Cisco Emergency Communications Unit

Ensuring communication among first responders, especially during a crisis situation, is a major challenge for public safety agencies. Interoperability is critical for success. The Cisco® Emergency Communications (ECU) is a mobile communication center that is designed to establish interoperable communications in emergency situations. The ECU is supported by Cisco Tactical Operations, a highly skilled and dedicated team that can mobilize and respond to natural disasters and other catastrophes when normal communications infrastructure have been degraded or destroyed.

Rapidly Deployable Field Mobile Communications The Cisco ECU is a command and communications resource for first responders, critical infrastructure, and other organizations that have been affected by a catastrophic event and require mission-critical networking to recover normal operations. It exceeds the National Incident Management System (NIMS) standards for Type III Mobile Communication Centers.

The Cisco ECU, along with its NIMS certified team, helps organizations by:

- Arriving for disaster response missions ready for up to 3 days of continuous operations through use of auxiliary fuel in utility tow vehicle.
- Operating seamlessly with police, fire, emergency medical services, National Guard, and other responders within an incident command system or unified command structure.
- Receiving 24-hour, proactive intelligence and logistical support from Operations Centers.

The Cisco ECU and Tactical Operations team have been deployed in support of a variety of incidents, including hurricanes, tornadoes, floods, earthquakes, wildfires and man-made disasters.

Voice over IP
The Cisco ECU provides a full suite of telephony services through the Cisco Unified Communications Manager Express software, which enables voice communications over wired and wireless Cisco Unified IP Phones.

Network-Based Video Surveillance
Video surveillance increases the situational awareness of field personnel and commanders by enabling them to observe nearby activities. The Cisco Video Surveillance Manager solution encompasses a suite of products that can incorporate both analog legacy CCTV cameras and newer IP-based cameras into a unified monitoring and recording environment.

High-Definition Video Conferencing
The conference room on the Cisco ECU is equipped with a Cisco TelePresence video conferencing solution. The Cisco TelePresence solution enables leaders and remote personnel to quickly and easily have high-definition, high-security video conferencing and collaboration.
Why Cisco?

- Cisco is a leader in providing the intelligent, secure, resilient network infrastructure with mobility that is the platform for this solution.
- Cisco is a leader in unified communications, which is core to the solution and uses the network as the platform.
- Cisco has a proven record in introducing technologies in the safety and security market that easily integrate with Cisco network architecture.
- Cisco collaborates with safety and security technology partners to meet your requirements for a converged network solution.

Learn More

The Cisco ECU is available for emergency response throughout the continental United States during the acute phase of an emergency. To engage the Cisco ECU, or any of the other services provided by Cisco Tactical Operations, please contact your Cisco account team.

For more information about the Cisco Tactical Operations team, please visit our website [http://www.cisco.com/go/tacops](http://www.cisco.com/go/tacops), or send email to tacops-info@cisco.com.

Deploy and Redeploy with Confidence

In a crisis situation it is imperative that field communications be highly mobile and rapidly deployable. The Cisco ECU meets these demands by being a self-contained trailer in which all technology travels together as a preconfigured package. Once on scene, the Cisco ECU can:

- Be fully operational within 30 minutes
- Be shut down within 30 minutes in order to redeploy to another location
- Power its systems using its on-board generator, or a shore power connection to an external power source

Enable Communications via IP-Based Network

The Cisco ECU uses an IP-based network foundation because large-scale disasters require a range of interoperable communications beyond traditional push-to-talk (PTT) radio. IP-based communications ensure that the team can:

- Engage and employ all resources on scene, regardless of where those resources geographically reside
- Interoperate with existing communications systems while providing a path to emerging network-centric communications systems

Fault-Tolerant Redundant Internet Uplink

The Cisco ECU has multiple options for Internet connectivity, including satellite, cellular, and landline. It can be configured to failover from one connectivity source to another, providing a high level of fault tolerance and the most efficient use of bandwidth.

The 1.2 meter satellite dish provides high throughput satellite (HTS) bandwidth for voice, video, and data applications that require access to the Internet or other remote networks. Auto-acquire capability of the control unit eliminates the need for the crew to manually point the dish to the correct azimuth and elevation.

Wired and Wireless Network Infrastructure

The core network of the Cisco ECU consists of Cisco Integrated Services Routers, which provide highly secure virtual private network (VPN) tunneling services to back-end resources, firewall, and telephony services using Cisco Unified Communications Manager Express, and controllers for the wireless network infrastructure. Wireless network services are provided by Cisco Wireless Access Points in the interior of the trailer and Cisco Wireless Mesh Access Points on the exterior of the vehicle.

Radio and Voice Interoperability

Responders often struggle with different frequency bands and proprietary radio protocols. Cisco’s ECU enables radio interoperability across all existing radio technologies via patching through software and on-board hardware systems.

Figure 2: The engineering section of the Cisco ECU1 brings together different technologies to provide situational awareness for the command staff.

Figure 3: The Cisco ECU1 conference room enables decision makers to manage crises with a range of voice, video, radio and data communications at their disposal.