WHOLESALE REFERENCE OFFER*

FIBRUS WHOLESALE ACCESS SLA SPECIFICATION

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Fibrus Wholesale Service Level Agreement (SLA) Specification

Version Control

Version	Date	Description	Author
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1. Introduction

This is the Service Level Agreement (SLA) Specification for Fibrus Ethernet Wholesale products.

This handbook is designed for use by Retail Service Providers (RSPs) who are Wholesale customers of Fibrus. For information on how to become a Wholesale customer with Fibrus please see our guide *How to Become a Wholesale Customer* available at [e.g. FibrusWholesale.com]

This document should be read in conjunction with the Fibrus' current Wholesale Price List and the Fibrus Wholesale Access (Ethernet) Product Specification and is available on the Fibrus website at: [e.g. FibrusWholesale.com]

2. Scope

This document applies to wholesale Retail Service Providers who have ordered the following active Ethernet Wholesale Access services over the Fibrus Network:

Wholesale Residential Full Fibre Broadband (RFFx)

Wholesale Business Full Fibre broadband (BFFx)

This document describes the maintenance and support services with applicable Service Levels (SLA) for:

Fibrus Standard (FSLAS)

Fibrus Plus (FSLAP)

Fibrus Gold (FSLAG)

This document is relevant to the wholesale access services provided by Fibrus to end-users and is not intended to apply to the RSPs own services offered to the RSPs end-users.

3. Fibrus Maintenance and Support Services

Network

Fibrus network is monitored across our backhaul and access network. Network availability and performance at the network to network interface (NNI) targets are:

NNI	Target
Network Availability	99.95%
Packet Loss	<0.1%

Network metrics do not include any failure attributable to:

- Scheduled network maintenance (Planned outages)
- Force Majeure events

Service credits are applied on a per-incident basis specific to the contracted service level. The above metrics are therefore provided for network planning and performance review purposes only

Target Response Times

Response time is measured from the start of the service clock (see Communication and Service Restoration Clock below) until the Engineer has completed the initial diagnosis and commenced the repair process, including attending on-site if required.

Response will be based on the Service Level in force for the RSP based on the Services affected and prioritised according to the severity of the problem and the overall number of end-users affected (see Incident Severity below).

Target restoration times

Target Restoration Times define the time to restoration of service measured from the start of the service clock.

Once the fault has been identified and the site set up, if the fault is due to a fibre break, the size of Fibre Core affected will determine the likely restoration time. The table below details typical repair times, following testing, isolation, location and identification of the faulty component, which will vary from incident to incident:

Fibre Repair Times

| OF Cable Size		Set up & joint Preparation	Splicing Activity	Total (hours)
12 Core		0.75	0.5	1.25
24 Core		1	1	2
48 Core		1	2	3
72 Core		1	3	4
96 Core		2	4	6
144 Core		2	6	8

Fibrus Wholesale RSP Service Levels:

The following table sets out the Service Levels which are available to RSPs for wholesale Services. They will be measured against recorded Outages on a monthly basis according to the terms of this Service Level Agreement. For applicable Service Credits, see section below.

Service Level	Code	Wholesale SLA	Target response Time	Target Restoration Time
Standard	FSLAS	Fibrus Standard	1 working day	2 Working days
Plus	FSLAP	Fibrus Plus	8 working hours	1 working day
Gold	FSLAG	Fibrus Gold	4 hours	24 hours

Incidents

Incidents are classified by incident type/severity in 3 levels.
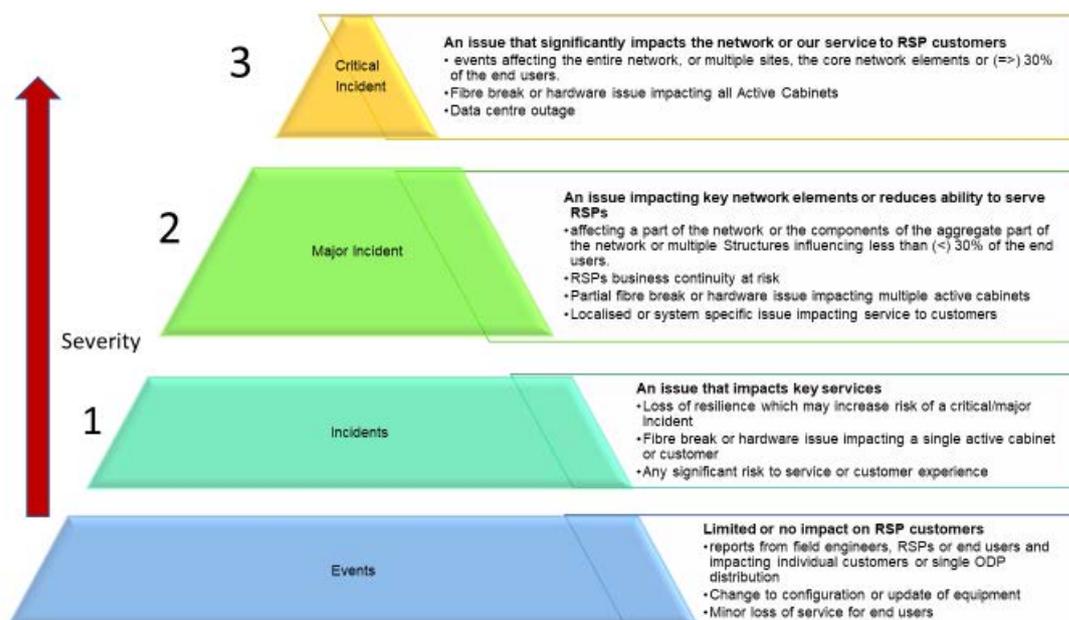
Major Incident Management Pyramid
Adapted from ITU-T E.409

Critical incidents are defined as events affecting the entire network, or multiple sites, the core network elements or (=>) 30% of the end users.

Major Incident are defined as those affecting a part of the network or the components of the aggregate part of the network or multiple Structures influencing less than (<) 30% of the end users.

Incidents are defined as those affecting single Structures, and/or components at the edge of the network that do not interrupt service or performance.

Events are business as usual reports from field engineers, RSPs or end users and impacting individual customers or single ODP distribution

Incident Response and Recovery Plans in place for our key network components and operating systems.

Fibrus will initially determine and agree the incident severity with the RSP customer. Severity categorisation will be adjusted during restoration. For example, if an incident of severity 1 is temporarily repaired, then the incident may be reduced to severity 2.

When Fibrus declare the incident is fixed, or in the absence of a response from the RSP for information, incident status is set to resolved.

4. Communications

The primary method of reporting incidents to Fibrus should be by email to wholesale.support@Fibrus.com followed by a telephone call to the Fibrus Wholesale support desk.

Fibrus operates a 24/7/365 support service via a dedicated telephone support service for all RSPs who have ordered Services with a Gold Service Level. 24 hour Support for Gold customers are:

Office hours: 0321 12345 (08:00 – 20:00 Monday-Friday)
Out of hours: 0123 54321 (20:00 – 08:00 Mon-Fri and Weekend)

For all reports RSPs should provide

- Wholesale partner name and contact name
- Contact telephone number
- Site address where the fault is
- Service or Account reference number (Sxxxxxx Number)
- Description of the problem
- the Service Level ordered for their end-user
- Volume of end-users impacted
- What happened prior to the incident
- How the incident has been diagnosed

5. Responsibilities

RSPs are expected to undertake Level 1 and Level 2 diagnostic checks themselves and share the results provided via email.

Fibrus Responsibilities
- Escalated incident diagnosis, resolution and any necessary internal escalation
- Proactive monitoring of the active network and overall network performance
- Planned / Unplanned outage notification via email & ticketing
- Notification on status and availability of the network

RSP Responsibilities
- Notifying Fibrus of any changes to site and contact details

- Level 1 and Level 2 diagnostics and 'troubleshooting' (detailed below)

- Reporting incidents through email and ticketing portal

- Access to end-user sites for fault resolution

- Adherence to Fibrus Acceptable Use Policy

Call Out Charges

In the event of an Outage requiring an Engineer call out where no fault is found or the fault is not with the Fibrus network a call out charge will be added to the RSPs next monthly invoice. Call out charges are set out in the Wholesale Price List.

Diagnostics and Troubleshooting

Diagnostics/ Triage Level	Responsibility	Diagnostic or Troubleshooting activity, including:
Level 1	RSP	End-User wiring and equipment
		NTE status (lights)
		Connections to NTE
		Electrical connections in end-user premises
Level 2	RSP	Configurations inc. firewall and third party devices/NTE
		Connection type (wifi/hardwired)
		Devices connected (number, age, OS, and type)
		Ping to google via direct connected device
		Policy defined in firewall or end-user devices
		RSP or 3rd party router configuration
		Time and frequency of intermittent connection loss
Level 3	Fibrus	Fibre status
		NTE status
		IP
		Active cabinet status

		Ports and Pon status
		Vlan
		Power and equipment status

6. Service Clock

An Outage is notified to Fibrus following communication from the RSP in compliance with the requirements above.

The service clock starts when the Outage has been acknowledged by Fibrus Wholesale Service centre and severity level agreed and assigned. The initial diagnosis work has been completed and communications have been activated.

Fibrus will notify the RSP with regular e-mail updates on progress of service restoration and estimated restoration times. Updates are also posted on the website service status information.

For out of hours notification of outages the service clock is set at the start of the following working day.

The Service Clock stops when the Outage is closed or the RSP is informed of service restoration, whichever is sooner. Outage incidents may be left open, post service restoration, for monitoring purposes.

The service clock pauses when the Fibrus technical team has had to stop their diagnosis due to an outstanding response from the RSP. The clock restarts when the requested information has been provided.

Multiple Short Service Failures: If the same circuit experiences multiple failures within the same month, this a single Outage for the purposes of service restoration. The service clock shall be restarted from the point the subsequent failure has been diagnosed.

The Service Level for restoration will be considered to have been achieved where we provide a temporary fix to restore services within the relevant time with the probability of re-attending of hours to perform a permanent fix.

7. Planned Outages and Maintenance

The Supplier may need to tun off parts of the Network to undertake essential maintenance or upgrades to its equipment and software. There may also be a need to purposely undertake a system outage in an emergency situation. These network interruptions will normally be restricted to parts of the network and for short durations with interrupted service restored as soon as practicable.

The Supplier will normally inform the RSP 28 days in advance of a planned engineering outage. The RSP will be consulted on the best time to undertake the service interruption.

Emergency outages will be treated as MIM and communications plans followed accordingly.

For Planned outages the RSP will normally be informed 28 days in advance. Fibrus will provide information on the planned outage as follows:

- Reference number

- The planned work to be undertaken

- The location and premises impacted

- The planned start date and time.

- The planned end date and time.

- The services impacted

- Contact details for the manager responsible for the works

- Escalation contact details in the event of delayed restoration

Planned network maintenance shall normally be performed outside of normal business hours.

Planned network maintenance on the Fibrus Network is also published on our website at www.Fibrus.com/network-status

In exceptional circumstances emergency engineering work without prior notice may be required. In that event, Fibrus will notify RSPs as soon as practicable and will use reasonable endeavours to limit any resultant adverse effects on the RSPs end-user service.

Provision of Service (L2C)

Target Response Times
Response time is measured from the receipt of a valid RSP order.

Target Provision Times
Target provision times define the time to restoration of service measured from the start of the service clock.

Once a valid order has been received the Fibrus provisioning team will inform the RSP of the Customer Completion Date (CCD) which will be the nearest available slot to the CRD requested. The CCD will not be < 5 working days from order.

Fibrus Wholesale RSP Service Levels L2C:

The following table sets out the Service Levels which are available to RSPs for wholesale Services. They will be measured against recorded provision of service orders according to the terms of this Service Level Agreement. For applicable Service Credits, see relevant section below

Service Level	Code	Wholesale SLA	Target response Time	Target
Standard	L2C1	Order Acknowledged	1 hour	99%
Standard	L2C2	Order Confirmed	End of next Working day	99%
Standard	L2C3	Order completed	By CCD or 10 working days	95%
Standard	L2C3	Order completed	By CCD or 20 working days	100%

8. Excused Service Delays

In addition to any term of the contract between the RSP and Fibrus the Service Levels do not apply to the following situations:

Where factors outside of our reasonable control result in us being unable to gain access to our network to carry out a repair or provision activity, our target response times and target restoration times may be suspended until access can be achieved. Examples include (but are not limited to) being unable to:

> a) Close a road to access network in the carriageway

> b) Deploy Traffic Management required for health and safety reasons

> c) Gain access into a datacentre or secure area within a datacentre

> d) Gain access to a site requiring access permissions, or to the end customer site

> e) Travel to or access to a site due to extraordinary weather conditions

Or where service failure is due to:

- Performance of the public internet;
- The RSP's own network or equipment or any other network or equipment outside the Fibrus Network;
- The RSP is in breach of any part of its Contract with Fibrus or Fibrus suspends the Service or any part of it in accordance with its Contract;
- because of circumstances beyond its reasonable control, BT is unable to carry out any necessary work at, or gain access to the Site or the Communications Provider fails to agree an appointment date;
- Fibrus is unable to obtain any necessary permissions or consents required in connection with the performance of a particular service level;
- the failure is due to a Force Majeure event; o

- the failure is due to an inaccurate Order being submitted by the Communications Provider;
- the fault is not reported in accordance with the fault reporting requirements or an incomplete order is received

Service Levels do not apply to periods of planned maintenance where appropriate notice has been given.

Service Levels for restoration time will not apply if an incident is caused by a service failure from one of our commercial PIA or Backhaul providers which is outside of our reasonable control to manage.

9. Service Credits

If the response time or restoration time for an Outage exceeds the contracted Service Level the RSP will be entitled to claim a Service Credit for Outages according to the following schedule and the conditions set out below:

Service Failure Service credit

Service Failure T2R	Service Credit
>1% of Outages in any month fail to meet the Service Level for response time	10% of pro-rata monthly charge for the month in which the service failure occurred
>1% of Outages in any month fail to meet the Service Level for restoration time	10% of pro-rata monthly charge for the month in which the service failure occurred

Service Failure L2C	Service Credit

L2C Provision Order >20 working days beyond CCD	£4 per day for each end-user
Limited to 60 days maximum	

Service Credit claim conditions:

- The Outage was not an Excused Service Delay
- Total service credits per month are limited to 100% of the monthly charge calculated pro-rata for that month.
- The RSP must notify Fibrus in writing within 15 working days after the end of the month for which credit is requested.
- Service credits will be applied as a credit to the wholesale partner's account and, as such, will be deducted from the value of the next invoice. Fibrus shall not in any circumstances be obliged to pay any money or make any refund to an RSP.
- Service credits will not be granted if there is any amount owing by the wholesale partner to Fibrus and such amount is overdue.
- Any Service Credits which are applied have been calculated as, and are, a genuine pre-estimate of the loss likely to be suffered by the wholesale partner.