) reverse engineer, decompile, dissemble or otherwise attempt to discover the source code of the Licensed Software other than in accordance with any applicable escrow agreement; or

(iv) do, or omit to do, any additional things with respect to the Licensed Software as specified in the Order Form.

(b) Nothing in this clause 6.1 restricts the Customer from:

(i) providing the Permitted Users with access to, and use of, the Licensed Software in accordance with these Module Terms; or

(ii) exercising any of the Customer's rights under clause 5.

6.2 End of Licence Period

(a) Except where a perpetual licence has been granted to the Customer under the Agreement, within 20 Business Days following the end of the Licence Period (or such later period specified in the Order Form), the Customer must in accordance with the Order Form either destroy or return (as applicable) to the Supplier all copies of the Licensed Software that are in its possession or control.

(b) Notwithstanding clause 6.2(a), the Customer may retain a copy of the Licensed Software for archival or record-keeping purposes or to the extent authorised or required by Law.

7. Third parties

7.1 Third Party Components

(a) This clause applies where the Supplier supplies any Third Party Components.

(b) Any Third Party Components will be licensed to the Customer on the same terms and conditions as the Licensed Software or pursuant to such other terms as specified in the Order Form.

7.2 Third party warranties

(a) This clause 7.2 applies where it is specified in the Order Form that pass-through or third party warranties apply.

(b) Without limiting any other warranty or obligation of the Supplier under the Agreement or this Module, the Supplier must ensure that the Customer receives all relevant third party warranties in relation to the Licensed Software stated or referred to in the Order Form.

8. Audits

8.1 Records of usage

If specified in the Order Form, the:

(a) Customer must maintain records of the location of all copies of the Licensed Software and the usage of the Licensed Software;

(b) Customer must provide copies of the records kept under this clause 8 to the Supplier at the times and the intervals specified in the Order Form or as otherwise agreed between the parties in writing; and

(c) Supplier must supply the Customer with reporting and monitoring tools to assist the Customer to verify its compliance with the licensing terms under this Module.

8.2 Audit and verification

(a) Subject to clause 8.2(c), the Supplier may, acting reasonably, undertake audits in accordance with this clause 8.2 to verify the Customer's compliance with the Licensed Software terms under the Agreement (**Software Audits**). All Software Audits will be conducted at the Supplier's sole cost.

(b) The Supplier may undertake Software Audits in accordance with the approved Audit Procedure and at the times and the intervals specified in the Order Form or as otherwise agreed between the parties in writing.

(c) The Supplier must:

(i) provide the Customer with at least 90 days' written notice prior to undertaking any Software Audits (or such other notice specified in the Order Form);

(ii) at the time of providing notice pursuant to clause 8.2(c)(i), provide to the Customer, for its approval, a draft copy of the processes and procedures that will be used to carry out the relevant Software Audit (**Audit Procedure**) and such other information that is reasonably required by the Customer to sufficiently understand the Audit Procedure; and

(iii) if requested by the Customer, within two Business Days of the Customer's request, provide the Customer with information in relation to the Customer's licences and entitlements under the Agreement.

(d) The Supplier must not install any tools or applications within the Customer Environment or systems in order to conduct any Software Audits without the Customer's prior written agreement.

8.3 Results and consequences of Software Audit

(a) Upon completion of each Software Audit, the Supplier must promptly provide the Customer's Representative with a copy of the Software Audit's report or findings.

(b) If the results of any Software Audit demonstrate that the Customer has exceeded the scope of the licences granted to it under the Agreement and, as a result, the Customer has underpaid the Supplier under the Agreement, then:

(i) the Supplier must notify the Customer's Representative of the excess scope and any unpaid licence fees; and

(ii) if requested by the Supplier, the Customer must pay to the Supplier the unpaid licence fees as calculated in accordance with the then current rates and charges that the Customer is paying for the Licensed Software under the Agreement, unless otherwise set out in the Order Form. The parties agree that this will be the Supplier's sole and exclusive remedy with respect to this matter (to the fullest extent permitted by Law).

PART C: SOFTWARE SUPPORT SERVICES

9. Provision of Software Support Services

9.1 Application

This Part C applies where it is specified in the Order Form that the Supplier will provide Software Support Services with respect to the Licensed Software.

9.2 Support Period

All Software Support Services under this Module must be provided for the Support Period.

9.3 General

(a) The Supplier must carry out the Software Support Services specified in the Order Form.

(b) The Supplier must carry out all Software Support Services:

(i) in accordance with the requirements in this Part C and any additional requirements specified in the other Order Documents;

(ii) to meet any applicable Service Levels;

(iii) in a manner that is consistent with the Customer's operating requirements (if any) and the Specifications; and

(iv) in a manner that causes minimal disruption to Permitted Users and the Customer's operations.

10. Help desk

(a) If the Order Form specifies that the Supplier will provide help desk Services, the Supplier must provide help desk Services during the times of operation and in accordance with the Specifications and any other requirements of the Agreement.

(b) The Supplier must:

(i) respond to, and investigate, requests to the help desk in a timely and efficient manner and in accordance with any requirements and Service Levels specified in the Order Documents; and

(ii) ensure the help desk is provided by Personnel who are sufficiently qualified and experienced to resolve and escalate issues.

PART D: GENERAL

11. Training

11.1 Training Services

(a) This clause 11 only applies where it is specified in the Order Form that the Supplier will provide training Services or Deliverables.

(b) Unless otherwise specified in the Order Documents, the Supplier must:

(i) provide training Services and any training materials at the times and in accordance with the requirements specified in the Order Documents; and

(ii) prepare and submit to the Customer's Representative for approval, by the date specified in the Order Documents, a training Plan for carrying out the training Services. The training Plan must:

A. describe the type of training Services to be provided (for example, user training, "train-the trainer" training or awareness training);

B. describe how the training will be delivered;

C. specify the responsibilities of both parties in connection with the training, including any Customer Supplied Items to be provided in connection with the training;

D. specify any maximum and/or minimum number of attendees per training course; and

E. include such other detail as specified in the Order Documents.

(c) For clarity, the training Plan is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the training Plan, including any updates to it.

(d) Training will occur at the location(s) specified in the Order Documents or such other location(s) agreed by the Customer in writing.

11.2 Training Reports

(a) Where specified in the Order Form, the Supplier must provide the Customer's Representative with written reports in relation to the provision of training Services (**Training Reports**). Unless otherwise specified in the Order Form, the Training Reports must cover:

(i) the status of the training;

(ii) any issues that the Supplier has encountered in delivering the training;

(iii) any "lessons learnt" or areas for future improvement; and

(iv) such other details as set out in the Order Form.

(b) The Training Reports must be provided by the Supplier on a fortnightly basis for the duration of the training Services or at such other intervals as set out in the other Order Documents.

12. Additional and ancillary Deliverables and Services

12.1 Provision of additional and ancillary Deliverables and Services

The Supplier must supply:

(a) any additional or related Deliverables or Services specified in the Order Documents, including (where specified):

(i) installation Services;

(ii) Data Services; and

(iii) the provision of Non-ICT Services and associated Deliverables; and

(b) all other goods and services that are incidental or ancillary to the provision of the Deliverables and Services under this Module and that are required to ensure that the Licensed Software and Software Support Services comply with the Specifications and other requirements of the Agreement.

12.2 Requirements

The Supplier must provide all additional, related, incidental and/or ancillary Deliverables and Services specified in clause 12.1 in accordance with all applicable requirements and timeframes under the Agreement.

13. Exports

(a) The parties acknowledge and agree that:

(i) certain Export Laws may apply to the supply of the Licensed Software and associated Deliverables and Materials under this Module; and

(ii) these Export Laws may include Export Laws in Australia as well as the Export Laws in operation in the jurisdiction from which the Licensed Software, Deliverables and Materials are shipped or supplied as specified in the Order Form.

(b) The parties will take all necessary steps within their control to ensure that no Licensed Software, Deliverables or Materials resulting from the Agreement will be:

(i) exported, directly or indirectly, in breach of any applicable Export Laws; or

(ii) used for any purpose prohibited by such Export Laws, including nuclear, chemical or biological weapons proliferation or development of missile technology.

14. Records

(a) The Supplier must keep and maintain full and accurate records of all Deliverables and Services provided under this Module in accordance with the Agreement and this clause 14.

(b) Unless otherwise specified in the Order Documents, the records must include the following details:

(i) any issues in relation to the Deliverables and Services that have arisen or been reported by the Customer;

(ii) a record of all Deliverables provided, including:

A. date provided;

B. quantity provided; and

C. name and (where applicable) serial number of the Deliverables;

(iii) any repairs, replacements or other remedial action taken by the Supplier or its Personnel in relation to any Deliverables (or parts or components);

(iv) any Delays associated with the provision of the Deliverables and Services and the reason for those Delays;

(v) any actions that the parties need to take, or decisions that need to be made, to ensure the provision of the Deliverables and Services in accordance with the requirements of the Agreement;

(vi) the progress of the Deliverables and Services against any Project Plan; and

(vii) such other records in relation to the Deliverables and Services that are specified in the Order Form.

(c) The Supplier must, at its sole cost, provide copies of the records required to be maintained and kept under this clause 14 to the Customer's Representative in accordance with the times set out in the Order Documents or as otherwise reasonably required by the Customer.

15. Exceptions

(a) The Supplier is not liable for any failure of the Licensed Software or Software Support Services to comply with the Agreement to the extent arising as a result of:

(i) any Critical CSI not operating in accordance with the Agreement;

(ii) any misuse of the Licensed Software or the Software Support Services by the Customer;

(iii) the Customer's combination, operation or use of the Licensed Software with any other product, equipment, software or document of the Customer or a third party except where:

A. such combination, operation or use is authorised under the Agreement;

B. the Supplier supplied the Licensed Software on the basis that the Licensed Software can be combined, operated or used with the Customer's or relevant third party products; or

C. such combination, operation or use should have been reasonably anticipated by the Supplier having regard to the nature and purpose of the Licensed Software;

(iv) damage caused by the operation of the Licensed Software other than in accordance with any recommended and reasonable operating procedures specified in the Order Form and User Documentation; or

(v) any Virus, Denial of Service Attack or other malicious act that adversely affects the Licensed Software, Software Support Services or associated Services and Deliverables (or any software installed on the Deliverables or connected to them), except to the extent that the Virus, Denial of Service Attack or other malicious act was:

A. introduced or carried out by the Supplier or its Personnel;

B. caused or contributed to by any wrongful act or omission of the Supplier or its Personnel; or

C. due to the Supplier or its Personnel breaching the Agreement, including any failure to comply with the security obligations under the Agreement.

(b) The Customer may, at its sole discretion, request the Supplier to provide Services in respect of correcting or resolving any of the issues set out in clause 15(a) and, if so, the Supplier must provide such Services on a time and materials basis, based on the rates and charges specified in the Payment Particulars or as otherwise agreed between the parties in writing. However, any issue that results from one or more of the circumstances specified in clauses 15(a)(iii)A to 15(a)(iii)C or clauses 15(a)(v)A to 15(a)(v)C must be rectified at the Supplier's sole cost and in accordance with the Agreement.

Annexure A: Definitions and interpretation

1. Definitions and interpretation

1.1 Definitions

Terms used in this Module have the meaning set out in Schedule 1 (Definitions and interpretation) of the Agreement, unless otherwise defined below:

Agreement has the meaning given to it in the ICT Agreement entered into under the NSW Government's Digital.NSW ICT Purchasing Framework, of which this Module forms a part.

Audit Procedure has the meaning given to this term in clause 8.2(c)(ii).

Customer Provided Data means the Customer Data provided by the Customer to the Supplier (or extracted by the Supplier as part of providing the Supplier's Activities) and in respect of which the Supplier is to provide the Data Services. Customer Provided Data includes any data derived or generated from the Customer Provided Data as a result of the provision of the Supplier's Activities.

Data Services means any data Services specified in the Order Form to be provided by the Supplier in respect of the Customer Provided Data.

Export Laws means all applicable export and re-export control laws and regulations in Australia and any other jurisdictions nominated in the Order Form.

Extended Period means any period(s) specified in the Order Form.

Licence Period means the initial licence period specified in the Order Form and any Extended Period exercised by the Customer pursuant to clause 3.1(b).

Module means this document (including Annexure A), which is the Software Module (Non-Cloud) under the Agreement.

Non-ICT Services means Services that form part of the Supplier's Activities, but which do not comprise ICT Services or Deliverables.

Permitted Purpose means the use and purposes specified in clause 3.3 and any other purposes specified in the Order Form.

Permitted Users means:

(a) Customer Users; and

(b) such other persons specified in the Order Form or who the Supplier has permitted to access and use the Licensed Software in accordance with the Agreement.

Security Correction has the meaning given to this term in clause 4.2(e).

Software Audit has the meaning given to this term in clause 8.2(a).

Software Support Services means the support and maintenance Services to be provided by the Supplier in respect of the Licensed Software and as specified in the Order Form.

Support Period means the period during which the Supplier will provide the specific category of Software Support Services as specified in the Order Form or as otherwise agreed between the parties in writing.

Third Party Components means software applications, components, plug-ins, products and programs (excluding Open Source Software) that are owned by third parties and are stated in the Order Form or which are otherwise used in the provision of the Deliverables and Services.

Training Reports has the meaning given to this term in clause 11.2(a).

User Licensing Model means where the Licensed Software is licensed to the Customer on a per-user basis.

1.2 Interpretation

Unless as otherwise expressly specified, in this Module:

(a) the rules of interpretation set out in Schedule 1 (Definitions and interpretation) of the Agreement will apply to this Module; and

(b) a reference to a clause or Part is a reference to a clause or Part in this Module.

Hardware and Other ICT Deliverables Module

	**Guidance note**: This Hardware and Other ICT Deliverables Module should be used for: • the acquisition and installation of Hardware; • provision of other ICT goods and infrastructure; • support services for Hardware and other ICT Deliverables; and/or • ancillary or related goods and services supplied in connection with the above. If the Customer is only procuring support services in relation to Hardware and Other ICT Deliverables, then the separate Services Module could also be used. Please refer to the Digital.NSW ICT Purchasing Framework User Guide for more details in relation to the use of this Module.

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Hardware and Other ICT Deliverables Module

Background

A. This Module forms part of the Digital.NSW ICT Purchasing Framework.

B. The purpose of this Module is to set out the specific terms and conditions which apply to the provision of Hardware, Other ICT Deliverables, Support Services and related or ancillary goods and services.

C. The specific Deliverables and Services that the Supplier will provide under the Agreement are described in the Order Form.

PART A: PRELIMINARIES

1. General

1.1 Scope

The Supplier must provide the Hardware, Other ICT Deliverables, Support Services and associated Deliverables described in the Order Form on the terms of this Module and the other terms of the Agreement.

1.2 Acknowledgements

The parties acknowledge and agree that the:

(a) obligations in this Module supplement, and are in addition to, the parties' other rights and obligations under the Agreement. Except to the extent expressly provided in the Agreement, nothing in this Module is intended to limit or restrict any other provision under the Agreement; and

(b) Customer is relying on the Supplier's expertise in providing the Deliverables and Services under this Module.

PART B: SUPPLY OF HARDWARE AND DELIVERABLES

2. Supply

2.1 General

The Supplier must supply Deliverables under this Module (including all associated parts and components) which:

(a) are new and unused (except to the extent set out in the Order Form);

(b) are of merchantable quality and free from damage and other Defects;

(c) are fit for their intended purpose;

(d) are safe to people and the environment and comply with all applicable Laws and Policies, Codes and Standards regarding product safety; and

(e) comply with the Specifications and other requirements of the Agreement.

2.2 Environment

The Supplier must ensure that the Hardware and Deliverables, including all components and Materials, will not, in normal operating conditions, emit fumes, liquids, electromagnetic radiation or noise which could be detrimental to persons, the environment or the operation of other equipment.

2.3 Supply and delivery

(a) Unless otherwise agreed between the parties in writing, the Supplier must by the Date for Delivery:

(i) supply and deliver the Deliverables to the Site in accordance with the requirements specified in clause 2.1 and in the Order Form;

(ii) supply all parts and components specified in the Order Form;

(iii) carry out verification checks of the Deliverables (and any Acceptance Tests) to ensure that, on delivery to the Customer, the Deliverables:

A. meet the Specifications and other requirements of the Agreement; and

B. do not comprise any components or parts (including firmware) that may adversely affect the integrity, security, safety or stability of the Customer Environment; and

(iv) supply User Documentation for the Deliverables that contains sufficient information to enable their proper and safe operation and such other information specified in the Order Form.

(b) The Supplier must:

(i) ensure that all Deliverables are safely and securely packaged in a manner that will prevent (to the extent reasonably practicable) any:

A. loss or damage to the Deliverables during transit and delivery; and

B. unauthorised access or tampering;

(ii) ensure that all packaging for the Deliverables is clearly marked and labelled in accordance with all applicable Laws and any other requirements specified in the Order Form; and

(iii) on delivery, supply the Customer with:

A. a delivery note that specifies all items and quantities included in the delivery and such other details specified in the Order Form;

B. User Documentation and all necessary instructions to enable the proper and safe operation of the Deliverables; and

C. such other documents or information (including test results) set out in the Order Form.

(c) The Supplier is solely responsible for all Deliverable packaging and delivery costs, including any freighting, shipping and postal costs, expenses and Taxes.

2.4 Defects on arrival

(a) If the Customer discovers that any Deliverables contain any Defects or are "dead on arrival", then the Customer may notify the Supplier's Representative in writing of the relevant Defect and the Supplier must, at its sole cost, promptly:

(i) arrange for the return of the defective Deliverables; and

(ii) replace the defective Deliverables with Deliverables that contain no Defects.

(b) Nothing in this clause 2.4 limits any warranties in relation to the Deliverables or the parties' rights and obligations under clause 9 (Defects) of the Agreement.

2.5 Availability Period

(a) Unless otherwise specified in the Order Form, for the Availability Period, the Supplier must:

(i) continue to provide the Deliverables and any associated Machine Code (including any Materials and upgrades necessary to ensure the continued operation of the Deliverables in accordance with the Agreement); and

(ii) offer an appropriate substitute product for the Customer's consideration, if for any reason a Deliverable (including model or type) is no longer available (**Substitute Product**).

(b) Unless otherwise agreed by the Customer in writing, the Substitute Product must:

(i) be of equivalent (or better) quality and functionality to the Deliverable that is no longer available; and

(ii) to the extent practicable, meet the Specifications and other requirements of the Agreement.

(c) The Supplier acknowledges and agrees that:

(i) a Substitute Product will not be deemed accepted by the Customer until accepted in writing by the Customer in accordance with the Change Control Procedure; and

(ii) the Customer is under no obligation to accept any Substitute Product and may, in its sole discretion, reject a Substitute Product for any reason.

(d) The Supplier warrants that, for the Availability Period, it will maintain or ensure that there is a sufficient inventory of Materials, spare parts and replacements to ensure that it is able to comply with clause 2.5(a).

(e) If the Supplier intends to cease supplying spare parts for any Deliverable after the expiration of the Availability Period, the Supplier must give the Customer's Representative at least 6 months' advance notice (or such other period agreed by the parties in writing) and provide the Customer with an opportunity to purchase such spare parts as the Customer requires for the purpose of continuing maintenance of the Deliverable. The Supplier's obligations under this clause 2.5(e) will continue for 12 months after the expiry of the Availability Period.

(f) This clause 2.5 will survive the termination or expiration of the Agreement.

3. Title and risk

3.1 Title

(a) Unless otherwise specified in the Order Form, title to each Deliverable (excluding Intellectual Property Rights) passes to the Customer upon the earlier of:

(i) delivery to the Site; or

(ii) payment for the relevant Deliverable.

(b) The Supplier warrants that, at the time title to a Deliverable passes to the Customer pursuant to clause 3.1(a), the Deliverable is free from any lien, security interest, mortgage or other encumbrance.

3.2 Risk

(a) Until risk passes to the Customer in accordance with clause 3.2(b), the Supplier will bear the risk of, and indemnify the Customer against, any loss or damage to the Deliverables (including any unfixed goods and Materials intended for incorporation into the Deliverables but not yet incorporated).

(b) Unless otherwise specified in the Order Form, risk in each Deliverable will pass to the Customer upon delivery to the Customer in accordance with the Agreement.

(c) If any Deliverable is collected or returned (for example, for repair), risk in that Deliverable will revert to the Supplier when the Deliverable is collected by, or on behalf of, the Supplier or when the Deliverable is delivered to a carrier for return to the Supplier.

4. Hardware Installation

4.1 Installation

(a) This clause 4 applies where it is specified in the Order Form that the Supplier will Install any Hardware.

(b) The Supplier must Install the Hardware and all associated parts and components in accordance with the timeframes and requirements in this clause 4.1 and the other Order Documents or such other timeframes and requirements agreed between the parties in writing.

(c) Unless otherwise specified in the Order Form, the Supplier must:

(i) unpack and carefully inspect the Hardware for any Defects or damage;

(ii) connect, Install and integrate the Hardware and its relevant components with the Customer Environment in accordance with the Specifications and other requirements of the Agreement;

(iii) ensure that all aspects of the Supplier's Activities in relation to Installation are performed securely, safely and in accordance with the work health and safety requirements specified in the Agreement;

(iv) following Installation, carry out verification checks (and any Acceptance Tests) to ensure that the Hardware is safe and operates in accordance with the Specifications and other requirements of the Agreement;

(v) at its sole expense, remove or otherwise dispose of, in an environmentally responsible manner, all packaging materials used in connection with the supply and Installation of the Hardware; and

(vi) upon completion of Installation, provide a written notice to the Customer's Representative that the Hardware has been supplied and Installed in accordance with the requirements of the Agreement.

(d) The Customer will provide assistance to the Supplier that the Customer reasonably considers necessary to ensure the satisfactory Installation of the Hardware in accordance with the Agreement.

4.2 Backups

(a) Unless otherwise specified in the Order Form:

(i) prior to Installation, the Customer must take and maintain adequate backups of any data that is loaded into the Hardware; and

(ii) the Supplier must reasonably assist the Customer in relation to any transfer or restoration of such data and in relation to any backups made by the Customer.

(b) Where it is specified in the Order Form that it is the Supplier's responsibility to backup any data that is loaded into the Hardware, the Supplier must:

(i) perform an initial backup of such data;

(ii) take and maintain adequate and regular backups of such data; and

(iii) carry out any other Data Services relevant to data backup specified in the Order Documents.

(c) A backup undertaken under clause 4.2(b) must be undertaken in a manner which enables the relevant data to be accurately and completely restored, in the event that any failure of the Hardware causes damage to, or loss of, that data.

5. Machine Code and Software

5.1 Machine Code

(a) Notwithstanding clauses 17.2, 17.4 and 17.5 of the Agreement, the parties agree that the licence rights with respect to Machine Code will be on the terms specified in this clause 5.1.

(b) Unless otherwise specified in the Order Form, the Supplier grants (or must procure a grant) to the Customer and its Personnel a licence to access and use any Machine Code for any purpose in connection with:

(i) the Customer performing its obligations, and exercising its rights, under the Agreement;

(ii) the full use of the relevant Deliverables and Machine Code as contemplated under the Agreement, including, where applicable, Installing, operating, upgrading, modifying, supporting, enhancing, and maintaining the Deliverables or integrating them with other software, systems, equipment or infrastructure owned, operated or maintained by the Customer or a Government Agency;

(iii) the performance of tests and other quality assurance processes, including Acceptance Tests, in relation to the Deliverables and systems that may integrate or interoperate with the Deliverables;

(iv) the carrying out, or exercise, of the functions or powers of the Customer, a NSW Government Agency or the Crown; or

(v) such other use specified in the Order Form.

(c) For clarity, the Customer may use and make such number of copies of the Machine Code as are reasonably required for:

(i) evaluation and training;

(ii) backup or disaster recovery;

(iii) archiving or record-keeping;

(iv) security purposes;

(v) the Customer's internal business or operational purposes; or

(vi) exercising any of the Customer's rights at Law or under the Agreement.

(d) The licence under clause 5.1 applies for so long as the Customer has lawful possession or title to the relevant Deliverable in which the Machine Code is incorporated.

(e) Where the relevant Deliverable is used by any other Government Agency, the Customer may sub-licence any of its rights under this clause 5.1 to any other Government Agency who uses, operates or maintains the Deliverable.

(f) No Machine Code may be:

(i) copied, transferred, adapted, modified or distributed; or

(ii) reverse engineered, reverse assembled or decompiled,

except as otherwise permitted under the Agreement or authorised by the Supplier in writing.

5.2 Software

To the extent that any Hardware or other Deliverable incorporates any Licensed Software, the Licensed Software is licenced in accordance with the terms specified under the Software Module or as otherwise specified in the Order Form.

6. Demonstration and training

6.1 Demonstration

(a) If specified in the Order Documents, the Supplier must, at its sole cost, demonstrate to the Customer and nominated Customer Users how to use the Deliverables.

(b) The demonstration must occur at the times and in accordance with the requirements specified in the Order Documents.

6.2 Training Services

(a) This clause 6.2 only applies where it is specified in the Order Form that the Supplier will provide training Services or Deliverables.

(b) Unless otherwise specified in the Order Documents, the Supplier must:

(i) provide training Services and any training materials at the times and in accordance with the requirements specified in the Order Documents; and

(ii) prepare and submit to the Customer's Representative for approval, by the date specified in the Order Documents, a training Plan for carrying out the training Services. The training Plan must:

A. describe the type of training Services to be provided (for example, user training, "train-the trainer" training or awareness training);

B. describe how the training will be delivered;

C. specify the responsibilities of both parties in connection with the training, including any Customer Supplied Items to be provided in connection with the training;

D. specify any maximum and/or minimum number of attendees per training course; and

E. include such other detail as specified in the Order Documents.

(c) For clarity, the training Plan is a Document Deliverable. Clause 8 (Document Deliverables) of the Agreement therefore applies to the training Plan, including any updates to it.

(d) Training will occur at the location(s) specified in the Order Documents or such other location(s) agreed by the Customer in writing.

6.3 Training Reports

(a) Where specified in the Order Form, the Supplier must provide the Customer's Representative with written reports in relation to the provision of training Services (**Training Reports**). Unless otherwise specified in the Order Form, the Training Reports must cover:

(i) the status of the training;

(ii) any issues that the Supplier has encountered in delivering the training;

(iii) any "lessons learnt" or areas for future improvement; and

(iv) such other details as set out in the Order Form.

(b) The Training Reports must be provided by the Supplier on a fortnightly basis for the duration of the training Services or at such other intervals as set out in the other Order Documents.

PART C: SUPPORT SERVICES

7. General

7.1 Application

This Part C applies where it is specified in the Order Form that the Supplier will provide Support Services with respect to the Hardware and/or Other ICT Deliverables.

7.2 Support Period

All Support Services under this Module must be provided for the Support Period.

7.3 Provision of Support Services

(a) The Supplier must carry out the Support Services specified in the Order Form.

(b) The Supplier must carry out all Support Services:

(i) in accordance with the requirements in this Part C and any additional requirements specified in the other Order Documents;

(ii) to meet any applicable Service Levels;

(iii) in a manner that is consistent with the Customer's operating requirements (if any) and the Specifications; and

(iv) in a manner that causes minimal disruption to Customer Users and the Customer's operations.

7.4 Preventative Maintenance

(a) Where specified in the Order Form, the Supplier must carry out Preventative Maintenance to ensure that the Deliverables remain in good working order and comply with the Specifications and other requirements of the Agreement.

(b) Preventative Maintenance will be carried out outside Business Hours or at such other times as specified in the Order Form or agreed by the Customer in writing.

(c) Except to the extent specified in the Order Form, as part of Preventative Maintenance the Supplier must:

(i) maintain the Deliverable and any Machine Code to a standard that ensures continued performance in accordance with the Specifications and other requirements of the Agreement;

(ii) make available all necessary fixes, patches, upgrades and new releases and enhancements for the Machine Code and other software components incorporated within the Deliverable; and

(iii) detect problems in relation to the Deliverables and minimise their occurrence,

including undertaking system checks, replacing any unserviceable parts (excluding consumable items), cleaning and, where necessary, lubricating and adjusting mechanical and electro-mechanical devices in accordance with any manufacturer's instructions.

(d) The Customer may, acting reasonably, postpone Preventative Maintenance with at least five Business Days' notice in writing to the Supplier's Representative. Where this occurs, the parties will co-operate with each other to reschedule the Preventative Maintenance on a date and time mutually agreed between the parties.

7.5 Engineering changes

(a) Unless otherwise specified in the Order Form, the Supplier must make available to the Customer all engineering changes to any Hardware and Other ICT Deliverables that:

(i) are designed to improve the safety, performance and reliability of the Deliverables; and

(ii) the Supplier generally makes available to its other customers.

(b) The Supplier must give the Customer advance written notice of all proposed engineering changes in accordance with any notice period specified in the Order Form. This notice should include sufficient particulars about the proposed engineering changes to enable the Customer to determine whether to implement the proposed engineering changes.

(c) Except where any engineering changes are classified by the Supplier or the manufacturer as being mandatory to ensure product security or safety in accordance with the Agreement (**Mandatory Engineering Changes**), the Customer may, at its sole discretion, elect not to proceed with any engineering changes.

(d) For any engineering changes that the Customer proceeds with, the Customer may (at its sole discretion) elect to either:

(i) procure the Supplier to, at its own cost, provide a "user installable part" which the Customer must promptly Install in accordance with the Supplier's, and any manufacturer's, instructions; or

(ii) allow the Supplier to Install the engineering change, at the Supplier's own cost.

(e) The Supplier must:

(i) perform relevant tests to demonstrate that the engineering change has been successfully implemented and, if requested by the Customer, provide written confirmation of such tests;

(ii) if requested by the Customer, explain to the Customer the reason for, and demonstrate to the Customer the effect of, the engineering change; and

(iii) promptly following performance of the engineering change, make any necessary updates to the User Documentation in accordance with the Agreement.

(f) Except for Mandatory Engineering Changes, a refusal of the Customer to implement an engineering change will not affect the Customer's entitlement to the Deliverables and Services under the Agreement.

7.6 Remedial Maintenance

(a) Where specified in the Order Form, the Supplier must provide Remedial Maintenance as specified in the Order Form and in accordance with the requirements of this clause 7.6.

(b) The Supplier must promptly, after being notified of a Defect or problem in relation to a Deliverable (including any Machine Code):

(i) repair or restore the Deliverable to enable it to operate in accordance with the Agreement;

(ii) comply with any applicable Service Levels and response times specified in the Order Documents;

(iii) to the extent that it is practical to do so, implement appropriate measures to minimise disruption to Customer Users and the Customer's operations during the provision of Remedial Maintenance; and

(iv) comply with any other requirements specified in the Agreement.

(c) The Supplier must:

(i) perform relevant tests to demonstrate that the Remedial Maintenance has been successfully implemented and, if requested by the Customer, provide written confirmation of such tests;

(ii) if requested by the Customer, explain to the Customer the reason for, and demonstrate to the Customer the effect of, the Remedial Maintenance; and

(iii) promptly following performance of the Remedial Maintenance, make any necessary updates to the User Documentation in accordance with the Agreement.

8. Help desk

(a) If the Order Form specifies that the Supplier will provide help desk Services, the Supplier must provide help desk Services during the times of operation and in accordance with the Specifications and any other requirements of the Agreement.

(b) The Supplier must:

(i) respond to, and investigate, requests to the help desk in a timely and efficient manner and in accordance with any requirements and Service Levels specified in the Order Documents; and

(ii) ensure the help desk is provided by Personnel who are sufficiently qualified and experienced to resolve and escalate issues.

PART D: GENERAL

9. Records

(a) The Supplier must keep and maintain full and accurate records of all Deliverables and Services provided under this Module in accordance with the Agreement and this clause 9.

(b) Unless otherwise specified in the Order Documents, the records must include the following details:

(i) any issues in relation to the Deliverables and Services that have arisen or been reported by the Customer;

(ii) a record of all Hardware and Other ICT Deliverables (including all parts and components) provided to the Customer (including during the Term and the Availability Period), including the:

A. date provided;

B. quantity provided; and

C. name and (where applicable) serial number of the Hardware and Other ICT Deliverables provided;

(iii) any repairs, replacements or other remedial action taken by the Supplier or its Personnel in relation to any Deliverables (or parts or components);

(iv) any Delays associated with the provision of the Deliverables and Services and the reason for those Delays;

(v) any actions that the parties need to take, or decisions that need to be made, to ensure the provision of the Deliverables and Services in accordance with the requirements of the Agreement;

(vi) the progress of the Deliverables and Services against any Project Plan; and

(vii) such other records in relation to the Deliverables and Services that are specified in the Order Form.

(c) The Supplier must, at its sole cost, provide copies of the records required to be maintained and kept under this clause 9 to the Customer's Representative in accordance with the times set out in the Order Documents or as otherwise reasonably required by the Customer.

10. Additional and ancillary Deliverables and Services

10.1 Optional Features

(a) If the Hardware or any Other ICT Deliverables comes with any optional features or capacity that are specified in the Order Form (**Optional Features**), the Customer may, at any time during the Term, activate any of the Optional Features by submitting a written request to the Supplier's Representative.

(b) Unless otherwise agreed between the parties in writing, the Supplier must:

(i) activate the specific Optional Features requested by the Customer within the time specified in the Order Form; and

(ii) provide the activated features for the duration specified in the Order Form.

(c) The Price for the Optional Features is set out in the Payment Particulars.

(d) If the Supplier provides Support Services in relation to any Deliverable that includes any Optional Features that have been activated, the Supplier must, at no additional cost, continue to provide Support Services for the relevant Deliverable (including any activated features), unless otherwise set out in the Order Form.

10.2 Acknowledgements

The Supplier acknowledges and agrees that:

(a) the Customer is under no obligation to request any Optional Features; and

(b) all Optional Features must be provided on the same terms and conditions of the Agreement.

10.3 Provision of additional and ancillary Deliverables and Services

The Supplier must supply:

(a) any additional or related Deliverables or Services specified in the Order Documents, including (where specified):

(i) installation Services; and

(ii) the provision of Non-ICT Services and associated Deliverables; and

(b) all other goods and services that are incidental or ancillary to the provision of the Deliverables and Services under this Module and that are required to ensure that the Deliverables and Services comply with the Specifications and other requirements of the Agreement.

10.4 Requirements

The Supplier must provide all additional, related, incidental and/or ancillary Deliverables and Services specified in clause 10.3 in accordance with all applicable requirements and timeframes under the Agreement.

11. Site

11.1 Site Access

(a) Where specified in the Order Form, the Customer must prepare the Site to enable the supply and Installation of the Deliverables. The Site must be prepared in accordance with any requirements specified in the Order Form or as otherwise reasonably determined by the Customer.

(b) The Customer will provide the Supplier and its Personnel with access to the Site at all reasonable times and to the extent necessary to enable the Supplier to carry out the Supplier's Activities, including any Installation works.

11.2 Supplier's Responsibilities

When on Site, the Supplier and its Personnel must:

(a) keep the Site clean and tidy and free of refuse;

(b) comply with the Customer's Site access policies or procedures as specified in the Order Form, as well as all reasonable directions of the Customer and its Personnel; and

(c) comply with all other Site access requirements specified in the Agreement.

12. Exports

(a) The parties acknowledge and agree that:

(i) certain Export Laws may apply to the supply of the Deliverables and associated Materials under this Module; and

(ii) these Export Laws may include Export Laws in Australia as well as the Export Laws in operation in the jurisdiction from which the Deliverables and Materials are shipped or supplied as specified in the Order Form.

(b) The parties will take all necessary steps within their control to ensure that no Deliverables or Materials resulting from the Agreement will be:

(i) exported, directly or indirectly, in breach of any applicable Export Laws; or

(ii) used for any purpose prohibited by such Export Laws, including nuclear, chemical or biological weapons proliferation or development of missile technology.

13. Warranties

13.1 Specific warranties in relation to the Deliverables

The Supplier warrants that, for the Warranty Period, the Deliverables will be:

(a) free from Defects or omissions in materials, workmanship, design and performance;

(b) compatible and interoperable with the Customer Environment (to the extent specified in the Order Form); and

(c) compatible and interoperable with the operating system and any Licensed Software that is set out in the Order Form and is an application that was pre-installed on the Deliverable or was provided with the Deliverable at the Commencement Date.

13.2 Third party warranties

(a) This clause 13.2 applies where it is specified in the Order Form that pass-through or third party warranties apply.

(b) Without limiting any other warranty or obligation of the Supplier under the Agreement or this Module, the Supplier must ensure that the Customer receives all standard manufacturer and other relevant third party warranties in relation to the Deliverables specified, or referred to, in the Order Form.

(c) The parties may agree Additional Conditions in relation to the provision of Deliverables pursuant to reseller arrangements where specified in Item 12 of the Order Form.

13.3 Remedying Defects

(a) During the Warranty Period, the Supplier must at no additional cost:

(i) remedy all Defects in the Deliverables in accordance with the Agreement; and

(ii) pay all costs in relation to Defect rectification, including any packaging, freighting, repair and reassembly costs.

(b) In the event that the Supplier does not remedy any Defects in accordance with the Agreement, the Customer may exercise any of its rights at Law or under the Agreement, including remedying the Defect itself or having the Defect remedied by a third party at the Supplier's cost in accordance with clause 14.4(d) of the Agreement.

14. Exceptions

(a) The Supplier is not liable for any failure of the Hardware, Other ICT Deliverables or Support Services to comply with the Agreement to the extent arising as a result of:

(i) any Critical CSI not operating in accordance with the Agreement;

(ii) the fair wear and tear of the Hardware and Other ICT Deliverables following their provision to the Customer in accordance with the Agreement;

(iii) the Customer not implementing any Mandatory Engineering Changes;

(iv) any misuse of the Hardware, Other ICT Deliverables or Support Services by the Customer;

(v) damage caused by the operation of the Hardware and Other ICT Deliverables other than in accordance with any recommended and reasonable operating procedures specified in the Order Form and User Documentation; or

(vi) any Virus, Denial of Service Attack or other malicious act that adversely affects the Hardware, Other ICT Deliverables or Support Services (or any software installed on the Deliverables or connected to them), except to the extent that the Virus, Denial of Service Attack or other malicious act was:

A. introduced or carried out by the Supplier or its Personnel;

B. caused or contributed to by any wrongful act or omission of the Supplier or its Personnel; or

C. due to the Supplier or its Personnel breaching the Agreement, including any failure to comply with the security obligations under the Agreement.

(b) The Customer may, at its sole discretion, request the Supplier to provide Services in respect of correcting or resolving any of the issues set out in clause 14(a) and, if so, the Supplier must provide such Services on a time and materials basis, based on the rates and charges specified in the Payment Particulars or as otherwise agreed between the parties in writing. However, any issue that results from one or more of the circumstances specified in clauses 14(a)(vi)A to 14(a)(vi)C must be rectified at the Supplier's sole cost and in accordance with the Agreement.

15. Movement of Deliverables

(a) If specified in the Order Form, the Customer's Representative may require the Supplier to move and relocate Deliverables being maintained under the Agreement. In such event, the Supplier:

(i) must carry out the movement and relocation in accordance with the Customer's reasonable requirements and timeframes;

(ii) will be responsible for dismantling, packing, unpacking, reinstalling and recommissioning the Deliverables and removing and disposing of any packing or moving materials at the Supplier's sole cost, unless otherwise specified in the Order Documents; and

(iii) will be solely responsible for the safe-handling and safe-keeping of the Deliverables during such relocation.

(b) Unless otherwise specified in the Order Form, the Customer may move and relocate the Deliverables without prior reference to the Supplier and without any reduction of the Supplier's obligations under the Agreement. Where specified in the Order Form, the Customer's Representative must inform the Supplier's Representative of the new location of the Deliverables concerned.

Annexure A: Definitions and interpretation

1. Definitions and interpretation

1.1 Definitions

Terms used in this Module have the meaning set out in Schedule 1 (Definitions and interpretation) of the Agreement, unless otherwise defined below:

Agreement has the meaning given to it in the ICT Agreement entered into under the NSW Government's Digital.NSW ICT Purchasing Framework, of which this Module forms a part.

Availability Period means the period specified in the Order Form or, where no period is specified, the last to end of:

(a) the period of three years after Acceptance; and

(b) the Warranty Period.

Customer Provided Data means the Customer Data provided by the Customer to the Supplier (or extracted by the Supplier as part of providing the Supplier's Activities) and in respect of which the Supplier is to provide the Data Services. Customer Provided Data includes any data derived or generated from the Customer Provided Data as a result of the provision of the Supplier's Activities.

Data Services means any data Services specified in the Order Form to be provided by the Supplier in respect of the Customer Provided Data.

Export Laws means all applicable export and re-export control laws and regulations in Australia and any other jurisdictions nominated in the Order Form.

Hardware means the physical ICT equipment, including all components and parts, specified in the Order Form which is to be acquired or maintained under the Agreement (as the case may be) and any substituted equipment, components or parts.

Install means the installation and set-up of the Hardware in accordance with this Module, including the integration of the Hardware into the Customer Environment, and **Installation** has a corresponding meaning.

Machine Code means any microcode, basic input/output system code (called "BIOS"), utility programs, device drivers, diagnostics, firmware and any other code, delivered with the Hardware for the purpose of enabling the Hardware to function as specified in the Order Form and Order Documents. Machine Code excludes the operating system and any Licensed Software that is provided pursuant to the Software Module under the Agreement.

Mandatory Engineering Changes has the meaning given to this term in clause 7.5(c).

Module means this document (including Annexure A), which is the Hardware and Other ICT Deliverables Module under the Agreement.

Non-ICT means Services that form part of the Supplier's Activities, but which do not comprise ICT Services or Deliverables.

Optional Features has the meaning given to this term in clause 10.1(a).

Other ICT Deliverables means ICT Deliverables and components and parts other than:

(a) Licensed Software provided under the Software Module;

(b) Hardware; or

(c) Deliverables provided under the Cloud Module.

Preventative Maintenance means scheduled maintenance Services required to be performed by the Supplier in accordance with clause 7.4 to ensure that the Hardware and Other ICT Deliverables remain in working order in accordance with the Specifications and other requirements of the Agreement.

Remedial Maintenance means unscheduled maintenance Services required to be performed by the Supplier pursuant to clause 7.6 to restore the Hardware and Other ICT Deliverables to a condition allowing performance in accordance with the Specifications and other requirements of the Agreement.

Substitute Product has the meaning given to this term in clause 2.5(a)(ii).

Support Period means the period during which the Supplier will provide the specific category of Support Services as specified in the Order Form or as otherwise agreed between the parties in writing.

Support Services means the support and maintenance Services to be provided by the Supplier in respect of the Supported Deliverables and as specified in the Order Form.

Supported Deliverables means the Hardware and Other ICT Deliverables (as well as all associated components and parts) that are specified in the Order Form and in respect of which the Supplier will provide the Support Services.

Training Reports has the meaning given to this term in clause 6.3(a).

1.2 Interpretation

Unless as otherwise expressly specified, in this Module:

(a) the rules of interpretation set out in Schedule 1 (Definitions and interpretation) of the Agreement will apply to this Module; and

(b) a reference to a clause or Part is a reference to a clause or Part in this Module.