CITRA

الهيئة العامة للاتصالات و تقنية المعلومات

COMMUNICATION & INFORMATION TECHNOLOGY REGULATORY AUTHORITY

National Emergency Alert System Management Policy via Cellular Broadcasting Technology

Version: 1.0

Contents

Introduction

This policy aims to regulate the operation of the National Emergency Alert System in the State of Kuwait using Cell Broadcast technology, ensuring that official alerts and warnings are delivered to mobile device users in an instantaneous, safe and reliable manner during emergencies and disasters.

This policy is in line with international best practices and standards issued by the International Telecommunication Union (ITU), GSMA, 3GPP, and ETSI, and enhances national preparedness for risk management, protection of lives and property and public safety.

Technical definitions and terms:

The following words and phrases shall have the meanings assigned to them wherever they appear in this guide and as adopted as the definitions contained in the Communications and Information Technology Regulatory Authority Law and its Executive Regulations:

Cell Broadcast: A feature of mobile telecommunications networks that enables the simultaneous transmission of warning messages to all mobile devices within a specific geographical range, using the mechanism of broadcasting through the base stations of cellular communication networks.

Public Warning System (PWS): Known in this document as the "National Emergency Alert System", it is a system that allows competent and authorized authorities to issue and distribute warning notices to the public about imminent or ongoing emergencies, via mobile telecommunications networks within a specific geographical range.

CBC (Cell Broadcast Center) is the central system for telecommunications network operators, which is responsible for broadcasting alert messages

through telecommunications towers to all phones in a specific geographical area using cell broadcast technology.

Main Functions:

- Receive alert messages from the CBE system.
- Message processing and identifying target cells or geographic areas.
- Send messages to telecommunications network elements (such as tower stations).
- Broadcast messages frequently to ensure they reach all devices in the region.

CBE (Cell Broadcast Entity) System: It is the central system of the government entity to create and manage alert messages before sending them to the CBC system to broadcast them over telecommunication networks.

Main Functions:

- Create and draft alert messages.
- Specify the alert level or type (emergency, warning, information).
- Identify the geographic area targeted by the alert.
- Approve the message and send it to the CBC broadcast system.

Article One: Policy

The provisions of this Policy apply to:

- All mobile networks licensed to operate in the State of Kuwait.
- All senders of warning and emergency messages issued by national government agencies authorized to issue alerts, in particular the General Directorate of Civil Defense.
- All mobile network generations (2G/3G/4G/5G) or future generations and all cellular compatible devices in the Kuwaiti market.

Article Two: Objectives

- Provide a reliable and congestion-free national channel to broadcast emergency alerts and warnings using cellular broadcasting technology.
- Ensure that alerts reach all users within the target geographic range, regardless of device type, network status, or subscription.
- Enable and support for geo-directed messages in Arabic and English, with the ability to add other languages when needed.
- Achieving compatibility with the Common Alert Protocol (CAP v1.2) to facilitate national, regional and international integration in the field of warning exchange.

Article Three: Organizational Principles

All mobile network operators licensed to this policy shall adhere to the following principles:

1) All telecom operators are committed to enabling and supporting cellular broadcasting technology across all generations of their networks.

2) Each operator is obliged to establish and operate its own CBC cellular broadcasting center, and to link to the central national platform CME approved by the Public Authority for Communications and Information Technology.
3) Operators' cellular broadcast centers must be linked to the approved government cellular broadcasting system (CBE) to pass official alerts.
4) All warning messages must be digitally signed and authenticated through the government broadcasting system, with records of use and operation maintained for a minimum of (24) months.
5) Send all alerts in Arabic and English, with the ability to add any additional languages as needed.
6) The concerned authorities are committed to conducting periodic and structured tests in coordination with the competent national authorities, including silent tests and live simulations.
7) All mobile devices available in the Kuwaiti market must be cellular broadcast enabled and enabled to receive alerts by default, and operators should coordinate with manufacturers and distributors to ensure compliance.
8) All emergency alerts and warnings are provided free of charge to all users, without any delay, blocking or commercial use.

Article Four: Roles and Responsibilities

Communications and Information Technology Regulatory Authority (CITRA)

- Develop the regulatory framework and supervise the implementation of the provisions of this policy.
- Approval of the technical specifications of cellular broadcasting centers (centralized or distributed).

- Oversee integration with crisis and emergency management systems.
- Coordinate relevant outreach and training programs.

Licensed Mobile Network Operators

- Establishment, Maintenance and Operation of Cellular Broadcast Center (CBC) Infrastructure
- Facilitating linkage with the system of approved alarms.
- Ensuring the operational readiness of the system around the clock, all days of the week.
- Implement security, testing and audit requirements.
- Participate in simulation exercises and public awareness.

Authorities authorized to issue alerts (General Directorate of Civil Defense)

- Issuance of alerts and warnings via the CAP v1.2 protocol through the Government Broadcasting System (CBE).
- Ensure the accuracy, credibility, and suitability of the messages for public publication.

Article Five: Compliance and Control

The Communications and Information Technology Regulatory Authority (CITRA) monitors compliance with the provisions of this Policy through periodic audits, technical reports, and simulation tests.

Operators are obliged to report any security incidents or operational failures related to the National Alert System, and to comply with the reporting requirements set by the Authority.

In case of non-compliance, the Authority has the right to take the regulatory actions stipulated in the relevant laws and regulations, including imposing appropriate fines or penalties.

Article Six: Revision and Modernization

This Policy and the Annex are subject to periodic review and update, or as needed, in light of technical developments, updates to international standards, or changes in national risk assessment.

Article Seven: The Application

The provisions of this Policy and the Annex shall be effective as of the date of its issuance, and all parties covered by its provisions shall be obliged to regularize their status as stated therein within the periods determined by The Communications and Information Technology Regulatory Authority.

Without prejudice to the provisions of the Penal Code and related laws, it is prohibited to issue, pass or manipulate any emergency alert letter without an official authorization approved by the competent authority, which is a serious violation that requires administrative and organizational accountability, in addition to criminal accountability when its elements are available.

Appendix 1

This Annex sets out the detailed technical requirements for the National Cellular Alert System, in accordance with the latest specifications of ETSI TS 102 900 and 3GPP TS 23.041, and in line with best practices and approved international standards, with Arabic as a primary language and English as a secondary language.

First: Standards and Technical References

Telecom network operators are obliged to implement the National Cellular Alert System in accordance with the following standards including any subsequent releases or updates:

- ETSI TS 102 900 – Public Warning System using the Cell Broadcast Service
- 3GPP TS 23.041 – Technical realization of the Cell Broadcast Service mobile network generations (2G/3G/4G/5G)

Second: Regulation of Languages and Broadcasting Channels

- Arabic shall be adopted as the primary national language of the National Emergency Alert System.
- English shall be supported as a secondary language to ensure that alerts are understandable to the widest possible audience.
- Alert messages shall support multilingual content in accordance with the Common Alerting Protocol (CAP v1.2).
- Alert messages may be transmitted in one of the following operational modes:
    a) A single Cell Broadcast message containing multiple languages within the same message body; or

b) Separate Cell Broadcast messages using different Message Identifier ranges for each language.

- Message Identifier ranges defined in Table (1) shall continue to apply to alert categories and device behavior, regardless of whether alerts are transmitted in single-language or multi-language format.
- The CBE platform shall ensure correct language encoding using the CBS Data Coding Scheme and Unicode (UCS-2) where required.

Third. Bands of Cellular Broadcast Message IDs

Main Channel (Arabic)	Secondary Channel (English)	Alert Name
4370	4383	National Warning Alert (Level 1)
4371	4384	Emergency Alert (Level 2)
4373	4386	General Alert (Level 3)
4380	4393	Test Alert (Level 4)

Table (1)

The secondary language range is used only when the secondary channel is enabled and according to the device's language settings.

Fourth: Language Coding Requirements

- Each Cell Broadcast message shall include the appropriate Data Coding Scheme (DCS) as defined in 3GPP TS 23.041.
- The alert system shall support Unicode (UCS-2) encoding to ensure proper rendering of Arabic and English text on all supported mobile devices.

- Where multilingual alerts are transmitted within a single Cell Broadcast message, all language content shall be encoded using UCS-2.
- When alerts are transmitted using separate Message Identifier ranges for different languages, the appropriate language indication shall be applied using the CBS Data Coding Scheme.
- The Cell Broadcast Entity (CBE) platform shall ensure that message encoding and formatting remain compatible with mobile devices across all supported network generations (2G, 3G, 4G and 5G) or future generations.
- Message content shall be structured in a clear and sequential format when multiple languages are included in a single alert message.

Fifth: The Behavior of Mobile Devices

The alert categories defined in Table 1 apply to the behavior of the devices according to Table 2.

Table (2) shows the behavior of the phone by alert category.

Alert Level	Default Activation	Cancellation From Setting	Audio Alarm Type	Approximate Sound Duration (In Seconds)	Vibration	Works In Silent Mode
Level 1	Yes	No	High Emergency Tone	10.5	Yes	Yes
Level 2	Yes	Yes	SMS Tone	10.5	Yes	Yes
Level 3	Yes	Yes	Silent	10.5	Yes	No
Level 4	No	Yes	SMS Tone	10.5	Yes	No

Table (2)

Sixth: Requirements for Presentation and Interaction

- The alert message is displayed immediately upon receipt without user intervention.
- The letter remains on display until acknowledgment where required.
- You may not reply, forward, or copy the message.
- Links or contact numbers may be included in accordance with the approved national policy.

Seventh: Geographical Liquidation

- Geotargeting should be supported up to the cell level.
- Device-Based Geo-Fencing (DBGF) should be supported wherever it is supported by the network and the device.

Eighth: Modification and Organizational Independence of the Annex

- This Technical Annex is a technically independent document that complements the main regulatory policy of the National Alert System.
- The Communications and Information Technology Regulatory Authority (CITRA) may amend or update this Technical Annex independently of the Basic Regulatory Policy, whenever the technical or operational need arises.
- Possible modifications include, but are not limited to, updating reference standards, cellular broadcast message identifier ranges, device behavior policies, or coding requirements.
- Amendment to this Technical Addendum does not require the re-issuance or modification of the underlying Organizational Policy, provided that the amendments do not conflict with the Organizational Principles contained therein.