IP CONNECT SYSTEMS

Hytera

Hytera IP Connect
Multi-Site DMR Repeater Systems

IP Connect is a digital interconnect that uses Internet Protocol (IP) to link multiple DMR Tier II repeater sites together, creating a wide-area network. With IP Connect, multiple repeater sites can be connected over a standard IP network, allowing users in different locations to talk over wide areas. IP Connect is typically deployed by organizations that have several remote locations with radio systems and they need communications between these sites. For example, a K12 school district needs to communicate between campuses, a university may have satellite campuses and the security and maintenance teams require communication between all locations, or a company may have a manufacturing facility, a warehouse logistics center, and administrative offices that need to communicate.
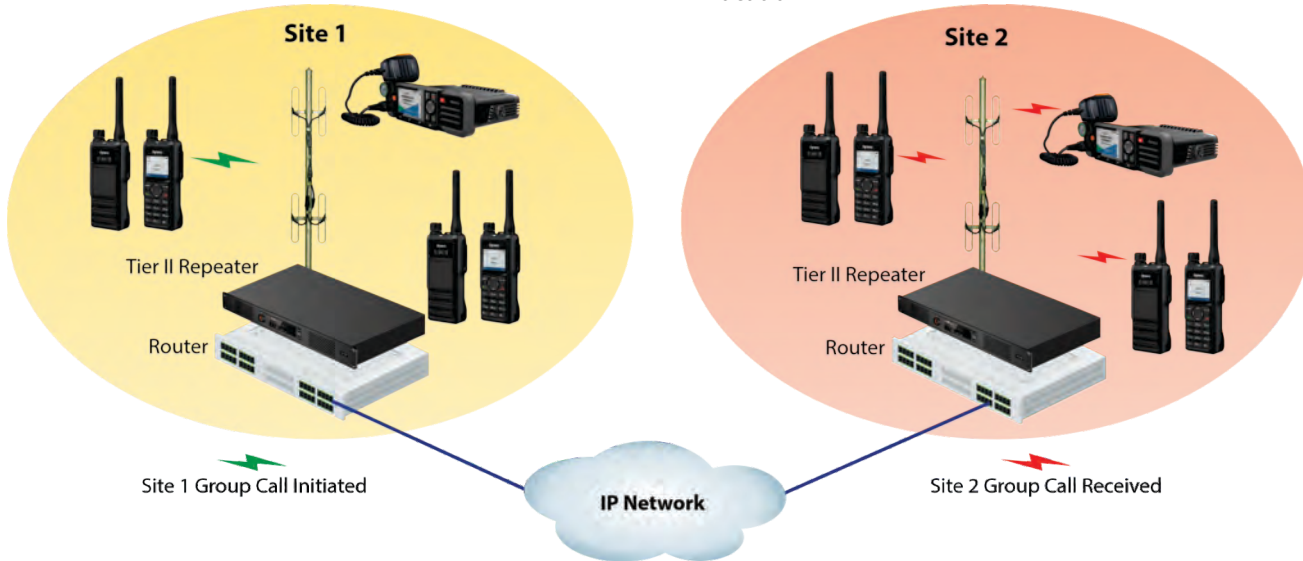
HOW IP CONNECT WORKS

IP Connect uses Hytera Tier II repeaters with the IP Connect license applied, along with a router to extend the DMR protocol from one repeater to many repeaters over the IP network. The local repeater communications are heard at the remote repeater site in real time, as if you were operating from there.

In this example application diagram above, and organization has two different sites and requires radio communications to all users at both sites. The repeaters are connected to routers that provide connectivity to the IP network that links both sites. If someone needs to speak with a group of workers at another site, IP Connect can make this happen. Since call groups are assigned to channels, it is as easy as changing channels on a radio.
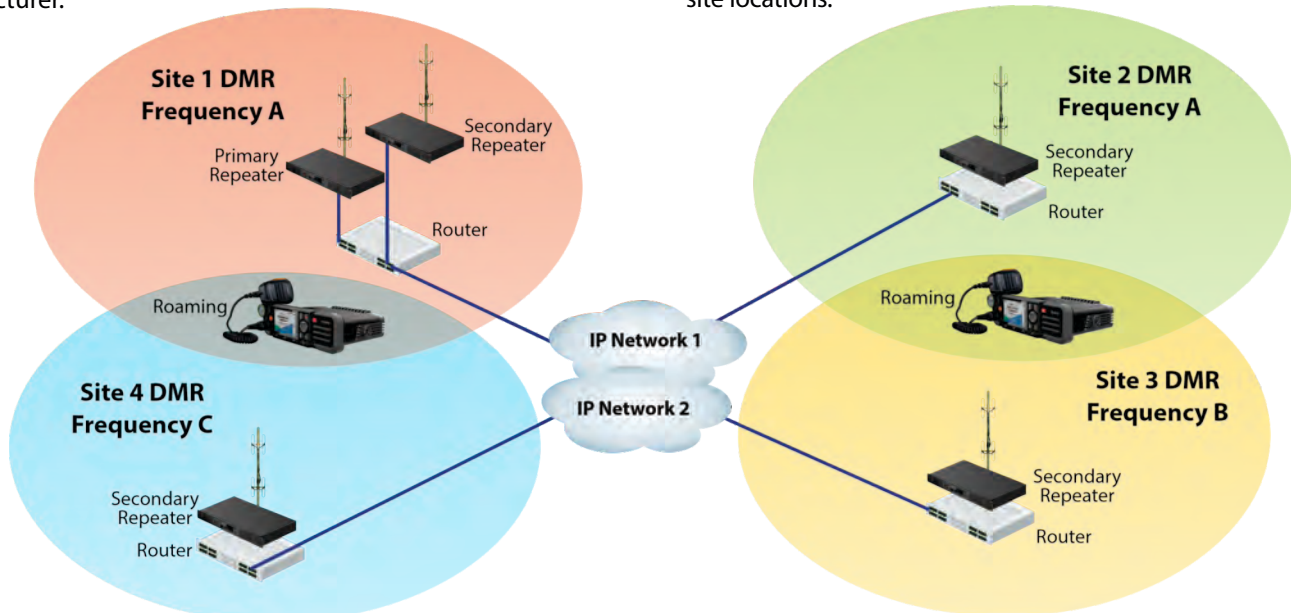
When the system is configured, call groups can be defined for the radio channels to talk over IP Connect to groups of local users at each site. Multiple channels (talk groups) can be defined for each site and for the IP Connect locations.

- Site 1 user changes channel on the radio to the Site 2 channel and the radio traffic is sent to the Site 1 repeater
- The Site 1 repeater sends that radio traffic through the IP network
- The Site 2 repeater receives that radio traffic from the IP network and sends the traffic to the users at Site 2
- The call operates in real time as if the users were at the same location

IP Connect systems can link multiple repeaters at a site and can support up to 255 locations by configuring primary and secondary repeaters. Each location can use a different frequency or DMR standard compliant radios of any manufacturer.

Roaming is when the coverage of IP Connect repeater sites overlap and allows the radio to switch between sites with different frequencies instantly and automatically. This is typically for mobile radios in vehicles that drive between different repeater site locations.

KEY BENEFITS OF IP CONNECT

Simple Deployments

IP Connect supports repeater site connectivity over a variety of widely available IP networks, including the internet, private wide area networks, LANs and VPNs. If the existing repeaters are already Hytera, no new hardware is needed to create this wider area radio network, simply install an IP connect license and configure the repeater.

Local and Wide Area Channel Programing

In a Hytera IP Connect system, Talkgroups can be programmed to call users only on the local repeater, or across the IP Connected multi-site network. This is especially handy for school districts, where each school campus can have its own local repeater communications but are always available to emergency broadcasts or any other calls that need to be heard across all campuses.

Carries True DMR Protocol

Adding Hytera IP Connect to your repeaters carries the DMR protocol. That means your existing DMR radios, regardless of manufacturer, will work on the extended IP Connect radio system for flexible deployments without being locked into proprietary systems.

Convenient and Familiar Operation

Because the IP Connect uses DMR protocol, users do not need to learn a new radio system. Group Calls, Individual Calls, Emergency Call still work as they normally do.

Enhanced Coverage

IP Connect is perfect to add additional coverage to additional repeater sites, or increase coverage in poor coverage areas like large parking garages and below-ground floors.