Cell Broadcast Center

Key Operator Benefits

- **Regulatory Compliance:** Allows mobile operators to meet government regulations for emergency alert delivery

- **High-performance:** Ensures the delivery of messages to hundreds of millions of people at time of need

- **Easy-to-Use:** Advanced GUI
    - Visual map for delivery location selection
    - Message text entry, configuration and management

- **Real-time Delivery:** Timely delivery of sensitive location-based alert messages

Market Dynamics

During emergency situations such as an approaching storm (tsunami in some regions), earthquake, fire, transportation disasters, war, disease or other crises that affect the well-being of mass citizens, government officials need a high-performance alert message notification system to inform the civilians and secure their safety. With wide use of mobile handsets, wireless networks provide an attractive opportunity for delivering mass alerts and warnings, complementing other mechanisms used such as TV and radio. Mobile phones are generally kept close at hand in a variety of settings; their users can be reached on the street, in automobiles, and at home or at work, and audio alerts can even awaken people when they are sleeping. Also, the ability to target messages based on a cell phone's actual location makes it possible to target those individuals who would be most at risk in a crisis more precisely.

As such many governments around the world have launched PWS (Public Warning System that works on CMAS (Commercial Mobile Alert System) structure) in LTE as a regulatory program that mobile networks operators must comply with. The objective of PWS is to make sure that the president and various branches of government responsible for the order, safety and security of citizens can alert and warn the public in cases of emergency.

Defne's Cell Broadcast Center (CBC) solution is a telco-grade mobile alert notification system that operators can rely upon to comply with regulatory requirements and government officials can rely upon to secure the well-being of their citizens.

Product Overview

Defne's **Cell Broadcast Center** solution provides mobile operators with the capability to reach every wireless user in a targeted geographic area with potentially urgent information when needed. The solution enables the delivery of time sensitive/real-time and location-based warning messages in the event of emergencies. From earthquake, civil rebels, hurricanes, to wildfires, homeland security and alerts, Defne's Cell Broadcast solution allows operators to provide life-saving and safety-enhancing information in seconds to wireless users. The message can contain what the hazard is, the area affected, the expected duration, what to do immediately, and how to get additional information. The information allows the receiver to react and protect themselves while being directed to additional information sources or systems. The Cell Broadcast Center solution serves as a powerful and more comprehensive public safety communications system.

Defne's Cell Broadcast Center solution is a high-performance platform that can deliver PWS emergency messages to cell phones in an affected area, regardless of the size of the area. As cell broadcast is not limited by traffic loads, the system operates during disaster even when networks are jammed and ensures the delivery of messages to hundreds of millions of people at the time of need.

Key Subscriber Benefits

- **Peace of Mind:** Ensures critical life-saving alerts and message are delivered in real time. Ensures public safety.

Key Features

- Fully supports PWS (Public Warning System) and CMAS (Commercial Mobile Alert System) requirements
- 2G/3G/4G network support
- Graphical User Interface (GUI) for internal users that supports
  - Location and cell broadcast message text entry
  - All broadcast message configuration and management
  - Message delivery location selection through visual map
  - User based rules and privileges
  - Secure connection for users from regulatory bodies
- Location-based targeting
- Message delivery to an entire city, county, region or state-wide even if the mobile network is jammed
- Database layer for storage of data including:
  - Cell locations
  - Service parameters and configurations
  - Users' information
- Application layer connects to RAN elements such as BSC, RNC, MME and sends cell broadcast messages:
  - API module provides a Web Services API to the external applications
  - SNMP module is responsible for firing SNMP traps to the operator's monitoring system in case a module or application does not work properly
- Multi-layer approval mechanism
- Advanced alarm management
- N+1 and geographical redundancy configuration to guarantee continuous functionality even in case of an equipment failure
- Daily logs