



Uptime

Support Services Agreement

Technology Lifecycle Management Assessment (TLMA) Appendix

Table of Contents

APPLICATION	3
1. DEFINITIONS AND INTERPRETATIONS.....	3
2. GENERAL OBLIGATIONS.....	3
NTT'S OBLIGATIONS	3
DISCOVERY	4
3. BUSINESS INTERVIEW.....	4
NTT'S OBLIGATIONS	4
4. TECHNICAL INTERVIEW.....	4
NTT'S OBLIGATIONS	4
THE CLIENT'S OBLIGATIONS	4
5. ELECTRONIC EQUIPMENT DISCOVERY	5
THE CLIENT'S AUTHORITY	5
NTT'S OBLIGATIONS	5
THE CLIENT'S OBLIGATIONS	5
ANALYSIS	6
6. END-OF-SALE AND END-OF-SUPPORT IDENTIFICATION AND ANALYSIS	6
NTT'S OBLIGATIONS	6
7. MAINTENANCE CONTRACT IDENTIFICATION	7
NTT'S OBLIGATIONS	7
8. OPERATING SYSTEM VULNERABILITY IDENTIFICATION AND ANALYSIS	7
NTT'S OBLIGATIONS	7
EXCLUSION	7
9. CISCO PSIRT REVIEW.....	7
NTT'S OBLIGATIONS	7
RECOMMENDATIONS	8
10. FINAL REPORT.....	8
NTT'S OBLIGATIONS	8
11. PRIORITISED RECOMMENDATIONS REPORT.....	8
NTT'S OBLIGATIONS	8
12. ON-SITE PRESENTATION OF FINDINGS	9
NTT'S OBLIGATIONS	9
13. ASSUMPTIONS	9
14. EXCLUSIONS.....	9
15. CLIENT'S GENERAL RESPONSIBILITIES.....	9

Application

1. Definitions and Interpretations

1.1 For the purposes of this Appendix, unless the context requires otherwise:

“**End-of-Sale**” means the device is no longer manufactured and therefore cannot be purchased from the manufacturer.

“**End-of-Support**” means the relevant device is no longer supported, as determined by NTT, based on any announcements made by the manufacturer.

“**TLMA**” means Technology Lifecycle Management Assessment.

2. General Obligations

NTT's obligations

2.1 NTT must provide the TLMA 'Express' service as is specified in the Record of Entitlement.

2.2 The TLMA service consists of the tasks listed in the table in clause 2.3 and described in further detail in clauses 3 to 12 inclusive.

2.3 Table of assessment tasks:

Clause Reference	Assessment Tasks
	Discovery
3	Business Interview
4	Technical Interview
5	Electronic Equipment Discovery
	Analysis
6	End-of-Sale and End-of-Support Identification and Analysis
7	Maintenance Contract Identification
8	Operating System Vulnerability Identification and Analysis
9	Cisco PSIRT Review
	Recommendations
10	Final Report
11	Prioritised Recommendations
12	On-site Presentation of Findings

Discovery

3. Business Interview

NTT's obligations

- 3.1 NTT will assign a technical consultant to conduct a 'business interview' with the Client (either face to face or via telephone) to:
- (a) gain an understanding of the Client's business and the business applications that are operating on the Client's network infrastructure; and
 - (b) answer questions that include but are not limited to:
 - (i) how the IT infrastructure is used;
 - (ii) what the main applications are;
 - (iii) what the future plans for the network are;
 - (iv) whether there any particular networking issues at play;
 - (v) what the cost of downtime is;
 - (vi) how the IT organisation is structured; and
 - (vii) who the contacts for this engagement will be.

4. Technical Interview

NTT's obligations

- 4.1 NTT will:
- (a) assign a technical consultant to conduct a 'technical interview' with the Client to:
 - (i) discuss and document the data centres, network infrastructure devices, servers, applications operating on the Client's network;
 - (ii) answer questions that include but are not limited to:
 - (A) what the total numbers of devices, sites and users are;
 - (B) what the topology of the network is;
 - (C) what the design criteria that drove the topology were;
 - (D) what protocols are in use;
 - (E) what security policies and architecture are in use;
 - (F) what configuration standards are in place and how are they enforced;
 - (G) whether a recent network diagram exists; and
 - (H) whether there is other documentation that might be helpful; and
 - (b) conduct the technical interview through a short workshop held at an agreed location, facilitated by the technical consultant and attended by the client's network team and, if necessary, application, security and business representatives.

The Client's obligations

- 4.2 The Client must prepare and provide to NTT network diagrams and other appropriate documentation in advance of the technical interview.

5. Electronic Equipment Discovery

The Client's authority

5.1 The Client hereby authorises NTT to:

- (a) run the Discovery Tool on the Client's network in whole or in part;
- (b) collect and collate the data produced by the Discovery Tool; and
- (c) encrypt and send the data to product manufacturers if necessary to obtain more information on the devices.

5.2 All information collected by NTT will be treated as the Client's Confidential Information.

NTT's obligations

5.3 NTT must assign a technical consultant to:

- (a) perform an automated electronic equipment discovery, or network scan, on the Client's network using a NTT laptop PC running a commercially available software tool ("the Discovery Tool");
- (b) complete the discovery activity during a one or two day visit to the Client's premises depending on the size of the infrastructure to be assessed; and
- (c) discover all SNMP enabled devices on the Client's network.

The Client's obligations

5.4 The Client must:

- (a) provide information reasonably required for the discovery 5 Business Days prior to the scheduled discovery activity;
- (b) complete the configuration of firewalls and other security measures to enable the software tool to access the Client's network 5 Business Days prior to the scheduled discovery activity;
- (c) notify its operational and security teams, and implement appropriate change controls, so as not to cause "false positive" security alerts, as polling activity could be detected by the Client's operational management systems as "suspicious activity" which must be completed prior to the scheduled electronic equipment discovery;
- (d) make a member of the Client's network team available to assist configure firewalls, update access lists and generally supply any Client-specific data to make the discovery more successful;
- (e) provide NTT with network authentication information to facilitate the electronic equipment discovery;
- (f) provide NTT with a management IP address for the Discovery Tool to utilise that is included in SNMP ACLs and all firewall rules;
- (g) ensure that firewalls, access lists and other security measures have been configured to allow the Discovery Tool to scan the Client's network and collect data;
- (h) allow NTT to poll the Client's IP address space, which while unobtrusive, does create a small additional load on the network and should be scheduled carefully;
- (i) allow NTT to connect a PC running the Discovery Tool to the Client's network;
- (j) ensure that a member of the Client's network team is available throughout the data collection phase to assist with any network issues at that time; and
- (k) ensure that a member of the Client's security team is available throughout the data collection phase to assist with any security or access issues which may arise.

Analysis

6. End-of-Sale and End-of-Support Identification and Analysis

NTT's obligations

6.1 NTT must assign a technical consultant to:

- (a) produce an inventory report based on the results of the electronic equipment discovery that includes the following device details, where they configured and available:
 - (i) device IP address;
 - (ii) device hostname;
 - (iii) device manufacturer;
 - (iv) device model number;
 - (v) serial number;
 - (vi) chassis modules/blades;
 - (vii) operating system release level;
 - (viii) memory data; and
 - (ix) flash data;
- (b) review the inventory report to identify product lifecycle milestones, as defined by the manufacturer, that may have been reached, or are about to be reached in the near future, by any of the discovered equipment;
- (c) cross reference the lifecycle milestone data against the output of the business interview and technical interview documentation in order to identify:
 - (i) what devices are current, End-of-Sale, End-of-Support, or any other relevant "End-of-X" sub-milestones as deemed pertinent by NTT;
 - (ii) how critical these devices are to the delivery of IT services to the business (based on information provided by the Client on key business applications and the impact and cost of outages affecting those applications); and
 - (iii) what devices can provide continued use regardless of their lifecycle status; and
- (d) produce End-of-Sale and End-of-Support identification and analysis reporting information for inclusion in the Final Report including:
 - (i) a summary chart that shows the current lifecycle status of devices which have entered the manufacturer's obsolescence cycle (i.e. End-of-Sale and End-of-Support has been announced);
 - (ii) a detailed device table listing not only the current lifecycle stage, but also the future milestone dates of all devices that will allow the Client to plan network upgrade in a staged fashion overtime in a proactive manner; and
 - (iii) a chart that shows the pace at which the currently installed devices will advance through to End-of-Sale and End-of-Support over the following three year period without upgrades to enable the Client to plan the pace of upgrades that may be required.

7. Maintenance Contract Identification

NTT's obligations

- 7.1 NTT must assign a technical consultant to compare the discovered data against the Uptime Record of Entitlement and include the results of the comparison in the Final Report including:
- (a) a summary chart of the percentages of devices currently covered by a NTT Uptime maintenance Agreement; and
 - (b) a detailed table showing the current maintenance status of each device to identify:
 - (i) devices that are on the Record of Entitlement and not in the Client's network, so that they can be removed from the Uptime maintenance Agreement;
 - (ii) devices that are not on the Record of Entitlement but exist on the Client's network. If requested by the Client, NTT will add these devices to the Uptime maintenance Agreement; and
 - (iii) devices that are on the Record of Entitlement that do not have the appropriate Service Levels. NTT will recommend alternative Service Levels.
 - (iv) Operating System Vulnerability Identification and Analysis

8. Operating System Vulnerability Identification and Analysis

NTT's obligations

- 8.1 NTT must assign a technical consultant to perform an operating system gap analysis to identify and document for inclusion in the Final Report, any operating system patches and versions deployed in the Client's network that may be subject to known vulnerabilities, as documented by the manufacturer.

Exclusion

- 8.2 Operating system vulnerabilities may apply only to certain software modules that may not be installed or in software features that are not configured in the Client's network. The objective of this analysis is to identify vulnerabilities that may exist in the currently deployed software builds with the currently configured software feature sets only.

9. Cisco PSIRT Review

NTT's obligations

- 9.1 NTT must assign a technical consultant to list any applicable Cisco Product Security Incident Response Team (PSIRT) releases relating to the Client's Cisco devices in the Final Report. The PSIRT releases security advisories in response to reported and otherwise discovered vulnerabilities. Many software versions have more than one applicable PSIRT release issued against it.

Recommendations

10. Final Report

NTT's obligations

10.1 NTT must produce a Final Report in two formats:

- (a) a Word document that will include at least all of the following sections and be organised in a similar fashion:
 - (i) an executive overview;
 - (ii) summary of assessment findings:
 - (A) business use of the network;
 - (B) technical implementation of the network;
 - (C) product lifecycle; and
 - (D) maintenance coverage;
 - (iii) detailed assessment findings:
 - (A) business use of the network;
 - (B) technical implementation of the network;
 - (C) product lifecycle; and
 - (D) maintenance coverage;
 - (iv) prioritized recommendations (categories to include):
 - (A) product lifecycle;
 - (B) maintenance; and
 - (C) operating system; and
 - (D) appendices will provide the necessary reference material (e.g. PSIRT reference, advisories reference, etc.); and
- (b) an Excel workbook that contains all the detailed described in this Appendix. The tabular structure of this document will include:
 - (i) contents;
 - (ii) executive dashboard;
 - (iii) summary of findings;
 - (iv) product lifecycle status;
 - (v) maintenance coverage status; and
 - (vi) operating system vulnerability status.

11. Prioritised Recommendations Report

NTT's obligations

11.1 NTT must:

- (a) include in the Final Report a prioritised list of recommended remedial actions categorised by each of the following:
 - (i) product lifecycle;
 - (ii) maintenance; and

- (iii) operating system;
- (b) depending on the Client's requirements and interests as identified in the discovery phase, include additional customised categories of recommendation (e.g. sustainability, wireless, or performance optimisation); and
- (c) prioritise the recommendations based on the following scale:
 - (i) critical – essential to the Client and should be done immediately;
 - (ii) important – required by the Client and should be done immediately after the critical implementation;
 - (iii) somewhat important – important to the Client but no immediate timeline constraint; and
 - (iv) desired – recommendations that will enhance the effectiveness of the Client's network but is not required immediately.

12. On-site Presentation of Findings

NTT's obligations

12.1 NTT must deliver a presentation to the Client that includes:

- (a) a review of the Client's goals and requirements obtained in the business interview described in clause 3;
- (b) a review of the primary findings in the main areas of:
 - (i) product lifecycle;
 - (ii) maintenance coverage;
 - (iii) operating systems; and
 - (iv) a review of NTT's recommendations;
- (c) an opportunity for the Client to provide feedback; and
- (d) discussion of next steps, if appropriate.

13. Assumptions

13.1 All work will be conducted within Business Hours.

14. Exclusions

14.1 All sites outside of Australia/New Zealand will be out of scope and devices outside those countries will not be covered.

15. Client's General Responsibilities

15.1 The Client must:

- (a) provide information to NTT that is accurate and complete;
- (b) provide NTT with all requested documentation in soft copy;
- (c) ensure NTT's equipment left on the Client's premises to collect information will be safe and secure; and
- (d) advise NTT in a timely manner of any delay to the scheduled dates.