

# Cisco Emergency Communications Unit

Ensuring communication among first responders during a crisis is a major challenge for public safety agencies when normal infrastructure has been crippled or destroyed by a disaster. The Cisco® Emergency Communications (ECU) is a mobile communication center that is designed to establish interoperable communications in emergency situations, beyond basic cellular connectivity.

## Rapidly Deployable Field Mobile Communications

The Cisco ECU is a command and communications resource for first responders and other organizations that have been affected by a catastrophic event and require mission-critical communications capabilities to recover normal operations. The ECU was designed to exceed the National Incident Management System (NIMS) standards for Type III Mobile Communication Centers and is operated by Cisco Crisis Response (CCR). CCR is a highly experienced team of engineers and operations coordinators who hold professional certifications in both technology and emergency management. Since the team's inception in 2003, the team has responded to over 60 incidents in 25 countries on 6 continents, providing emergency connectivity, solutions consulting and more.



Figure 1: Cisco Emergency Communications Unit

**The Cisco ECU, along with the Crisis Response team, assists organizations by:**

- Arriving for disaster response missions ready for up to 3 days of continuous operations through use of auxiliary fuel in a utility tow vehicle. Available fuel resupply services or utility power ensure operations up to 24x7.
- Operating seamlessly with police, fire, emergency medical services or other responders within a unified command structure.
- Receiving 24-hour, proactive intelligence, and logistical support from Cisco Operations Centers.

## Diverse and Resilient Connectivity

Internet access is increasingly important for disaster response, so the ECU utilizes multiple connectivity options to ensure consistent connectivity for digital applications. Cisco Advanced LTE solutions provide Category 18 cellular connectivity as the primary wireless WAN and a 1.2 meter Very Small Aperture Terminal (VSAT) satellite dish with multiple satellite options provides connectivity in more austere networking conditions. The ECU can leverage wired ethernet when available and utilize integrated Wi-Fi capabilities for long-distance network bridging.

## Unified Communications (UC)

A full suite of UC and VoIP services is provided in the ECU through an onboard Cisco Unified Communications Manager Express, which enables voice communications over wired and wireless Cisco Unified IP Phones.

## Cisco Webex Video Collaboration

Cisco Webex Video The conference room on the Cisco ECU is equipped with a Cisco Webex Collaboration device registered to the Webex platform. This solution enables leaders and remote personnel to engage in high-definition, secure video conferencing and collaboration, interoperable with alternative platforms such as Microsoft Teams, Google Meet, and Zoom.

## Why Cisco?

- Cisco is a recognized leader in providing products and solutions necessary to securely deliver essential communications services in times of crisis.
- Cisco's strategy is to help customers connect, secure, and automate to accelerate their digital agility in a cloud-first world.
- Cisco connects people with world-class, enterprise grade collaboration tools. We connect users with devices, applications, and data with industry-defining networking and compute technology
- Cisco serves 98% of the Fortune 500 and Cisco security solutions can secure any user, on any device, on any application.

## 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 Crisis Response, please contact your Cisco account team.

For more information about the Cisco Crisis Response team, please visit our website <https://www.cisco.com/c/en/us/about/csr/impact/cisco-crisis-response/incident-response.html> or send email to [crisisresponse-info@cisco.com](mailto:crisisresponse-info@cisco.com).

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### Deploy and Redeploy with Confidence

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

- Be fully operational within 30 minutes
- Be shut down within 30 minutes 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, IP networking provides a communications path between people, devices, and services regardless of geographical location.
- Interoperate with existing communications systems while providing a path to emerging internet-based communications systems

### Fault-Tolerant Redundant Internet Uplink

The Cisco ECU has multiple options for Internet connectivity, including satellite, cellular, and wireline services. It is configured to failover from one connectivity source to another, providing a highly reliable communications service to support mission requirements.

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 networking capability of the Cisco ECU is delivered by Cisco Enterprise Networking infrastructure, which provides secure connectivity to private and public cloud applications. Also onboard are a Next-Generation Firewall (NGFW), a Unified Communications Manager Express for VoIP & a Wireless LAN Controller for Wi-Fi services. Wi-Fi capabilities are delivered using Cisco Enterprise Access Points deployed in the interior of the trailer and Cisco Wireless Mesh Access Points mounted to 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.

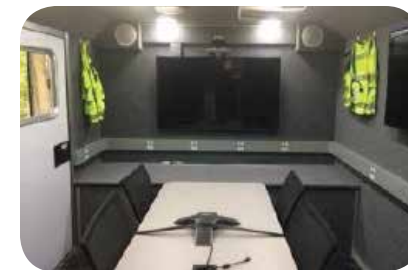


Figure 3: The Cisco ECU1 conference room enables decision makers to manage crises with a range of voice, video, radio, and data communications at their disposal.