Ericsson Response™ MiniGSM

Cellular GSM System for Emergency Applications

Communications in the aftermath of a disaster
Establishing a communications network in the aftermath of a disaster can be a challenging task. Yet communications play a key role in coordinating relief efforts and getting help to people as quickly as possible. The Ericsson Response™ program, an initiative to reduce the human suffering caused by disasters, utilizes current and new technologies to improve communications following a disaster. The MiniGSM is one example.

The MiniGSM system is a total system solution including Mobile Switching Center (MSC), Base Station Controller (BSC), Radio Base Station (RBS), network management, network database and operations and maintenance (O&M). The unit is built into an easily transportable 7-foot long container, complete with climate control for the equipment. System maintenance and operation can be managed locally or remotely.

The system supports both GSM 900, 1800 and 1900 MHz frequencies, either individually or dual band.

The network can operate as a stand alone with its own network identity, or it can be part of a larger network. In both cases, subscribers from other networks can roam onto the MiniGSM system under the same conditions as for any other cellular network.

This system is well suited for disaster response operations because relief workers can use their own GSM phones at the disaster site. The MiniGSM supports speech and data communication as well as Short Messaging Services (SMS).

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Key features

The MiniGSM has the following standard properties:

- Stand alone GSM cell
- Internal traffic within the cell
- Roaming to other networks
- Voice, data and fax
- Expandable to several cells
- Optional VSAT and microwave connections
- Fast rollout
- Option for inbuilt microwave equipment
- Enhanced Full Rate and Half Rate speech coding
- Supports 14.4 kbit/s data and optionally GPRS and HSCSD
- Supports Positioning and Extended Range (121 km)

Fast rollout and expansion

The MiniGSM container arrives preassembled and tested. All it requires for operation is power from an external generator. An omnidirectional or sector antennas on a mast is included with the container, making installation fast and easy. The network can be expanded in capacity and coverage by connecting separate RBSs to the MiniGSM system.

Coverage

The coverage area depends on the site, its height above the terrain, and antenna arrangement. Coverage areas with a radius of up to 35 kilometers can be established.

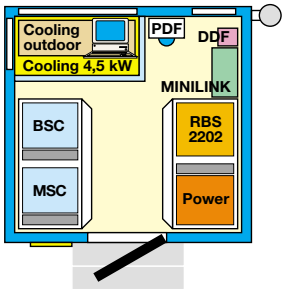
Capacity

The switch can handle approximately 5,000 subscribers (25mE), which is more than enough for disaster relief operations. The container has one Radio Base Station (RBS 2202) with six Transceiver Radio Units (TRU) inbuilt, but the central switching equipment (MSC/BSC) supports use of up to 48 TRUs.

Read more about Ericsson Response at
http://www.ericsson.com/ericssonresponse

Technical specifications for MiniGSM

Frequency band:	E-GSM 900, GSM 1800, GSM 1900
Number of transceivers:	6
Number of sectors:	1-3
Dimension (H x W x L):	2230 x 1900 x 2160 mm (87 3/4 x 74 4/5 x 85 in.) The equipment fits into the 7-foot long container. The container has grips for fork and top lift, and adjustable stairs with rain shield.
Weight:	Approx. 2000 kg (4405 lbs.) Fully equipped with mast, antenna, and battery backup
Power into antenna feeder:	28 W (GSM 900), 22 W (GSM 1800/1900)
Power supply:	110/220V AC, 50 Hz, -48V DC, PDF main power max. 10 kW
Battery backup:	1 hour
Operating temperature:	-5°C - +50°C
Indoor environment in the container:	Aircondition 1 x 4.5 kW split unit type
Transmission:	E1 and ETSI



MiniGSM indoor drawing.