



**SPECIFICATIONS TO ENABLE CELL BROADCAST  
FOR EARLY WARNING SYSTEM (EWS)**

**BY THE TELECOMMUNICATIONS REGULATORY AUTHORITY**

**KINGDOM OF BAHRAIN**

*Version 1.0*

## 1. Preamble:

The Telecommunications Regulatory Authority (TRA) Bahrain has implemented a national Public Warning System (PWS), also called Early Warning Systems (EWS), that is designed to disseminate critical alerts to the public during emergencies. This system will leverage Cell Broadcast technology to ensure timely and reliable delivery of warnings to all compatible devices across the Kingdom.

In collaboration with the Early Warning Center and relevant stakeholders, this initiative aims to enhance national preparedness and public safety by enabling rapid communication of life-saving information during natural disasters, public health emergencies, or other crisis situations.

This document defines the technical requirements and specifications necessary to support the Public Warning System across all compatible devices available in the Bahraini market.

## 2. Technical Specifications:

- a) All the handsets shall be configured by default to receive all warning notifications.
- b) The handset shall display the warning notification immediately and without user interaction.
- c) The warning notification shall override the handsets' settings that prevent the warning from occurring.
- d) Handset shall present the warning notifications in language as sent by the service provider.
- e) The alerting of the warning notification shall continue until suppressed by users' manual operation e.g. pushing keys.
- f) All the available technologies (2G, 3G, 4G and 5G) in the handset shall support the cell broadcast.
- g) Messages should at least support 3 languages, namely, Arabic, English and Urdu.
- h) The Handset should have the capability to receive the 15 pages as per the standard (Maximum number of characters). However, handset should show the message in one page (scrolled page in case of large message).
- i) All the emergency alert messages should be immediately recognizable i.e. special and high-volume tone (maximum) with vibration for such messages.
- j) The emergency warning message should stay on the display regardless of the user setting (unlocked and locked states of devices), until the message indication is cancelled by the user.
- k) Handset should have the ability to present previously displayed warning notifications if requested by the user.
- l) The handsets shall comply with 3GPP TS 23.041 version 9.5.0 or the updated versions.

m) The handset shall be able to support scheduled reception of multiple warning notification according to the order of the receipt of the message.

n) The following technical details shall be implemented in all the handsets:

MsgID (Primary Block)	MsgID (Secondary Block)	Class	Arabic Title	English Title	Audio Type	Audio Duration	Vibration	Popup	Default	Opt-out	Settings Page
4370	4383	Class 1	تحذير طارئ وطني	National Emergency Alert	Audio Signal	10.5 seconds	Yes	Yes	On	No	Hidden
4371	4384	Class 2	تحذير طارئ لتهديد وشيك	Imminent Threat Emergency Alert	Audio Signal	10.5 seconds	Yes	Yes	On	No	Hidden
4373	4386	Class 3	تحذير السلامة العامة	Public Safety Warning Alert	SMS Tone	SMS Tone	Yes	Yes	On	Yes	Shown
4381	4394	Class 4 (Twice a Year)	تمرين	Exercise	Audio Signal	10.5 seconds	Yes	Yes	On	No	Hidden
4380	4393	Class 5	رسالة تجريبية	Test Alert	SMS Tone	SMS Tone	Yes	Yes	Off	Yes	Shown
4382	4395	Class 6*	رسالة تجريبية	Test Alert	SMS Tone	SMS Tone	Yes	Yes	Off	Yes	Shown

\* Class 6 is meant for implementation on preconfigured devices, and shall not be implemented on commercial Mobiles (For Operator Use Only)

### 3. Effective Date

All handsets entering the Kingdom of Bahrain shall be type-approved and shall comply with these specifications from a date to be announced by the Telecommunications Regulatory Authority.