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AS32621

Minnesota VoIP SIX Extension proposal:

Pursuant to the SeattleIX switch interconnect policy at: <https://www.seattleix.net/rules>, this document will serve as Minnesota VoIP's notice of intent, pending SeattleIX approval, to provide SeattleIX extension services to companies who are collocated in Minneapolis Minnesota, and the immediate surrounding areas. The extension switch will be located at 511 11th Ave S, Suite 100, Minneapolis MN, which is the largest carrier neutral datacenter in the state of Minnesota. Both 1G and 10G connections will be supported in this location. The purpose of the extension switch is to provide access to a second internet exchange in the same building as the MICE exchange. This will allow the local networks the benefit of connecting to an additional nonprofit internet exchange, that normally they could not accomplish due to not having enough individual traffic to justify the cost of the transport.

Minnesota VoIP proposes to purchase, install, and manage a Cisco 4900M as the extension switch that will be dedicated to only SIX traffic

- The switch will be monitored 24X7 for both functionality, as well as quality of its performance
- An identical switch will be kept on hand in the event of hardware failure
- The switch will be redundantly powered by circuits that both have UPS/Generator backup
- Management of the switch will be limited to Minnesota VoIP's internal private network, and read only SNMP for SIX admins.
- The switch will support both the standard and jumbo frame VLANs
- The switch will be connected to the SIX Core via a 10G Wavelength
- The initial uplink will be configured as a single member LAG to facilitate ease of future upgrades
- Minnesota VoIP would request that SIX set an initial MAC limit of 5 per VLAN on the uplink port, and that they work with Minnesota VoIP to adjust as membership grows
- Minnesota VoIP will bear the cost of the extension switch including maintenance, power, collocation, cross connects, and the wavelength connecting the switch to the SIX Core
- Minnesota VoIP will upgrade, and bear the cost to increase connectivity if utilization goes above 66% on a 5 minute sample.

Member Policies:

- Members will be made aware that they are connecting to an extension switch, and not the core.
- Members will be made aware of SIX Rules (<https://www.seattleix.net/rules>)
- There will be minimal monthly port fees that are designed to cover a portion of Minnesota VoIP's wavelength, and cross connect fees
- Portal access will be provided to the connecting members so that they can see their own port utilization, and errors, as well as for the uplink port so that they can see that the uplink is not taking errors, or saturating
- Members will be limited to a single MAC address per VLAN
- BPDU will not be permitted
- Violation of the above will lead to port shutdown that is accomplished automatically by the following commands
spanning-tree bpduguard enable
switchport port-security
switchport port-security maximum 1
switchport port-security violation shutdown

Implementation:

- Minnesota VoIP has already paid the 10G port fee
- Minnesota VoIP's connectivity to SIX is scheduled to be completed on 1/5/2017
- After SIX's approval of this proposal, Minnesota VoIP has 2 additional networks that are immediately interested in connecting.

Topology:

