

## Everything Over Internet Protocol Radio Bridge (EoIP-RB)

### *Extending Global Command, Control, and Communications to First Responders and Tactical Forces*

Whether leading a group of fire and rescue workers, environmental survey teams, or troops abroad, interoperability proves to be a challenge where there are disparate or no standards. While each government agency may have communications interoperability standards they still face challenges communicating when operating as an Interagency, Non Governmental, and Commercial task force. Further, executive leadership must have the ability to efficiently pass information to and from their personnel on the ground. These front line heroes often communicate on handheld radio systems, land mobile radios (LMR), commercial cellular, Voice over Internet Protocol (VoIP), Satellite Communication (SATCOM) and the Public Switched Telephone Network (PSTN). You now have the ability to bring true interoperability to the men and women in the fight while extending those communications globally to the Headquarters and executive office space.

The EoIP-RB solution leverages the power of VoIP to build interoperability while overcoming geographic boundaries. Using Internet Protocol (IP) as the common voice carrier, IP networks can be used to bring interoperability to disparate and remote communications. The VoIP ready satellite network can provide last mile coverage to the frontline workers regardless of their geographic location.



**EoIP-RB FRONT**

- |                                       |                                |
|---------------------------------------|--------------------------------|
| 1 2U Utility Drawer                   | 7 Voice Logger (Optional)      |
| 2 ACU 2000 IP                         | 8 Uninterruptible Power Supply |
| 3 Voice and Data Gateway Module       | 9 Full Cisco IP Phone Support  |
| 4 LAN module with Power over Ethernet |                                |



**EoIP-RB BACK**

- |   |
|---|
| 5 3U High Volume, Low Noise Cabinet Fan   |
| 6 2U Speaker System for Radio Network Monitoring  |
| 10 Signal Entry Panel (SEP) provides connectivity for external GSM and Wi-Fi antennae, WAN/VSAT uplink, Equipment Admin Console (for support personnel), and Eight local equipment Ethernet connections. These interfaces can be used for customer equipment and support power over Ethernet (PoE). |

## BRIDGES THE GAPS IN YOUR NETWORK

The Everything over IP – Radio Bridge (EoIP-RB) provides seamless voice bridging between radio, Voice over IP (VoIP), both GSM and CDMA cellular, and Land-Mobile Radio (LMR) networks (UHF, VHF, and 700/800Mhz).

- Bridge any LMR network to another LMR network with the simple flip of a switch
- Bridge cellular and VoIP phone calls into radio networks

## INTEGRATE EASILY

- Easily ties into existing VoIP networks for true On-Net (IP-to-IP) calling
- Supports direct PSTN connectivity via PBX wired digital and analog, and cellular circuits
- Supports the complete Cisco 7900© family of VoIP phones and standard 2-Wire POTS phones and fax machines
- Supports virtually any handheld, professional LMR, push-to-talk radio
- Built-in local voice call control and voicemail

## COMMUNICATE SECURELY

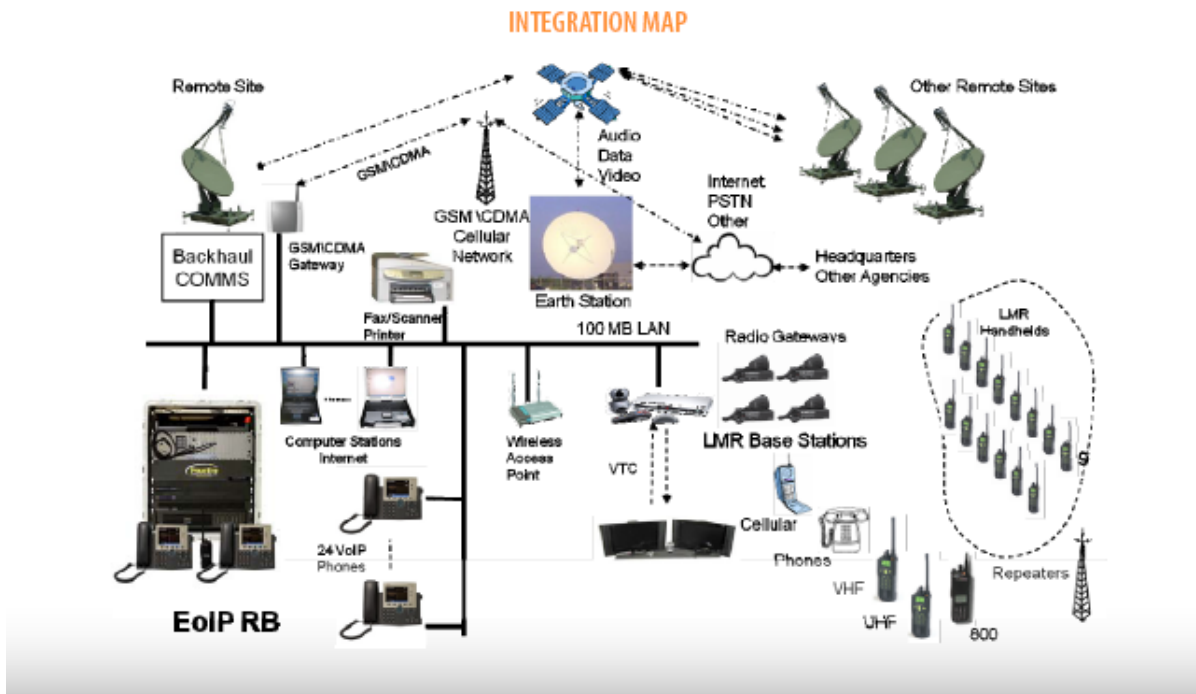
- Supports IEEE 802.11a/b/g wireless standards secured with WEP, WPA, or WPA2 using AES encryption for both computers and Cisco Wireless 7921 IP Phones
- Proactive Communications satellite backhaul supports WPA2 encryption for true end-to-end link security
- Physical security prevents PSTN network connections from entering radio networks without human intervention

## DEPLOY RAPIDLY

- Typical deployment time for a training three man team is less than 30 minutes to have all systems established with offsite communications when using Proactive Communications EoIP-RB and Auto-deploy Satellite Systems.

## RICH MEDIA

- Video Teleconferencing (VTC)
- Closed-Circuit Television (CCTV) for Broadcast TV and Video Surveillance
- Collaboration Services
- (Optional) Voice Recording & Logging Capabilities





# Everything over IP Radio Bridge (EoIP-RB)

## **SPECIFICATIONS**

The Everything over IP Radio Bridge (EoIP-RB) is an integral part of supporting true command, control and communications (C3). The system has the ability to support the following services:

- Cellular, PSTN, VoIP to land mobile handheld radio (LMR) bridging for two radio networks per site
- LMR network to LMR network bridging
- Interoperability for disparate band radios (UHF, VHF, 700/800Mhz)
- SIP or SCCP support for integration with existing voice networks
- WPA/AES256 Secured wireless VoIP phones
- Support from 3 VoIP phones, 4 radio nets, 2 radio talk -groups, 8 wired phones and 26 wireless phones expandable to 30, 000 VoIP phones, 50,000 computers, 24 radio nets and 12 talk-groups.
- Voice mail (VM) for twelve extensions per site
- WPA2 /AES256 Wireless support. Up to three

## **DIMENSIONS**

Height:	39"
Width:	36.74"
Length:	27.5"
Weight:	155 lbs

## **OPTIONS**

- TDN PRI or CAS for PBX integration
- 20 wired Site Phone/PC Port Upgrade
- Four radio network per site support
- GSM Voice and Data Bridge
- Long Range GSM antenna assembly
- Long Range Wi-Fi Wireless antenna assembly
- High speed WiMax (802.16) or 900MHz line of site (LOS), high speed / low-latency backhaul support (terrain and local frequency availability dependant)
- Satellite backhaul support
- Radio / VoIP network recording
- PSTN (publicly switched telephone network) integration for VoIP or Radio to public phone calling support
- Video calling
- Analog phone/fax support
- 36 VM inbox option available
- Phone-to-Phone voice payload encryption (up to AES256)
- IP Radio Extension up to 18 miles