

Telenium^{IP} Site Requirements

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The following are the network and wiring requirements for successful Telenium^{IP} installation. For environmental and electrical requirements, please consult the Telenium^{IP} Installation Manual.

1. Inside wiring:

- a) A minimum of Category 5 wiring. Although the Telenium^{IP} does have SLT gateway modules for supporting SLT phones where a CAT5 connection is not possible, an RJ45 jack must be available for each digital IP phone used.
- b) One Ethernet (RJ-45 type) jack at each station location. If only one jack per desktop exists, PCs and phones can share the Ethernet jack and wiring by using the Vodavi 2-Port IP Phones.

Based on the above requirements, a 10/100Mbps network built to support PCs meets the minimum requirements for installing Telenium^{IP} systems, provided it uses at least CAT5 wiring. New wiring will be needed for locations not meeting these requirements.

A Note on Fiber: Ethernet/Gigabit Ethernet Fiber Optic, if used, can carry the IP traffic of the Telenium^{IP} system. However, all of Telenium^{IP}'s network interfaces are Ethernet (RJ45). Therefore, fiber-to-Ethernet converters will need to be used in order for Telenium^{IP}'s modules or phones to communicate over fiber links.

2. Existing Ethernet devices, if used:

- a) Ethernet switches will provide better performance than hubs. A dedicated switch which is separate from the data traffic can provide still better performance. This can be accomplished by patching the desktop LAN ports directly into the SHUB8, the Ethernet switch component of Telenium^{IP}.
- b) A direct connection to the Telenium^{IP}'s SHUB8 module is a requirement to power the IP phones via the LAN cable. In cases where existing LAN infrastructure uses other LAN switches, the SHUB8 modules can be distributed wherever needed to provide this direct connection.

3. Wide Area Networking:

If using IP Telephony to connect the Telenium^{IP} system to another phone system or gateway, this is what is needed at each site:

Sites linked via point-to-point IP WAN:

- a) An Ethernet or Fast Ethernet connection to the data network, via a LAN switch or hub (preferably a switch).
- b) One available IP address to assign the Telenium^{IP} system, which is valid on the local network. The Telenium^{IP} will be configured to use the same router IP address [default gateway] and subnet mask as the local network.
- c) Any type of IP WAN circuit capable of providing sufficient bandwidth for the anticipated IP phone calls plus any data traffic that may also be using the connection.



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Sites linked via connections to the Internet :

- a) An Ethernet or Fast Ethernet connection to the data network, via a LAN switch or hub (preferably a switch).
- b) One available Internet-valid IP address to assign the Telenium^{IP} system. The customer may need to lease an address from the ISP if they do not already have an unused valid IP address. The Telenium^{IP} will be configured to use this address to communicate over the Internet.

NOTE: Use of Network Address Translation to assign the Telenium^{IP} an internal, private-class IP address will interfere with the ability of Telenium^{IP} to communicate externally. This is why a valid Internet address is required.

- c) Access through the firewall or proxy server guarding the Internet gateway, if one exists.
- d) Any type of Internet connection capable of providing sufficient bandwidth for the number of anticipated IP phone calls plus any data traffic that may also be using the connection.

Important: When configuring a site for voice over IP calls, Vodavi recommends using a private, site-to-site WAN link instead of the Internet. This is for many reasons, including the lack of any customer or service provider control over Internet traffic levels and the possibility of outages.



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