

Enforcement Operations

Agreement

Schedule 2

General

Statement of Requirements

Service Operations Directorate Transport for London 4th Floor, Palestra 197 Blackfriars Road Southwark London SE1 8NJL

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STATEMENT OF REQUIREMENTS

This document, along with its appendices, is part of schedule 2 (Statement of Requirements) of the Enforcement Operations Agreement. Schedule 2 provides the requirements for the Notice Processing, MIS, Finance, Interoperability and General Service Elements.

This document should be read in conjunction with other component documents of the Agreement as these play an integral part in understanding the requirements set out in this document.

Definitions of terms used in this document are contained in schedule 1 (Definitions).

In meeting the Requirements set out in this Schedule 2: Statement of Requirements the Service Provider shall at all times ensure that the Requirements are delivered in accordance with Clause 4 (*TfL Objectives*) of this Agreement.

The structure and layout of this document is ordered into sections. Each section has a heading with an introductory statement. This is followed by sub-headings containing requirements. Each requirement has two rows containing the following information (see example of layout of Statement of Requirements):

- Requirement number;
- Mandatory ; and
- Requirement detail.

Example of layout of Statement of Requirements

Z1.1.1		Mandatory	
Individual requirements are located from here onwards.			

The Requirement number indicates the number of the individual Requirement and is made up of one (1) letter and three (3) numbers. The letter indicates the Statement of Requirements to which this requirement relates to (e.g. Z = General). The first number relates to the section number, the second number relates to the sub-section and the third number relates to the Requirement number within that sub-section.

The Service Provider shall ensure that a mandatory Requirement is met.

Where a new requirement has been created it may have a letter added at the end of the requirement number, for example B 4.1.1b. The letter has been added to the requirement to ensure correct sequencing, it does not indicate a sub-requirement.

1. GENERAL

This section covers the generic requirements applicable to the Service Provider.

1.1 General Requirements

Z 1.1.1		Mandatory	
The Service Provider shall comply with all standards, policies, processes, procedures,			
and measures requested by TfL during the term of this Agreement and in accordance			
with Schedule 9: Change Control Request Procedure.			

Z 1.1.2		Mandatory	
The Service Provider shall Maintain the Compliance Matrix throughout the term of this			
Agreement.			

Z 1.1.3				Mandatory	/
The Service Provider shal	I complete and Mair	ntain the	IPR	Summary	Table in
accordance with Volume 1, Appendix 10 – Software IPR Summary Table throughout					
the term of this Agreement.					

APPLICABLE FROM THE ULEX OPERATIONAL COMMENCEMENT DATE

Z.1.1.4

Mandatory

The Service Provider shall manage the Cloud Services in a manner that is consistent with Good Industry Practice, regularly monitoring and taking reasonable steps in considering and where appropriate implementing any recommendations made by Azure Advisor, the objective being to minimise the cost to TfL within the context of the Service Provider's wider capacity management responsibilities. Without limiting the foregoing, the Service Provider shall disclose to TfL all Advisor Recommendations, and the Parties shall meet to discuss such Advisor Recommendations on a monthly basis during the first 6 months from the ULEX Operational Commencement Date, and on a quarterly basis thereafter. Where the Service Provider (acting reasonably) determines that it would not be appropriate, in the context of its wider capacity management responsibilities, to implement the Advisor Recommendations, then the Service Provider shall be under no obligation do so, but where this is the case the Service Provider shall provide to TfL an explanation of its reasons for not implementing such recommendations.

2. STANDARDS, WORKING PRACTICES & PRINCIPLES

This section covers those requirements relating to the standards, working practices and principles to which the Service Provider shall adhere in providing the Services.

2.1 Standards, Working Practices & Principles

Z 2.1.1 Mandatory

The Service Provider shall in the performance of its obligations under this Agreement, comply with all obligations in relation to Privacy Legislation as may be amended or superseded by equivalent legislation from time to time in accordance with Clause 49.

Z 2.1.2	Mandatory
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The Service Provider shall in the performance of its obligations under this Agreement, comply with all obligations in relation to the Freedom of Information (FOI) Legislation as may be amended or superseded by equivalent legislation from time to time in accordance with Clause 49.

Z 2.1.3	Mandatory

The Service Provider shall in the performance of its obligations under this Agreement comply with all obligations in relation to the Computer Misuse Act 1990 as may be amended or superseded by equivalent legislation from time to time in accordance with Clause 49.

Z 2.1.4		Mandatory		
The Service Provider shall in the performance of its obligations under this Agreement				
comply with all obligations in relation to the Environmental Information Regulations				
2004 as may be amended or superseded by equivalent legislation from time to time in				
accordance with Clause 49.				

Z 2.1.5		Mandatory
The Service Provider shall	develop and comply with p	processes for Configuration

Management in accordance with this Statement of Requirements and shall submit such processes to TfL for Assurance before the Operational Commencement Date and operate them for the Term of this Agreement.

Z 2.1.6 Mandatory

The Service Provider shall develop and comply with processes for Incident Management and shall submit such processes to TfL for Assurance in accordance with this Statement of Requirements and Schedule 5: Service Level Agreement before the Operational Commencement Date and operate for the Term of this Agreement.

Z 2.1.7	Mandatory		
The Service Provider shall develop and com	ply with processes for Release		
Management and shall submit such processes to TfL for Assurance in accordance			
with this Statement of Requirements before the Operational Commencement Date			
and operate for the Term of this Agreement.			

Z 2.1.8			Mandatory	
The Service Provider sha	all develop and comp	ly witl	n processes for Ch	ange
Management and shall sub	mit such processes to	TfL for	Assurance in accord	lance
with this Statement of Requirements and Schedule 9: Change Control Procedures				
before the Operational Co	mmencement Date an	d ope	ate for the Term of	f this
Agreement.				

 Z 2.1.9
 Mandatory

 The Service Provider shall comply with all applicable Laws, regulations and standards

in accordance with this Agreement, during the Term.

Z 2.1.10		Mandatory
The Service Provider shall adhere to the standards and working practices set out in		
Table 1 below, as such standards may be amended or superseded by equivalent		

Table 1– Standards and Working Practices		
ISO/IEC 27001:2005 and	for Information Security Management	
ISO/IEC 27002:2005		
BS ISO/IEC 6592	Guidelines for the documentation of computer- based application Systems	
BS EN ISO 9000-3	Guidelines for the application of ISO 9001:2000 to the development, supply, installation and maintenance of computer software.	
BS EN 60950	Specification for safety of information technology equipment, including electrical business equipment	
BS EN 60529	Specification for degrees of protection provided by enclosures (IPcodes)	
BS EN 60073	Basic and safety principles for man-machine interface, marking and identification. Coding principles for indication devices and actuators	

Z 2.1.11		Mandatory
The Service Provider shall develop and comply with a framework such as ITIL or ISO		
20000 to undertake Service Management and shall submit such framework to TfL for		
Assurance within one (1) month of the Effective Date.		

Z 2.1.12		Mandatory
The Service Provider shall o	perate so as to give a seamle	ess TfL customer experience

when interacting with Customers (subject always to this Agreement).

Z 2.1.13		Mandatory
The Service Provider shall ensure that the TfL corporate branding provided by TfL		
from time to time is used exclusively at all times across all Communication.		

Z 2.1.14		Mandatory	
The Service Provider shall ensure that at no time shall it use its own name, branding			
and corporate logo (or the name, branding and logo of any other entity besides that of			
TfL) in any Communications.			

3. INFORMATION GOVERNANCE

This section covers the generic requirements applicable to the Service Provider in relation to Information Governance. These requirements include the following:

- Generic requirements;
- Information Access Requests;
- Subject Access Request(s);
- Contractors;
- Complaints;
- Reporting of breaches of Privacy Legislation; and
- Data Protection audit.

3.1 Information Governance

Z 3.1.1	Mandatory
	,

The Service Provider shall ensure that the Service System(s) provides the functionality to enable and require a Customer to opt-in or opt-out of direct marketing from TfL and any other Third Party.

3.2 Freedom of Information Requests

Z 3.2.1		Mandatory
The Service Provider shal	I submit to TfL for Approv	al prior to the Operational
Commencement Date, and when Approved comply with, a process on how to respond		
to Freedom of Information Requests such proposed process to include (but not limited		
to) a format for presenting to the Customer any relevant Data surrounding the		
Freedom of Information Request (e.g. Data table, graphical representation, copy of		
Document etc).		

Z 3.2.2		Mandatory
The Service Provider shall	submit to TfL for Approval, a	and when Approved, comply

with, a procedure to deal with FOI requests where the Customer is unable to provide written correspondence, for the avoidance of doubt written correspondence shall include but not be limited to email.

3.3 Data Retention

Z 3.3.1	Mandatory

The Service Provider shall comply with all TfL's specific requirements relating to retention periods for all Data as specified in Appendix 24: Data Retention. Where no period has been specified, the Data will be retained for as long as is required for the purpose for which it was collected, and no longer in accordance with Appendix 24: Data Retention.

Z 3.3.2	Mandatory

The Service Provider shall securely delete all Data at the expiry of its retention period, in accordance with Appendix 24: Data Retention.

Z 3.3.3		Mandatory	
The Service Provider shall	The Service Provider shall ensure that all Data deleted at the expiry of its retention		
period cannot be accessed by anyone. Data held on paper shall be securely shredded			
and Data held electronically shall be deleted using tested deletion scripts in			
accordance with Schedule 14: Security and this Statement of Requirements.			

Z 3.3.4		Mandatory
The Service Provider shal	l use industry standard di	sk-wipe software and other
mechanisms in accordance	with Schedule 34: TfL Policie	s ("TfL's Secure Erasure and
Disposal Policy – IM-S-PO	-035") to make unusable a	ll media that are no longer
operational. This includes of	optical disks, floppy disks,	hard disk drives, solid state
storage, paper and tapes	. This process of secure	ly erasing media shall be
documented and tested, and	d shall include the productior	n of certificates of destruction
as required by TfL.		

Z 3.3.5	Mandatory

The Service Provider shall ensure that the Service System(s) provide the functionality to protect Data from automatic deletion in the event that it is required for further reference.

Z 3.3.6	Mandatory

The Service Provider shall ensure that the Service System(s) provide the functionality to remove the protection on data so that the data can be destroyed in accordance with Appendix 24: Data Retention.

3.4 Data Protection

Z 3.4.1	Mandatory

The Service Provider shall submit to TfL for Approval, and when Approved, comply with a mechanism for the validation of Data at the point such data is entered into the Service System(s).

Z 3.4.2		Mandatory
The Common Dravider shall ensure that all Date Starse community with this Statement of		

The Service Provider shall ensure that all Data Stores comply with this Statement of Requirements, and Appendix 24: Data Retention.

Z 3.4.3		Mandatory
The Service Provider shall c	ollect and process Pers	onal Data only in accordance with
the instructions and direct	tions given by TfL a	nd in accordance with Privacy
Legislation.		

Z 3.4.4		Mandatory
The Service Provider shall	store and Process all Persona	I Data, with the exception of
DVLA Data, within the	European Economic Area	(EEA). The storing and

Processing of Personal Data outside of the EEA is prohibited. For avoidance of doubt, Processing shall include (but is not limited to) the ability to read the data.

Z 3.4.4bMandatoryThe Service Provider shall not store or access DVLA Data outside the United
Kingdom (UK) save to the extent agreed by the Parties in accordance with the
Change Control Request Procedure (such procedure to involve associated
discussions with the DVLA).

Z 3.4.5		Mandatory
The Service Provider shall p	protect all Personal Data	a against unauthorised and
unlawful processing, accider	ntal loss, alteration, de	estruction and damage in
accordance with Privacy Legisl	ation.	

Z 3.4.6	Mandatory

The Service Provider shall use a Privacy Notice in the format set out in Appendix 28: Information Governance.

Z 3.4.7	Mandatory

The Service Provider shall ensure that the Privacy Notice is updated upon request by TfL within five (5) days of such request at no cost to TfL.

Z 3.4.8		Mandatory
The Service Provider shall ensure that the Service System(s) shall issue a Privacy		
Notice to any Customer on request by the Customer.		

Z 3.4.9		Mandatory
The Service Provider shall	develop and comply with	a mechanism for Customer
identification checks before	any Data amendments are	carried out and shall submit
such a mechanism to TfL for	Assurance.	

Z 3.4.10	Mandatory

The Service Provider shall ensure that where the Services have to revert to manual workaround processes, that adequate measures and controls are in place to protect the data against misuse and loss in accordance with Privacy Legislation and PCI DSS regulations.

Z 3.4.11	Mandatory

The Service Provider shall immediately escalate all complaints relating to infringements of Privacy Legislation, civil liberties, equality and human rights to TfL in accordance with the timescales in Schedule 5: Service Level Agreement.

Z 3.4.12		Mandatory
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The Service Provider shall immediately escalate and report all complaints relating to unauthorised and unlawful processing of, accidental loss of, alteration, destruction and damage to Personal Data to TfL in accordance with Schedule 14: Security and this Statement of Requirements.

Z 3.4.13		Mandatory
The Service Provider shall develop and comply with processes to enable controls to		
be placed on postal activities to guarantee receipts are processed daily and are not		

misplaced and misallocated and shall submit such processes to TfL for Assurance prior to the Operational Commencement Date.

Z 3.4.14 Mandatory

The Service Provider shall provide TfL with certificates of destruction when Data is deleted.

Z 3.4.15		Mandatory
The Service Provider shall h	andle any data, including Per	sonal Data, according to the
classification given to it by	/ TfL under the "TfL Stand	ard – Information Security
Classification" as set out in A	Appendix 24: Data Retention.	

Z 3.4.16		Mandatory
The Service Provider shal	I notify TfL within five (5)	days of all changes to all
processes and activities (ind	cluding locations where they	may be undertaken) that will
require TfL to update its Notification on the ICO Register of Data Controllers.		

Z 3.4.17	Mandatory

The Service Provider shall ensure all VRM(s) are treated as Personal Data.

Z 3.4.18		Mandatory
The Service Provider shall ensure that controls are in place to prevent the copying,		
reproduction and removal of Data in accordance with Schedule 14 – (Security).		

3.5 Data Protection Audit

Z 3.5.1		Mandatory
The Service Provider shall submit to TfL for Approval, and when Approved, comply		
with, a Data Protection audit	plan. The plan shall include:	
 timescales for preparation and conduct of the annual audit; 		
 the audit strategy and planned outputs; and 		
 details of the independence 	dent Third Party undertaking	the audit.

Z 3.5.2	Mandatory

The Service Provider shall comply with the Data Protection Audit Plan.

Z 3.5.3		Mandatory
The Service Provider shall	ensure that a comprehensi	ve Data Protection audit is
carried out by an independe	ent Third Party at no cost to	TfL. Details of the proposed

Third Party must be submitted to TfL for Approval prior to the audit being carried out.

Z 3.5.4			Manda	atory	
The Service Provider shall	undertake a Data	Protection	audit every	twelve	(12)
months (or such other freque	ency as TfL may requi	ire) and rep	port the findin	gs to TfL	

Z 3.5.5	Mandatory

The Service Provider shall implement any recommendations from any Data Protection audits within timescales set by TfL.

3.6 Reporting of Data Protection Breaches

Z 3.6.1		Mandatory
The Service Provider shall re	eport all breaches of Privacy I	_egislation and all other data
security incidents within the	period specified in Schedule	5: Service Level Agreement

and the Incident Management process.

3.7 Evidence Store

2 on the interactory	Z 3.7.1		Mandatory
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The Service Provider shall ensure that the Evidence Store complies with Appendix 31: Handling Evidence, specifically:

- Section 4 "EVIDENCE COLLECTION AND PROTECTION";
- Section 5 "OFFENCE VIEWING AND KEEPER ENQUIRIES"; and
- Section 6 "IMAGE STORAGE AND ARCHIVING", within the Home Office Procedures and Rules for handling Evidence.

Ζ3	.7.2				М	andatory	
	•	-	 		 		

The Service Provider shall ensure that DVLA Data is handled in accordance with Appendix 32: Elise CUG Code of Connections as may be amended or superseded from time to time.

Z 3.7.3 Mandatory

The Service Provider shall ensure that the Data within the Evidence Store is treated as "RESTRICTED", from an integrity perspective, as defined under the UK Government Protective Marking Scheme (GPMS).

Z 3.7.4		Mandatory
The Service Provider shall	develop and comply with pro	cesses that ensure that the
transmission of Evidential	Records over a public ne	twork is done securely in
accordance with security r	neasures equivalent to thos	se used by major financial
institutions for the protection	of financial data and shall su	ubmit such processes to TfL
for Assurance.		

Z 3.7.5	Mandatory

The Service Provider shall allow Authorised Users to access and retrieve Evidential Records from the Evidence Store.

Z 3.7.6				Mandate	ory	
The Service Provider shal	ensure that the	e Evidence	Store	complies	with	TfL's
security requirements as spe	ecified in Schedul	e 14: Securi	ty.			

Z 3.7.7		Mandatory
The Service Provider shall	ensure that all access to the	Evidence Store is recorded
and stored for audit purpos	es including, without limitatic	on, who accessed it and the
date and time that it was acc	cessed.	

3.8 Subject Access Requests

Z 3.8.1		Mandatory
The Service Provider shall	submit to TfL for Approval, a	nd when Approved, comply
with, a procedure for proces	sing SARs in accordance with	Privacy Legislation.

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The Service Provider shall ensure that its Service System(s) are capable of processing, retrieval and printing of SAR information sourced from the Service System(s).

Z 3.8.3	Mandatory	
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The Service Provider shall ensure that call recordings can be to be transferred and transmitted to Customers by electronic media as they may form part of a Subject Access Request.

Z 3.8.4		Mandatory
Where the Service Provide	r is required to supply inform	nation to TfL and any Other
Service Provider to enable	them to respond to a SAR,	, the Service Provider shall
supply the information requ	supply the information required within such time and in such form as reasonably	
requested by TfL or the Other Service Provider. Where no period of time is specified		
in the request, the Service	e Provider shall supply the	Information within ten (10)
Working Days from the dat	e the request is made to the	e Service Provider (unless a
longer period is specified in	advance by TfL).	

Z 3.8.5		Mandatory
The Service Provider shall ensure that a SAR response can be given to a Customer in		
either hard copy and electronic format if requested to do so by either the Customer or		
TfL.		

Z 3.8.6		Mandatory
The Service Provider shall	ensure that the Service Syst	em(s) have the capability of
handling an administration fee for the purpose of Subject Access Requests or any		
other request or service which TfL determines should attract an administration fee.		

4. SECURITY

This section covers those requirements relating to Security including the Security Policy. This section should be read in conjunction with Schedule 14: Security.

4.1 Access to Systems and Data

Z 4.1.1 Mandatory

The Service Provider shall ensure that Authorised User(s) have the ability to amend Customer Data held on the Service System(s).

Z 4.1.1b		Mandatory
The Service Provider shall e	nsure that all user access is I	imited to the smallest subset
of records containing Personal Data appropriate to the activity being carried out.		

Z 4.1.2		Mandatory
The Service Provider shall e	ensure that the Service Syste	m(s) presents all Users with
a message reminding them of their obligations to protect Personal Data and that		
"misuse of the system is an offence under the Computer Misuse Act 1990 and Data		

Protection Legislation upon sign-on to the relevant Service System(s).

Z 4.1.3		Mandatory
The Service Provider shall e	nsure that all measures nece	essary to comply with Privacy

Legislation are in place to control access to Personal Data by the Service Provider's Personnel in accordance with Clause 49.

Z 4.1.4		Mandatory
The Service Provider shall implement a system to manage access rights to Service		
System(s) (the "Access and Identity Management Solution").		

Z 4.1.5	Mandatory
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The Service Provider shall ensure that the Access and Identity Management Solution electronically receives access right requests from the following sources:

- Change Control Requests;
- Service Requests;
- the Service Providers human resources department;
- TfL's human resources department; and
- Other authorised methods as required by TfL.

Z 4.1.6MandatoryThe Service Provider shall ensure that the Access and Identity Management Solution
verifies that the requestor has a legitimate reason for accessing the requested Service
System(s).

Z 4.1.7 Mandatory

The Service Provider shall ensure that the Access and Identity Management Solution identifies any potential conflicts that may arise in relation to access by any User (for example, the Service Provider shall ensure that a person cannot submit and authorise their own expenses).

Z 4.1.8		Mandatory
The Service Provider shall e	ensure that the Access and Id	lentity Management Solution

has the functionality to define and amend access rights by role. The Service Provider shall submit to TfL for Approval its proposed access rights by role and, when Approved, implement such access rights by role.

Z 4.1.9	Mandatory

The Service Provider shall ensure that the identity of Users is authenticated before using any Service System(s) and Services.

Z 4.1.10	Mandatory
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The Service Provider shall ensure that the identity of the Service Provider's Personnel and their location is authenticated before using any Service System(s) and Services.

Z 4.1	.11									Mandatory	
The	Service	Provider	shall	ensure	that	TfL	Persor	nnel	are	allocated	access
permissions to the Service Systems as provided by TfL.											

	Z 4.1.12	Mandatory
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The Service Provider shall ensure that TfL Users have access to the Service System(s) from any location including, but not limited to, TfL's offices.

Z 4.1.13 Mandatory

The Service Provider shall ensure that where there is remote access the location of the Operational User and Operational User credentials shall be logged in the Access and Identity Management Solution for audit control.

Z 4.1.13b Mandatory

The Service Provider shall log and authenticate the geographic location of the device used by each Operational User logging on to the Service System(s).

The following Matrix gives the location based access control requirements for compliance with Data Protection Legislation and DVLA requirements for handling DVLA Data:

Non-DVLA Data Privileged Employee from:

• Any Location: Deny Access

DVLA Data Privileged Employee from:

• Operational Premises and TfL offices with logged and authenticated geographic location in the UK: Allow Access

- Operational Premises with logged and authenticated geographic location outside of the UK: Deny Access save to the extent agreed by the Parties in accordance with the Change Control Request Procedure (such procedure to involve associated discussions with the DVLA)
- Remote location with logged and authenticated geographic location:
 1. Allow Access if the IP address is located in the UK and is not a known spoofed address.

2. Deny Access if the IP address is located in the UK and is a known spoofed address.

- Remote location with logged and authenticated geographic location: Deny Access
 if the address is, or appears to not be in the UK save to the extent agreed by the
 Parties in accordance with the Change Control Request Procedure (such
 procedure to involve associated discussions with the DVLA).
- Remote Location without logged and authenticated geographic location: Deny Access

Default:

Operational Premises: Deny Access Remote location: Deny Access

Non-Personal Data Privileged Employee from:

Any Location: Deny Access

Personal Data (except DVLA Data) Privileged Employee from:

- Operational Premises and TfL offices with logged and authenticated geographic location in the EEA: Allow Access
- Operational Premises with logged and authenticated geographic location outside of the EEA: Deny Access
- Remote location with logged and authenticated geographic location:
 1. Allow Access if the IP address is located in the EEA and is not a known

spoofed address.

2. Deny Access if the IP address is located in the EEA and is a known spoofed address.

- Remote location with logged and authenticated geographic location: Deny Access if the address is, or appears to not be in the EEA.
- Remote location without logged and authenticated geographic location: Deny Access

Default:

Operational Premises: Deny Access Remote Location: Deny Access

Z 4.1.14	Mandatory

The Service Provider shall ensure that where remote access attempts are made the location of the User and User credentials are logged and auditable in real time in the Access and Identity Management Solution.

Z 4.1.15		Mandatory
The Service Provider shall e	nsure that where a User acc	esses the Service System(s)

remotely for the purposes for Service Management, that User shall not have access to Personal Data.

Z 4.1.16 Mandatory	Z 4.1.16	Mandatory
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The Service Provider shall ensure that remote access is prevented for all operational functions other than Service Management carried out by Service Provider Personnel unless otherwise authorised by TfL.

Z 4.1.17		Mandatory
The Service Provider shall	ensure that credentials use	d to authenticate Users are

held securely within the Service System(s) and that the Service System(s) prevents unauthorised access and retrieval of such credentials.

Z 4.1.18 Mandatory				
The Service Provider shall ensure that the Access and Identity Management Solution				
stores sufficient information to enable Users to be uniquely identified.				

Z 4.1.19

The Service Provider shall ensure that the Access and Identity Management Solution stores information to link a TfL User to a TfL ID where one exists.

Mandatory

Z 4.1.20MandatoryThe Service Provider shall ensure that access to and use of all Service System(s) is

subject to appropriate authorisation for access controls in accordance with ISO 27001/2 as such standards may be amended, and/or superseded from time to time.

Z 4.1.21		Mandatory		
The Service Provider shall	develop and comply with	policies for maintaining the		
security of all passwords and shall submit such policies to TfL for Assurance.				

Z 4.1.22 Mandatory

The Service Provider shall develop and comply with a User Access Control Policy which complies with ISO27001, whereby access to data is strictly limited to specific roles based on a business need for that role to have access and shall submit such policy to TfL for Assurance. Limits on access shall include but not be limited to:

- read access to a specific subset of the Data;
- write access on a specific subset of the Data; and
- changes to specific configuration, Parameters and Reference Data.

Z 4.1.23 Mandatory

The Service Provider shall grant each User the minimum access permissions required for that User to perform their job role. These access permissions shall be reviewed annually by the Service Provider. Proposed amendments to access permissions must be submitted to TfL for Assurance prior to being implemented

Z 4.1.24 Mandatory

The Service Provider shall ensure that access permissions are allocated and limited to the Service Provider's Personnel and the Service Provider for access to the Service Systems.

Z 4.1.25MandatoryThe Service Provider shall immediately disable a User's logon and access rights
when a User ceases to be a member of the Service Provider's Personnel, or a User
ceases to work on delivering or operating the Service System(s).

Z 4.1.26 Mandatory				
The Service Provider shall immediately, upon notification from TfL, disable a User's				
logon and access rights when a User ceases to be a member of TfL.				

Z 4.1.27	Mandatory

The Service Provider shall ensure that Service Provider Personnel's internet access is limited to the Approved list of internet sites. The Service Provider shall submit to TfL for Approval, and when Approved, comply with, a list of internet sites accessible by Service Provider Personnel.

Z 4.1.28		Mandatory
The Service Provider shall	ensure that TfL Personnel h	nave unlimited access to the
internet from the Service	Provider Premises via an i	independent network to the
Contact Centre Services.		

Z 4.1.29		Mandatory
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The Service Provider shall submit to TfL for Approval, and when Approved, comply withal mechanism for Customer identification checks before any amendments to that Customer's Data are carried out.

Z 4.1.30 Mandatory

The Service Provider shall ensure all Approved policies for maintaining security of passwords are enforced.

4.2 Service Systems - Anti-Virus

Z 4.2.1		Mandatory
The Service Provider shall	submit to TfL for Appro	oval, and when Approved, comply
with processes and procee	dures to protect the S	Services System(s) from Viruses,
spyware and other potentiall	y destructive devices.	

Z 4.2.2		Mandatory
The Service Provider shall	manage the impact of attac	ks by Viruses, spyware and
other potentially destructive	e Software in accordance	with the Approved Incident
Management Process.		

Z 4.2.3		Mandatory
The Service Provider shall	develop and comply with a	a 'security patch processing
policy' setting out procedure	es for maintaining the latest	versions of leading industry
protection Software to addr	ess risks of Virus and unaut	horised System access and

shall submit such a policy to TfL for Assurance.

Z 4.2.4	Mandatory
The Service Provider shall ensure that security	related Software updates are
implemented on at least a daily basis to ensure	the maximum possible security
protection of the Service System(s) and related Softw	vare.

Z 4.2.5	Mandatory
Not Used	

Z 4.2.6		Mandatory
The Service Provider shall '	pro-actively' maintain protecti	on against Viruses, spyware
and other potentially destructive devices, including the continued identification and		
protection against new threats, at no additional cost to TfL.		

4.3 Audit

Z 4.3.1		Mandatory
The Service Provider shall	allow TfL Personnel to mo	nitor the Service Provider's
compliance and obligations	s under this Agreement wit	hout hindrance. This shall
include allowing Authorised	TfL Personnel to enter the P	remises at any time in order
to inspect the operation, m	aintenance and Equipment ι	used in the provision of the
Services.		

Z 4.3.2			Mandatory
The Service Provider shall p	out in place Data ma	nagement p	procedures to ensure that
Data is periodically assess	ed for deletion in a	accordance	with Appendix 24: Data
Retention.			

Z 4.3.3		Mandatory
The Service Provider shall n	naintain sufficient records of [Data deletions, as defined by

TfL from time to time, to provide a full audit trail to meet the requirements of (but not limited to):

- the Service System(s) audit;
- TfL's external audit;
- audit by TfL and TfL's internal auditors;
- TfL's management reporting and contract monitoring requirements; and

• Privacy Legislation.

Z 4.3.4		Mandatory
TfL may carry out audits	of the Service Provider's qu	uality management systems
(including Quality Plans and	any quality manuals and pro	ocedures) at agreed times in
accordance with Schedule	14: Security. The Service	Provider shall develop and
comply with auditing procee	dures for audits of the quality	/ management systems and
shall submit such procedure	s to TfL for Assurance.	

Z 4.3.5MandatoryTfL may audit the Service Provider's Service System(s) design and operational
capability together with, but not limited to, all associated Documentation.

Z 4.3.6	Mandatory
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The Service Provider shall upon request from TfL, allow TfL full access to conduct an audit in accordance with Clause 36: Audit and Inspection. Areas that may be audited will include, without limitation:

- the method of report production and any Data transformations;
- queries and conditions used for Data extraction from Service System(s);
- reconciliation of source to target Data; and
- the transfer of Data between Service System(s).

Z 4.3.7	Mandatory

The Service Provider shall provide full co-operation for any audit including access to all relevant Documentation and Personnel.

Z 4.3.8		Mandatory
The Service Provider shal	l develop and comply with	an audit methodology for
monitoring and controlling a	all business processes and	hand-offs to each business

function and shall submit such audit methodology to TfL for Assurance.

Z 4.3.9			Mand	atory
The Service Provider shall	allow the process u	used for mo	onitoring ar	nd controlling
audit(s) to be subject to rev	view by TfL from time	e to time thr	oughout the	e term of the
Agreement.				

Z 4.3.10	Mandatory

The Service Provider shall develop and comply with an Audit Schedule covering all audits, together with the scope of each Audit, and shall submit such an Audit Schedule to TfL for Assurance prior to the Planned Operational Commencement Date.

	Z 4.3.11		Mandatory
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The Service Provider shall submit to TfL for Approval, the proposed security audits to be carried out and, when Approved, carry out such security audits in accordance with Schedule 14: Security.

Z 4.3.12	Mandatory

The Service Provider shall carry out a privacy audit on all of the Service System(s) in accordance with BS10012, and guidance from the Information Commissioner's Office - ICO Guide to Data Protection Audits.

Z 4.3.13		Mandatory
The Service Provider shall	share the results of any p	privacy and/or security audit
carried out with TfL.		

7/31/	Mandatory
2 4.3.14	Manualory

The Service Provider shall implement the recommendations from any audits within the timescales agreed with TfL.

4.4 Digital Certificates

Z 4.4.1		Mandatory
The Service Provider shall	provide Certification Authorit	ty services in respect of all
Service Elements, including	issuing, verifying and revoking	g Digital Certificates.

Z 4.4.2	Mandatory

In its role as the Certification Authority for the Service Systems, on request from TfL the Service Provider shall issue Digital Certificates for the Service System(s) to TfL and Third Parties.

4.5 Security

	Z 4.5.1	Man	datory
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The Service Provider shall construct the Service System(s) such that unexpected and erroneous Data inputs do not in any way expose the Service System(s) source code, and memory content to the User.

Z 4.5.2				Ν	landatory		
The Service Provider	shall ensure	that all	Bespoke	Software	releases	are	in
accordance with Schedule 14: Security							

Z 4.5.3				Manda	tory	
The Service Provider shall	ensure that scanning of	: all	new	software	releases	is
performed by an independent security auditor prior to implementation.						

Z 4.5.4		Mandatory
The Service Provider shall	onsure that all notwork on	prostions within the Service

The Service Provider shall ensure that all network connections within the Service System, including those for staff access, are provided on a secure network used solely for the purposes of performing the Services under this Agreement.

Z 4.5.5	Mandatory
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The Service Provide shall ensure that the network used in the performance of the Services under this Agreement is not directly connected with the Service Provider's own in house network.

Z 4.5.6	Mandatory

The Service Provider shall ensure that only the Service Provider's Service System authorised administrators have the capability to define User roles and to assign Users to those roles.

Z 4.5.7		Mandatory	
The Service Provider shall	conduct Ready for Se	rvice Testing (in accordance with	
Schedule 4: Testing Regim	e) at TfL's request afte	er a Security Audit, Release, or a	
Change has been implemented.			

Z 4.5.8		Mandatory
The Service Provider shall ensure that the Service System(s) have the functionality to		

prevent cross-site scripting attacks.

4.6 Security incident and event management solution

Z 4.6.1		Mandatory
The Service Provider shal	l implement an appropriatel	y certified software tool for
Security Incident and Event Management and shall submit the details of the tool to		
TfL for Assurance before the Operational Commencement Date and, when Assured,		
shall implement and operate such tool.		

Z 4.6.1b		Mandatory
The Service Provider shall develop and comply with processes and procedures for		
Security Incident and Event Management and shall submit such processes and		
procedures to TfL for Assurance in accordance with this Statement of Requirements		
and Schedule 2: Statement of Requirements (MIS) before the Operational Commencement Date and, when Assured, implement and comply with such processes and procedures.

Z 4.6.1c	Mandatory	

The Service Provider shall upon request supply TfL with the relevant logs in a human readable format to investigate any potential Security Incident or Event.

Z 4.6.2		Mandatory			
The Service Provider shall develop and comply with a Security Incident and Event					
Management ("SIEM") solution and shall submit such a solution to TfL for Assurance,					
prior to the Operational Commencement Date of the Service System(s) and maintain					
the SIEM throughout the dur	ation of the contract.				

Z 4.6.3	Mandatory

The SIEM solution shall aggregate data from the Service System(s) sources, including without limitation:

- Network;
- firewalls;
- servers;
- databases; and
- applications.

Z 4.6.4					Man	datory	
The Service Provider shall	ensure that	at the	SIEM	solution	identifies	common	data

attributes and links events together into meaningful bundles such that correlation techniques may be applied to integrate the different sources and interpret the data into security event information.

Z 4.6.5	Mandatory
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The Service Provider shall ensure that the SIEM solution automatically analyses correlated events and sends alerts to the Service Provider's Security Manager and/or relevant personnel immediately.

Z 4.6.6 Mandatory

The Service Provider shall ensure that the SIEM solution analyses and represents event data in informational chart format to assist pattern identification and to highlight any activities that do not conform to a standard pattern.

Z 4.6.7		Mandatory
The Service Provider shal	ensure that the SIEM so	lution automatically gathers
information about Complian	nce Data and generates re	eports suitable for security,
governance and auditing pro	cesses.	

Z 4.6.8		Mandatory			
The Service Provider shall ensure that the SIEM solution stores historical Data long-					
term to facilitate correlation of Data over time and to provide the retention necessary					
to satisfy compliance require	ments in accordance with Ap	pendix 24: Data Retention.			

Z 4.6.9						Mandatory
	Ĺ	 				

The Service Provider shall transfer all aggregated and historical SIEM Data to a secure location.

Z 4.6.10		Mandatory
The Service Provider shall	develop and comply with	a format for delivery of all
aggregated and historical	SIEM Data and shall submi	t such a format to TfL for

Assurance.

Z 4.6.11		Mandatory
The Service provider shall	ensure that all aggregated a	and historical SIEM Data is

secured with 'read only' access.

Z 4.6.12		Mandatory				
The Service Provider shall develop and comply with a method by which aggregated						
and historical SIEM Data is to be secured in a 'read only' format and shall submit such						
a method to TfL for Assurance.						

	Z 4.6.13		Mandatory
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The Service Provider shall ensure that the SIEM solution mitigates the effect of any potential and actual breach of security.

Z 4.6.14	Mandatory
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The Service Provider shall ensure that no User assigned to a SIEM role is concurrently assigned to a systems administration role. For the avoidance of doubt the systems administration role includes but is not limited to:

- Data base administration (DBA);
- User account maintenance;
- Maintenance of system files such as system logs, backup files and various data extracts provided to TfL;
- Network maintenance including any security and communications software; and
- Hardware maintenance.

5. TESTING

This section covers those requirements relating to Testing including Test Process and Test Environments and should be read in conjunction with Schedule 4: Testing Regime and Schedule 3: Milestones and Deliverables.

Z 5.1.1	Mandatory

The Service Provider shall carry out Testing in accordance with Schedule 4: Testing Regime.

6. SERVICE MANAGEMENT

This section covers the areas of Service Management for the purposes of provisioning and managing the Service System(s).

6.1 General

	Z 6.1.1	Mandatory	
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The Service Provider shall implement methods, processes, procedures and tools for Service Management on the Operational Commencement Date of the Agreement. Such methods, processes, procedures and tools shall be submitted to TfL for Assurance prior to being implemented.

Z 6.1.2		Mandatory
The Service Provider shall of	levelop and comply with pro	ocesses, procedures and tools
used to perform Service	Management and shall	submit such processes and

procedures to TfL for Assurance by the Milestone Date for Milestone [•] (Ready to Commence Service Proving Date).

Z 6.1.3		Mandatory
The Service Provider shall	develop and comply with	h a process to automatically
register and update each C	hange, Incident, Problem,	and Service Request in TfL's
Service Desk and shall submit such a process to TfL for Assurance.		

6.2 Capacity Planning

Z 6.2.1		Mandatory
The Service Provider shall of	design the Service Syste	em(s), and all constituent parts of
it, to be capable of being sc	aled smoothly from the i	nitial deployment, which supports
only the defined Services ir	n this Agreement, to sup	oport Services with up to two (2)
times the current steady s	state operational volume	es as set out in Appendix 25 :
Enforcement Volumes (En	forcement Operations,	without Changes to the overall

Service System(s) design or the design of any constituent parts of the Service System(s) (Hardware, Firmware or Software) except for increasing the Capacity of the Hardware and Software configuration.

Z 6.2.2MandatoryThe Service Provider shall build and implement the Service System(s) to be scalable,
configurable to one and a half (1.5) times the initial volumetric requirements outlined
in Appendix 25: Enforcement Volumes and without the need to Change any
Hardware.

 Z 6.2.3
 Mandatory

 The Service Provider shall ensure that there is available Capacity to meet the Service

 Levels as specified in Schedule 5 : Service Level Agreement for the Service

 System(s).

Z 6.2.4		Mandatory
The Service Provider shall provide the Capacity Plan(s) to TfL for Assurance prior to		
the implementation of the Service System(s).		

Z 6.2.5			Mandatory
The Service Provider	shall update the C	Capacity Plan(s) to	reflect the Service
System(s) performance	in relation to projecte	ed volumes as speci	fied in Appendix 25:
Enforcement Volumes.			

Z 6.2.6		Mandatory
The Service Provider shall review and maintain the Capacity Plan(s) at intervals of not		
more than six (6) months,	in the event of a Change (Control Request and at the
request of TfL, to reflect Service System(s) performance in relation to volume,		
technical and operational cl	hanges and future volume pro	ojections in accordance with
Clause 17.		

Z 6.2.7	Mandatory

The Service Provider shall at its cost provide a Change Control Request in accordance with Schedule 9: Change Control Request Procedure for any increases in Capacity where the Service Provider predicts Capacity to be insufficient to meet demand.

Z 6.2.8 Mandatory

The Service Provider shall track and report actual consumption against projections from prior Capacity Plans at intervals to be agreed with TfL.

6.3 Configuration Management

 Z 6.3.1
 Mandatory

 The Service Provider shall maintain all components of the Service System(s) under

Configuration Management in accordance with Good Industry Practice.

Z 6.3.2		Mandatory
The Service Provider shall	develop and comply with a	Configuration Management
Solution that manages rela	tionships between Configura	tion Items and shall submit
such a solution to TfL for As	surance.	

Z 6.3.3	Mandatory

The Service Provider shall ensure that the Configuration Management Solution prevents Configuration Item records from being updated without the appropriate change approvals and procedures being followed.

Z 6.3.4MandatoryThe Service Provider shall ensure that the Configuration Management Solution

displays the current status of Configuration Items.

Z 6.3.5			Mandatory	
The Service Provider sha	ll ensure that th	e Configuration	Management	Solution

verifies that correct and authorised versions of Configuration Items exist.

Z 6.3.6			Mandatory	/
The Service Provider shal	l ensure that the (Configuration	Management	Solution
identifies and logs Configura	ation Items that are	affected whe	n related Conf	figuration
Items are the subject of:				
• an Incident;				
• a Defect; and				
Change.				

Z 6.3.7		Mandatory
The Service Provider shall	l ensure that the Configura	ation Management Solution

updates the version number of a Configuration Item if any amendments are made to the Configuration Item with the previous version number.

Z 6.3.8			Mandato	ry
The Service Provider shal	I ensure that the Cor	figuratior	Managemen	t Solution
retains historic details in	accordance with Appe	ndix 24:	Data Retent	ion of all
Configuration Items including	g, but not limited to:			
installation date of the	e Configuration Item			
records of changes to	the Configuration Item;	and		
 locations of the Config 	guration Item.			

Z 6.3.9		Mandatory
The Service Provider shal	I ensure that the Configura	ation Management Solution
supports the management a	nd use of baseline versions t	hat can be used for reverting

to a previous complete and known to be a working version.

Z 6.3.10		Mandatory
The Service Provider shall	ensure that the Configu	ration Management Solution
generates reports on the inve	entory of Configuration Items	S.

Z 6.3.11 Mandatory

The Service Provider shall be able to produce reports upon request from TfL from any of the data fields that are held within the Configuration Management Solution.

Z 6.3.12		Mandatory
T		
The Service Provider shall	i ensure that the Configura	ation Management Solution
validates user input to en	sure that all fields flagged	l as mandatory have been
	sure that an helds hagged	as mandatory have been
completed. The list of mand	atory fields shall be configura	able.

6.4 Change Process

Z 6.4.1		Mandatory
The Service Provider shall m	nanage the Change Process i	n accordance with Schedule
9: Change Control Procedure	е.	

6.5 Incident Management

Z 6.5.1		Mandatory
The Service Provider shall r	nanage the Incident Manager	ment Process in accordance
with Clause 12.		

Z 6.5.2		Mandatory
The Service Provider shall	ensure that TfL is able to ca	Il and log Incidents with the
Service System(s) twenty	four (24) hours a day, seve	en (7) days a week, three

hundred and sixty five (365) days a year.

Z 6.5.3		Mandatory
The Service Provider shall r	aise a Severity 1 Incident wh	en the reconciliation of Data
fails, until the underlying re	oot-cause is determined and	d a lower Severity Level is
agreed with TfL.		

Z 6.5.4 Mandatory		Mandatory
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The Service Provider shall raise a Severity 1 Incident when any payment channel fails, until the underlying root-cause is determined and a lower Severity Level is agreed with TfL.

Z 6.5.5 Mandatory

The Service Provider shall raise a Severity 1 Incident when server loads significantly impede the performance of the Service Systems, until the underlying root-cause is determined and a lower Severity Level is agreed with TfL.

Z 6.5.6		Mandatory			
The Service Provider shall raise a Severity 1 Incident when Interfaces fail, until t					
underlying root-cause is determined and a lower Severity Level is agreed with TfL.					

Z 6.5.7		Mandatory
The Service Provider shall r	aise a Severity 1 Incident	when any network connectivity
fails, until the underlying re	oot-cause is determined a	and a lower Severity Level is
agreed with TfL.		

Z 6.5.8		Mandatory
The Service Provider shal	I be responsible for the re	solution of all Incidents in
accordance with Clause 12.		

Z 6.5.9		Mandatory
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The Service Provider shall be responsible for working with Other Service Providers, in accordance with Clause 15: Co-operation with TfL and Others, to resolve Incidents where the failure may lie outside the scope of the Services or where a failure may impact Other Service Provider's operations.

Z 6.5.10 Mandatory

The Service Provider shall develop and comply with escalation procedures for resolution of Incidents and shall submit such procedures to TfL for Assurance where these are, or are suspected to be, related to:

- the Service System(s);
- Third Parties' Systems; and
- the Interfaces.

Z 6.5.11		Mandatory
Where an Incident is consi	dered by the Service Provid	ler to result from an act or
omission of a Sub-Contracto	or or an Other Service Provide	er, the Service Provider shall
manage such Incident in acc	cordance with Clauses 12 and	15.

Z 6.5.12		Mandatory
	•	•

The Service Provider shall bear the cost of any work undertaken by a Third Party in order to resolve an Incident within the scope of the Services, where the Service Provider has failed to perform this work itself or has attempted to perform this work and been unsuccessful.

Z 6.5.13	Mandatory	
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The Service Provider shall provide TfL with direct read-only access to the electronic Incident Log on request.

Z 6.5.14 Mandatory

The Service Provider shall provide TfL with reports, in electronic format when requested by TfL, from the Incident Log including full details of:

- Incidents;
- Security Incidents;
- Changes; and
- Any other incidents.

Z 6.5.	15									Ma	ndat	ory	
T I 0		-	 _						1/				

The Service Provider shall nominate an Incident resolution and/or problem manager for each Incident.

Z 6.5.16	Mandatory
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The Service Provider shall log the corrective actions taken to resolve Incidents in the Incident Log.

Z 6.5.17		Mandatory
The Service Provider shall dis	tinguish between:	
 Incidents; 		
• Defects;		
Changes;		
Security Incidents;		
Performance Indicator	ncidents and;	
Closed, where the Inci	lent is deemed to be	in none of these classifications.

Z 6.5.18MandatoryThe Service Provider shall classify Incidents, Defects, Changes, Security Incident and

Performance Indicator Incidents by Severity Level Incidents, in accordance with the Severity Levels set out in Schedule 1: Definitions.

Z 6.5.19						Mandat	ory				
The Service Provider shal	respond	to	Incidents	withi	n the	following	timescales				
according to their Severity Lo	evel:										
 Severity 1 – fifteen (15) minutes; 											
• Severity 2 – one (1) h	 Severity 2 – one (1) hour; 										
• Severity 3 – three (3)	 Severity 3 – three (3) hours; 										
 Severity 4 – eight (8) hours; and 											
 Severity 5 – ten (10) ł 	nours.										

Z 6.5.20		Mandatory
The Service Provider shall resolve Severity 1, Severity 2, and Severity 3 Incidents in		
accordance with the timescales set out in Schedule 5: Service Level Agreement.		

Z 6.5.21		Mandatory
The Service Provider shall report progress on any Severity 1 or Severity 2 Incidents to		
TfL every thirty (30) minutes until the Incident is resolved.		

Z 6.5.22		Mandatory
The Service Provider shall report progress on any Severity 3 Incident each Working		
Day until the Incident is resolved.		

Z 6.5.23	Mandatory

The Service Provider shall report progress on any Severity 4 and Severity 5 Incident at an interval to be agreed with TfL.

Z 6.5.24	Mandatory
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The Service Provider shall resolve any Severity 4 and Severity 5 Incident in the timeframe Agreed with TfL

Z 6.5.25 Mandatory

The Service Provider shall analyse the Incident Log to identify common recurring Incidents, Defects, Security Incidents and Performance Indicator Incidents and take such action as has been agreed with TfL to prevent their re-occurrence.

Z 6.5.26		Mandatory
The Service Provider shall	identify Incident(s) that requ	iire a Change and create a
Change Request(s) in ac	cordance with Schedule 9:	Change Control Request
Procedure, and shall close these Incidents in the Incident Log.		

Z 6.5.27 Mandatory

The Service Provider shall at TfL's request re-evaluate any Incident. In the event of a disagreement between TfL and the Service Provider over the classification of an Incident or the assignment of a Severity Level, it shall be referred to the next Commercial Meeting. If an agreement cannot be reached at the Commercial Meeting then the Service Provider shall follow TfL's instructions on the classification of the Incident and assignment of a Severity Level.

Z 6.5.28		Mandatory
If an Incident cannot be resolved within the resolution time periods as specified for its		
Severity Level as detailed	in Schedule 5: Service Le	vel Agreement the Service

Provider shall deliver to TfL for Approval a Remedy Plan in accordance with Clause 58.

Z 6.5.29	Mandatory
T O ' D 'I I I	

The Service Provider shall provide a weekly Incident report to TfL prior to the Commercial Meeting. This shall include:

• a description of all Incidents arising in the previous week, together with their

classification and their Severity Level in the case of Incidents, Defects, Security Incidents and Performance Indicator Incidents;

- a status report on all open Incidents Defects, Security Incidents and Performance Indicator Incidents; and
- a description of the resolution of all Incidents, Defects, Security Incidents and Performance Indicator Incidents closed during the previous week.

Z 6.5.30 Mandatory	Z 6.5.30 Mandato
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The Service Provider shall link similar Incidents, Defects, Security Incidents and Performance Indicator Incidents to Problems.

Z 6.5.31		Mandatory
The Convine Drevider shall treak and keep a record of the total emount of time enert		

The Service Provider shall track and keep a record of the total amount of time spent resolving each Incident, Defects, Security Incidents and Performance Indicator Incidents and how long it was open.

Z 6.5.32	Mandatory

The Service Provider shall be able to report on Incidents linked to Problems.

Z 6.5.33		Mandatory
The Service Provider shall analyse and report on trends of Incidents.		

Z 6.5.34		Mandatory
The Service Provider shall e	ensure the time to resolve an	Incident is the time from any
person raising the Incident to	o the time the Incident is reso	lved and closed. An Incident
is considered to be resolved	and closed when corrective	action has been completed,

Т

Tested and the Incident properly recorded as closed in the Issue Management Log by the Service Provider with the express written agreement of TfL, which agreement may be given retrospectively.

Z 6.5.35		Mandatory
The Service Provider shall e	ensure that the time at which	an Incident is logged in the
Incident Log is the earliest o	f:	
(i) an alarm being gener	ated by any element of the Se	ervice System(s);

(ii) notification of an Incident being provided to the Service Provider;

(iii) any of the applications or Services becoming unavailable; or

(iv)where an Incident is raised by Service Provider Personnel.

2 0.0.00 Walldatory	Z 6.5.36	Mandatory
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The Service Provider shall ensure that the Performance Indicator shall be measured for each Incident arising, regardless of Severity. The required fix time for each Severity is set out in this Statement of Requirements in the table below:

Performance Indicator title	Start Point	End Point	Acceptable Service Level	Band 1	Band 2	Band 3
Adherence to Fix Times	The time at which the incident is logged	The time at which the Severity 1 incident is resolved and closed	Severity 1 < 4 hours	1,500 per incident	3,000 per incident	50,000 points (fixed)
				24-48 hours	>48-72 hours	>72 hours
Adherence to Fix Times	The time at which the incident is logged	The time at which the Severity 2 incident is	Severity 2 < 24 hours	1,500 per incident	3,000 per incident	50,000 points (fixed)

		resolved and				
		closed				
				3-4 months	>4-6 months	>6 months
Adherence to	The time at	The time at	Severity 3 < 3	1,500 per	3,000 per	6,000 per
Fix Times	which the	which the	calendar	incident	incident	incident
	incident is	Severity 3	months or			
	logged	incident is	next closest			
		resolved and	maintenance			
		closed	release date			

6.6 Release Management

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The Service Provider shall develop and comply with a Release Management process and shall submit such a process to TfL for Assurance.

Z 6.6.2		Mandatory
The Service Provider shall e	ensure that the Release Mana	gement process includes but
is not limited to:		
• Hardware;		
 Software; 		
License renewals;		
Configuration Items; a	and	

• all changes to Parameters and processes.

Z 6.6.3		Mandatory
The Service Provider shall	produce Pelease Notes to b	a provided to Tfl before a

The Service Provider shall produce Release Notes to be provided to TfL before a Release is deployed to an Environment.

Z 6.6.4	Mandatory

The Service Provider shall ensure that the Release Notes include but are not limited to:

- A description of any new or amended functionality;
- Any known errors and Defects remaining in the release; and
- Any operational workarounds required due to those errors and Defects.

Z 6.6.5		Mandatory
The Service Provider shall	ensure that all Hardware, S	Software, Licence renewals,
Configuration Items and cha	nges to Parameter and proce	sses involved in the delivery
of the Services are under the	e control of the Release Man	agement process, and these
shall only be updated throug	h formal Release.	

Z 6.6.6	Mandatory

The Service Provider shall document the contents of a Release before it is deployed to an Environment.

	Z 6.6.7	Mandatory
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The Service Provider shall ensure that the Release Management process tracks, for each Release, at least the following items:

- a unique identifier;
- the identity of any individual involved in the Workflow surrounding a

deployment, including requesting, approving or executing it; and

• the dates on which the Release was deployed into the Service System(s).

Z 6.6.8	Mandatory

The Service Provider's shall ensure that the Release Management process distinguishes between the following types of Releases:

- major;
- minor; and
- emergency.

Z 6.6.9		Mandatory
The Service Provider shall ensure that the Release Management process supports		
control mechanisms for be	uilding different types of R	eleases. This shall include
visibility of the stages of the Software build and evidence that all relevant policies,		
regulations and standards have been followed.		

Z 6.6.10	Mandatory

The Service Provider shall ensure that the Release Management process assesses the risks associated with each Release, including without limitation:

- impact;
- probability of occurrence;
- proposed mitigations; and
- contingencies.

Z 6.6.11		Mandatory
The Service Provider shall e	ensure that the Release Mana	agement process tracks and
records the Release lifecycle	e stage including, without limit	ation:
• build;		
• test;		
• deployment; and		
• close.		

Z 6.6.12		Mandatory
The Service Provider shall prevent further progression of the Release in the event that		
the Release or any part of the Release fails at any stage in the Release process and		
immediately informs TfL of such failure.		

	Mandatory	
The Service Provider shall ensure that the Release Management process supports		
the planning of Release activities including but not limited to training, deliveries,		
transition environments, and staffing.		
(ctivities including but not lin	

Z 6.6.14		Mandatory
The Service Provider shall re	eport on the number of Releas	ses:
 over any given period 	requested by Tfl ·	
 over any given period requested by TfL; 		
 that are active and pla 	anned;	
• that are closed; and		
• by category.		

Z 6.6.15	Mandatory
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The Service Provider shall keep a secure audit log of all Release updates and closure dates and times.

6.7 Performance

Z 6.7.1MandatoryThe Service Provider shall provide and maintain all Service System(s) to ensure that
the Service Levels can be achieved at all times in accordance with Schedule 5:

Service Level Agreement.

6.8 Maintenance Support

	Z 6.8.1		Mandatory
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The Service Provider shall ensure that no Service System(s) downtime occurs when System maintenance is undertaken, unless previously agreed and Scheduled with TfL.

Z 6.8.2	Mandatory

The Service Provider shall ensure that regular preventative maintenance is carried out across all Service System(s).

Z 6.8.3		Mandatory
The Service Provider shall	maintain a plan of regula	r preventative maintenance
activities for at least a six	(6) month future period in a	accordance with Clause 19:
Systems, Support and Maintenance.		

Z 6.8.4		Mandatory
The Service Provider sha	II provide its proposed pla	an for regular preventative
maintenance activities to Tfl	for Assurance in accordan	ce with Clause 19: Systems,

Support and Maintenance.

Z 6.8.5		Mandatory			
The Service Provider shall	agree any extraordinary ma	intenance activities that are			
additional to the Assured plan of regular preventative maintenance with TfL at least					
two (2) days prior to carrying	out the maintenance activitie	es in accordance with Clause			
19.					

Z 6.8.6		Mandatory
The Service Dravider shell	anaura that all Hardwara S	offware and Equipment used

The Service Provider shall ensure that all Hardware, Software and Equipment used as part of the Service System(s) is maintained at a supported production release at no cost to TfL.

Z 6.8.7		Mandatory
The Service Provider shall S	Schedule preventative mainte	nance to address Incidents,
Defects, Problems, Security	Incidents and Performance I	ndicator Incidents as part of
the regular maintenance pla	n, where appropriate.	

Z 6.8.8		Mandatory
The Service Provider shall	ensure that all upgrades to	COTS Products are agreed
with TfL (prior to being imp	plemented in the Service System	stem(s)) in accordance with
Schedule 9: Change Contro	Request Procedure.	

6.9 Quality Assurance

Z 6.9.1		Mandatory
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The Service Provider shall develop and comply with a Quality Assurance process and shall submit such a process to TfL for Assurance.

Z 6.9.2		Mandatory
The Service Provider shall d	evelop a Quality Plan, that:	

- ensures that all aspects of the Services are the subject of quality management systems; and
- is consistent with ISO 9001:2005 or any standard which is generally recognised as being equivalent to it.

Z 6.9.3	Mandatory

The Service Provider shall submit to TfL for Approval the date by which it can deliver the Quality Plan, prior to the Operational Commencement Date, and once Approved, shall deliver the Quality Plan on or before such Approved Date.

Z 6.9.3b		Mandatory
The Service Provider shall	submit the Quality Plan to	TfL for Assurance within the

Approved timescale, and once Assured, comply with the Quality Plan.

Z 6	6.9.4								Ma	nda	itory	1	
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The Service Provider shall provide the Services in accordance with the Quality Plan.

Z 6.9.5		Mandatory			
The Service Provider shall develop and comply with a Quality Plan and shall submit					
such a Quality Plan together	with any proposed changes t	to TfL for Assurance.			

Z 6.9.6		Mandatory			
The Service Provider shall ensure continuity in the management of quality assurance					
during the term of the Agree	nent.				

Z 6.10.1	Mandatory
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The Service Provider shall monitor and operate in accordance with Schedule 5: Service Level Agreement, Schedule 10: Contract Management and Reporting, Schedule 14: Security and Schedule 34: TfL Policies and all other terms of this Agreement the following:

- Service System(s) and their resources;
- Service System performance;
- Interfaces and their resources;
- Interface performance;
- Networks and their resources;
- Network performance;
- device utilisation;
- Incident, Problem and Defect rates; and
- System logs.

Z 6.10.2		Mandatory
The Service Provider shall	use appropriate tools to moni	tor and manage the Service
System(s) performance, incl	uding, but not limited to:	
 System availability; 		
Interface performance	е;	
 server load; and 		
 network load. 		

Z 6.10.3	Mandatory
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The Service Provider shall provide a comprehensive Service Monitoring System with the capability to monitor the status of all components of the Service System(s) and Infrastructure and to raise alarms in the event of component failure, Service System(s) performance degradation and any other potential issues that affect the operation and performance of the Services.

Z 6.10.4	Mandatory

The Service Provider shall ensure that the Service Monitoring System runs continuously twenty four (24) hours a day, seven (7) days a week, 365 days a year and any alarms are immediately raised on the Service Monitoring System.

Z 6.10.5MandatoryThe Service Provider shall ensure that its support personnel are notified of alarms

raised on the Service Monitoring System. This shall include the provision of notifications by SMS and email.

Z 6.10.6		Mandatory
The Service Provider shall	provide mechanisms to e	ensure that alarms from the

The Service Provider shall provide mechanisms to ensure that alarms from the Service Monitoring System are received by the Service Provider's nominated Personnel at any Premises and at any time.

Z 6.10.7	Mandatory
	,

The Service Provider shall continuously and automatically monitor all Interfaces for the following including, but not limited to:

- availability;
- throughput;
- performance;
- buffer usage;
- queue lengths;

- Hardware status;
- System alarms and warnings; and
- any other diagnostic Data provided by the Service Provider's implementation of the Interfaces.

Z 6.10.8	Mandatory

The Service Provider shall categorise System Events into the following categories (but not limited to):

- required for information;
- a warning;
- a failure; and
- an exception.

Z 6.10	.9							N	landatory	/	
The S	Service	Provider	shall	ensure	that	the	Service	Monitoring	System	has	the

capability to prioritise System Events.

6.11 Reporting

Z 6.11.1		Mandatory
The Service Provider shall p	provide reporting facilities and	I reports which permit TfL to
monitor the performance of	the Service System(s) in ac	cordance with Schedule 10:
Contract Management and	Reporting, and Schedule 2:	Statement of Requirements
(MIS).The Service Provider	shall provide User guides a	and describe the underlying
data so performance queries	s and reports can be construc	ted by TfL staff.

Z 6.11.2	Mandatory
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The Service Provider shall provide Asset management reports in accordance with Schedule 10: Contract Management and Reporting and Schedule 12: Asset Management.

Z 6.11.3 Mandatory	7 6 1 1 3		Mondatory
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The Service Provider shall provide TfL with monthly reports on all maintenance activities undertaken in the previous month.

Applicable from the ULEX Operational Commencement Date		
Z.6.11.4	Mandatory	
The Service Provider shall make available to TfL on request such standard reports as are		
available and utilised by the Services Provider (whether developed by the Service		
Provider or available as standard from the Cloud Service Provider) provided the (a) relate		
specifically to the Service Provided under this Agreement; and (b) would not cause the		
Service Provider to breach its confidentiality obligations as detailed in Clause 37.6.		

6.12 Incident Management

Z 6.12.1		Mandatory			
The Service Provider shall minimise the number of Incident Logs for the Service					
System(s) in order to facilita	te visibility and management o	of the Incidents.			

6.13 Problem Management

Z 6.13.1		Mandatory
The Service Provider shall d	evelop and comply with a Pro	blem Management Solution,

in accordance with the Service Management framework, and shall submit such solution to TfL for Assurance.

Z 6.13.2	Mandatory
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The Service Provider shall not close a Problem until all related Incidents have been resolved in accordance with this Agreement.

Z 6.13.3		Mandatory
The Service Provider shall the	rack the total amount of time	the Problem was worked on
and how long it was open.		

Z 6.13.4	Mandatory

The Service Provider shall assign Severity Levels, impact, and priorities to Problems.

Z 6.13.5			Mandatory
The Service Provider shall	report on the number	of Problems	by Severity Level,
impact, and priority.			

	Z 6.13.6		Mandatory
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The Service Provider shall report on the number of Problems per month that are:

- Closed;
- Open; and
- in progress.

Z 6.13.7	Mandatory

The Service Provider shall report on a monthly basis on the number of Problems reopened.

Z 6.13.8			Mandatory
The Service Provider shall	report on a monthly basis	on th	ne number of related
Incidents occurring before a	Problem is closed.		

6.14 Logging

Z 6.14.1		Mandatory
The Service Provider shall I	og all Service System(s) failu	res, errors and execution of
scheduled processes immed	liately.	

Z 6.	14.2	2								nda	atory	y	
	-		 				_		 	•			

The Service Provider shall not carry out any Service System(s) Monitoring actions without a documented procedure. Where a required action is not documented in a procedure, the Service Provider shall log the action before action is allowed to be taken, and update the Service Systems(s) processes and procedures to reflect the action taken.

2 0.14.0 Mandatory			Mandatory
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The Service Provider shall ensure that all Service System(s) diagnostic messages and alarms provide at least the following information:

- date and time;
- name or ID of the affected component; and
- status message.

Z 6.14.4MandatoryThe Service Provider shall record status information received from the Service
System(s) in a System log. Certain Service System(s) may be excluded from this
requirement with TfL's prior written consent.

Z 6.14.5		Mandatory			
The Service Provider shall retain all Service System(s) Logs in accordance with the					
Agreement or as agreed with	n TfL from time to time.				

Z 6.14.6		Mandatory					
During the Operational Pha	ase, the Service Provider sh	all ensure that the Service					
System(s) Log is signed daily by the Service Provider's Personnel responsible for							
managing the provision of th	e Services on that day.						

6.15 Service Level Management

Z 6.15.1MandatoryThe Service Provider shall manage the Service System(s) and Service to meet the
Service Levels as stated in Schedule 5: Service Level Agreement.

6.16 Network and Service System(s) Resilience

- Z 6.16.1MandatoryThe Service Provider shall ensure that it provides Network and Service System(s)resilience which prevents failures across all Service System Elements such asNetworks, routers, switches, firewalls, transmission interconnections for both localarea and wide area networks, servers and disks.
- Z 6.16.2MandatoryThe Service Provider shall ensure that the Service System(s) has the functionality to

switch to an alternative power supply so that no degradation of Service occurs.

Z 6.16.3		Mandatory
The Service Provider shall e	ensure that the Service Syste	em(s) has the functionality to
switch to a standby workin	g Service System Element o	or load sharing, so that the
failure of a single Service S	System Element within a grou	ıp of similar Service System
Elements does not cause de	egradation of Service.	

Z 6.16.4	Mandatory
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The Service Provider shall ensure that the Network and the Service System(s) has the functionality to automatically switch to standby ancillary network working Service System Elements or load sharing, such that the failure of a single ancillary network Service System Element within a group does not cause degradation of Service.

Z 6.16.5 Mandatory

The Service Provider shall ensure that Network elements and transmission interconnections allow for one hundred and fifty per cent (150%) above the volumes set out in Appendix 25: Enforcement Volumes.

7. SERVICE SYSTEM(S)

This section sets out certain requirements relating to Service System(s).

7.1 Operational Processes and Procedures

Z 7.1.1	Mandatory

The Service Provider shall build the Service System(s) in accordance with Schedule 3: Milestones and Deliverables, Schedule 28: Service Provider's Solution.

Z 7.1.2		Mandatory
The Service Provider shall i	mplement a MIS solution in a	accordance with Schedule 2:
Statement of Requirements	(MIS).	

Z 7.1.3	Mandatory

The Service Provider shall not customise any COTS products which may render the product unsupportable under the vendor's standard support package.

Z 7.1.4		Mandatory
The Service Provider shall	provide and maintain a cor	nmon standard build for all
workstations used in the pro-	vision of the Service System(s).

Z 7.1.5		Mandatory
The Service Provider shall	ensure that all Software,	Hardware, and Information
installed on workstations an	d servers used in the provis	ion of the Service System(s)
are for business purposes or	nly.	

Z 7.1.6	Mandatory

The Service Provider shall ensure that the hosted elements of the Service System(s) are segregated from the Service Provider's other customer hosted services, are secure and can only be accessed or viewed by Operational Users in accordance with this Agreement.

Z 7.1.7		Mandatory
The Service Provider shall	procure all Hardware to	be used within the Service
System(s) from a reputable i	manufacturer offering a supp	ort capability.

Z 7.1.8 Mandatory

The Service Provider shall design the Service System(s) to prevent Users from violating Privacy Legislation.

Z 7.1.9								Ν	/lan	dat	ory	
T 0				 	•.						$\langle \mathbf{o} \rangle$	

The Service Provider shall store used digital media for a minimum of six (6) months before destruction in accordance with Schedule 14: Security and Appendix 24: Data Retention.

Z 7.1.10	Mandatory
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The Service Provider shall ensure that all digital media is labelled clearly by the date and times of recording.

Z 7.1.11		Mandatory
The Service Drevider shall a	nours that all digital madia is	stared in obranelegical order

The Service Provider shall ensure that all digital media is stored in chronological order by recording date and time.

Z 7.1.12	Mandatory
The Consist Dury idea also lle	and the last frame description of a survey

The Service Provider shall ensure that all digital media is available for viewing at any time on demand by TfL.

Z 7.1.13		Mandatory
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The Service Provider shall ensure that all digital media is made available for full audits of access requests and use.

7.2 Service System Functions

Z 7.2.1		Mandatory
The Service Provider shall	develop and comply with a	mechanism containing the
features and functionality of	a mechanism to allow wildca	rd searches on search fields
and shall submit such mech	anism to TfL for Assurance.	

Z 7.2.2		Mandatory
	<u>I</u>	

The Service Provider shall make use of a Parameterised Change Element, to facilitate the maintenance of the Service System(s) and future Changes to the Services and Service System(s).

Z 7.2.3	Mandatory

The	Ser	vice P	Provider	shall e	nsur	e that the	e following P	aramet	erised C	hange E	lements
are	not	hard	coded	within	the	Service	System(s).	These	values	include,	without
limit	tatior	า:									

- codes;
- statuses;
- dates;
- times;
- percentages;
- monetary values;
- operational hours and days;
- reference Data; and
- other parameters.

In the event that solution components do not meet this requirement, the Service

Provider shall not be afforded any performance or financial relief under the Schedule 9: Change Control Request Procedure.

Z 7.2.4		Mandatory
The Service Provider shall develop and comply with a proposed list of Parameterised		
Change Elements and shall submit such a list to TfL for Assurance.		

Z 7.2.5	Mandatory

The Service Provider shall allow each Parameterised Change Element to be varied by value and variety using a Parameter Driven configuration approach.

Z 7.2.6		Mandatory
The Service Provider shall	store each Parameterised	Change Element centrally, for

example in parameter tables.

Z 7.2.7		Mandatory
The Service Provider shall ensure that each Parameterised Change Element can be		
configured by all Service Provider Personnel and at no cost to TfL.		

Z 7.2.8		Mandatory
The Service Provider shall	ensure that any Change t	o a Parameterised Change

Element is in accordance with Schedule 9: Change Control Request Procedure.

7.3 Backup

Z 7.3.1		Mandatory
The Service Provider shall ensure that the Service System(s) Data can be recovered		
from loss and corruption back to any point in time.		

Z 7.3.2		Mandatory
The Service Provider shall provide a data archiving function. This function will also		on. This function will also be

used to ensure that data is available and recoverable in accordance with Appendix 24: Data Retention.

7.4 Shutdown/Start-up Processes

Z 7.4.1 Mandatory

The Service Provider shall ensure that Planned Downtime takes place in accordance with Schedule 5: Service Level Agreement, and Clause 46.3 unless otherwise Approved by TfL and implemented within the timescales stipulated by TfL.

Z 7.4.2		Mandatory
The Service Provider shall develop, maintain and follow a documented procedure for		
Service Systems start-up and shut-down. If it becomes necessary to deviate from the		
procedure, the Service Provider shall raise this as an Incident.		

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The Service Provider shall ensure a number of Personnel are trained in following the Service System(s) shut down and start up procedures and tools and that the Personnel are readily available to enable execution at any time.

Z 7.4.4	Mandatory

The Service Provider shall raise all unscheduled shut down or loss of any Service System(s), for any reason, as a Severity 1 Incident.

Z 7.4.5		Mandatory
The Service Provider shall perform Tests annually to ensure Service System(s) shut		

The Service Provider shall perform Tests annually to ensure Service System(s) shut down and start up procedures operates correctly.
7.5 Time

Z 7.5.1		Mandatory
The Service Provider shall e	ensure all system clocks are	consistent with Co-ordinated
Universal Time (UTC) and	are adjusted to conform to D	aylight Savings Time (DST)
when in effect.		

Z 7.5.2		Mandatory
In the event that the NTP	Time Server is unavailable	the Service Provider shall
provide a standby GPS rece	iver to synchronise Co-ordina	ted Universal Time (UTC).

Z 7.5.3		Mandatory
The Service Provider shall e	ensure that the Service Syste	m(s) provide the appropriate
sequencing and timestamps	to the TfL Website for each t	ransaction.

8. BUSINESS CONTINUITY

This section covers those requirements which shall apply to ensure continuity of business operations in the event of a 'disaster' which prevents service operations at the normal operational sites.

8.1 Business Continuity

Z 8.1.1	Mandatory

The Service Provider shall prepare, implement and maintain a Business Continuity Plan and provide Business Continuity Infrastructure in accordance with Schedule 25: Business Continuity.

8.2 Asset Management

This section covers those requirements which apply to the management of all Assets.

Z 8.2.1		Mandatory
The Service Provider shall produce and maintain an Asset Management System with		
appropriate details in accord	ance with Schedule 12: Asse	t Management.

Z 8.2.2		Mandatory
The Service Provider shall	ensure that the Asset Mana	agement System provides a

The Service Provider shall ensure that the Asset Management System provides a range of reporting in accordance with Schedule 12: Asset Management.

Z 8.2.3		Mandatory
The Service Provider shall ensure that the Asset Management System provides flat		
file output to allow Data to be	file output to allow Data to be exported to a future Asset Management system.	

Z 8.2.4		Mandatory
The Service Provider shall e	ensure that the Asset Manage	ement System triggers alerts
when renewals are due for	software license agreements.	The frequency, format, and
method of alerting shall be c	onfigurable.	

Z 8.2.5		Mandatory
The Service Provider shall	ensure that the Asset Ma	nagement System has the
capability to take asset lifecycle information feeds from different sources to trigger		
events such as end of life dates for hardware and software.		

Z 8.2.6		Mandatory
The Service Provider shall d	evelop and comply with an A	sset Management System to

The Service Provider shall develop and comply with an Asset Management System to monitor usage patterns of software to support the re-deployment of software licences and to identify potentially redundant licences including the provision of a monthly report and shall submit such a system including the format of the monthly report to TfL for Assurance.

Z 8.2.7	Mandatory

The Service Provider shall ensure that the Asset Management System supports both automated and manual updates of asset information.

Z 8.2.8			Mandatory	
The Service Provider shall	ensure that the	Asset Ma	anagement System has	the
capability to alert groups by	əmail.			

9. DATA

This section covers those requirements which apply to the service data and cover general data aspects, data migration and data migration and reference data.

9.1 Data Migration Planning

Z 9.1.1		Mandatory
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The Service Provider shall provide the proposed Data Migration Strategy to TfL to be Approved in accordance with Schedule 3: Milestones and Deliverables.

Z 9.1.2		Mandatory
The Service Provider shall s	submit to TfL for Approval a c	late by which it shall provide
the Level 1 Data Migration Plan to TfL prior to the Milestone Date for Milestone [•]		
(Mobilisation Complete Date) and, once Approved, deliver the Level 1 Data Migration		
Plan on or before such Approved Date .		

9.2 Data Migration

Z 9.2.1		Mandatory
The Service Provider shall ensure that the proposed Data Migration Strategy allows		
for continuity of business as usual on the Operational Commencement Date.		

Z 9.2.2		Mandatory
The Service Provider shall e	ensure that the proposed D	ata Migration Strategy allows
for continuity of business as	s usual on each Go-Live D	ate of the Notice Processing
Services.		

Z 9.2.3		Mandatory
The Service Provider shall	develop and comply with a l	evel 2 Build and Test Data
Migration Plan and shall submit such a plan to TfL for Assurance.		

Z 9.2.4	Mandatory

The Service Provider shall develop and comply with a Level 2 Detailed Plan for Data Migration Execution and shall submit such a plan to TfL for Assurance.

Z 9.2.5 Mandatory		
	7925	Mandatory

The Service Provider shall provide TfL with the Data Migration Report in accordance Schedule 3: Milestones and Deliverables.

Z 9.2.6		Mandatory
The Service Provider shall analyse the Data from the Source System(s), identify data		
quality issues and provide a Data Quality Report to TfL that details the work required		
to be completed prior to, during and after data migration.		

Z 9.2.7	Mandatory

The Service Provider shall co-ordinate, execute, and complete Data Cleansing activities prior to the migration of data.

Z 9.2.8		Mandatory
If the Service Provider fails	to migrate any Data to the	Service System(s) using the
migration process set out i	in the Data Migration Strate	gy, it shall submit to TfL a
revised Data Migration Stra	tegy for Approval and, when	Approved, implement such
strategy.		

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Z 9.2.9		Mandatory
The Service Provider shall map and migrate to the Service System(s) all Data which		
is stored on the systems of the relevant Incumbent Service Providers and (ii) is (or		
may be) required by the Service Provider for the provision of the Services, for		
example:		
 all entities defined in the Logical Data Model; 		

• all Reference Data;

- User Accounts including passwords;
- MIS Data;
- Financial Data, including Payment Data;
- contents of the Document Management System;
- Certificate Authority encryption keys;
- Call recordings;
- Operational Data;
- Evidential Data including images and Penalty Charge Records;
- Outbound Correspondence, and
- Inbound Correspondence.

Z 9.2.10		Mandatory
The Comice Dravider shell	transfor all physical Data	and records related to the

The Service Provider shall transfer all physical Data and records related to the Enforcement Operations from the relevant Incumbent Service Provider.

Z 9.2.11	Mandatory
The Service Provider shall provide assistance when	required to Other Service
Providers as instructed by TfL for the migration of Da	ata used in providing other
Service Element(s) in accordance with Clause 15.	

 Z 9.2.12
 Mandatory

 The Service Provider shall develop and comply with a proposed set of actions

necessary to resolve source data quality issues and shall submit such proposed actions to TfL for Assurance.

Z 9.2.13		Mandatory
The Service Provider shal	create a Data Dictionary	during Implementation that
contains an entry for each D	ata item, including without lim	itation:

- Data Structure including without limitation: size, data type, description, validation rules, maximum/minimum values;
- Physical location of Data;
- Processes that create the Data;
- Processes that can edit/delete the Data;
- Changes that have amended the format or content of the Data;
- Applications that use the Data; and
- Owner of the Data.

Z 9.2.14	Mandatory

The Service Provider shall maintain the Data Dictionary for the Term, this shall include without limitation, amending its contents where required after each change and release to the Service System(s).

Z 9.2.15	Mandatory

The Service Provider shall supply the Data Dictionary in a human readable format to TfL on request.

Z 9.2.16	Mandatory
The Comise Dravider shell i	union for each Data item to

The Service Provider shall identify and document the mapping for each Data item to be migrated from the Source System(s) to the Service System(s).

Z 9.2	2.17							Ма	ndatory
The	Service	Provider	shall	identify,	document	and	agree	any	Transformation
nece	essary to r	migrate a c	data ite	em.					

Z 9.2.18	Mandatory
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The Service Provider shall carry out reconciliation for each Data item being migrated between the Source Systems and the Service System(s) as part of the migration process to ensure Data accuracy, correctness and validity. The Service Provider shall inform TfL of the reconciliation results after each dress rehearsal and again prior to the Implementation of the Service System(s).

Z 9.2.19	Mandatory
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The Service Provider shall ensure that the migrated Data is maintained in accordance with Appendix 24: Data Retention.

Z 9.2.20		Mandatory
The Service Provider shall	upon request by TfL, allow T	fL full access to conduct an

audit in accordance with Clause 36 (Audit and Inspection), including the following areas:

- reconciliation of source to target Data;
- the method of report production and any Data transformations; and
- queries and conditions used for Data extraction.

Z 9.2.21	Mandatory
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The Service Provider shall maintain documentation of all Data processing operations under the Service Provider's responsibility, which shall be provided to TfL within five (5) days of a request from TfL or such other period as TfL may specify from time to time.

Z 9.2.22		Mandatory
The Service Provider shall	ensure that all in-flight Data	processing operations have
both their status and stage	preserved during migration ar	nd continue to be processed
by the Service Provider in a	accordance with Schedule 2	(Statement of Requirements

(Enforcement Operations))].

Z 9.2.23	Mandatory
Not used.	

9.3 Data Integrity

Z 9.3.1	Mandatory

The Service Provider shall provide mechanisms and procedures to allow Data to be reconciled between any Data Stores, and to correct inconsistent and incomplete Data.

Z 9.3.2		Mandatory				
The Service Provider shall perform reconciliation of specific record types between						
each Service Element and other Solution Elements, with a frequency to be						
determined by TfL from time to time.						

Z 9.3.3		Mandatory		
The Service Provider shall prove referential integrity, consistency and completeness				

of all replicated Data on request by TfL and at intervals no less than once per week.

Z 9.3.4	Mandatory

The Service Provider shall ensure that its processes for collecting Personal Data, in any format, comply with Privacy Legislation.

9.4 Reference Data

Z 9.4.1 Mandatory				
The Service Provider shall maintain and manage all Reference Data unless otherwise				
agreed in writing with TfL.				

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The Service Provider shall identify and populate all Reference Data required for Testing in accordance with Schedule 4: Testing Regime.

Z 9.4.3 Mandatory

The Service Provider shall identify and populate all Reference Data required for the Operational Commencement Date.

The Service Provider shall ensure that only Authorised Users are permitted t	Z 9.4.4						Ν	Nand	atory	
	The Service Provider	shall e	ensure	that	only	Authorised	d Users	are	permitted	to

undertake changes to Reference Data.

Z 9.4.5			Mandator	у	
The Service Provider shall	ensure that all Reference	Data has	valid start	and	end

dates, with the exception of the latest record which may have no end date.

Z 9.4.6 Mandatory				
The Service Provider shall ensure that all modifications to Reference Data records are				
auditable including, without limitation, recording the Authorised User.				

Z 9.4.7	Mandatory

The Service Provider shall ensure that the audit history of Reference Data maintains versioning of the Reference Data.

Z 9.4.8 Mandatory

The Service Provider shall request and implement any Changes to Reference Data in accordance with section 9: (Change Control Request Procedure) unless otherwise agreed with TfL.

10. DOCUMENTATION

This section covers those requirements relating to Documentation. This includes system Documentation and Operational Documentation. Requirements applying to both are contained in the general section. This section should be read in conjunction with Schedule 3: Milestones and Deliverables.

10.1 Documentation

Z 10.1.1 Mandatory					
The Service Provider shall develop and comply with procedures for maintenance and					
support and shall submit such procedures to TfL for Assurance.					

	Z 10.1.2		Mandatory
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The Service Provider shall develop, review, update and comply with procedures for maintenance and support when Changes are made to the Services, and shall submit such procedures including any updates to TfL for Assurance within 4 weeks of the Change.

Z 10.1.3		Mandatory
The Service Provider is	responsible for identify	ving all documents, including
procedures, impacted by pl	anned and agreed Chan	ges, and notifying TfL of these
documents before the Change is agreed with TfL.		

Z 10.1.4		Mandatory
The Service Provider sha	Il ensure all documentatior	n described in Schedule 3:
Milestones and Deliverabl	es and Schedule 4: Tes	ting Regime and all other
Documentation requested b	y TfL, is provided to TfL for	review as and when modified
during the Term.		

Z 10.1.5		Mandatory
The Service Provider shall s	ubmit to TfL for Approval, a l	Review Schedule and, when

Approved, comply with such Review Schedule. The Review Schedule shall:

- allow time for:
- TfL reviewers to read the document(s) to be reviewed, including any referenced supporting documentation, and
- record and return review comments to the Service Provider;
- assuming no less than two (2) revisions of each document;
- avoiding the simultaneous release of each document.

Z 10.1.6	Mandatory

The Service Provider shall maintain and store all Service System(s) Documentation under Configuration Management.

Z 10.1.7		Mandatory
The Service Provider shall ensure that the Configuration Management Processes and		

tools are described in the Quality Plan.

Z 10.1.8		Mandatory
The Comice Dravider shell	anaura Decumentation is n	revided to Ifl in electronic

The Service Provider shall ensure Documentation is provided to TfL in electronic and/or paper format as requested by TfL.

Z 10.1.9		Mandatory
The Service Provider shall provide electronic copies of Documentation in Microsoft		
Office (Word, Visio, Excel or PowerPoint) and/or PDF formats as requested by TfL		
from time to time.		

Z 10.1.10		Mandatory
All electronic Documentation shall be issued to and stored in the Document Library.		in the Document Library.

Z 10.1.11		Mandatory
The Service Provider shal	I ensure that all Service S	System(s) Documentation is
complete such that a Thir	d Party with the requisite	technical background could
reconstruct the Service Sy	vstem(s) from the Software	Source Code and (COTS)
components, the operating S	System Software and the Har	dware.

Z 10.1.12	Mandatory
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The Service Provider shall ensure that all Documentation is complete for a technician familiar with the technologies to perform all necessary support, maintenance and enhancement tasks for the Hardware and Software making up the Service System(s).

Z 10.1.13	Mandatory
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The Service Provider shall ensure that all Software in the TfL Foreground Materials is fully documented and that promptly following a written request by TfL all such Software and related Documentation is delivered-up to TfL in accordance with Clauses 38.5 and/or 40.1.

Z 10.1.14	Mandatory

The Service Provider shall ensure that all documentation contained in specialist tools, such as design tools, is provided to TfL in formats accessible from standard TfL documentation tools.

Z 10.1.15	Mandatory
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The Service Provider shall share design and technical Documentation relating to Interfaces with TfL, the Connected Parties, and prospective Connected Parties as specified by TfL. The Service Provider shall ensure that the format and content is agreed with the Connected Party such that the same documentation is used to verify, develop, and test the Interfaces.

Z 10.1.16		Mandatory
The Service Provider shall	ensure documentation for	Operational Processes and
Procedures is provided for a	ll tasks to be undertaken by t	he Service Provider from the

Operational Commencement Date. This shall, without limitation comprise:

- procedures for operation of the Services;
- procedures for maintenance and support of the Services and
- references to relevant Service System(s) Documentation.

11. FACILITIES, PERSONNEL, STAFFING & TRAINING

This section lists the requirements related to the provision of facilities, including Security, Maintenance and Post Room facilities. This section also covers requirements for Personnel (both the Service Provider's and TfL's), as well as their recruitment and training.

11.1 Organisation

Z 11.1.1		Mandatory
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The Service Provider shall collaborate with Other Service Providers to carry out maintenance and manage the resolution of Incidents.

Z 11.1.2	Mandatory

The Service Provider shall ensure a support plan is provided which details the support services that will be provided to TfL and to Other Service Providers in accordance with Clause 15.

Z 11.1.3		Mandatory
The Service Provider shall	attend regular meetings with	n TfL and any related Third
Parties upon request from T	Ľ.	

Z 11	.1.4							Mandator	y	
The	Service	Provider	shall	ensure	that	working	practices	conform	to	TfL's
comr	mitment t	o the Inve	stors i	n People	sche	eme initiat	ive as stat	ed in App	end	ix 27:
The	IIP Standa	ard.								

Z 11.1.5		Mandatory
The Service Provider shall	ensure that its organisation is	s structured to ensure focus
on excellence in customer se	ervice and compliance with th	is Agreement.

Z 11.1.6		Mandatory
The Service Provider shall	ensure that its organisation	is structured to enable and

promote clear, accurate and regular communications between the Service Provider's Personnel and TfL's Personnel.

Z 11.1.7		Mandatory
The Service Provider shall e	ensure that person(s) are non	ninated to be responsible for
the delivery of the Services a	and are contactable by TfL at	all times.

	Z 11.1.8	Mandatory	
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The Service Provider shall ensure that TfL is advised on a rolling weekly basis of the name(s) and contact details of the appointed person(s) responsible for the delivery of the Services and shall ensure that they are available for contact by TfL at all times.

Z 11.1.9	Mandatory

The Service Provider shall ensure that a permanent on-site operations manager takes overall responsibility for management of the Services. This person is to be the key contact for TfL's Personnel based on the Service Provider's Premises and for the TfL operations and contract management team.

11.2 Premises

	Z 11.2.1	Mandatory	
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The Service Provider shall ensure that all Premises are provided and managed in accordance with Schedule 18: Premises.

11.3 Service Provider Recruitment and Staffing

Z 11.3.1		Mandatory
The Service Provider shall	ensure that there is a nomina	ated member of the Service
Provider's Personnel at all times responsible for ensuring that the Service Provider is		
complying with its obligation	ns under Privacy Legislation	and FOI Legislation and in
accordance with Appendix	28: Information Governance	e and Schedule 5: Service

Level Agreement.

Z 11.3.2		Mandatory
The Service Provider shall	ensure that only appropriat	tely qualified Personnel are
employed to provide the support service and Maintenance.		

Z 11.3.3	Mandatory
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The Service Provider shall ensure that when a member of the Service Provider's Personnel is dismissed or leaves, all security devices and access cards are returned and the individual is escorted from the Premises immediately.

Z 11.3.4		Mandatory
The Service Provider shall provide job descriptions for those roles identified by the		
Service Provider to be necessary for the delivery of Services to TfL for Approval as		
part of the Detailed Design. At a minimum, this shall include job descriptions for those		
Key Personnel outlined in Schedule 11: Key Personnel.		

Z 11.3.5		Mandatory	
The Service Provider shall	provide job descriptions of	its Personnel to TfL upon	
request. Job descriptions mu	ust include as a minimum, det	ails of:	
• key accountabilities;			
key competencies;			
 scope of each role; and 			
 minimum qualification role. 	ns and experience necessary	for the individual to fulfil the	

Z 11.3.6		Mandatory
The Service Provider shall	provide suitably qualified and	trained Personnel to deliver

the Services.

Z 11.3.7		Mandatory
The Service Provider shall	ensure that the scope of the	e identified job roles clearly
identifies the responsibilities and accountability for outputs and hand-offs.		

Z 11.3.8	Mandatory

The Service Provider shall ensure that TfL is notified immediately of the occurrence of any of the following regarding the Service Provider's Personnel:

- suspensions;
- disciplinary proceedings;
- dismissals; and/or
- Key Personnel appointments

Z 11.3.9	Mandatory
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The Service Provider shall ensure that appropriate and relevant Personnel security checks are performed for new Service Provider Personnel prior to the commencement of their employment including, without limitation:

- reference checks;
- credit checks;
- media checks; and
- Criminal Records Bureau (CRB) checks.

The Service Provider shall submit to TfL for Approval its proposed security checks for new Service Provider Personnel and, when Approved, implement such security checks.

Z 11.3.10		Mandatory
In the event of the Servi	ce Provider's Personnel tal	king any action that might
compromise the position of TfL, the Service Provider shall alert TfL within twenty four		
(24) hours of the action and provide details of their planned resolution of the action		
within an appropriate timescale.		

Z 11.3.11	Mandatory

TfL reserves the right to request the removal of any of the Service Provider's Personnel from the provision of the Services in accordance with Schedule 11: Key Personnel.

	Z 11.3.12		Mandatory
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The Service Provider shall replace Personnel that cease to be employed by the Service Provider with a replacement who has the equivalent or better skills and experience for the role.

Z 11.3.13	Mandatory

The Service Provider shall replace Personnel moved from their existing role with a replacement that has the equivalent or better skills and experience for the role.

Z 11.3.14	Mandatory

The Service Provider shall request TfL approval for the replacement of any Key Personnel in accordance with Schedule 11: Key Personnel.

11.4 Training

Z 11.4.1		Mandatory
The Service Provider shall include, without limitation, a detailed review of the following		
areas in the induction course referred to in Z 11.5.1:		

- Privacy Legislation;
- FOI Legislation;
- obligations, codes and procedures for its Personnel;
- Environmental Information Regulations;
- Computer Misuse Act 1990;
- security processes and procedure;
- Premises rules and regulations;
- methods to ensure Personnel have a clear understanding of their duties and hours; and
- methods to ensure Personnel are competent to use all necessary Equipment and Service System(s) in a safe and efficient manner.

11.5 Service Provider Personnel Training

Z 11.5.1		Mandatory
The Service Provider shall	submit to TfL for Approval a	nd, when Approved, comply
with the contents of and ma	aterials to be used for a form	nal induction course for new
Personnel.		

Z 11.5.2	Mandatory
2 11.0.2	Mandatory

The Service Provider shall ensure that the content of the induction course covers the areas including, but not limited to:

- methods to ensure Service Provider Personnel have a clear understanding of their duties and hours;
- methods to ensure Service Provider Personnel have a clear understanding of

their obligations with regard to Data Protection, the Freedom of Information Act and the Security requirements; and

• methods to ensure Service Provider Personnel are competent to use all necessary Equipment and Service System(s) in a safe and efficient manner.

Z 11.5.3	Mandatory

The Service Provider shall provide ongoing training in accordance with the Training Plan for all Service Provider Personnel required to manage and operate the Service System(s).

Z 11.5.4		Mandatory
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The Service Provider shall provide suitably qualified instructors for each of the training courses.

Z 11.5.5			Mandatory	1
The Service Provider shall	ensure that all Service	e Provider's	Personnel	attend a
formal induction course pro	ovided by the Service F	Provider in	accordance	with the
Training Plan.				

Z 11.5.6	Mandatory

The Service Provider shall submit to TfL for Approval and, when Approved, comply with a detailed Training Plan for all the Service Provider's Personnel involved in the delivery of the Service System(s) The plan shall cover the following areas, such as but not limited to:

- the Service Provider's approach to training;
- the Service Provider's proposals for induction training; and
- the Service Provider's proposals for periodic refresher training and Personnel

development training. The Training Plan shall include any specific training requirements as Approved by TfL.

Z 11.5.7	Mandatory

The Service Provider shall ensure that an operating procedure for the Premises CCTV operation (the "CCTV Operating Procedure") is documented and Approved by TfL.

Z 11.5.8		Mandatory
The Service Provider shall	ensure that all appropriate F	Personnel are trained on the

CCTV Operating Procedure.

The Service Provider shall provide all necessary induction and on-going training and supporting materials to all its Personnel for any changes made to the Services. For the avoidance of doubt, this shall include, but not be limited to training on the following:

- FAQs;
- intranet pages;
- Operational Users screen guidance;
- mail room item tracking and scanning;
- Customer service;
- Contact Centre guidelines; and
- training and materials relevant to the operation of the Services.

Z 11.5.10	Mandatory
	,

The Service Provider shall submit all training, supporting materials, quality processes and procedures relating to Services to TfL for Approval at least twelve (12) weeks prior to use and, when Approved, comply with such processes and procedures.

Z 11.5.11 Mandatory

The Service Provider shall train both relevant TfL Personnel and Service Provider Personnel in the same training sessions in respect of any change required as a result of operating the relevant Services.

Z 11.5.12		Mandatory		
The Service Provider shal	l prepare, deliver and m	naintain on an on-going basis		
appropriate training procedures for each of its teams of Personnel as detailed in its				
proposed organisation structure.				

Z 11.5.13 Mandatory

The Service Provider shall ensure that updated course materials are provided to TfL for the purposes of training TfL Personnel upon request from TfL.

Z 11.5.14	Mandatory

The Service Provider shall ensure that all training manuals and courses are updated to reflect changes to operational practices and lessons learned.

Z 11.	5.15								Ма	Indatory		
The	Service	Provider	shall	ensure	that	its	Perso	nnel	have	access	to	all
Docu	Documentation appropriate to the performance of any role to which they are assigned.											

Z 11.5.16	Mandatory

The Service Provider shall ensure that Authorised TfL Personnel can attend training sessions facilitated by the Service Provider to ensure the necessary standards of training are implemented on a consistent basis, upon request by TfL.

Z 11.5.17			Manda	tory	
The Service Provider shall o	levise and implem	ent training	(including ongo	oing tra	ining,
for the Service Provider's	Personnel and	nominated	TfL Personn	el) on	new

technology, where a technology change is necessary for the provision of the relevant Services.

Z 11.5.18 Mandatory

The Service Provider shall revise training sessions and materials to incorporate updates on any future amendments to applicable Law.

11.6 TfL Personnel and Training

Z 11.6.1	Mandatory

The Service Provider shall provide training on the MIS to Authorised TfL Personnel as requested by TfL from time to time during the term of the Agreement.

Z 11.6.2		Mandatory		
The Service Provider shall provide training on the MIS to Authorised TfL Personnel on				
the Service Provider's Premises.				

	Z 11.6.3		Mandatory
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The Service Provider shall submit to TfL for Approval and, when Approved, comply with a detailed Training Plan for Authorised TfL Personnel including timescales and course outlines.

Z 11.6.4	Mandatory

The Service Provider shall provide Authorised TfL Personnel with unlimited viewing rights to all Service System(s) and Documents relating to the Services.

Z 11.6.5		Mandatory		
The Service Provider shall ensure that TfL Personnel are trained sufficiently to enable				

them to effectively and efficiently carry out support activities including, without limitation:

- providing Policy Guidance in response to an escalated query from the Service Provider;
- approving and completing sign-offs required by TfL;
- monitoring feedback actions from weekly meetings with the Service Provider;
- resolving escalated queries from Customer correspondence and complaints;
- providing training to Operational User(s) and team leaders on an ad hoc and scheduled basis;
- providing input to scheduled inductions;
- providing input in the development training courses and materials;
- identifying process improvements; and
- providing guidance to the Service Provider's team managers when implementing new processes.

Z 11.6.6 Mandatory				
The Service Provider shall provide training sessions following the employment of new				
TfL Personnel, at such times requested by TfL.				

12. FINANCE

This section covers those requirements which are additional to those requirements covered in Schedule 2: Statement of Requirements (Finance).

12.1 Unidentified Payments

Z 12.1.1	Mandatory

The Service Provider shall ensure that Unidentified Payments are managed in accordance with Schedule 32: Revenue Collection and Payment.

Z 12.1.2		Mandatory
The Service Provider shall ensure that the Service System(s) has the functionality to		
record and store details of Unidentified Payments.		

Z 12.1.3	Mandatory

The Service Provider shall ensure that the Service System(s) has the functionality to search for Unidentified Payments.

Z 12.1.4	Mandatory
_	

The Service Provider shall ensure that the Service System(s) has the functionality to allocate an Unidentified Payment to a Customer's Account.

12.2 Fraud Detection

Z 12.2.1	Mandatory

The Service Provider shall provide all required and requested Data and statements directly to the Metropolitan Police Service (or appropriate relevant authority) for the purposes of credit card fraud and other investigations, unless otherwise specifically requested by TfL.

7 10 0 0	Mandatan
Ζ 1Ζ.Ζ.Ζ	Mandatory

The Service Provider shall provide any requested Data and statements to the Metropolitan Police Service (or appropriate relevant authority) within the timescales specified by TfL and at no cost to TfL. A log of such events shall be maintained, providing traceability to the Data provided, and this log should be provided to TfL for inspection on request.

Z 12.2.3	Mandatory

The Service Provider shall ensure that the Service System(s) logs all Data provided to the Metropolitan Police Service.

12.3 Payment Application Compliance

Z 12.3.1MandatoryThe Service Provider shall use a payment application to process debit and credit cardpayments that complies with the PCI DSS Payment Application Data SecurityStandard (PA-DSS).

Z 12.3.2		Mandatory
The Service Provider shall e	ensure the card payment proc	cessing application achieves
compliance with the PCI DSS Payment Application Data Security Standard (PA-DSS)		
by the Operational Commen	cement Date.	

Z 12.3.3		Mandatory
The Service Provider shall	provide TfL via a secure m	nethod with a monthly report
detailing progress towards	PCI compliant status un	til PCI compliant status is
achieved.		

Z 12.3.4		Mandatory
The Service Provider shall	ensure that PCI compliance	is maintained in accordance
with the PCI DSS Payment	Application Data Security Sta	ndard (PA-DSS), as may be
amended from time to tin	ne, at all times during the	Operational Phase of this

Agreement at no cost to TfL.

Z 12.3.5		Mandatory
The Service Provider shall	provide to TfL quarterly sca	n reports as are required to
demonstrate PCI compliance	9.	

Z 12.3.6	Mandatory

The Service Provider shall conduct monthly vulnerability scans as required by the PCI DSS and send the results via a secure method to the Authorised TfL Personnel.

Z 12.3.7		Mandatory
The Service Provider shall	, after any change to the	infrastructure which for the
avoidance of doubt includes	s firewall rule changes, carry	out and send the results of
the internal vulnerability scar	ns and penetration test via a	secure method to Authorised
TfL Personnel.		

Z 12.3.8 Mandatory							
The Service Provider shall	employ the services	s of a Pa	yment Application	on-Qualified			
Security Assessor(s) (PA-	-QSAs) to ensure	all com	pliant payment	processing			
applications achieves compliance for PCI DSS.							

13. INTERFACES

This section covers those requirements relating to the Interfaces and should be read in conjunction with Appendix 23: Interface Catalogue.

13.1 General

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The Service Provider shall provide secure and audited access to Service System(s) from TfL desktop services, to all Service applications, in accordance with Schedule 14: Security.

Z 13.1.2		Mandatory
The Service Provider shall	provide non-production suppo	ort and technical facilities to
test interconnections with al	Connected Parties and TfL i	n accordance with Schedule
4: Testing Regime.		

Z 13.1.3	Mandatory				
The Service Provider shall submit to TfL for Approval and, when Approved comply					
with the Interface Specificati	est Strategy.				

Z 13.1.3b		Mandatory
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The Service Provider shall design, submit to TfL for Assurance and, when Assured, maintain the Interface Specification.

Z 1	3.1.	4					Man	datory	
-	•		-	 			 -		

The Service Provider shall enable transfer of Data into TfL's Finance System.

Z 13.1.5		Mandatory		
The Service Provider shall enable transfer of Data into TfL's MIS Shared Drive.				

2 To: To: To: Thandatory	Z 13.1.6		Mandatory
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The Service Provider shall provide the Interfaces and network connections in accordance with Appendix 23: Interface Catalogue.

Z 13.1.7			Mandatory	
The Service Provider shall	operate the Interfaces and	network	connections	to the
Service Levels in accordanc	e with Schedule 5: Service L	evel Agre	ement.	

Z 13.1.8	Mandatory

The Service Provider shall make the Interface Specification available to TfL on request.

Z 13.1.9	Mandatory	1

The Service Provider shall ensure that the Interface Specification contains, without limitation, the following information for each Service System(s) Interface:

- the functional design;
- the technical design;
- the content of the Data to be exchanged;
- the format of the Data to be exchanged;
- the static Data which are required to decipher the meaning of the Data exchanged;
- the bearer protocols to be used;
- any sequencing constraints or assumptions;
- error handling measures;
- measures to ensure Data integrity; and
- any other Information necessary for the Interface to operate correctly.

Z 13.1.10		Mandatory
The Service Provider shall	submit to TfL for Assurance	and, when Assured, comply

with operator manuals for the Interface Specification.

Z 13.1.11		Mandatory
The Service Provider shall	clarify any assumptions to be	e made in implementing any
Interface within the Interface	Specification.	

Z 13.1.12 Mandatory

The Service Provider shall notify TfL and Connected Parties in advance of any Planned Downtime of Service System(s) Interfaces. The minimum period of notification shall be five (5) Working Days in advance for Planned Downtime.

 Z 13.1.13
 Mandatory

 The Service Provider shall ensure that all Planned Downtime of Service System(s)

Interfaces is approved in advance in writing by TfL.

Z 13.1.14		Mandatory
The Service Provider shall	request all Changes to t	he Interface Specification in
accordance with the Change	Control Request Procedure	

Z 13.1.15		Mandatory
The Service Provider shall re-use existing Interfaces where possible provided that this		

The Service Provider shall re-use existing Interfaces where possible provided that this has been Assured by TfL.

Z 13.1.16		Mandatory
The Service Provider shall p	participate in workshops with	TfL, Other Service Providers
and/or Third Parties to confi	m the Detailed Design of any	Service System(s) Interface
and any new Interface if requested by TfL.		

Z 13.1.17		Mandatory
The Service Provider shall of	design, Test and operate all S	Service System(s) Interfaces
and network connections wi	th TfL and Connected Parties	s on request by TfL in order

to operate the Service System(s).

Z 13.1.18		Mandatory
The Service Provider ackn	owledges that TfL may, fror	m time to time, require the
Service Provider to add a	dditional Service System(s)	Interfaces to the Interface
Specification in accordance with Schedule 9: Change Control Request Procedure.		

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The Service Provider shall issue an updated Interface Specification to all Connected Parties and TfL following any changes to the Interface Specification.

Z 13.1.20		Mandatory
The Service Provider shall i	mplement the Interfaces to e	nsure compatibility with prior
versions of any defined Inter	face unless otherwise agreed	I in writing by the Connected
Parties and TfL. The proposed features and functionality of such an Interface must be		
submitted to TfL, for Assurance prior to being implemented.		

Z 13.1.21		Mandatory
The Service Provider shall e	ensure that all Service System	n(s) Interfaces are compliant
with the Government Digital Services (GDS) Manual (as updated from time to time).		

Z 13.1.22		Mandatory
The Service Provider must	design, build, test, and mai	ntain the Service System(s)
Interfaces in accordance v	vith Appendix 23 (Interface	Catalogue) of Schedule 2
(Statement of Requirements	(Enforcement Operations)).	The Service Provider should
use the contents of Section	3 of the Interface Catalogue a	as indicative information only
and must undertake its own	design activities.	

14. WEB REQUIREMENTS

This section covers those requirements relating to the Interfaces and interactions between TfL's web facilities and the Services Provider's Service System(s).

14.1 General

	Z 14.1.1	Mandatory
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The Service Provider shall produce the following products in collaboration with TfL, in accordance with Schedule 3: Milestones and Deliverables, to be submitted to TfL for Approval:

- Web Channels Integration Design including, without limitation, connectivity, security, load balancing, service monitoring, capacity and scalability design, data, technologies;
- Business Transactions Design;
- Customer Interactions Handler Design specify all functional processes to handle all Business Transactions and transaction steps;
- Customer Web Channels Test Strategy;
- Customer Web Channels Test Plan and Test Data;
- Customer Web Channels Test Results include risks & issues and mitigations; and
- Customer Web Channels Integration Delivery Plan, including co-ordinations plans, milestones, and key resources details.

Z 14.1.2 Manda

The Service Provider shall ensure that the Service System(s) provide a Service Oriented Architecture (SOA) to enable the customer experience to be built independently of any constraints relating to the Service Provider's technology and that the customer experience can be built as a discreet and separate entity to the Service System(s).

2 manadoly	Z 14.1.3		Mandatory
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The Service Provider shall ensure the Service System(s) adhere to the user interface guide in accordance with Schedule 2, Appendix 23: Interface Catalogue.

Z 14.1.4	Mandatory

The Service Provider shall provide the Service System(s) functionality through an Application Programming Interface (API) compliant with the TfL Online Toolkit.

Z 1	4.1.4	b							Man	idat	ory	
-	-		_	 -	 _	-						

The Service Provider shall provide Customer FAQs and answers through an Application Programming Interface (API) which complies with the TfL Online Toolkit.

Z 14.1.5		Mandatory
The Service Provider shall e	nsure that the defined and im	plemented approach to error

handling is consistent with the Interface Specification.

Z 14.1.6		Mandatory					
The Service Provider shall ensure that the Service System(s) API is released with a							
version numbering convention	version numbering convention as defined in the TfL Online Toolkit.						

Z 14.1.7		Mandatory
The Comise Drevider shall n	revide current for the ADI dur	ing the Term

The Service Provider shall provide support for the API during the Term.

Z 14.1.8	Mandatory
Not used.	

Z 14.1.9		Mandatory						
The Service Provider shall ensure that the Service System(s) allows for anonymous								
User functionality to be supp	orted as defined throughout t	his Agreement.						

Z 14.1.10	Mandatory
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The Service Provider shall ensure secure bi-directional authentication and connection management between the Service System(s) API and TfL Website.

Z 14.1.11MandatoryThe Service Provider shall be responsible for monitoring and ensuring the
performance of the interactions between the Service System(s) API and TfL Website
in accordance with Schedule 5: Service Level Agreement.

Z 14.1.12	Mandatory

The Service Provider shall provide the Service Model to support the web related business activities

 Z 14.1.13
 Mandatory

 The Service Provider shall ensure all Data Quality rules are identified, and defined in

the Interface Specification.

Z 14.1.14		Mandatory					
The Service Provider shall ensure that the content and references of the Service							
System(s) API error messag	es are defined in the Interface	e Specification.					

Z 14.1.15			Mar	ndatory
The Service Provider shal	I comply with level 'AA'	of t	he WAI's	Web Content
Accessibility Guidelines (as	updated from time to time).			

Z 14.1.16 Mandatory

The Service Provider shall define a Customer Web Channels Testing Strategy in accordance with Schedule 4: Testing Regime.

Z 14.1.17		Mandatory
The Service Provider shall	ensure that Customer input o	lata quality syntax rules are
provided to TfL during the Te	erm.	

Z 14.1.18	Mandatory	
The Service Provider shall ensure t	hat the Service System(s) accepts 'free text'	
submissions by Customers from the TfL Website. The Service Provider shall submit to		
TfL for Approval a proposed limit for characters for free text in accordance with		
Schedule 3: Milestones and Deliverables and, when Approved, implement such limit.		

Z 14.1.19	Mandatory
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The Service Provider shall ensure that the Service System(s) accepts attachments from that the Customer has uploaded to the TfL Website.

Z 14.1.20		Mandatory
The Service Provider shall ensure that the Service System(s) generates a unique		
reference number for Communications submitted by a Customer via the TfL Website		
and this will be displayed to the Customer on the web page.		

Z 14.1.21	Mandatory

The Service Provider shall ensure that the Service System(s) Web Services supports the TfL Business Rules.

Z 14.1.22	Mandatory

The Service Provider shall ensure that all payments made via the TfL Website are processed in accordance with Schedule 2: Statement of Requirements (Finance) and Schedule 32: Revenue and Collection.

Z 14.1.23		Mandatory
The Service Provider shall	ensure that the Service S	System(s) provides the time

stamping of transactions made through the TfL Website and displays such time stamp to the Customer.

Z 14.1.24		Mandatory
The Service Provider shall	provide Customer facing we	b pages in order to capture

and process any Customer payment related Data.

Z 14.1.25	Mandatory
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The Service Provider shall ensure that the web pages for which it is responsible are viewable to and useable by users of:

- PCs;
- Macs; and
- mobile devices including, but not limited to, mobile phones, tablets and netbooks.

Z 14.1.26	Mandatory

The Service Provider shall ensure that the web pages for which it is responsible are developed and maintained so that they are compatible with legacy, current and future web browsers used by:

- PCs;
- Macs; and
- Mobile devices including, but not limited to, mobile phones, tablets and netbooks.

Z 14.1.27	Mandatory

The Service Provider shall ensure that the web pages for which it is responsible adhere to the latest guidelines as set out in the TfL Online Toolkit published on the TfL Website and updated from time to time.

15. EXIT PLANNING

This section covers those requirements relating to the Exit Plan. Additional requirements regarding the Service Provider's Exit Strategy, Exit Plan and Service Transfer Plan are contained within Schedule 16: Exit Plan.

15.1 Exit Planning

Z 15.1.1	Mandatory
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The Service Provider shall produce the Exit Plan and Service Transfer Plan for the approval of TfL in accordance with Schedule 3: Milestones and Deliverables and Schedule 16: Exit Plan.

16. ACCOUNT AGGREGATOR

This section sets outs requirements for the Service Sytem(s) to provide to TfL, billing, acconting and transaction information for each Customer, for the purposes of facilitating a single TfL Customer view of all subscribed services. The information will be used by TfL to provide Master Account services.

16.1 Account Aggregator

Z 16.1.1	Mandatory
Not used.	
Z 16.1.2	Mandatory
Not used.	
Z 16.1.3	Mandatory
Not used.	
	1
Z 16.1.4	Mandatory
Not used.	
Z 16.1.5	Mandatory
Not used.	
Z 16.1.6	Mandatory
Not used.	