

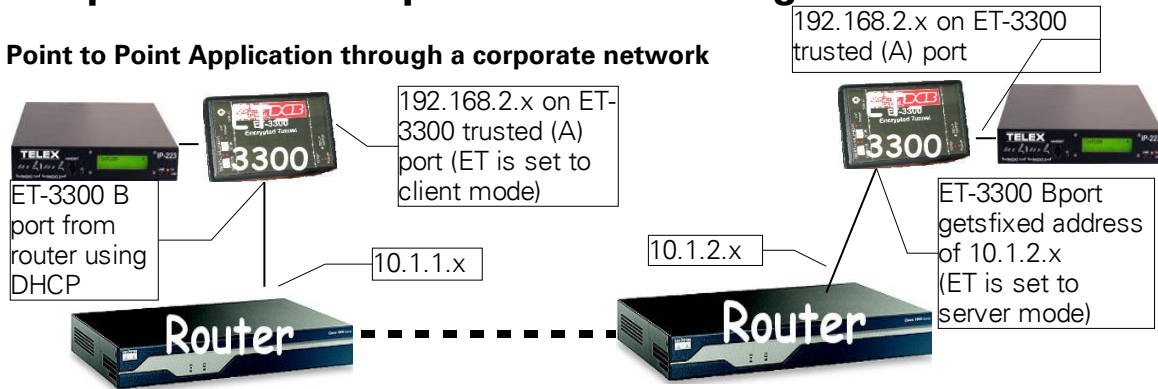


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Simple IP Radio Dispatch Tunnel Using ET-3300

Point to Point Application through a corporate network



Telex IP addresses: 192.168.2.x at both ends of the link.

Internal corporate network addresses: 10.1.1.x on the left side, 10.1.2.x on the right hand side

Corporate router on the left is set for DHCP to give DHCP address to ET-3300 untrusted (B) port

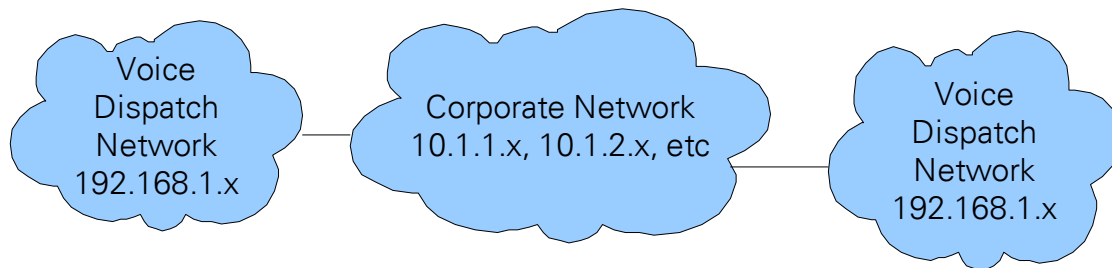
On the right, the ET-3300 untrusted (B) port is assigned a fixed address in the 10.1.2.x range

ET-3300 addresses on the trusted (A) port side are in the 192.168.2.x range at both locations

The ET-3300 uses either the default port 22, the SSH tunneling port, or any port designated by the IT department.

The link between the ET-3300's may be either encrypted or be unencrypted.

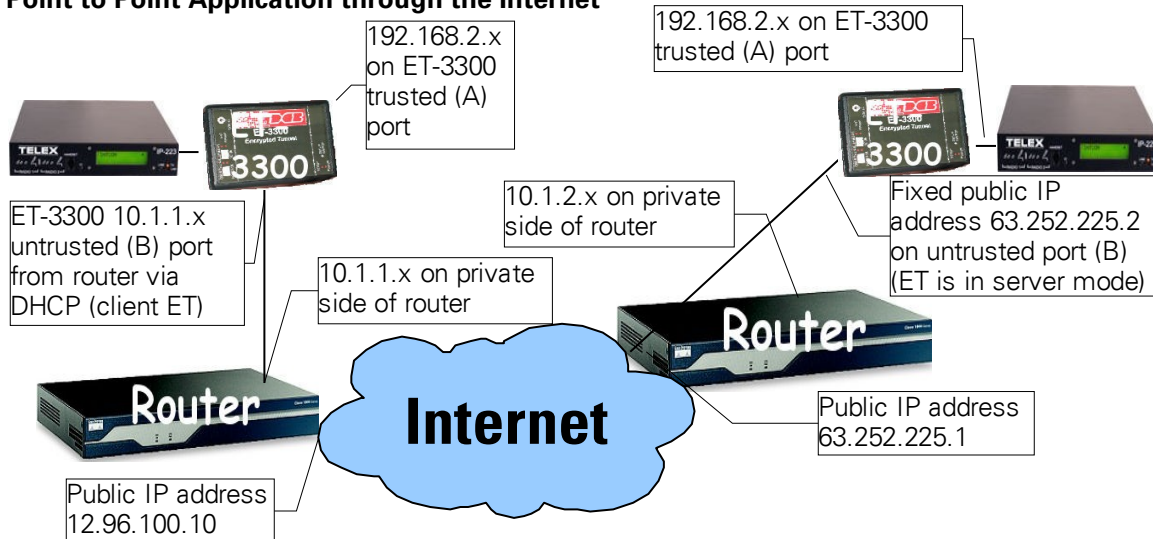
The illustration below shows how the the corporate network functions as transport only for the voice IP. Since the ET-3300 passes all traffic, including multicast through a single port, there is minimal configuration on the corporate network. It is possible that only one single fixed address for server end ET-3300 would be required. If encryption is turned on in the ET-3300, the corporate network is invisible to the voice dispatch network and the voice dispatch network is invisible to the corporate network.



Note: The IP addresses used are for illustration purposes only



Point to Point Application through the Internet



Telex IP addresses: 192.168.2.x at both ends of the link.

User side network addresses behind the routers: 10.1.1.x on the left side, 10.1.2.x on the right hand side

Router on the left is NATed and uses DHCP to give an address to ET-3300 untrusted (B) port

On the right, the ET-3300 is assigned a fixed address of 63.252.225.2 is on a "DMZ".

ET-3300 addresses on the trusted (A) port side are on the same class "C" private network address range of 192.168.2.x at both locations

The ET-3300 uses either the default port 22, the SSH tunneling port, or another port designated by the network manager.

The link between the ET-3300's can be encrypted or unencrypted. Since the link is over the Internet, encryption is recommended.

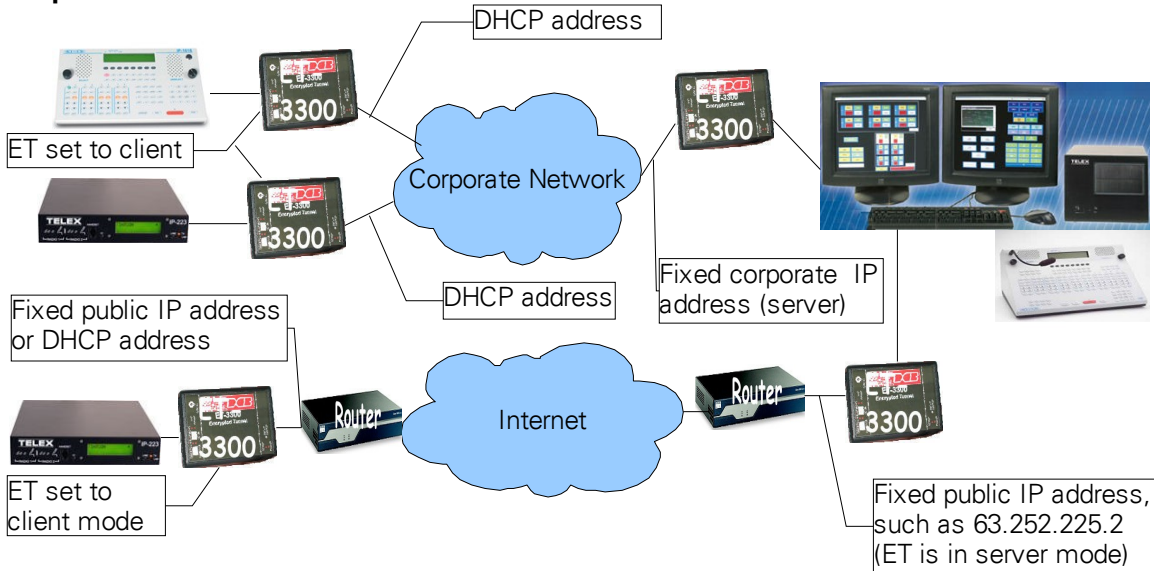
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Corporate Network and Internet Combination Network



Corporate Network and Internet Combination Network

In the above illustration, the voice dispatch system uses the corporate network and also uses the Internet for transport.

By using encryption, and placing the voice dispatch system on its own private network, the corporate network is isolated and protected from intrusion via the Internet. The encryption on the links through the Internet also isolates and protects the dispatch system from Internet intrusion.

All of the voice dispatch equipment in the above illustration is on the same private network, for example, 192.168.2.x.

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Benefits of the ET Tunnels:

- Cost – The ET-3300 and ET-6600 are low cost devices (much less expensive than Cisco GRE routers)
- The ET devices are much easier to set up than are GRE routers
- Using the ET devices provides an easy way to work with firewalls
- The ET lets you tunnel back to demonstration consoles
- The ET has multicast capability. All multicast traffic is passed transparently
- The ET default passes all multicast, but can be configured to allow only specific multicast addresses. Allowed multicast addresses are set in a simple comma delimited file.
- Very little needs to be known about the customer network when using the ET
- The voice dispatch system can be on its own private network
- The ET adds encryption to radios that do not have encryption capability on the IP side
- The ET can tunnel data with or without encryption
- The ET separates voice dispatch from the rest of the customer network
- With the ET, ethernet can be bridged over serial links if the data rate is high enough
- The ET works with routers, DSL, cable modems, wireless ethernet, satellite links, etc.
- The ET works like a switch by filtering traffic at the MAC ethernet address level, IP or port level
- The ET uses just a single IP port number, defaults to port 22, can be any port
- An ET can be set to server mode, client mode, or both (both used as mid-point relay)
- ET servers support from 8 to 100 users, depending on the model used as a server
- The ET-3300, ET-6600 and ET-6601 are rated for -40° to +70°C
- The ET-6600 has 12, 24, -48 and 125 VDC power options