

NETWORK

- Each LTN appliance requires a static IPv4 address (private or public) for each ISP the LTN equipment will have access to.
- If a private IP is provided, then a static public IP is needed with port 3999/tcp inbound port-forwarded to the LTN appliance.
- Each ISP should be a “Business Class” ISP circuit.

FIREWALL

No Network firewall is required in front of LTN equipment, however, if a network firewall is desired or already present LTN appliances will work correctly behind one. In that case the below policies are needed to be set on the firewall.

Inbound Connections:

- Option 1: (preferred) Allow TCP/3999 from the Internet. The LTN appliance has its own firewall and is designed to operate securely on the Internet.
- Option 2: Allow TCP/3999 from LTN Management subnets listed below.

Outbound Connections:

1. Option 1: (preferred) is to allow all outbound initiated UDP and TCP connections on any port, and corresponding return/session traffic.
2. Option 2: If outbound needs to be restricted, then option 2 is to set the following policies:
 - Allow all outbound connections for all UDP/TCP ports (and corresponding response traffic) to the below LTN Operational IP subnets provided below.
 - Allow outbound queries to DNS (port 53) to at least one of the following:
 - Customer provided DNS resolvers, or
 - Public resolvers 8.8.8.8 and 8.8.4.4.
 - Allow outbound NTP session (port 123 source and destination) to either customer provided NTP servers that follow the standard 24 hour NTP Smear technique to handle leap seconds (see <https://developers.google.com/time/smeared-for-examples>) or to the following public NTP servers:
 - time1.google.com / 216.239.35.0
 - time2.google.com / 216.239.35.4
 - time3.google.com / 216.239.35.8
 - time4.google.com / 216.239.35.12
 - Allowing ICMP (ping and traceroute) initiated outbound is strongly recommended, but not required.

LTN MANAGEMENT SUBNETS:

NOTE – these change occasionally and may therefore need to be updated in your firewalls.

173.73.4.0/24	71.246.247.192/26	50.232.37.192/27
4.79.231.208/28	4.79.171.224/28	4.16.241.128/27
24.104.159.112/28	50.206.97.48/28	50.233.204.0/27
209.170.93.224/27	4.53.84.112/28	4.34.146.128/27
24.104.159.96/28	50.235.83.64/27	209.170.91.16/28
4.59.53.16/28	4.53.231.96/27	24.104.159.128/28
50.235.83.32/27	4.35.64.32/27	4.53.213.160/27
50.205.100.0/27	209.8.49.32/27	204.141.210.64/27
4.34.6.128/25	144.121.133.0/25	50.230.143.192/26

RECENT CHANGELOG OF SUBNETS FOR MANAGEMENT

Oct 1 2019

- Add 50.230.143.192/26
- Remove 71.246.247.192/26
- Remove 50.232.37.192/27

LTN OPERATIONAL SUBNETS:

NOTE – these change a few times per year and may therefore need to be updated in your firewalls.

173.73.4.0/24	71.246.247.192/26	50.232.37.192/27
4.79.231.208/28	4.79.171.224/28	4.16.241.128/27
24.104.159.112/28	50.206.97.48/28	50.233.204.0/27
209.170.93.224/27	4.53.84.112/28	4.34.146.128/27
24.104.159.96/28	50.235.83.64/27	209.170.91.16/28
4.59.53.16/28	4.53.231.96/27	24.104.159.128/28
50.235.83.32/27	4.71.120.144/28	4.35.186.128/27
24.104.159.160/28	50.235.97.192/27	209.245.23.48/28
4.59.253.0/27	107.1.21.128/27	4.71.22.80/28
4.15.115.0/27	50.242.150.64/27	4.71.102.32/28
4.53.101.192/27	23.30.207.224/28	50.235.97.224/27
212.187.200.128/28	212.113.30.32/27	213.155.158.128/27
212.162.16.128/28	80.239.223.0/28	4.35.64.32/27
4.53.213.160/27	50.205.100.0/27	209.8.49.32/27
204.141.210.64/27	63.219.18.192/27	203.131.253.128/27
4.34.6.128/25	144.121.133.0/25	80.239.144.0/26
80.239.144.128/26	62.140.13.192/26	4.34.52.0/26
4.35.98.192/26	4.53.89.128/26	4.53.231.128/26
4.53.237.64/26	4.59.35.0/26	4.78.44.64/26
63.243.247.0/26	80.231.49.128/26	180.87.166.64/26

RECENT CHANGELOG OF OPERATIONAL SUBNETS:

Jan 1 2019

- Add 4.34.52.0/26
- Add 4.35.98.192/26
- Add 4.53.89.128/26
- Add 4.53.231.128/26
- Add 4.53.237.64/26
- Add 4.59.35.0/26
- Add 4.78.44.64/26
- Add 63.243.247.0/26
- Add 80.231.49.128/26
- Add 180.87.166.64/26

June 1 2019

- Add 80.239.144.0/26
- Add 80.239.144.128/26
- Add 62.140.13.192/26

Oct 1 2019

- Add 50.230.143.192/26
- Remove 71.246.247.192/26
- Remove 50.232.37.192/27