

ENHANCED SUPPORT

Service Terms

Words or phrases that start with a capital letter are defined in LINX's Membership Terms or in clause 7 (Glossary) of these Service Terms.

1. Introduction

- 1.1 **When These Terms Apply.** These Service Terms apply to LINX members who have purchased Enhanced Support from LINX for their Port Access service.
- 1.2 **How to Receive Enhanced Support.** To receive Enhanced Support, you must place a binding Service Order for Enhanced Support in accordance with your LINX Membership Agreement.

2. Scope of Enhanced Support

- 2.1 **Summary of Enhanced Support.** Members with Enhanced Support receive enhanced service level commitments from LINX to underpin their Port Access service. These service levels are set out in Annex 1 (*Service Levels*).
- 2.2 **Service Level Commitment.** If you have Enhanced Support, LINX will use all commercially reasonable efforts to meet or exceed the target service levels set out in Annex 1 (*Service Levels*).

3. Support Term and Renewals

- 3.1 **Initial Support Term.** Your Enhanced Support will continue for the Initial Support Term set out in your Service Order. If the Service Order does not specify an Initial Support Term, it will continue for one year from your Support Start Date.
- 3.2 **Automatic Renewals.** After the Initial Support Term, your Enhanced Support will automatically renew for successive periods (each a "**Renewal Period**"), unless otherwise agreed in your Service Order. The length of each Renewal Period shall be as set out in your Service Order or, if the Service Order does not specify the Renewal Period, one year. It will continue to renew until either you or LINX terminates it in accordance with clause 5.6 (*Ending Your Enhanced Support*) of these Service Terms.
- 3.3 **Support Start Date.** Your Enhanced Support will begin on the first day that follows, either:
 - 3.3.1 the date on which your Service Order for Enhanced Support becomes binding; or
 - 3.3.2 the date on which your Supported Access Ports are provisioned and ready for service (if this happens later).

4. Monitoring Performance

- 4.1 **Measurement Period.** LINX will measure its performance against each of the service levels during each complete calendar month.
- 4.2 **Method of Measurement and Reporting.** For each service level, LINX will measure and report on its performance as set out in Annex 1 (*Service Levels*).

5. Service Credits

- 5.1 **Payment of Service Credits.** If LINX fails to meet the target service levels, it will provide you with the relevant service credits (if any) set out in Annex 1 (*Service Levels*).
- 5.2 **How to Claim Service Credits.** To claim a service credit, you must submit a written request to LINX by email to support@linx.net.
- 5.3 **Time Limit for Claiming Service Credits.** You must claim each service credit within 12 months of the end of the month in which the relevant service level was not met. If not, the service credit will expire.
- 5.4 **Method of Paying Service Credits.** LINX will apply each service credit against your next invoice for your Monthly Service Fees. If no further invoices are due, LINX will apply the service credits against any outstanding invoices for your Monthly Service Fees.
- 5.5 **Service Credits Only Redeemable Against Fees.** Service credits are only redeemable against outstanding or future fees for Monthly Service Fees. They have no cash value, and if no further fees are due for those ports, no service credits will apply.
- 5.6 **Cap on Service Credits.** The total value of the service credits you may accrue in any calendar month will be capped at 100% of the Monthly Service Fees. This cap will apply even if you accrue multiple service credits that would otherwise add up to more than 100% of the fees payable for that month.
- 5.7 **Timing of calculation of Service Credits.** The value of Service Credits, and the value of the cap on Service Credits, shall be calculated based on the Monthly Service Fees that apply for the month in which the Service Credit is earned.
- 5.8 **Relief from Service Credits.** LINX may withhold service credits, and no service credits will accrue, during any period where:
 - 5.8.1 you owe any sums to LINX that have been outstanding for more than 30 days after the due date for payment; or
 - 5.8.2 you are in breach of any other obligations in your Membership Agreement or any Service Orders.
- 5.9 **Status of Service Credits.** Service credits will be your sole and exclusive remedy for any failure to achieve the service levels in any month.
- 5.10 **Port Channels and Link Aggregation Groups.** If you use multiple Access Ports as part of a Port Channel or Link Aggregation Group (LAG), these will be treated as a single group so that, if any one of the Access Ports attracts a service credit, the service credit will be calculated as a percentage of the total Monthly Service Fees payable for all the Access Ports in the relevant Port Channel or LAG.

6. Ending Your Enhanced Support

- 6.1 **Cancellation with Notice.** You may cancel your Enhanced Support by using the LINX Member Portal with immediate effect, or by giving LINX written notice at any time. You will nonetheless remain liable for fees for Enhanced Support until the end of the current term (Initial Support Term or Current Renewal Period, as applicable to your Service Order).
- 6.2 **Cancellation of the Supported Service.** Your Enhanced Support will end automatically if the Supported Access Ports are cancelled. If this happens part-way through a month, LINX will not be required to measure its performance and no service credits will accrue during that partmonth.

6.3 **Other Rights to Terminate.** Each party's rights to terminate Service Orders, as set out in your LINX Membership Agreement, will also apply to your Service Order for Enhanced Support.

7. Glossary

Current Renewal Period	means the Renewal Period from the most recent renewal date as described in clause 3.2 until the next renewal date.
Initial Support Term	means the initial term of your Service Order for Enhanced Support before it renews, as described in clause 3.1 (<i>Initial Support Term</i>) of these Service Terms.
Monthly Service Fee	means the Peering Bandwidth Service fees payable for your Supported Access Ports for the month in which the relevant target service level was not met.
Permitted Outage	means any period where your Support Service is faulty or unavailable because of: (a) Planned Maintenance; (b) a Force Majeure Event; (c) equipment not supported by LINX; (d) use of your Support Service that does not comply with the relevant Service Order or your Membership Agreement.
Planned Maintenance	means pre-planned or scheduled maintenance related to a LINX service that is carried out by (or for) LINX with advance notice in accordance with the relevant Service Terms.
Renewal Period	has the meaning described in clause 3.2.
Support Start Date	means the date on which your Enhanced Support will start, as described in clause 3.3 (Support Start Date) of these Service Terms.
Supported Access Ports	means the Access Ports for which you have purchased Enhanced Support, as set out in your Service Order for Enhanced Support.

ANNEX 1 SERVICE LEVELS

Part 1: Exchange Availability

1. Summary

- 1.1 The purpose of the Availability service level is to provide additional assurances regarding the Availability of LINX IXPs for members with Enhanced Support.
- 1.2 LINX continually monitors the Availability of each LINX IXP using a service monitoring tool it has developed that issues regular test queries over the network. This is described in more detail below.

2. Service Levels and Service Credits

2.1 LINX will use all commercially reasonable efforts to achieve the following Availability target:

Service Level	Availability Percentage	Service Credit
Target Level	99.99% or higher	None
Service Credit Level 1	99.86% ≤ x < 99.99%	20% of Monthly Service Fee for Access Ports on the same IXP
Service Credit Level 2	99.72% ≤ x < 99.86%	50% of Monthly Service Fee for Access Ports on the same IXP
Service Credit Level 3	less than 99.72%	100% of Monthly Service Fee for Access Ports on the same IXP

3. Calculation of Availability

- 3.1 Availability is calculated for each LINX IXP separately.
- 3.2 Availability will be calculated as the percentage of the total number of test queries sent in each calendar month that are successfully received and answered. This will be calculated using the following formula:

Availability Percentage = (PS - PD)/ PS*100

Where:

Packets Sent (PS) is the total number of packets sent by A-End (the switch initiating the flow) as part of Switch Reachability Tests during the relevant month.

Packets Received (PR) is the total number of packets received and answered by B-End (the switch receiving and responding to the flows) as part of Switch Reachability Tests during the relevant month.

Packets Dropped (PD) is the number of Packets Sent minus the number of Packets Received during the relevant month, less any packets that were not received or answered because of a Permitted Outage.

3.3 LINX will exclude from the calculation of Packets Dropped any Switch Reachability Tests for where the results recorded by the monitoring system do not accurately represent the network state, for example due to a fault in the monitoring system or a corruption of monitoring records data.

4. Measuring Availability

- 4.1 LINX operates a service monitoring tool that tests every path between each Member-facing edge device in the LINX network. This is achieved by connecting a network probe to every edge device, which then tests connectivity to every other network probe with UDP queries and responses. Random UDP sources are employed to distribute test traffic evenly across all network paths. Hashing algorithms are used for load balancing within the network, ensuring that all paths are tested for availability and any frame loss is promptly detected.
- 4.2 LINX maintains a count of all sent flows for each five minute period. Any dropped flows are logged and investigated by LINX.

5. Reporting Performance

- 5.1 Service Availability reports are available in the LINX Member Portal.
- 5.2 Service Availability reports are made on a per-IXP basis.

6. Glossary

Availability	means the extent to which each Supported Access Port is deemed to be available for use during each complete calendar month, as calculated in paragraph 4 (Calculation of Availability) above.
Switch Reachability Tests	means a test performed by LINX monitoring systems in which the monitoring system causes monitored devices to send test packets and to monitor their receipt by the destination device.
UDP	User Datagram Protocol

Part 2: Fault Resolution

1. Summary

- 1.1 The Fault Resolution service level sets out LINX's commitment to resolve faults with the your Supported Equipment if one of your Supported Access Ports is Down.
- 1.2 This Service Level applies to the following Supported Equipment:
 - a. the Supported Access Ports identified in your Service Order for Enhanced Support;
 - b. the line cards on the access switches in which the Supported Access Ports reside;
 - c. any aspects of the access switches that enable the Supported Access Ports to make normal use of LINX's Exchange fabric;
 - d. for each of those access switches, the cable from the Demarcation Point to the Supported Access Port on the relevant switch; and
 - e. cross-connects managed by LINX.
- 1.3 LINX will not be obliged to resolve faults that are not caused by the Supported Equipment.

2. Reporting and Investigating Faults

- 2.1 To report that a Supported Access Port is Down, you must raise a support request with LINX by sending an email to support@linx.net.
- 2.2 LINX will confirm receipt of your support request by updating the status of your support ticket within 1 hour of receiving the request.
- 2.3 Alternatively, if LINX identifies that one of your Supported Access Ports is Down, it will raise a support ticket.
- 2.4 Once a support ticket has been logged, LINX will promptly investigate the cause of the relevant fault.

3. Service Levels and Service Credits

3.1 LINX will resolve faults with the Supported Equipment in accordance with the following target times:

Service Level	Time to Resolve	Service Credit
Target Level	Less than 4 hours	None
Service Credit Level 1	4 hours ≥ fault resolution time < 5 hours	20% of Monthly Service Fee
Service Credit Level 2	5 hours ≥ fault resolution time < 6 hours	50% of Monthly Service Fee
Service Credit Level 3	6 hours or more	100% of Monthly Service Fee

4. Calculating the Time to Resolve

- 4.1 The Time to Resolve will be measured from the Fault Confirmation Time until the time at which the fault is resolved (as described in paragraph 4.3), but excluding any periods covered by paragraph 4.4 below.
- 4.2 LINX will log on your support ticket:
 - a. the Fault Confirmation Time; and
 - b. the time at which the fault was resolved.
- 4.3 Each fault will be deemed to have been resolved when either of the following happen (whichever happens first):
 - a. the relevant Access Port is no longer Down; or
 - b. a LINX engineer confirms that the relevant fault is not caused by the Supported Equipment.
- 4.4 The Time to Resolve will be deemed to exclude:
 - any period where LINX is unable to continue resolving the fault because it is dependent on you (or any third parties acting on your behalf) to respond to LINX or complete any other actions reasonably requested by LINX;
 - b. any delay caused by you failing to provide up-to-date contact information; and
 - c. any period where the relevant Access Port is Down due to a Permitted Outage.

5. Glossary

Demarcation Point	means a network connection point within the data centre where your Supported Access Points are located that defines the boundary between LINX's network area of responsibility and your area of responsibility.
Down	means that an Access Port is not capable of transmitting a signal between the LINX access switch and equipment connected to the Demarcation Point.
Fault Confirmation Time	means the time at which LINX confirms that the relevant Access Port(s) are Down due to a fault with the Supported Equipment, as recorded on your support ticket.
Supported Equipment	means the equipment described in paragraph 1.2 above.
Time to Resolve	means the time taken for LINX to restore a fault with a Supported Access Port, which will be calculated in accordance with paragraph 4 (Calculating the Time to Resolve) above.