

## UNITY SERVICE SCHEDULE

### Liquid Telecom Offices

Mauritius (Head Office) • Botswana • DRC • Kenya • Lesotho • Rwanda • South Africa • Tanzania • Uganda • Zambia • UAE • UK

Liquid Telecommunications South Africa (Pty) Ltd. Registered Address: 401 Old Pretoria Main Road, Halfway House, Midrand 1685. Company Reg. No. 2004/004619/07.

## 1. APPLICABILITY

This Service Schedule is applicable only to the Customer Order Form (COF) for the purchase of Unity Services which has been signed by the Customer and Liquid Telecom.

This Service Schedule replaces any prior service schedules or service level agreements between Liquid Telecom and the Customer relating to the subject matter hereof, notwithstanding anything in Liquid Telecom's inquiry, specification, acceptance, order or other documentation or discussion to the contrary.

## 2. DEFINITIONS

2.1 Terms used herein but not otherwise defined shall have the meanings ascribed to them in the Agreement.

2.2 For the purposes of this Schedule, the following expressions shall have the meanings given to them hereunder:

2.2.1 "**Agreement**" means the Master Services Agreement ("MSA") signed by Liquid Telecom and the Customer in respect of the Services, and in the absence of such signed MSA, then the MSA referred to in the COF;

2.2.2 "**Border Gateway Protocol**" or "**BGP**" means a routing protocol used to transfer data and information between different host gateways and the Internet or Autonomous Systems (AS's);

2.2.3 "**Business Day**" means any day other than Saturday, Sunday or a day which is a public holiday in the country where the Service is provided;

2.2.4 "**Business Hours**" means any hour from 8am to 5pm on a Business Day;

2.2.5 "**Contract Term**" means the duration period of the Customer contract for the Service;

2.2.6 "**CSRS**" means Customer Site Requirements Specification, which is a document that specifies the requirements that Liquid Telecom has to deliver in relation to the requested Service at a Site;

2.2.7 "**Customer**" shall have the meaning ascribed thereto in the COF;

2.2.8 "**Customer Order Form**" or "**COF**" (sometimes referred to as service order form, service order or order form) means the form through which the Customer purchases a Liquid Telecom Service setting out the details such as quantities and fees;

2.2.9 "**Customer Premises Equipment**" or "**CPE**" means the equipment located at the Customer's Site, used to terminate the Service whether provided by Customer or Liquid Telecom;

2.2.10 "**Customer Site**" means the site owned or leased by the Customer or any other site used to provide the Service, which is directly connected to a PoP managed by Liquid Telecom, as set out in the COF;

2.2.11 "**Ethernet**" means interface or technology conforming to The Institute of Electrical and Electronics Engineers Standards Association (IEEE 802.3- 2002, 802.1Q and 802.1D standards), as amended from time-to-time;

2.2.12 "**Gbps**" means gigabits per second;

- 2.2.13 **"Interface"** means physical interface format in which the Customer and/or Liquid Telecom shall deliver the signal to the Network, which in this instance is Ethernet;
- 2.2.14 **"Internet Protocol"** or **"IP"** means the method or protocol by which data is sent from one computer to another over the Internet;
- 2.2.15 **"Layer 3"** means the third layer of the seven-layer OSI model of computer networking;
- 2.2.16 **"Local Loop"** or **"Unity"** means 'last mile' access link that connects the Customer Site to the nearest Liquid Telecom PoP;
- 2.2.17 **"Mbps"** means megabits per second;
- 2.2.18 **"Monthly Recurring Charge"** or **"MRC"** shall mean the monthly recurring charges for the Service as set out in the Customer Order Form or COF;
- 2.2.19 **"Network"** means Liquid Telecom's telecommunications network;
- 2.2.20 **"Non-Recurring Charge"** or **"NRC"** shall mean the one-time non-recurring charges to be made by Liquid Telecom for installing, commissioning and provisioning of the Service as set out in the Customer Order Form or COF;
- 2.2.21 **"OpCo"** means Liquid Telecom Operating Company;
- 2.2.22 **"Partner"** means a network service provider contracted by Liquid Telecom to deliver network services outside Liquid Telecom's footprint;
- 2.2.23 **"PE"** or **"Access Provider Edge"** means the logical or physical element representing the point at which Service is available and specific Service Level targets are committed and measured;
- 2.2.24 **"Planned Maintenance"** means any preventative, routine or scheduled maintenance which is performed with regards to the Service, the Network, the Partner's network or any component thereof, reasonably believed to be necessary in order to increase capacity or to prevent or remedy a defect which may affect the Customer's use of or access to the Services;
- 2.2.25 **"PoP"** in the context of this Service Schedule, means Point of Presence specifically relating to the Liquid Telecom Network;
- 2.2.26 **"Service Availability"** means the availability of the Service as a percentage in minutes for a Customer Site in a given month;
- 2.2.27 **"Service Downtime"** means the amount of time the Service was unavailable;
- 2.2.28 **"Service Handover Form"** or **"SHF"** means the form containing essential information required to configure and use the Service as well as the Service Identity Number (Service ID);
- 2.2.29 **"Service ID"** means the unique Service Identity Number allocated by Liquid Telecom;
- 2.2.30 **"Service Multiplexing"** means the association of multiple Ethernet Virtual Circuits (EVCs) to a single User Network Interface (UNI) as defined by Metro Ethernet Forum (MEF);
- 2.2.31 **"Service Outage"** means an instance when the Customer is unable to switch or route traffic to one or more Customer Sites via the Network, which results in Service Downtime;
- 2.2.32 **"Third-Party"** means any person or company that provides services on behalf of the Customer;

- 2.2.33 **“Trouble Ticket”** means the official method used by the Customer to advise Liquid Telecom of a potential Service Outage;
- 2.2.34 **“Unity Services”** means the Unity Services set out in this Schedule;
- 2.2.35 **“VLAN”** means Virtual Local Area Network.

### **3. SERVICE DESCRIPTION**

- 3.1 Unity is Liquid Telecom's converged access Service that allows for multiple IP Services to be provisioned on the same Local Loop or last mile access;
- 3.2 Unity is delivered from the Customer premises to the nearest Liquid Telecom PoP;
- 3.3 Unity is delivered with a Liquid Telecom CPE. In a case where the CPE is Customer-owned, the CPE must comply with Liquid Telecom's Unity CPE specifications to support Unity, which Liquid Telecom will provide at the solution scoping stage;
- 3.4 Unity is delivered with a minimum of one Liquid Telecom IP Service.

### **4. PROVISIONING PARAMETERS**

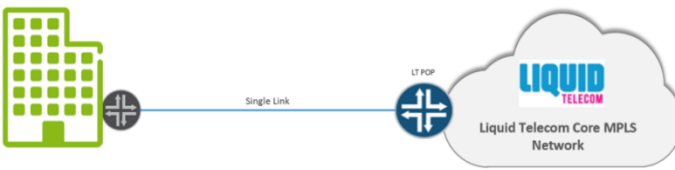
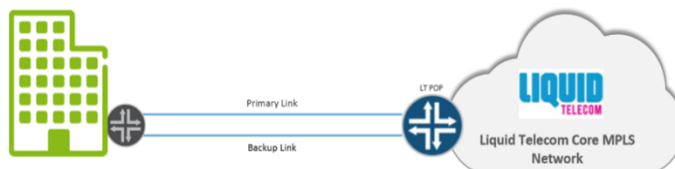
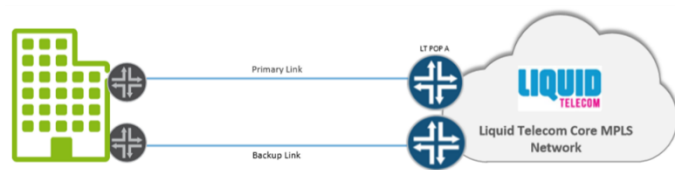
- 4.1 The Unity allows multiple Services to be delivered on a single Local Loop or last mile access;
- 4.2 A separate VLAN is created per Service instance;
- 4.3 Supports 802.1Q VLAN tagging;
- 4.4 The CPE device:
  - 4.4.1 acts as a service demarcation point, allowing Liquid Telecom the ability to test and monitor Services up to the handoff point to the Customer;
  - 4.4.2 allows for the ability of any wireline or wireless connection between the Customer Site and the PE to be monitored and managed;
  - 4.4.3 allows for VLAN based Service Multiplexing to be configured;
  - 4.4.4 performs routing to ensure traffic is routed correctly in the case where multiple Layer 3 based Services are activated on the same last mile circuit, and
  - 4.4.5 must be capable of 802.1q tagging and border gateway protocol “BGP”.]
- 4.5 Local Loop includes wireline and wireless mediums. Hand off to the Customer shall be on an Ethernet Interface. Supported Interface options:
  - 4.5.1 Gigabit Ethernet (1Gbps);
  - 4.5.2 10 Gigabit Ethernet (10Gbps), subject to feasibility or
  - 4.5.3 100 Gigabit Ethernet (100Gbps), subject to feasibility.

### **5. UNITY SERVICE ARCHITECTURE TYPES**

- 5.1 The Unity Service supports three (3) architecture types: Premium, Enhanced or Standard;
- 5.1.1 Standard architecture type supports a single Local Loop connecting to a single PoP and CPE;

- 5.1.2 Enhanced architecture type supports dual Local Loop connecting to a single or Dual PoP and single CPE;
- 5.1.3 Premium architecture type supports dual Local Loop connecting to dual PoPs and dual CPE.

### Unity Architecture Types

Architecture	Description	Diagram
Standard	Single Local Loop connecting to a single PoP and CPE	
Enhanced	Dual Local Loop connecting to a single or dual PoP and single CPE	
Premium	Dual Local Loop connecting to dual PoPs and dual CPEs	

## 5.2 CPE

6.1.1 Where Liquid Telecom deploys CPE at the Customer Site based on the Customer requirements, (and the CPE type may vary per country) it shall provide CPE Maintenance.

## 5.3 CPE Maintenance

5.3.1 Liquid Telecom uses its Partners to provide CPE maintenance for off-net Customer Sites. Therefore, Liquid Telecom is subject to the levels of Partners' CPE uptime maintenance. If the Customer has a specific maintenance requirement, this must be specified in the customer specific solution document.

## 6. EXCHANGE FLUCTUATIONS

6.1 Liquid may vary Charges where Liquid incurs costs for any component or element of the Unity Service in a foreign currency, to reflect exchange rate fluctuations used to calculate the relevant Charges. These shall be calculated using the US Dollar spot exchange rate on the date of invoice of the relevant Service;

6.2 Liquid Telecom shall be entitled to adjust the MRC in question in the event that the variance, when the exchange rate referred to in 6.1 above is compared against the exchange rate on the morning of the relevant invoice generation date, is greater than 5% (five percent).

6.3 Where Liquid prices in US Dollars but the Customer pays in local currency invoices shall be converted into local currency at the US Dollar spot rate applicable on date of payment.

## **7. EXCLUSIONS**

7.1 The Customer shall not be entitled to:

7.1.1 Exercise any right of termination of the Service for anything which is caused or is associated with, in whole or in part, the exclusions set out in clauses 7.1.2 to 7.1.6 below:

7.1.2 Construction of additional facilities which are required in order to connect the Customer Site to the Network and/or the Local Loops;

7.1.3 Anything which is associated with or caused by Planned Maintenance events or cable cuts on the Network which are not otherwise due to the fault or negligence of Liquid Telecom;

7.1.4 Anything attributable to circuits comprising a part of the Service that are provided by a Liquid Telecom Partner, including Local Loops and local access facilities procured by the Customer;

7.1.5 Anything which is due to the Customer's use of bandwidth in excess of the committed bandwidth.

7.1.6 Service Downtime shall not include any unavailability resulting from:

7.1.6.1 scheduled downtime for Planned Maintenance;

7.1.6.2 interruptions or delays resulting from any Third-Party services procured by the Customer;

7.1.6.3 any supplies, power, equipment or local access facilities provided by the Customer or their suppliers, which is required in the provision of the Services;

7.1.6.4 any incident that affects the availability during any period when the Customer elects not to allow Planned Maintenance on the Service at the request of Liquid Telecom, acting reasonably;

7.1.6.5 the Customer's applications, equipment, or facilities;

7.1.6.6 Interruptions due to the failure of equipment provided by the Customer or other Third-Party on behalf of the Customer;

7.1.6.7 acts or omissions of the Customer, its agents, contractors or vendors (including the provision of inaccurate information knowingly or unknowingly), or user of the Service or Customer-caused outages or disruptions;

7.1.6.8 suspensions due to non-payment of any amount payable by the Customer to Liquid Telecom under this Schedule; or

7.1.6.9 force majeure event, as more fully described in the Agreement.

## 8. FAULT REPORTING

- 8.1 The Customer shall raise an outage trouble ticket with Liquid Telecom in the event of any Service Outage detected at the Customer Site;
- 8.2 The logging of calls, queries and/or complaints shall be directed to the Enterprise Service Desk using any of the following:

Telephone No.	E-Mail
Invoicing OpCo to add their details	Invoicing OpCo to add their details

- 8.3 Should a call or e-mail logged in accordance with clause 8.2 not be handled to the reasonable satisfaction of the Customer, the Customer shall be entitled to direct their concerns to Invoicing OpCo to add their details, which is managed during Business Hours;
- 8.4 In addition, the Customer shall be entitled to approach an assigned Liquid Telecom account manager if the feedback or progress on the outage resolution is not satisfactory;
- 8.5 Liquid Telecom shall use reasonable endeavors to provide a root cause analysis report regarding the cause of the Service Downtime and the preventive measures put in place in an effort to mitigate a reoccurrence thereof. Liquid Telecom shall use reasonable endeavors to perform the following actions and shall provide the reports (as applicable) detailed in the following table:

FAULT MANAGEMENT AND REPORTING	TIME TARGETS
Assignment of Customer Fault Reporting Trouble Ticket	Trouble Ticket Within 15 minutes of the notification of fault
Root Cause Analysis Report	On Request < Ten (10) business days
Regular problem status update	Dependent on Severity and service levels

## 9. SERVICE PROVISIONING

- 9.1 The Customer shall be responsible for making available, at no cost to Liquid Telecom, accommodation, power, space, including mast space, ducting and other facilities as may be more fully set out in the CSRS document for each Customer Site for the Contract Term of the applicable COF, for the purposes of housing Liquid Telecom's transmission equipment required for the provision of the Services to the Customer.

- 9.2 The Customer shall be responsible for obtaining all Third-Party approvals and consents necessary for installation and use of the Services; The Customer shall ensure that the Customer Sites at either end of a Service for which the request has been made are accessible at any reasonable time as may be required by Liquid Telecom to fulfil its obligations in terms hereof;
- 9.3 Within seventy-two (72) hours of completing the installation for the applicable Service, Liquid Telecom will provide a Service Handover Form containing essential information required to configure and use the Service as well as the Service Identity Number (Service ID). The Service ID should be used in all interactions with Liquid Telecom regarding the Service;
- 9.4 The Customer shall then conduct acceptance tests on the newly provided Service for a period of three (3) Business Days following receipt of the Service Handover Form;
- 9.5 Should the Customer detect a fault on the Service during these acceptance tests, then the Customer shall notify Liquid Telecom's project manager of such fault in writing immediately. Liquid Telecom shall conduct further tests of the Service, and a revised Service Handover Form shall be provided to the Customer;
- 9.6 The Service shall be deemed to have been delivered by Liquid Telecom and accepted by the Customer if no objection has been raised by the Customer within three (3) Business Days following receipt of the SHF;
- 9.7 The Customer accepts responsibility for the Liquid Telecom equipment in their environment and further agrees:
- 9.7.1 not to remove or allow the Liquid Telecom equipment to be removed from the Customer Site without Liquid Telecom's consent
  - 9.7.2 to keep the Liquid Telecom equipment in good condition and complete; not to allow the Liquid Telecom equipment to be encumbered by operation of law or otherwise;
  - 9.7.3 to allow Liquid Telecom to inspect the Liquid Telecom equipment at reasonable times; to accept all risk in the Liquid Telecom equipment, taking reasonable steps to protect the Liquid Telecom equipment from loss and/or damage; and
  - 9.7.4 not to tamper with, modify or alter any existing setting on the equipment at any time without obtaining prior written consent from Liquid Telecom. In the event that as a result of unauthorised tampering with or modification of the settings to any equipment by the Customer, Liquid Telecom shall be entitled to charge the Customer for rectifying any resulting problems experienced with



the service on an hourly basis at the current charge out rate applied by Liquid Telecom for its engineers;

- 9.7.5 to return such Liquid Telecom equipment in its possession in working order, fair wear and tear excepted, within 7 (seven) working days. In the event that the removal of the equipment is either: a) Impossible; b) Customer has delayed the removal of the equipment for no justifiable reason for a period of 30 (thirty) days from date of termination; or c) the equipment is defective and beyond repair; the Customer shall be required to pay Liquid Telecom for a replacement equipment at book value within 10 (ten) days of receipt of an invoice for such costs from Liquid Telecom on the termination of the Contract Term of the applicable Services;
- 9.8 Furthermore, Liquid Telecom excludes itself from all losses or damages of whatsoever nature associated to an obstruction to the Line of Sight. Except where the obstruction is not within the Customer's control, the Customer may cancel a service that has become obstructed on 30 (thirty) days' notice without penalty.

## 10. CUSTOMER REQUESTED CHANGES AND SCHEDULED MAINTENANCE

- 10.1 Liquid Telecom shall use reasonable endeavors to perform any agreed change as per agreed specifications required for the Customer Site as per the below specified target timelines. The Customer must raise a change request stating the reason for the change, the type of change (Critical/Normal as defined by the Customer) and the impact on its Customer Sites. The change request shall follow the normal change management process as communicated from Liquid Telecom to the Customer from time to time and the below commitments are applicable only for Class C type changes (as defined in the following table) excluding any impact analysis:

LEVEL OF CHANGE	DESCRIPTION OF CHANGES REQUIRED
Class A	<ul style="list-style-type: none"> <li>• New installation of equipment</li> <li>• New link installation or shifting of circuit to new Customer Site.</li> <li>• Hardware upgrade in existing equipment</li> <li>• Link addition or termination to existing Customer Site.</li> </ul>
Class B	<ul style="list-style-type: none"> <li>• Shifting of physical termination point of existing circuit and does not require new equipment or new circuit installation.</li> <li>• Bandwidth soft up-gradation/down-gradation.</li> </ul>
Class C	<ul style="list-style-type: none"> <li>• Changes that are not specified in Class A and Class B.</li> </ul>

- 10.2 The Customer hereby understands and agrees that any change requests mentioned above in Class A and Class B are Service affecting in nature. Hence, the Customer understands and agrees that the Service can be unavailable for a minimum period of two (2) hours during the implementation of any such change requests. The time and date of the Service Downtime shall be discussed between

the Parties. In any case, the Service Level targets of the applicable IP service shall not be applicable during any such change request implementation and as such, Liquid Telecom cannot be held responsible for any damages or losses which may occur during such implementation time;

- 10.3 Planned Maintenance which falls outside the scheduled maintenance window will be arranged with the Customer at least 3 (three) to 5 (five) before the Planned Maintenance commences;
- 10.4 At no time shall Planned Maintenance events which may cause a Service Outage be performed simultaneously on two (2) diverse circuit paths that carry the same Customer Service;
- 10.5 Liquid Telecom is not responsible for any breach of rights which may be related to any Customer transmitted or received content that has been carried on the Liquid Telecom Network;
- 10.6 From time to time Liquid Telecom will schedule preventative and/or technology modification maintenance for the Service ("Scheduled Maintenance") which in certain cases may lead to non-availability of the Service. Wherever possible, and not less than 10 (ten) days prior to such scheduled maintenance taking place), the Customer will be given advance notice (in the form of electronic mail to those technical contacts registered with Liquid Telecom in respect of any Scheduled Maintenance;
- 10.7 Scheduled Maintenance may be attributable to, inter alia:
  - 10.7.1 Preventative maintenance;
  - 10.7.2 Systems moves or reconfigurations;
  - 10.7.3 Systems testing and new systems/enhancements;
  - 10.7.4 Alteration, modification, upgrading or updating Liquid Telecom's network infrastructure, any technology, hardware or software and/or;
  - 10.7.5 Implementations of new systems or enhancements.
- 10.8 In additions to Scheduled Maintenance, Liquid Telecom may from time to time be required to conduct emergency maintenance on an urgent basis. Emergency maintenance is maintenance which must take place on Liquid Telecom's network or hosting infrastructure at a moment's notice, failing which extensive Network outages or similarly disastrous consequences may follow. In these instances, Liquid Telecom will give as much notice as is reasonable via electronic mail to the Customer's registered technical contacts in respect of such maintenance; and shall endeavor to undertake maintenance works in such a manner and at such times so as to least inconvenience the Customer's day-to-day business.

## **11. CONTENT REGULATORY COMPLIANCE**

- 11.1 The Customer hereby agrees that the relevant permissions, approvals, licenses and/or related consents that may be required by the relevant government authority of the source and/or destination country/ies shall be obtained, as applicable, as per the local laws in such country and a copy of such permissions, approvals, licenses and/or related consents shall be available for inspection by Liquid Telecom prior to the commissioning of the Service;
- 11.2 In the event that the Customer is sourcing content from a Third-Party in relation to the Service, the Customer shall be responsible for providing the permissions, approvals, licenses and/or related consents of such Third-Party. The Customer further indemnifies Liquid Telecom from any costs, damages and/or penalties caused due to any non-compliance with this provision;
- 11.3 The Customer authorizes Liquid Telecom to monitor the Service at Liquid Telecom's Network Operating Centre facilities.

## **12. MARKETING**

- 12.1 Customer agrees that Liquid Telecom may use Customer's company name, logo and testimonial, if such testimonial is provided, in Liquid Telecom's promotional material and communications including, but not limited to, proposals, presentations, websites and corporate brochure;
- 12.2 Customer agrees that Liquid Telecom may use Customer as a reference Customer for potential Customers.

## **13. SERVICE TERMINATIONS – EARLY TERMINATION COSTS**

- 13.1 Where the Agreement does not specify any early termination fees, the termination fee of the relevant Service shall be calculated at the termination date and shall be equal to 100% of the MRC for the remainder of the Contract Term.