

LAN Requirements for Norlight's Hosted VBX

A Local Area Network (LAN) meeting the following LAN Requirements:

1. 10/100 managed Ethernet switches capable of operating in full duplex mode. All ports used to service VBX phones must be operating in full duplex at 100 Mbps.
2. QOS (Quality of Service) is required on all LAN switches serving VBX phones. Either 802.1p or TOS/DiffServ may be used.
3. Power over Ethernet (PoE) is supported by the Cisco phones. This allows the Ethernet switch to deliver power to the Cisco phones rather than using a power supply for each phone. This can help customers provide UPS power and get power to phones where no power outlets are convenient. Customer must have a Cisco Catalyst switch with inline power to support this. Examples of PoE enabled switches are the Catalyst 3550-24 PWR, Cisco Catalyst 3560-24PS, Cisco Catalyst 3560-48PS, Cisco Catalyst 3750-24PS, Cisco Catalyst 3750-48PS. Some Non-Cisco devices are also compatible with the pre-standard Cisco PoE.
4. If the customer's firewall performs stateful packet inspection (SPI) and understands the SCCP protocol, then SPI will need to be disabled for the SCCP (Skinny) protocol.
5. Some NAT implementations, such as Cisco's, also perform payload IP address translation for protocols they understand. Payload translation for SCCP needs to be disabled. On Cisco routers, the following command will disable this:
`'no ip nat service skinny tcp port 2000'`
6. VBX uses UDP (User Datagram Protocol) requests to establish two-way communications with IP Phones on customer networks. Firewalls and NAT implementations may block this request and make this communication impossible.
7. UDP session timers must be set to 180 seconds (and/or SDCP Ping Timer to 50 seconds)
8. TFTP port 69 UDP open from the LAN to WAN
9. SCCP port 2000 TCP open from the LAN to WAN
10. RTP ports 16384-62025 UDP open from the LAN to WAN
11. This command needs to be added to the PIX firewalls: `no fixup protocol skinny 2000`

Note: If the customer's LAN does not meet the necessary requirements, Sales Engineering will recommend equipment and alterations necessary to bring the LAN into compliance.