AltiGen KB

IP Phone Group Paging

IP Phone Group Paging in AltiWare
Date: Aug 13, 2008
Subject: Limitations and multicast configuration for IP group paging
Distribution: All Dealers
Doc Type: Tech Note
Release: 5.1
Scope: 5.1 versions 5.1.0.1477 and above, 5.2 versions 5.2.0.80 and above, 6.0
Application: AltiWare
Hardware: N/A
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Obsolete: No

Limitations of IP phone group paging in AltiWare
AltiGens IP phone paging is handled using AltiGen's proprietary H.323-ATPS protocol, which sends mulitcast IP datagrams to a predetermined IP address of 239.192.17.62. Phones that are members of an IP paging group will listen for packets sent to this IP address. You will need to have an H.323 tie-trunk channel available to be able to implement IP paging.
The primary benefit of using multicast IP is that VoIP resource usage is greatly reduced. If the server were to send a simultaneous unicast voice stream, all of the available VoIP resources would be quickly consumed.
Addresses used for IP multicasting are considered to be non-routable This falls under the same category as the commonly used private IP addresses such as 192.168.x.x. The reason that multicast IP traffic cannot be broadcast across the Internet is because there are a limited number of public IP addresses, and only a small set of those have been designated for multicast use. If ISPs decided to attempt to route these, they would quickly be overflowed with the potential users.
Although it is impossible to route multicast packets across the Internet, it is possible to route them across private networks, such as VPNs, or point-to-point connections. However, please be aware that many routers, especially consumer grade equipment, are not capable of being configured to pass multicast traffic.
New in AltiWare 5.1 is the ability to configure the time to live (TTL) value of the multicast packets. TTL is the number of router hops that a packet will travel through before it ceases to transmit. If there were no limit to this, then packets could potentially echo around your network forever. By default, AltiGens multicast paging packets have a TTL of 1 hop. This means the packets will stop at the first router that they encounter. This can be configured by double-clicking on the IP board, and then the advanced settings.
If multiple network segments exist, then the network administrator should be the person responsible for configuring routing equipment to pass multicast traffic.
Due to the very large number of variables in router configuration, equipment, and network design, AltiGen is not able to offer more than general assistance in setting up IP Phone paging beyond the local subnet.