SCHEDULE 2.2B

SERVICE MANAGEMENT

VERSION CONTROL

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APPENDIX 1 – SEVERITY LEVELS

SCHEDULE 2.2B – SERVICE MANAGEMENT

1. PURPOSE

The Supplier shall perform Service Management in accordance with this Schedule and ITIL. In the event of any conflict between this Schedule and ITIL, this Schedule shall take precedence.

2. SERVICE MANAGEMENT

General

2.1 The Supplier is responsible for the provision of specialised organisational capabilities that provide value to TTL through the effective provision of Service Management. Through the provision of Service Management, the Supplier shall ensure that each of the following objectives are met:

2.1.1 the Support Services remain value for money and are delivered in accordance with Good Industry Practice;

2.1.2 the Support Services remain capable of meeting TTL's requirements, demand and expectations in a cost-effective way and in accordance with this Agreement;

2.1.3 the Support Services are proactively managed such that they continue to operate in a manner which meets or exceeds the Performance Level Targets;

2.1.4 the Supplier provides information and data to assure TTL that the Support Services are being effectively managed; and

2.1.5 the Support Services are assessed, reviewed and (to the extent reasonably practicable in accordance with this Agreement) improved on a continuous basis.

2.2 The Supplier shall at all times:

2.2.1 employ Good Industry Practice service management processes and methodologies in its delivery and management of the Support Services; and

2.2.2 as relevant to the Support Services, perform its obligations under this Agreement in accordance with the practices set out in the current ITIL framework from time to time unless there is any conflict, apparent conflict or ambiguity between this Agreement and the relevant ITIL framework, in which case this Agreement shall take precedence.

2.3 The Supplier's Service Management processes shall facilitate traceability and audit by requiring the Supplier to keep a record of: (i) actions taken in relation to the management of the Support Services; and (ii) the Supplier Personnel responsible for effecting those actions.

Service Management Manual

2.4 The Supplier shall produce the Service Management Manual for Approval by TTL in accordance with the timescales identified within Schedule 6.1 (Transition) and thereafter maintain it during the Term. In the event of any conflict, apparent conflict or ambiguity between this Agreement and the Service Management Manual, this Agreement shall take precedence.

2.5 The Service Management Manual shall provide TTL and the Users with appropriate practical information and guidance in relation to Service Management which enables TTL and the Users to access (and co-ordinate with) the relevant Service Management services on a day-to-day basis. Without limiting the foregoing the Service Management Manual shall include:

2.5.1 details of the key roles and responsibilities for the delivery of Service Management and contact details including:

(a) details of Supplier Personnel with requisite authorities to carry out activities pertinent to the delivery of Service Management;

(b) details of TTL Personnel authorised to make decisions pertinent to the delivery of Service Management; and

2.5.2 the operational processes and monitoring regimes underpinning Service Management which impact TTL and the Users.

2.6 The Supplier shall:

2.6.1 regularly review the Service Management Manual and ensure that its content is always up to date and accurate; and

2.6.2 update the Service Management Manual with any changes to Supplier Personnel with requisite authorities to carry out activities pertinent to the delivery of Service Management and/or any changes to TTL Personnel authorised to make decisions pertinent to the delivery of Service Management within five (5) Working Days of the Supplier becoming aware of such changes.

2.7 The Parties shall jointly review the Service Management Manual once per Contract Year in order to identify improvement opportunities and the Supplier shall provide, to TTL's reasonable satisfaction, assurance that the Service Management Manual accurately represents all current working practices.

2.8 All updates to the Service Management Manual shall be submitted to TTL for Approval.

3. TOOLSETS AND INFORMATION

Overview

3.1 The Toolsets shall provide TTL with access to information in order to gain assurance of the performance of the RTO System and delivery of the Support Services.

Requirements

3.2 The Supplier shall ensure that all Incidents, Problems and Operational Changes logged with or by the Supplier are recorded in the Toolsets and a detailed record of all actions taken in relation to each is captured in the appropriate Ticket.

3.3 The Supplier shall provide TTL with access to all monitoring data in respect of the RTO System. Such monitoring data shall be recorded in Near Real Time by the Supplier's Monitoring Tools, which shall also provide TTL with the ability to obtain an electronic copy of such data for the purpose of TTL carrying out its own independent analysis of such data.

3.4 As part of the Supplier's obligations to implement and maintain the Operational Baseline, the Supplier shall set out the criteria which need to be met in order for an Alert to be logged as an Incident.

4. SERVICE DESIGN

4.1 Availability Management

Overview

4.1.1 The Supplier shall perform Availability Management in respect of the RTO System which shall bring together the design, service operations and continual service

improvement activities to ensure (through design) and provide assurance of (through proactive monitoring and improvement) the on-going Availability of the RTO System.

Requirements

4.1.2 The Supplier shall produce an Availability Plan for Approval by TTL in accordance with the timescales identified within Schedule 6.1 (Transition) to ensure that the Supplier meets or exceeds the Service Level Targets associated with Availability set out in Annex 1 of Schedule 2.2A (Performance Levels) under the reference SL01.

4.1.3 The Supplier shall implement and maintain the Availability Plan following its Approval by TTL.

4.1.4 The Supplier shall effectively and proactively manage the Availability of the RTO System and ensure that the Availability Plan supports this obligation. The Availability Plan shall:

(a) set out the way in which the Supplier shall design the Support Services in order to meet or exceed the Performance Level Targets. In doing so, the Supplier shall take into consideration the expected Availability of the individual Configuration Items, and the way in which those Configuration Items are logically and physically combined;

(b) set out the approach to monitoring, measurement, analysis and resolution of Incidents or Alerts that impact or may impact Availability, which shall include a description of how:

(i) a Service Affecting Incident, or Alert which may result in a Service Affecting Incident, shall be detected and prioritised; and

(ii) the Supplier shall respond to a Service Affecting Incident, or Alert which may result in a Service Affecting Incident, so as to minimise the impact to the RTO System and this Agreement; and

(c) set out how the Supplier shall ensure Availability of the elements identified pursuant to paragraph 4.1.4(a) which shall include a description of how the Supplier shall:

(i) proactively monitor and detect issues before they become Service Affecting Incidents; and

(ii) analyse the probability of unavailability to enable the Supplier to prioritise improvement activities based on historical performance data.

4.1.5 The Supplier shall keep the Availability Plan up to date and submit it to TTL for Approval and review at every sixth RTO Service Delivery Group meeting. The Supplier shall submit the Availability Plan five (5) Working Days prior to the relevant RTO Service Delivery Group meeting.

4.1.6 The Supplier shall obtain TTL's prior written approval before making the RTO System or part thereof Unavailable. In such circumstances, the Supplier shall submit an Operational Change Form in accordance with paragraph 5.1, and the Supplier acknowledges that TTL is unlikely to approve such Operational Change Form if resiliency exists within the RTO System or the relevant Support Services.

4.2 Capacity Management

Overview

4.2.1 The Supplier shall provide Capacity Management, which shall enable the Supplier to:

(a) ensure that Configuration Items are correctly and cost-effectively scaled to cater for both current and foreseen future TTL demand in respect of the RTO System;

(b) mitigate Capacity Threats in a timely manner prior to such threats affecting the operation of the RTO System and delivery of the Support Services; and

(c) provide information to TTL to support TTL in monitoring and managing demand for the RTO System and the Support Services.

Requirements

4.2.2 The Supplier shall

(a) provide the Capacity Plan for Approval in accordance with the timescales identified within Schedule 6.1 (Transition);

(b) implement and maintain the Capacity Plan following its Approval by TTL;

(c) keep the Capacity Plan up to date and submit it to TTL for Approval and review at every sixth RTO Service Delivery Group meeting (in respect of which the Supplier shall submit the Capacity Plan at least five (5) Working Days prior to the relevant RTO Service Delivery Group meeting); and

(d) provide the latest status of performance against the Capacity Plan to TTL at least five (5) Working Days prior to each RTO Service Delivery Group meeting (the "**Capacity Report**").

4.2.3 The Capacity Report shall include a summary of the relevant key highlights including, as a minimum: Capacity Threats, Capacity Warning Alerts and instances where Capacity Thresholds have been exceeded.

4.2.4 Within the Operational Baseline the Supplier shall define, for each in-scope Configuration Item:

(a) the Alert Threshold at which the Maximum Utilisation level means that the Performance Levels cannot be consistently achieved (the "**Capacity Threshold**"); and

(b) the Alert Threshold that serves as an advanced warning indicator that the Maximum Utilisation of a Configuration Item is approaching the Capacity Threshold, such advanced warning is to be provided early to allow the Parties to investigate, agree and execute a temporary mitigation (the "**Capacity Warning Alert**").

Capacity reporting

4.2.5 The Capacity Report shall report on historical Utilisation so as to allow TTL to understand where the RTO System is heavily utilised, lightly Utilised or where there is a significant trend in the change in Utilisation.

4.2.6 The Capacity Report shall report on measurements taken over the course of a full Service Day, and measurements shall be expressed as both absolute numbers and percentages of the Maximum Utilisation level and the Capacity Threshold.

Capacity forecasts

4.2.7 The Capacity Report shall analyse historical Maximum Utilisation information for each in-scope Configuration Item and provide a forecast Capacity Projection.

4.2.8 TTL reserves the right to amend the assumptions underpinning capacity projections from time to time where it reasonably believes it is in the best interests of TTL to do so.

4.2.9 The Capacity Report shall indicate the date by when additional Capacity must be ordered, such that Capacity upgrades are executed in the most cost-effective manner for TTL, as well as in good time before the Maximum Utilisation betters the Capacity Threshold.

4.2.10 Taking into account seasonal variations or other factors which are likely to increase demand in the future, the Supplier shall prepare and submit to TTL in a timely manner, proposals for the downgrade or removal of Configuration Items in order to ensure unrequired capacity is removed where such removal is in the best financial interests of TTL. All downgrade proposals shall be submitted to TTL for Approval.

On-going management of Capacity

4.2.11 Any proposal required to mitigate a Capacity Threat must be submitted prior to the Capacity Threshold being exceeded and with sufficient time so as to allow the implementation of the proposal plus an additional ten (10) Working Days to allow TTL to review the proposal and commission the upgrade work.

4.2.12 The Supplier shall continuously monitor Utilisation and all breaches of Capacity Thresholds shall automatically raise an Alert within the Toolsets in Near Real Time.

Support to TTL Demand Management

4.2.13 The Supplier shall monitor and analyse Utilisation information to identify usage patterns and demand trends and shall provide such information to TTL in respect of each Support Period five (5) Working Days prior to the RTO Service Delivery Group meetings.

4.3 Performance Level Management

Overview

4.3.1 The Supplier shall perform Performance Level Management which shall enable the Supplier to monitor and manage the RTO System and the Support Services and demonstrate to TTL that the Performance Levels are being met or exceeded.

Requirements

4.3.2 The Supplier shall submit the Service Performance Report to TTL five (5) Working Days prior to the RTO Service Delivery Group meetings held in accordance with Schedule 8.1 (Governance). The Service Performance Report shall include:

(a) the actual performance against the Performance Levels for the relevant Support Period and during the previous three (3) Support Periods;

(b) a summary of all Performance Level Failures (including Severity Levels) that occurred during the Support Period;

(c) details of any Performance Failures that remain outstanding and progress in resolving them;

(d) details of any Critical Service Failure and the status of any outstanding Rectification Plan Processes;

(e) details of any Repeat Failures along with the actions taken to resolve the underlying cause and to prevent recurrence;

(f) the Service Credits to be applied in respect of the relevant Support Period and that have been incurred by the Supplier over the past six (6) Support Periods.

4.3.3 TTL may at the RTO Service Delivery Group meetings notify the Supplier of any items contained in the Service Performance Report that require correction. The Supplier shall submit an updated Service Performance Report to TTL within two (2) Working Days (or a period otherwise agreed with TTL) of being notified of the item requiring correction.

4.3.4 At the RTO Service Delivery Group meetings the Supplier shall provide TTL with the supporting raw data used to create the Service Performance Reports which shall demonstrate how the Supplier has calculated its compliance against each Performance Level and how it has calculated any Service Credits.

Dashboard

4.3.5 The Supplier shall provide a Dashboard to TTL for Approval in accordance with the timescales identified within Schedule 6.1 (Transition) (and thereafter maintain it) which shall, as a minimum, provide details of:

(a) any Configuration Item which is Unavailable and the duration of Unavailability;

(b) all Major Incidents or Incidents classified as Severity Level 1 and Severity Level 2 and the period for which these Incidents have been open;

(c) all raised, open and closed Incidents classified as a Severity Level 3;

(d) all Alerts related to Capacity Thresholds being exceeded as set out in paragraph 4.2.13;

(e) all Capacity Warning Alerts generated by the Supplier's monitoring systems; and

(f) the number of open Tickets for Incidents and the number of Incidents that were not Restored within the Incident Restore Time.

4.3.6 The Supplier shall allow TTL and the Users to access the Dashboard at any time.

5. SERVICE CHANGE

5.1 Change Management

Overview

5.1.1 The Supplier shall perform Change Management (which shall support TTL in its objective of coordinating all Operational Changes initiated by TTL and the Supplier) to reduce the risk of an adverse and unplanned disruption to the operation of the RTO System and/or the Support Services as a result of an Operational Change.

Requirements

5.1.2 Operational Changes shall be implemented in accordance with the Change Management Process set out in paragraphs 5.1.5 to 5.1.20.

5.1.3 The Supplier shall appoint an individual to be responsible for the management of Operational Changes in accordance with this Schedule.

5.1.4 The Supplier shall ensure Operational Changes are implemented in a coordinated and controlled fashion so as to minimise disruption to TTL, TfL, the RTO System and this Agreement.

Change Management Process

5.1.5 Each Operational Change shall be categorised as an Operational Change Type.

5.1.6 The Operational Change Types are:

(a) **Normal Change**: an Operational Change that is subject to agreement by the Parties in writing in accordance with the agreed Change Management Process. The Supplier shall not refuse to provide a Normal Change proposed by TTL unless such provision would place the Supplier in breach of any Law. Any Operational Change which is not an Emergency Change or a Pre-Approved Change shall be deemed to be a Normal Change;

(b) **Emergency Change**: an Operational Change that is required urgently as a result of a Major Incident, a Service Affecting Incident, or to prevent a Service Affecting Incident from occurring. Emergency Changes shall be subject to a fast track approval process approved by TTL in writing to enable Normal Operation to be continued or restored as soon as possible; and

(c) **Pre-Approved Change**: Operational Changes that TTL agrees in writing have prior approval that, due to their nature, are either regular repeatable low impact changes or where the potential impact means approval by TTL or TfL of each specific Operational Change is unnecessary.

5.1.7 For each Normal Change the Supplier shall:

(a) ensure that all Deliverables required to support the Operational Change Form have been approved by TTL in writing;

(b) demonstrate to TTL's reasonable satisfaction that all Testing (if any) required pursuant to Schedule 6.4 (Testing) has been properly conducted prior to the implementation of any Operational Change; and

(c) assess the success of the Operational Change implementation and ensure any remedial action is undertaken and lessons learnt are acted upon.

Operational Change Form and Implementation

5.1.8 Unless TTL approves otherwise in writing, all Operational Changes shall be agreed by the Parties as soon as practicable using an Operational Change Form which shall include, where applicable:

(a) description of and justification for the Operational Change;

(b) impact of the Operational Change including the Support Services, Configuration Items and/or interfaces affected;

(c) the Operational Change initiator and Operational Change implementer;

(d) plan and timescales for the implementation including commissioning and post-implementation testing and success criteria for the Operational Change;

(e) reference to new or changed Design Baseline documents and related Approval, where applicable;

(f) reference to any Test Certificates issued by TTL in accordance with Schedule 6.4 (Testing);

(g) the risk of implementation and non-implementation of the Operational Change;

(h) where applicable, a plan for backing out if implementation is unsuccessful;

(i) details of any associated Incidents or Problems; and

(j) details of any required outage of the RTO System and/or the Support Services.

5.1.9 The Supplier shall log all approved Operational Changes in the Toolsets.

5.1.10 Following the implementation of an Operational Change, the Supplier shall ensure it is reflected in the Toolsets and relevant Deliverables (save to the extent agreed otherwise with TTL in writing). Unless otherwise agreed with TTL in writing, the implementation of the relevant Operational Change shall not be deemed to have been completed until all such Toolsets and Deliverables have been updated.

5.1.11 The Supplier acknowledges that TTL does not expect the Supplier to request a planned outage for any Operational Change in respect of RTO System functionality or Support Services that have resilience and that, accordingly, TTL shall only approve such proposed planned outages in exceptional circumstances. Notwithstanding this, the Supplier shall inform TTL of any potential risk to resilience during an Operational Change to ensure that TTL is fully informed of any risk and potential impact.

5.1.12 The Supplier acknowledges that TTL has particular operational and/or business requirements in relation to special events that may influence the timing of Operational Changes. TTL shall use reasonable endeavours to provide to the Supplier a forward schedule of such requirements that may affect the Supplier's ability to introduce Operational Changes. Likewise, TTL acknowledges that in exceptional circumstances the Supplier may also have particular operational

and/or business requirements that may influence the timing of Operational Changes and the Supplier shall provide a forward schedule of such requirements.

5.1.13 TTL shall provide the Supplier with advance notice of any Protection of Support Period which shall include, but shall not be limited to, calendar year end.

Post Implementation Review

5.1.14 If an Operational Change has been unsuccessful, the Supplier shall provide suitably informed and empowered Supplier Personnel to participate in a review to identify the cause of the unsuccessful Operational Change within five (5) Working Days. The Supplier shall establish measures to improve the implementation of future Operational Changes.

Emergency Changes

5.1.15 The Supplier may only enact an Emergency Change if: (i) the Supplier is required to deliver an Operational Change to return the RTO System to Normal Operation following a Service Affecting Incident; and/or (ii) the Supplier needs to prevent a Service Affecting Incident from occurring but is unable to do so as part of the Normal Change procedure.

5.1.16 In the event of an Emergency Change being required, the Supplier shall use reasonable endeavours to contact and co-ordinate with the TTL Change Manager or nominated representative in accordance with the Change Management Process.

5.1.17 Requests for Emergency Changes may be approved in writing outside of the Toolsets. In such situations the Supplier shall log a retrospective Operational Change Form for an Emergency Change in the Toolsets within twenty four (24) hours of the Emergency Change taking place.

5.1.18 For each Emergency Change the Supplier:

(a) is not required to complete a formal impact assessment however consideration should be given to the potential impact on the RTO System and the Support Services;

(b) is expected to conduct Testing and commissioning testing on Emergency Changes where reasonably practicable and appropriate; and

(c) shall assess the success of the implementation of the Emergency Change, including by appropriate post-implementation testing, and ensure that any remedial action is undertaken and lessons learnt are acted upon.

Pre-Approved Changes

5.1.19 All Pre-Approved Changes shall be compliant with any constraints set out by TTL within the designated Operational Change Form as provided by TTL from time to time.

5.1.20 For each Pre-Approved Change the Supplier:

(a) is not required to complete an individual impact assessment however the impact of the Pre-Approved Change shall be clearly understood and assessed when the Pre-Approved Change classification is applied;

(b) shall not require a change to the Design Baseline;

(c) shall not implement the Pre-Approved Change if it requires formal Testing in accordance with Schedule 6.4 (Testing); and

(d) shall not impact the Service Management process and operational procedures under this Agreement.

5.2 Configuration Management

Overview

5.2.1 The Supplier shall provide Configuration Management in respect of the RTO System which shall:

(a) ensure that the Configuration Items are maintained to enable safe and effective operation of the RTO System and the Support Services; and

(b) enable the Supplier to ensure that a comprehensive record of the Configuration Items and the relationship between them is maintained, with the objective of providing management and control of these Configuration Items.

Requirements

5.2.2 The Supplier shall define the Configuration Items and how these shall be structured so as to provide sufficient control over Operational Changes and management of the RTO System and the Support Services.

5.2.3 The Supplier shall ensure that each Configuration Item has a unique identifier and record these in the CMDB.

5.2.4 The Supplier shall record, where applicable, the following items of information in relation to each Configuration Item in the CMDB:

(a) its unique identifier;

(b) a description of the Configuration Item;

(c) a sufficiently detailed description of the current physical location of the Configuration Item to allow the specific location of the Configuration Item to be readily identified;

(d) the owner of the Configuration Item;

(e) its relationship to other Configuration Items and the impact on the RTO System and the Support Services of a Service Affecting Incident relating to that Configuration Item;

(f) any associated version, model number or serial number;

(g) management IP address;

(h) manufacturer;

(i) party providing maintenance of the Configuration Item;

(j) installation and/or commissioning date;

(k) life cycle status; and

(l) a diagrammatic representation of the Configuration Items.

5.2.5 The Supplier shall interface the CMDB with TTL's Configuration Management System so that TTL's Configuration Management System accurately reflects the Configuration Items within the CMDB.

5.2.6 The Supplier shall baseline the Configuration Items and their inter-relationships as at each Operational Commencement Date.

5.2.7 The Supplier shall update the CMDB to reflect any new or altered Configuration Items.

5.2.8 The Supplier shall demonstrate to TTL's reasonable satisfaction that the contents of the CMDB are current, accurate and shall provide such evidential assurance to TTL at each RTO Service Delivery Group meeting.

5.2.9 TTL reserves the right at its complete discretion to audit the CMDB at any time to validate, by way of a configuration audit, that the information recorded therein accurately reflects the Configuration Items deployed under this Agreement.

6. SERVICE OPERATION

6.1 Supplier Service Desk

Overview

6.1.1 The Supplier shall provide the Supplier Service Desk which shall provide:

(a) the central point of contact between the Supplier and TTL for Service Management on a day-to-day basis;

(b) a mechanism for TTL to log Incidents and Problems with the Supplier; and

(c) an initial point of contact for progress updates and escalations.

Requirements

6.1.2 The Supplier Service Desk shall operate on a 24x365 basis.

6.1.3 The Supplier Service Desk shall have full visibility of all planned Operational Changes, Incidents, Problems and performance data, and shall operate in a manner which ensures relevant Supplier Service Desk staff have a Near Real Time understanding of the performance and status of the RTO System and the Support Services.

6.1.4 The Supplier Service Desk shall be the single point of contact for TTL for raising all Incidents with the Supplier.

6.1.5 The Supplier shall provide a dedicated telephone number for designated TTL Personnel (including members of the Primary Service Desk) to call the Supplier Service Desk.

6.1.6 The Supplier Service Desk shall be staffed by suitably qualified and experienced staff knowledgeable about the RTO System and the Support Services being provided to TTL and able to manage all calls made by designated TTL Personnel.

6.1.7 The Supplier shall ensure TTL is kept informed of the status of open Incidents and Problems in a manner consistent with the Severity Level assigned in accordance with paragraph 6.3.

6.1.8 The Supplier shall demonstrate to TTL's reasonable satisfaction that the Supplier Service Desk and Supplier Personnel have access to and actively use the Known Errors Database as part of the Supplier's Incident Management process.

6.2 Event Management

Overview

6.2.1 The Supplier shall provide Event Management to TTL which shall proactively monitor the RTO System and the Support Services to identify Alerts so as to allow the Supplier to take measures to prevent or mitigate the impact of Incidents before they occur.

Requirements

6.2.2 The Supplier shall:

(a) ensure that the RTO System and the Support Services (including all Configuration Items) are continuously monitored on a 24x365 basis;

(b) proactively monitor the RTO System and the Support Services to ensure that all Alerts are identified and, if necessary, resolved quickly and efficiently before they become an Incident;

(c) ensure that Alert Thresholds are defined in the Operational Baseline and agreed with TTL;

(d) develop systems and processes that automatically log Incidents within the Toolsets in Near Real Time when specific Alert Thresholds are exceeded in accordance with the parameters set out in the Operational Baseline;

(e) provide such evidence as reasonably requested by TTL to demonstrate to TTL's reasonable satisfaction that Alerts are triggered in accordance with the parameters set out in the Operational Baseline and that the Supplier's responses to Alerts are in compliance with the requirements of this Schedule.

6.2.3 The Supplier shall capture, record and report 100% of all Alerts.

Service Monitoring

6.2.4 The Supplier shall implement and maintain Toolsets and processes to continually monitor the RTO System and the Support Services in order to identify and respond to Alerts.

6.2.5 The Supplier shall define (and thereafter maintain) the parameters (being the Alerts, Performance Levels and any other parameters defined in this Agreement or otherwise agreed with TTL) of the Monitoring Tools and/or procedures implemented by the Supplier which when breached indicates a divergence from, or risk of future divergence from, Normal Operation (the "**Operational Baseline**"), which the Supplier shall provide to TTL for Approval in accordance with the timescales identified within Schedule 6.1 (Transition).

6.2.6 Prior to the Operational Commencement Date, and at regular intervals throughout the Term, the Supplier shall demonstrate to TTL's reasonable satisfaction the accuracy, relevance and completeness of the Operational Baseline.

6.2.7 The Supplier shall review the Operational Baseline each Support Period and identify proposed changes to be discussed and agreed with TTL as part of the RTO Service Delivery Group.

6.2.8 In addition to paragraph 6.2.7, the Supplier shall review and if necessary make updates to the Operational Baseline:

(a) following a change to the Support Services made in accordance with the Change Control Procedure;

(b) as part of a Normal Change; and

(c) after any Major Incident.

6.2.9 The Supplier shall record all Alerts and develop a capability to identify patterns of repeat Alerts which shall be logged as a Problem within the Toolsets and managed through the Supplier's Problem Management process.

6.2.10 The Supplier shall be responsible for the operation and configuration of the Monitoring Tools. The Supplier shall review and update such Monitoring Tools in response to all emerging issues and risks and shall identify opportunities to improve the monitoring of the RTO System and the Support Services on a continuous basis in accordance with paragraph 7.

6.3 Incident Management

Overview

6.3.1 The Supplier shall provide Incident Management which shall ensure that Incidents are Restored as soon as possible after the occurrence of an Incident and in any event within the Incident Restore Time, thereby minimising the impact or potential impact of the Incident on Users. Subject to Clause 30 in respect of Relief Events, the Supplier shall do so on a ‘fix first and deal with responsibility later’ basis regardless of whether such Incident is or may be caused or contributed to by an act or omission of the Supplier.

Requirements

6.3.2 The Supplier shall deal with Security Incidents in accordance with Schedule 2.4 (Security Management).

6.3.3 The Supplier shall provide all assistance reasonably required by the Primary Service Desk or any relevant TTL function to identify the correct resolver group for Incidents.

6.3.4 If a Temporary Fix has been applied, the Supplier shall ensure that a Problem Ticket is raised to ensure that a permanent fix is applied in due course to address the underlying cause of the Incident and prevent further occurrences. In such cases the Incident can only be closed once a Problem Ticket relating to that Incident has been raised.

6.3.5 The Supplier shall Restore each Incident as soon as possible and in any event within the Incident Restore Time set out in Appendix 1.

6.3.6 For the purposes of calculating the Supplier's performance in respect of the Incident Restore Time, an Incident shall be deemed to have commenced from the earlier of:

(a) the point at which the Supplier's Monitoring Tools automatically log the Incident in accordance with paragraph 6.2.2(d);

(b) the point at which the Primary Service Desk assigns an Incident to the Supplier through the Toolsets or through any other mechanism agreed between the Parties, including following calls or contacts made by designated TTL Personnel and personnel of Other SITS Suppliers; or

(c) when the Supplier first became aware of the Incident or would have become aware of that Incident but for a failure of the Supplier to comply with its obligations under this Agreement.

6.3.7 The Supplier shall provide TTL with progress updates on each Incident via:

(a) the Toolsets to the TTL IT Service Management Systems;

(b) (depending on the Severity Level of the Incident or where otherwise reasonably required) the Primary Service Desk; and

(c) (in respect of open Incidents) the RTO Service Delivery Group meetings.

6.3.8 Where an Incident falls within more than one Severity Level the Supplier shall assign the Incident the most serious of those Severity Levels.

6.3.9 TTL reserves the right to amend the Severity Level assigned to an Incident by the Supplier if TTL, acting reasonably, believes that the Severity Level has been assigned incorrectly.

6.3.10 Once the Supplier has reasonable grounds to believe that the Incident has been Restored, the Supplier shall set the relevant Ticket status to Restored in the Toolsets and such status shall be time stamped as at the time the Supplier made such status change.

6.3.11 If TTL, acting reasonably, believes that the Incident has not been Restored, TTL may re-assign the Incident to the Supplier for resolution and the Supplier's IT Service Management System shall record the status as having remained open from the time at which the Supplier had set the status to Restored.

6.3.12 The Supplier shall provide to TTL any necessary information to support the scripts used by the Primary Service Desk relating to the Support Services and shall, at TTL's request, support TTL in the review and improvement of these scripts so as to support effective and efficient delivery of the Support Services.

6.3.13 The Supplier shall provide appropriate technical and management resource to participate in, by telephone or in person, meetings in relation to selected Major Incidents and Incidents which have not been Restored within the relevant Incident Restore Time.

Major Incident Management

6.3.14 An Incident shall be designated as a Major Incident if it satisfies the Major Incident criteria set out in Appendix 1. If an Incident is designated as a Major Incident, it shall continue to be counted as an Incident with the relevant Severity Level for the purpose of calculating achievement of the Performance Levels.

6.3.15 In the event of a Major Incident, the Supplier shall work with TTL to ensure adherence to the process set out in paragraphs 6.3.14 to 6.3.19 .

6.3.16 The Supplier shall provide at its cost enhanced support during the resolution process for Major Incidents, which shall include the provision of:

(a) additional resources and expertise;

(b) information and analysis capabilities; and

(c) enhanced reporting frequency to, and cooperation with, specified TTL Personnel.

6.3.17 Following a Major Incident, or on request from TTL, the Supplier shall participate in Major Incident review meetings between representatives from TTL, the Supplier and any Other SITS Supplier as required to review the Incident so as to establish lessons learnt and identify ways to prevent or mitigate reoccurrence of the Incident.

6.3.18 Following the resolution of a Major Incident, the Supplier shall prepare a report (a "**Major Incident Report**") which shall, as a minimum, include:

(a) incident – what happened and details of the trigger(s) for the Major Incident;

(b) impact – details of the Major Incident (e.g. duration, scope of the Support Services affected, impact on the RTO System and the Support Services);

(c) response and solution – an explanation of the solution deployed by the Supplier and a summary statement as to how well (or otherwise) the Supplier handled the Major Incident;

(d) lessons learned – the lessons learned by the Supplier as a result of the Major Incident;

(e) Supplier changes and improvements – any proposed changes to the Supplier's procedures, tools or systems or any continual service improvement initiatives initiated in response to the Incident; and

(f) recommended changes – proposed amendments to TTL or third party procedures, systems and plans in the event that the Supplier's investigations identify that the Major Incident was caused or exacerbated as the result of an act or omission of TTL or the relevant third party.

6.3.19 The Major Incident Report shall be provided to TTL for Approval within three (3) Working Days, or an alternative period as agreed with TTL in writing, of the Major Incident being Restored.

6.4 Problem Management

Overview

6.4.1 The Supplier shall provide Problem Management which shall enable the detection of the underlying causes of Incidents and Alerts and shall facilitate their subsequent permanent resolution, thereby preventing their reoccurrence and ensuring long-term improvements in the quality of the operation of the RTO System and the provision of the Support Services.

6.4.2 Where relevant and appropriate to do so the Supplier shall:

(a) involve Other SITS Suppliers with Problem Management under this Agreement; and

(b) co-operate fully and promptly with TTL, TfL and each Other SITS Supplier in order to facilitate the performance by the Other SITS Suppliers of their SITS Programme agreements with TTL or TfL (inlcuding in relation to the resolution of problems under those agreements),

in each case in accordance with Clauses 5.9 to 5.11 of this Agreement.

Requirements

6.4.3 The Supplier shall regularly review Incidents and Alerts in order to identify recurring Incident and Alert trends which may indicate a Problem, whereupon the Supplier shall proactively raise a Problem Ticket in the Toolsets.

6.4.4 TTL reserves the right to monitor Incident and monitoring data to identify Problems and to raise a Problem Ticket in the TTL IT Service Management System and assign the Problem to the Supplier for investigation and resolution.

6.4.5 Unless agreed otherwise with TTL on a case-by-case basis, the Supplier shall automatically conduct a Problem investigation on all Major Incidents. Problem investigations for other specific Incidents or sets of Incidents shall only be conducted at the request of TTL.

6.4.6 The Supplier shall on an on-going basis:

(a) identify the underlying causes of Incidents and document them as Known Errors; and

(b) [redacted]

6.4.7 The Supplier shall resolve Known Errors by implementing (at no additional cost to TTL) identified permanent solutions in compliance with the Change Management Service.

6.4.8 The Supplier shall report on Problems and Known Errors in the Service Performance Report.

6.4.9 The Supplier shall maintain details of activities undertaken to investigate and resolve Problems within the relevant Problem Ticket in the Toolsets.

6.4.10 The Supplier shall, at TTL's request, provide a report detailing the analysis to establish the root cause of a Problem and shall deliver such reports to TTL for Approval within five (5) Working Days of the request being received or other such time agreed with TTL.

7. CONTINUAL SERVICE IMPROVEMENT

Overview

7.1.1 The Supplier shall provide Continual Service Improvement so as to learn from past successes and failures with the aim of continually improving the effectiveness and efficiency of the Support Services and the Service Management processes.

Requirements

7.1.2 The Supplier shall:

(a) review the Support Services each Support Period and identify opportunities to improve the quality of the Support Services (including the Operational Baseline where appropriate) and more economical ways of delivering the Support Services where possible for discussion at the RTO Service Delivery Group meetings;

(b) evaluate the Support Services each Support Period including by:

(i) identifying where to add temporary metrics in support of process improvement activities;

(ii) setting targets for process metrics; and

(iii) identifying where process metric targets are not reached;

(c) conduct regular assessments of the Support Services including:

(i) audits of the effectiveness and compliance with defined processes at least once every Contract Year;

(ii) maturity self-assessments, based on an industry recognised framework to be agreed between the Parties, at least once every Contract Year;

(iii) comparisons of the Support Services against Good Industry Practice at least once every Contract Year;

(d) define specific initiatives aimed at improving the Support Services and Service Management processes, based on the outcomes of RTO Service Delivery Group meetings and process evaluations; and

(e) where approved by TTL in writing, implement initiatives where appropriate to improve the Support Services and Service Management processes as Operational Changes and/or Contract Changes as appropriate.

7.1.3 The Supplier shall report on the progress of Continual Service Improvement initiatives and benefits realised from such initiatives at the RTO Service Delivery Group meetings.

7.1.4 The Supplier shall undertake User satisfaction surveys (or similar) on at least an annual basis and use these to capture feedback on the Supplier's performance. The findings of the surveys shall be shared with TTL at the relevant RTO Service Delivery Group meeting, together with the Supplier's plans to remedy any identified areas requiring improvement.

APPENDIX 1 – SEVERITY LEVELS

1. Definition of Major Incident

The occurrence of a Severity Level 1 Incident or Severity Level 2 Incident.

2. Definition of Severity Levels

Where an Incident or a Security Incident can be categorised against more than one Severity Level below, the most serious Severity Level shall apply in respect of that Incident or Security Incident.

Severity Level 1 (Critical)	an Incident and/or a Security Incident which results in one or more of the following: 1. the failure of a business critical element of the RTO System ("**Critical Element**") being prevented from functioning or being performed in accordance with this Agreement, where such Critical Elements shall include without limit: a) communication to On Street Equipment; b) User access to the RTO System; c) optimisation of Signal Timings; d) reporting faulty On Street Equipment; and/or e) visibility of controls and Signal Timings on street, and provided that more than half the number of active Users (i.e. who are performing their relevant role) are affected by the Incident or Security Incident; 2. a damaging impact on the integrity of (i) the Road Network and/or (ii) TTL's or an Other SITS Supplier's reputation, which is unacceptable to TTL; and/or 3. the security of TTL IT Environment being, or likely to be, compromised.
Severity Level 2 (Severe)	an Incident and/or a Security Incident: 1. which is likely to result in a Critical Element being prevented from functioning in accordance with this Agreement; 2. which results in one or more Users being unable to perform any of their Critical Element responsibilities; 3. where the Supplier has implemented a Workaround in respect of the Incident or Security Incident but in TTL's reasonable opinion the Workaround is materially inconvenient for the relevant Users; and/or 4. which is likely to result in the resilience of the RTO System being affected in such a way that there is an increased risk to the performance of the Critical Elements.
Severity Level 3 (Adverse)	an Incident and/or a Security Incident which results in, or is likely to result in: 1. a minor feature of the RTO System that is not a Critical Element, either not functioning at all or not performing in accordance with this Agreement; and/or 2. no impact on the Road Network.

Severity Level 4 (Cosmetic)	an Incident and/or a Security Incident which results in, or is likely to result in a minor or cosmetic impact to the functionality, operation or performance of the RTO System in accordance with this Agreement.

3. Severity Level Restoration Times

	Incident Restore Time	**Reporting Frequency**
Severity Level 1	≤ two (2) hour	Every thirty (30) minutes
Severity Level 2	≤ four (4) hours	Every sixty (60) minutes
Severity Level 3	≤ forty eight (48) hours	Every twenty four (24) hours
Severity Level 4	≤ six (6) months	Monthly