



**iRAM TECHNOLOGIES**  
Bringing Technology Closer To You!™

# CENTRALIZED EMERGENCY ALERT & RESPONSE SYSTEM

## Designed by iRam for India

iRam's Centralized Emergency Alert & Response System is a specially designed system for India that allows multiple alerts to be notified and monitored in real-time at remote stations.

**Emergency Alert  
System**

---

**Alert Notifications**

**Remote Monitoring**

**Central Monitoring  
Server**

**Mobile App**

---

**Real-time Notification  
and Monitoring**

iRam Technologies  
2<sup>nd</sup> Floor, #779, 1G2,  
Sarjapura Road, Kaikondarahalli,  
Bengaluru – 560035

[www.iramtech.com](http://www.iramtech.com)  
[contact@iramtech.com](mailto:contact@iramtech.com)  
+91-80-4201-1550



## Introduction

iRam Technologies had patented the Centralized Emergency Alert & Response System (CEARS) way back in 2011 so that India can provide quick response to its citizens during emergency situations. The system has been designed to make sure that all the stakeholders are notified, in a reliable way, of an emergency situation across geographical locations.

## Solution

**iRam's Centralized Emergency Alert & Response System (CEARS)** (Fig 1) was specially designed from ground up in India to help the Indian Emergency Response Teams in providing the necessary alerts quickly and reliably and thus enabling quick response from them to the needy citizens.

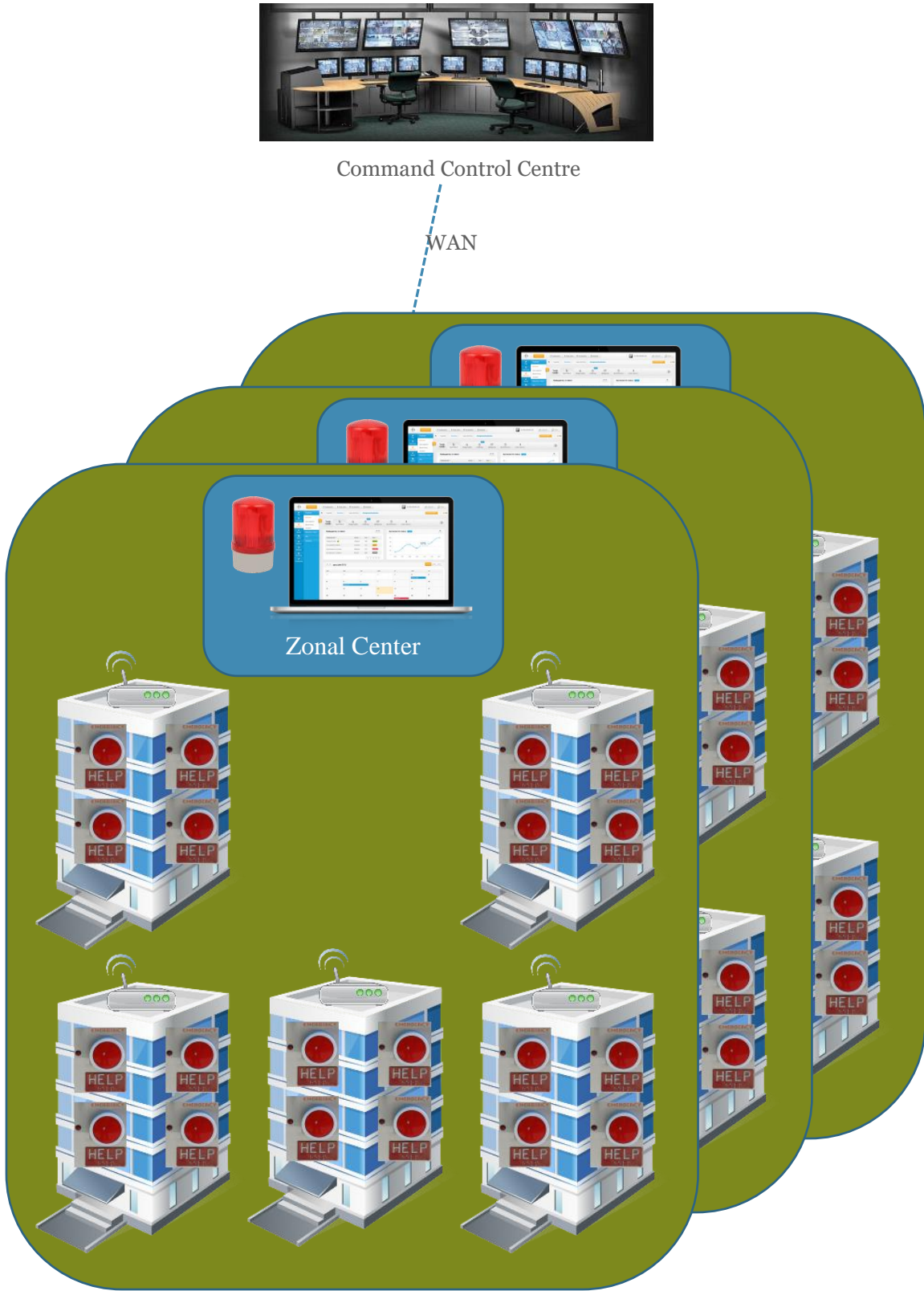
The **CEARS** consists of **Alert Notification System** and **Response Monitoring System**. The Alert Notification helps the local stations to send the emergency notification to response team and the multiple monitoring stations in a quick and reliable way. The Response Monitoring System helps the monitoring stations to register and track the responses of the Emergency Response Team.

The **Alert Notification System** consists of *Alert (a.k.a Panic) Buttons* that are installed at the local stations and the *Alert Indicators* at the Zonal, State & Central Monitoring centres. One or more *Alert Buttons* can be installed at each local station. When a person presses the *Alert Button*, the alert is sent to the *Emergency Response Team* and to the **Response Monitoring System**. The *Emergency Response Team* gets notified of the alert on their Smart Phone through SMS and Mobile App. When one of the team member acknowledges the alert, that information is relayed to the Monitoring Stations. During the response operation, the Mobile App tracks the location of the response team and relays that information to Monitoring Station. This helps the Monitoring Stations to evaluate the response times of the Response Team and enables them for any future improvements.

At the **Response Monitoring Station**, a *Buzzer* and *Red LED Light* get activated upon receipt of an alert. Once the alert is acknowledged, the *Buzzer* can be silenced by the *Monitoring Team*. The Central Monitoring Software at the Monitoring Station helps the Monitoring Team in tracking the responses of the Response Teams.



# iRam Centralized Emergency Alert & Response System



**Fig 1: Centralized Emergency Alert & Response System**



The Central Monitoring Software provides secure multi-user access with hierarchical privileges to users. Multiple users can login and access the system. It provides detailed reports and analysis of the emergency situations, their timelines, teams response times at individual station level or at zone levels.

## Technical Specifications

The following sections provide the specifications of the devices that are part of this solution.

### Alert Button

The Alert Button is installed at the Local Station. One or more Alert Buttons connect to the Gateway, which is also installed at the Local Station, through serial interface.

S.No	Item	Specification
1	<b>Body</b>	Ruggedized IP65 Metal Body
2	<b>Indicators</b>	Red LED Indicator to show that the button has been pressed
3	<b>Button Type</b>	Push type
4	<b>Connectivity to Gateway</b>	RS-485

### Gateway

The Gateway gets inputs from the Alert Button and communicates the same to the Zone and Central Monitoring Stations through WAN or GSM. For high reliability, the Gateway has provision for both WAN and GSM networks. It automatically chooses the best available network so that it can reliably send the alert notifications to the Monitoring Stations.

S.No	Item	Specification
1	<b>Body</b>	IP65 body
2	<b>Indicators</b>	2 (1 for WAN and another for GSM network)
3	<b>Button Type</b>	Push type
4	<b>Connectivity</b>	RS-485 for Alert Buttons, Ethernet Port and GSM

### Alert Indicator

The Alert Indicator is an integrated Buzzer cum flashing LED light indicator.

S.No	Item	Specification
1	<b>Body</b>	Durable ABS body
2	<b>Buzzer</b>	Up to 110 dB, can be controlled remotely
3	<b>Light Indicator</b>	Flashing LED bulb