# Service Level Agreement (SLA) Annex Network



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### Network

1.1. "Network" means the NE-provided telecommunications network, which is comprised of all data equipment owned or leased by NE within each active NE POP, all NE wiring within each active NE POP, power supplies owned or controlled by NE in each POP, and all telecommunications circuits owned or leased by NE between active NE POPs. The NE Network does not include equipment owned, leased, or controlled by CUSTOMER, telecommunications circuits or networks (including, without limitation, local access loops) between a NE POP and a CUSTOMER location or between CUSTOMER locations, interconnections between CUSTOMER's network and the NE Network, or any networks, network equipment, or telecommunications circuits not owned or controlled by NE.

### 2. Network architecture

- 2.1. NE network is defined as the links, or circuits, between and including Points of Presence (POPs) in different countries, forming ASN 43350. NE network is providing IP Connectivity on redundant capacity, monitoring (24/7) and non-overbooking basis.
- 2.2. NE Network architecture includes redundant capacity in transmission and equipment, providing an improved reliability by means of re-routing in case problems are detected in NE network. The circuits used for such re-routing are under administration by, as an integral part of, NE Network.
- 2.3. NE is connected to several Telecom companies to establish international connectivity (the "Telco"). Telco's network is defined as the links, or circuits, between and including Point of Presence's (POPs) in different countries, forming the Telco's AS.
- 2.4. NE and the Telco's are connected to many third parties via public or private peerings (the "Public Peerings" and "Private Peerings") on Internet Exchange's (the "Internet Exchange" or "IX"). The NPT does not extend to these IX's and/or third parties.
- 2.5. The NPT does not cover other networks than NE's and/or Telco's network
- 2.6. NE network POPs which are operational are listed on NE NOC website.
- 2.7. The NE IP Connectivity will be provided on a non-overbooking basis, i.e. NE starts planning for upgrades when the use of NE Network capacity reaches 50% of maximum load in this network, and starts upgrading when the use of NE Network reaches 70% of maximum load in this network.

# 3. Network performance target (NPT)

- 3.1. The Compensation for the monthly charge of IP Connectivity is based on the Committed Datatraffic and/or Bandwidth. All qualifying instances of will be credited to CUSTOMER account.
- 3.2. Availability: The non-availability has to persist for a continuous period of 20 minutes, in excess of which, every 1% of unavailability will be credited with pro-rated charges for 2% of the monthly charge.
- 3.3. Latency: Is taken at average of the month. When, the guarantee is not met, NE will credit the Customer with 1% of the monthly charge for every 10ms in excess of the maximum guaranteed latency.
- 3.4. Packet loss: Is taken at average of the month. When guarantee is not met, NE will credit the Customer with 1% of the monthly charge for every 0,1% in excess of the maximum guaranteed packet loss.
- 3.5. The maximum compensation to CUSTOMER during a 30 day (one month) period is limited to 40% of the current month charges for IP Connectivity.

## 4. Network availability

- 4.1. Availability of service in NE's Network is measured as minutes of outages per a 30 days period.
  - Global Load Balancing: 99.9%
  - Local Load Balancing: 99,8%
  - Standard: 99,5%
- 4.2. The service is considered as unavailable if one of the following events occurs on all interfaces in NE Equipment (router / switch / load balancer) designated as Interconnection points for CUSTOMER:
  - interconnection points are not responding;
  - a packet loss of more than 5 % on NE Network;

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- a round-trip delay of more than 3 times the guaranteed latency between any of NE network, providing such event lasts for more than 20 continued minutes.
- 4.3. The following events shall not be considered as an event of non-availability:
  - scheduled maintenance;
  - outages resulting from problems caused by environmental conditions at the Datacenter (such as, power supply, climate, housing), caused by the CUSTOMER failure to follow agreed procedures, or caused by unauthorized changes to NE equipment by the CUSTOMER;
  - abuse/fraud.

#### Latency

- 5.1. Monthly average round-trip delay for at least 90% of the packets, is guaranteed to be less than:
  - Europe to Europe 90 ms
  - Europe to North America (East Coast) 120 ms
  - Europe to North America (West Coast) 150 ms

## 6. Packet loss

6.1. Monthly average packet loss is guaranteed at < 1,0 % within NE's Network.

### 7. Measurement

7.1. NE will measure packet loss and delay times by randomly sending UDP Datagrams to designated servers placed at NE network and/or Telco's network. The packet loss and delay times will be measured during 10-minute intervals and penalties will be calculated accordingly. 1000 UDP Datagrams will be sent with the length of 96 byte. CUSTOMER Interconnection point in NE Equipment will be measured with SNMP.

### 8. Compensation

- 8.1. When NE accepts the claim, the following credit percentages apply. The credit will be given on the next invoice period. The credit calculations are based on the period on which the claim was placed.
  - 8.1.1. Network uptime more than or equal to 99.9%, there is no credit given.
  - 8.1.2. Network uptime less than 99,8%, a credit of 5% applies.
  - 8.1.3. Network uptime less than 99,5%, a credit of 7,5% applies.
  - 8.1.4. Network uptime less than 99,0%, a credit of 10% applies.
  - 8.1.5. Network uptime less than 98,0%, a credit of 20% applies.
  - 8.1.6. Network uptime less than 95,0%, a credit of 25% applies.
  - 8.1.7. Network uptime less than 90,0%, a credit of 30% applies.
  - 8.1.8. Network uptime less than 75,0%, a credit of 50% applies.