Ethernet Services
Service Level Agreement

Performance Standards

1. **Circuit Availability (CA)**
   1.1. The NoaNet's service must perform at a minimum 99.99 percent of the time during a calendar month except for the following:
   1.2. Purchaser's or Purchaser's agent's acts or omissions, including without limitation any negligence, willful misconduct or use of the NoaNet Network or NoaNet Services in breach of applicable service agreement or law by the Purchaser or others authorized by the Purchaser.
   1.3. NoaNet or Purchaser's Scheduled Maintenance.
   1.4. Failure of circuits beyond the demarcation point or points on the NoaNet Network, unless such failure is caused solely by NoaNet.
   1.5. Service Outage attributable to the installation of a New Circuit where a New Circuit is defined as a circuit over which service may be active, but a signed Service Order Acceptance document has not been received and duly noted by an assigned agent of NoaNet.
   1.6. Force majeure, defined as circumstances beyond NoaNet's reasonable control, including, without limitation, acts of any governmental body, war, insurrection, sabotage, embargo, fire, cyber-attack, flood, strike, or other labor disturbance, interruption of or delay in transportation, supplier delays, unavailability or interruption or delay in telecommunications or third party services, failure of third party software or inability to obtain raw materials, supplies, or power used in or equipment needed for provisioning.

2. **Service Latency**
   2.1. NoaNet's monthly average end-to-end packet latency must be < 25ms. End-to-end is defined as packets traversing Purchased circuit from egress port on Purchaser device to ingress Purchaser device on other end of purchased circuit.
   2.2. Latency is defined as the time taken for a packet to traverse a network from one destination to another and back.

3. **Packet Loss**
   3.1. NoaNet's monthly average for packet loss must be < .1% of the total packet throughput on a fiber service path. NoaNet's monthly average for packet loss must be < 1.0% of the total packet throughput on a wireless service path. Service path is defined as Purchased circuit from egress port on Purchaser device to ingress port on Purchaser device on other end of purchased circuit.

4. **Frame Jitter**
   4.1. NoaNet's monthly average one-way frame jitter must be < 2ms on a fiber service path. Service path is defined as Purchased circuit from egress port on Purchaser device to ingress port on Purchaser device on other end of purchased circuit.

Service Requirements and Standards

5. **Service Interface & Termination Requirements**
   5.1. Unless otherwise specified by Purchaser, the copper interfaces provided to Purchaser locations must be administratively configured for use as a fixed full duplex 100 or auto 1000 Mbps full duplex interface per the resulting work order or site agreement. Fiber interfaces will be set to fixed 1000 Mbps full duplex.
   5.2. Service Capacities – NoaNet will provide a Committed Information Rate (CIR) and an Extended Information Rate (EIR) settings at the Purchaser location or Purchaser ingress/egress point to NoaNet's network.

6. **Equipment Space and Power**
   6.1. NoaNet shall be responsible for the purchase, installation, configuration and maintenance of all equipment required to provide Ethernet services to Purchaser. Following receipt of a work order NoaNet must disclose whether NoaNet owned equipment is required on Purchaser premises in order to deliver the required interface. If so, NoaNet must disclose the type of equipment and the space and power requirements necessary to serve NoaNet's equipment.
   6.2. The Purchaser is responsible for battery backup for NoaNet's on premise equipment.

7. **Extended D-mark**
   7.1. If Purchaser requests extended d-mark NoaNet is responsible for installing, maintaining and servicing of the extended d-mark including any work done by a sub-contractor, provided the need for an extended d-mark is specified within the order document.
   7.2. The purchaser is responsible for providing a conduit or clear path from the building point of entry to the extended demark location.

8. **Ethernet Standards**
   8.1. NoaNet's Ethernet interface provided at the Purchaser's point-of-presence must adhere to IEEE 802.3 standards for 10 Mbps, 100 Mbps, 1,000 Mbps, or 10,000 Mbps Ethernet depending on the service purchased at the location by the Purchaser.

9. VLAN

9.1. NoaNet's Ethernet services must provide support for virtual local area network (VLAN) via the IEEE 802.1Q standard.

10. Marking of Traffic

10.1. Purchaser may not mark or remark any traffic without approval from NoaNet. All traffic leaving a Purchaser site will arrive after traversing the vendor network with the same markings it left with (QoS, Multicast, etc.).

11. Service Reports

11.1. Trouble Logs

11.1.1. NoaNet will provide trouble logs upon written request.

11.2. Reason for Outage

11.2.1. NoaNet will provide a Reason for Outage (RFO) for each outage. Preliminary RFOs will be provided upon request with a formal RFO within 2 business days.

11.3. Response to Trouble Reports

11.3.1. NoaNet must respond to all trouble reports twenty-four (24) hours a day, 365 days per year with and objective of resolving all outages in less than 4 hours.

11.4. Toll-Free Trouble Reporting Number

11.4.1. NoaNet's toll free trouble reporting number is (866) 662-6380.

11.5. Trouble Reporting

11.5.1. For all service problems NoaNet must provide periodic status report (type of problem, estimated time to repair, NoaNet ticket number) to the Purchaser.

11.5.2. NoaNet will provide a repair log upon request by the Purchaser. The log will list the date of the repair occurrence, problem found, action taken to resolve the problem, and the total out-of-service time. Only issues affecting Purchaser's service need be logged.

11.6. End-to-End Service Monitoring and Test Capability

11.6.1. NoaNet must have the capability of monitoring the service End-to-End and have the ability to perform remote site testing (RFC 2544) as necessary to troubleshoot problems with their service. If the Purchaser provides their own terminating equipment, then NoaNet will only monitor to NoaNet's last device on the circuit.

11.7. Error Statistics Reporting

11.7.1. NoaNet must be able to provide continuous End-to-End Monitoring and error statistics for services they provide to the Purchaser.

12. Service Maintenance

12.1. Scheduled Routine Maintenance/Testing

12.1.1.1. NoaNet and Purchaser will develop an agreed upon a maintenance window of days and times for scheduled maintenance and testing of the Purchaser's services. NoaNet's current standard maintenance windows are from 2300 – 0600 and are negotiable with the Purchaser:

12.1.1.2. Routine Maintenance Notification – 10 business days' notice.

12.1.1.3. Scheduled Emergency Maintenance Notification – less than 10 business days' notice.

12.1.1.4. Emergency Maintenance – immediate notification and action must be taken immediately.

12.2. Emergency Repair/Maintenance/Testing

12.2.1. NoaNet must notify the Purchaser immediately if emergency maintenance or testing is going to occur that could potentially disrupt Purchaser network traffic.

13. Credit for Service Outages

13.1. In the event of an Out of Service Condition where NoaNet fails to restore Service to full capability within four (4) hours after initiation of the Out of Service Condition, or if any of the performance standards listed fail within a single month, then NoaNet agrees to grant Purchasers a credit against its basic Monthly Service Charge. Such credit shall be calculated as a 5% discount on the Purchaser's monthly bill for the affected transport path(s) for each Out of Service occurrence.

13.2. Each distinct outage will be considered a separate event. NoaNet agrees to provide credits for all events occurring during the current monthly billing period and must be requested in writing within 10 days after the close of the current billing period. The credits will be applied to the billing for the month following the month in which the outage occurred. Award of the credit in no way relieves NoaNet of responsibility to correct the Out of Service Condition(s) and does not constitute an exclusive remedy for such Out of Service Condition(s).