

## **Section 1. Technical Requirements**

All members' use of Mass IX infrastructure shall at all times conform to the relevant standards as laid out in STD0001 and associated Internet standardization documents.

Each participant's network must have an ASN (Autonomous System Number) assigned by an appropriate LIR or Regional Internet Registry (RIR), being either ARIN, RIPE-NCC, APNIC or LACNIC. During the application process this assignment will be checked.

### **Physical**

Ethernet ports into Mass IX are offered in following configurations:

1GE – 1000Base-LX  
10GE – 10GBASE-LR  
Nx10GE – Link Aggregated  
100GE – 100GBASE-LR4

MASS IX is only supporting standard single-mode (10km 1310nm) optics by default. For an additional charge, customer may request specialized optics, including multi-mode and extended reach optics in any common 100 Ghz DWDM or CWDM bands.

### **Media Access Control**

1. Frames forwarded to Mass IX must only have one of the following Ethertypes:
  - a. 0x0800 – IPv4
  - b. 0x0806 – ARP
  - c. 0x86dd – IPv6

Any frames not matching the above Ethertypes will be discarded.

2. All broadcast and Non-IP protocols must be disabled facing the IX fabric, or filtered in some way when disabling is not an option. These include, but are not limited to forwarded DHCP, MOP, Ethernet Keepalives, LLDP, CDP, NetBIOS and IPv6 Router Advertisements.
3. IP Redirects, IP Directed Broadcast and Proxy Protocols including Proxy ARP and IPv6 Proxy Neighbor must be disabled on IX facing interfaces.
4. Layer-2 protocol traffic: spanning-tree must be disabled on IX facing interfaces.
5. All Interior Gateway Protocols (IGPs, such as OSPF, IS-IS, RIP, etc) must be disabled on IX facing interfaces.
6. Only 1 MAC address is permitted per IX port.

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## **Information Regarding MAC Filtering**

As noted under “**Media Access Control**” section, rule 6 above, MASS IX only permits 1 MAC address per port. During turn up, customer’s routing equipment is put into quarantine status to check for common configuration mistakes and to prove that it is suitably configured to participate in the peering fabric. Once verified, customer is placed out of quarantine, moved into production VLAN, and the MAC address of customer’s routing equipment will be noted and configured. The configured MAC address will stay locked and enforced using L2 ACL. No frames with different source MAC addresses are allowed to enter the peering fabric.

The implementation of MAC filtering is important to protect the MASS IX peering infrastructure against loops. Customers who intend to swap routers or otherwise change their MAC address should coordinate this change in advance with the MASS IX NOC or by simply emailing us at [ops@mass-ix.net](mailto:ops@mass-ix.net). In the event of after-hours emergency necessitating a MAC change, please call our NOC as noted in <http://www.mass-ix.net/procedures.html#contact>

## **Section 2. Connecting Directly to the IX**

- First, have a look at our locations list (<http://www.mass-ix.net/peering.html#locations>) to see where to pick up your Mass IX port.
- Select a switch port suitable to meet your needs: 1GigE, 10GigE and Nx 10GE (IACP) are common configurations. Prices are listed at <http://www.mass-ix.net/ports.html>
- Contact us by emailing [sales@mass-ix.net](mailto:sales@mass-ix.net). We will then contact you to gather all the necessary information and send you an order form to get started.
- Once order is placed, Mass IX will forward you a CFA/LOA for you to order a cross-connect into the IX node present in your selected facility. You are responsible for arranging and paying for the cross-connect to reach the IX fabric. To ease the cross-connect process, Mass IX is aggressively installing additional inside risers and panels along various suites and Meet Me Areas in each facility, in coordination with the building owner. Contact our sales team if you have any questions regarding cross-connects at a particular facility.

## **Section 3. Connecting through a reseller**

Another way to join the MASS IX is via an authorized reseller. MASS IX is actively signing additional partners and resellers – check back with us often for an updated list.