



NITEL ETHERNET SERVICES SERVICE LEVEL AGREEMENT

Ethernet Services

Nitel Ethernet Services ("Ethernet Services") are a high speed data service which provides Ethernet transport over a shared network and transports Customer's data between Customer-designated premises.

Ethernet Services are available in two interfaces: User to Network Interface (UNI) and External Network to Network Interface (ENNI). Ethernet Virtual Connections (EVCs) or Operator Virtual Connections (OVCs) are required to create point-to-point and/or multipoint-to-multipoint virtual connections between interfaces.

- a. The two interfaces consist of a loop or access component that connects the Customer's premise to the network and a port that provides the Ethernet Services.
- b. The EVC provides an Ethernet point-to-point and/or multipoint-to-multipoint virtual connection between 2 or more customer UNIs.
- c. The OVC provides an Ethernet point-to-point and/or multipoint-to-multipoint virtual connection between an ENNI and 1 or more UNIs or ENNIs

A Network Interface Device (NID) will be deployed at a Customer premises as part of the Ethernet UNI service and will be the demarcation point for the Ethernet Service. Customer Equipment (CE) such as a router or switch at the Customer's premises connects to the NID.

Service Types

Ethernet Line (E-Line)

There are 2 Ethernet Services that are specified using an Ethernet Line Services Type (E-Line): Ethernet Private Line Service (EPL) and Ethernet Virtual Private Line Service (EVPL). E-Line services are divided into two categories based on the number of connections supported at the Ethernet UNI. EPL allows only 1 EVC at the Ethernet UNI while EVPL allows for multiple EVCs at the Ethernet UNI.

Ethernet Private Line (EPL) Service

Ethernet Private Line Service is designed to provide a high degree of transparency for Ethernet Frames between 2 Ethernet UNIs. Ethernet Frames from the Ethernet UNI are delivered unchanged to the other Ethernet UNI.

Ethernet Virtual Private Line (EVPL) Service

Ethernet Virtual Private Line Service is similar to Ethernet Private Line Service but allows for service multiplexing at the Ethernet UNI. Ethernet Frames from the Ethernet UNI are associated with an EVC by CE-VLANs. Ethernet Frames with a CE-VLAN mapped to an EVC are delivered to the other Ethernet UNI associated with the EVC.

Ethernet Access (E-Access)

There are 2 Ethernet Services that are specified using an Ethernet Access Services Type (E-Access): Access Ethernet Private Line Service (Access EPL) and Access Ethernet Virtual Private Line Service (Access EVPL). E-Access Services are divided into two categories based on the number of connections supported at the Ethernet UNI. Access EPL allows only 1 OVC between the Ethernet UNI and Ethernet ENNI while Access EVPL allows for multiple OVCs and EVCs at the Ethernet UNI.

Access Ethernet Private Line (Access EPL) Service

Access Ethernet Private Line Service is designed to provide a high degree of transparency for Ethernet Frames between an Ethernet UNI and Ethernet ENNI. Ethernet Frames from the Ethernet UNI are delivered unchanged to the Ethernet ENNI with the addition of an S-VLAN tag and Ethernet Frames from the Ethernet ENNI are delivered unchanged to the Ethernet UNI except for the removal of the S-VLAN tag. S-VLANs on the Ethernet ENNI are coordinated with Nitel while CE-VLANs do not need to be coordinated with Nitel on the Ethernet UNI or Ethernet ENNI.

Access Ethernet Virtual Private Line (Access EVPL) Service

Access Ethernet Virtual Private Line Service is similar to Access Ethernet Private Line Service but allows for multiplexing of Ethernet Services at the Ethernet UNI. Ethernet Frames from the Ethernet UNI are associated with an OVC or EVC by CE-VLANs. Ethernet Frames with a CE-VLAN mapped to an OVC are delivered unchanged to the Ethernet ENNI with the addition of an S-VLAN tag. Ethernet Frames from the Ethernet ENNI are delivered unchanged to the Ethernet UNI unchanged except for the removal of the S-VLAN tag. Both S-VLANs on the Ethernet ENNI and CE-VLANs on the Ethernet UNI need to be coordinated with Nitel.

1. Network and Port Components.

[CONFIDENTIAL PROPERTY OF NITEL, INC. ALL RIGHTS RESERVED.](#)

Nitel Ethernet Services SLA 20141005



NITEL ETHERNET SERVICES SERVICE LEVEL AGREEMENT

1 Components. This SLA applies only to the Ethernet Service (and the underlying network components of the Ethernet Services Network used solely for the purpose of providing the Ethernet Service). The Ethernet Services Network includes routers, switches, fiber and any other facilities that are owned and operated by Nitel for purpose of delivering the Ethernet Services. As used in this SLA, a “POP” means a point of presence location, as determined by Nitel, that represents the provider edge of the Ethernet Services Network.

2. Domestic Network and Port-Related Goals. The following Ethernet Service level goals (“Goals”) apply to Ethernet Services Ports purchased from Nitel. If a usage tier applies to the Ethernet Services Port, the Goals for such Ethernet Services Port only apply to the portion of traffic that is within the contracted usage tier and will not apply to the Ethernet Services Port bandwidth usage that exceeds the usage tier. The Goals associated with Latency, Packet Delivery and Jitter are measured using monthly averages from the Ethernet Services Network and apply in the listed regions after the Start of Service Date.

2.1 Network Availability. The availability of the Ethernet Service (“Network Availability”) is measured by “Network Downtime”, which exists when the Ethernet Services Network is unable to transmit and receive data. Network Downtime is measured from the time a trouble ticket is opened by Nitel in its trouble management system to the time the Affected Service is again able to transmit and receive data. “Affected Service” means the Ethernet Services Port that fails to meet the applicable Goal.

Network Downtime = Remedy (Credit is applied to MRC of the Affected Service)*	
Region	Goal
Intra U.S.	100%
Intra U.S. DSL	99.5%
Intra U.S. Ethernet over Copper / EoC	99.5%
Canada	100%
Europe	100%
South America	99.8%
China	99.9%
India	99.5%
South Africa	99.8%

*Each cumulative hour of Network Downtime qualifies Customer for a credit of equal time charges pro-rated from the applicable MRC.

2.2 Latency. The average network transit delay (“Latency”) will be measured every 5 minutes to determine a consistent average monthly performance level for Latency between all the POPs within the region. Latency is calculated as follows:

$$\frac{\sum (\text{One way Latency for POP-POP trunks})}{\text{Total Number of POP-POP trunks}} = \text{Latency}$$

Region	Goal	Latency = Remedy (as a % of the MRC for the Affected Service)*		
Intra U.S.	50 ms	50 – 65 ms = 10%	66 – 99 ms = 25%	Greater than 99ms = 50%
Intra U.S. DSL				
Intra U.S. Ethernet over Copper / EoC				
Intra Canada	80 ms	80 – 90 ms = 10%	91 – 110 ms = 25%	Greater than 110 ms = 50%
U.S. to Canada	80 ms	80 – 90 ms = 10%	91 – 110 ms = 25%	Greater than 110 ms = 50%
Intra South America	120 ms	120 – 130 ms = 10%	131 – 150 ms = 25%	Greater than 150 ms = 50%
U.S. to South America	140 ms	140 – 150 ms = 10%	151 – 170 ms = 25%	Greater than 170 ms = 50%
China	140 ms	140 – 150 ms = 10%	151 – 170 ms = 25%	Greater than 170 ms = 50%
India	285 ms	285 – 300 ms = 10%	301 – 350 ms = 25%	Greater than 350 ms = 50%
South Africa				

2.3 Packet Delivery. Packet Delivery will be measured on an ongoing basis every 5 minutes to determine a consistent average monthly performance level for packets actually delivered between the POPs.

[CONFIDENTIAL PROPERTY OF NITEL, INC. ALL RIGHTS RESERVED.](#)

Nitel Ethernet Services SLA 20141005



NITEL ETHERNET SERVICES SERVICE LEVEL AGREEMENT

Region	Goal	Actual Packet Delivery = Remedy (as a % of the MRC for the Affected Service)*		
		99.01% - 99.89% = 10%	90% - 99% = 25%	Less than 90% = 50%
Intra U.S.	99.9%	99.01% - 99.89% = 10%	90% - 99% = 25%	Less than 90% = 50%
Intra U.S. DSL	99.5%	98.01% - 99.49% = 10%	90% - 98% = 25%	Less than 90% = 50%
Intra U.S. Ethernet over Copper /EoC	99.5%	98.01% - 99.49% = 10%	90% - 98% = 25%	Less than 90% = 50%
Canada	99.9%	99.01% - 99.89% = 10%	90% - 99% = 25%	Less than 90% = 50%
South America	99.5%	98.01% - 99.49% = 10%	90% - 98% = 25%	Less than 90% = 50%
China	99.9%	99.01% - 99.89% = 10%	90% - 99% = 25%	Less than 90% = 50%
India	99.0%	98.01% - 98.99% = 10%	90% - 98% = 25%	Less than 90% = 50%
South Africa	99.0%	98.01% - 98.99% = 10%	90% - 98% = 25%	Less than 90% = 50%

2.4 Jitter. Jitter is a measurement of the inter-packet delay variance and packet loss in the Nitell network, which is measured by averaging sample measurements taken during the calendar month, measurements are taken at Nitell's POP's.

Network Jitter (one way)				
Intra U.S.	CoS 1 RT	CoS 2	CoS 3	CoS 4 BE
2 ms or less	No Credit	No Credit	No Credit	No Credit
2.1 ms to 3.0 ms	5%	No Credit	No Credit	No Credit
3.1 ms to 4.0 ms	10%	5%	No Credit	No Credit
4.1 ms to 5.0 ms	15%	10%	No Credit	No Credit
5.1 ms to 6.5 ms	20%	15%	10%	No Credit
6.6 ms to 7.5 ms	30%	20%	15%	No Credit
7.6 ms to 10.0 ms	40%	30%	25%	No Credit
10.1 ms or greater	50%	40%	30%	10%

3. SLA Exclusions.

The SLA provisions, measurements, and eligibility for credit shall exclude conditions wherein Ethernet Service performance was adversely affected by any of the following conditions:

- 3.1 Any cause beyond Nitell's reasonable control (force majeure events) including, but not limited to, acts of war, civil disturbances, acts of civil or military authorities or public enemies, earthquakes, hurricanes, floods, fires, storms, tornadoes, explosions, lightning, power surges or failures, fiber cuts, strikes or labor disputes;
- 3.2 Failures of any structures, facilities or equipment provided by the Customer or its contractors, equipment vendors, or by any carrier or service provider other than Nitell;
- 3.3 All SLA credits shall not be available when Customer has declined the deployment of a Network Interface Device (NID) at customer's Ethernet Service location. Additionally, Customer is responsible for Nitell dispatch associated with the repair of the Ethernet Service at the applicable hourly rate identified in Nitell's Service Guide, as well as any third party costs incurred by Nitell.
- 3.4 Interruptions of an Ethernet Service during any period in which Nitell is not afforded access to the premises where the service is terminated.
- 3.5 When Nitell and the Customer negotiate the release of the Ethernet Service for (1) maintenance purposes, (2) to make rearrangements or (3) to implement an order for a change in the Ethernet Service, a credit does not apply during the negotiated time of release.
- 3.6 Periods when the customer elects not to release the Ethernet Service to Nitell for testing and/or repair and continues to use it on an impaired basis.
- 3.7 Interruptions caused by the negligence of the customer.
- 3.8 Data loss occurring during Normal Maintenance (defined below);
- 3.9 Data exceeding subscribed Committed Information Rate, which is defined as the guaranteed data rate agreed on by Nitell and Customer.
- 3.10 Failures of any structures, facilities or equipment on the Customer's side of the demarcation point.

[CONFIDENTIAL PROPERTY OF NITELL, INC. ALL RIGHTS RESERVED.](#)

Nitell Ethernet Services SLA 20141005



NITEL ETHERNET SERVICES SERVICE LEVEL AGREEMENT

3.11 The total credit amount of any allowances for interruptions and SLA credits applicable in a given month shall not exceed 100% of the monthly recurring charges for the Affected Service.

4. Maintenance.

4.1 Network Normal Maintenance. "Normal Maintenance" means scheduled maintenance, including but not limited to upgrades of hardware or software or upgrades to increase capacity. Normal Maintenance may temporarily degrade the quality of the Service, including possible Network Downtime. "Local Time" means the local time in the time zone in which an Affected Service is located. Nitel may change the maintenance window times upon posting to the website or other notice to Customer. Nitel will undertake Normal Maintenance during the hours and upon the prior notice time period stated below

Region	Normal Maintenance Hours	Prior Notice
Intra U.S.	Sunday thru Saturday mornings between the hours of 12:00 AM and 6:00 AM Local Time	10 business days

4.2 Network Emergency Maintenance. "Emergency Maintenance" means efforts to correct network conditions that are likely to cause a material Service outage and that require immediate action. Emergency Maintenance may degrade the quality of the Service, including possible Network Downtime. Nitel may undertake Emergency Maintenance at any time Nitel deems necessary and will provide notice of Emergency Maintenance to Customers as soon as is commercially practicable under the circumstances.

5. General.

5.1 Remedies. To be eligible for credits under this SLA, Customer must: (a) enter a trouble ticket at the time the Affected Service failed to meet one or more goals by contacting the Nitel NOC via (866) 892-0915 or (312) 253-4345 or by such other means as may be specified by Nitel from time to time; (b) be current in its payment obligations under the Agreement; and (c) request credits hereunder and submit all necessary supporting documentation within 5 business days of the closure of the trouble ticket. If Customer fails to comply with the conditions set forth in this Section 5.1, Customer will be deemed to have waived its right to any credits for that month.

In order to receive credits, Customer must submit a written request for credits within 5 business days of the closure of the trouble ticket to Nitel via email to billing@nitelusa.com. If Customer is unable to submit the dispute via email, Customer should fax request to (312) 803-5549. The written request notice must include: (a) Customer's name; (b) the circuit identification number for the Affected Service; (c) the trouble ticket number issued by the Nitel NOC; and (d) the duration of the Goal failure.