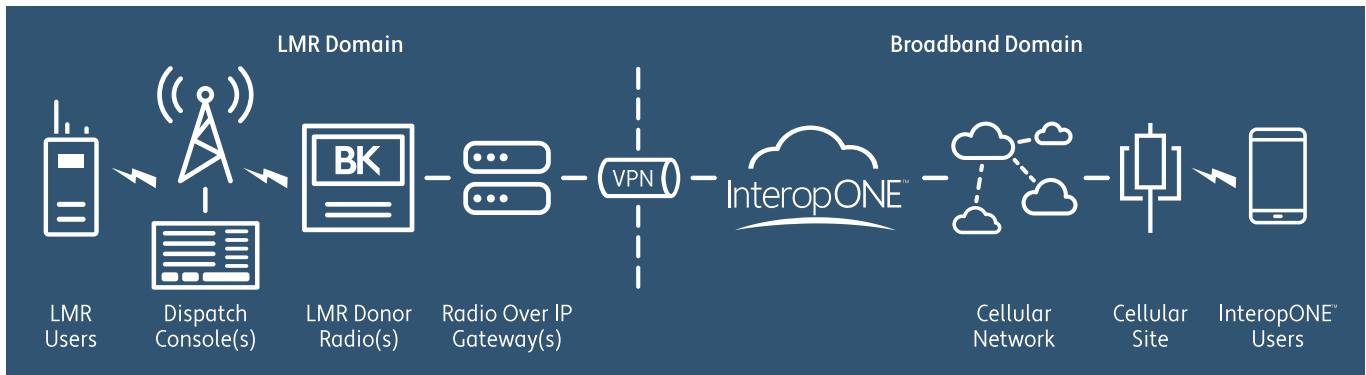




BK
Interop ONE™
 A BK ONE SOLUTION

Radio Over IP Gateway Interface Primer

There are multiple approaches available to establish a connection between InteropONE™ and your LMR radio network. At its core, the process remains largely the same for each approach, and consists of an LMR donor radio, a Radio over IP (RoIP) gateway, and an internet connection with an IPsec LAN-LAN VPN, as depicted in the following graphic.



Below is an outline of the steps required to establish this connection.

For simplicity, a basic use case for a single donor radio is used.

1. Contact your BK Technologies sales team

Your BKT team are happy to work with you to architect the best solution to fit your needs. As with any project, it begins with identifying your needs and network architecture, required resources, timelines, and potential roadblocks.

2. Establish network connectivity to the InteropONE™ server

This is done through an IPsec VPN. BKT recommends utilizing an individual connection, either wirelessly via cellular networks, or within the DMZ of your network. In any case, a separate VLAN is recommended as with most VoIP products. From that network an IPsec LAN-LAN VPN connection will be established to the InteropONE™ server to facilitate secure communication. An unrestricted external static-IP is recommended, but services like DynDNS can be used as well.

3. Connect and provision the RoIP gateway

A RoIP gateway that is compatible with your donor radio and provides a SIP connection to InteropONE™ is required. BKT has tested and recommends the JPS RSP-Z2 and ACU-Z1 series products. The IP address for the gateway is provided by BKT, as well as the SIP connection information.

4. Provision and connect the donor radio

The donor radio needs to be programmed to operate on the conventional channel or trunked system talkgroup you wish to connect to InteropONE™, as well as configured to operate with your RoIP gateway. JPS provides donor radio interface cables for nearly every model of LMR radio.



Example of BKT KNG mobile connected to JPS RSP-Z2 gateway

Continued on next page.

5. Log into the InteropONE™ administration portal to create and provision the InteropONE™ group

The InteropONE™ administration portal is used to create and provision a group for use with a RoIP gateway. Upon entering the IP address and SIP login information from the gateway, the group is connected in a few simple clicks.

The screenshot shows the '1. Define group name and users' step in the InteropONE administration portal. It features a text input field for the group name, followed by two side-by-side panels. The left panel, titled 'Add users', contains a search bar and a list area with 'Select all' and 'Filter' options. The right panel, titled 'Users in the group', also has a search bar and a list area with 'Select all' and 'Filter' options. A double-headed arrow between the panels indicates that users can be moved from the 'Add users' list to the 'Users in the group' list.

Screenshot of Creating a Group in the Admin Portal.

The screenshot shows the 'EDIT YOUR GROUP' page, specifically 'Step 2 - Define channel Options'. It includes the following configuration fields:

- 1. Assign Channel Priority:** Group Priority (Level 2)
- 2. Set Radio Channel Connection:** Radio Channel Connection (checked)
- FQDN Proxy/Gateway:** 192.168.2.200
- Radio Channel Name:** LTE-Demo
- Radio Channel Number:** 1
- Group Channel Number:** 1
- Radio Channel Type:** bsi

Screenshot of Adding RoIP Gateway to an InteropONE™ Group.

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