



Draft Regulations for the National Alert Warning System in the Electronic Communications Sector in The Bahamas

Consultation Document

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1. Introduction

In this consultation document, the Utilities Regulation and Competition Authority (“URCA”) provides a rationale for a National Alert Warning System (NAWS) in The Bahamas and sets out the Draft Regulations for a NAWS.

URCA is the independent regulator for the electronic communications sector (“ECS”) in The Bahamas comprising fixed and mobile telecommunications services, broadcasting, and the management of spectrum and numbering resources. URCA’s powers and responsibilities for the ECS have been established under the Communications Act, 2009 (“Comms Act”), which charges URCA with, amongst other things, the responsibility for implementing the ECS Policy.

One of the main policy objectives of the Comms Act requires URCA to further the interests of persons in The Bahamas in relation to the electronic communications sector by maintaining public safety and security. URCA’s mandate is to introduce regulatory and other measures which are efficient and proportionate to its purpose and must introduce them in a manner that is transparent, fair and non-discriminatory. Where URCA believes that market forces alone are unlikely to achieve an ECS policy objective URCA may issue regulatory, or other measures, having due regard to the costs and implications for affected parties. In accordance with its mandate, URCA issues this public consultation document on the Draft Regulations for the National Alert Warning System Regulations (“the Draft Regulations”).

1.1 Background

The Government of the Bahamas has taken decisive steps to implement a national alert warning system (NAWS). In 2022, in furtherance of the Government’s plans, the Ministry of National Security along with its partners, The Bahamas Telecommunications Company (“BTC”) and Be Aliv Limited (“Aliv”) commenced work on a comprehensive public warning system (PWS) aimed at public safety.

In its current state, the NAWS (commonly known as PWS) is a Commercial Mobile Alert System (CMAS) which is a public warning system that delivers warning notifications provided by warning notification providers. These warning notifications or alerts are sent to personal mobile devices disseminating information pertaining to natural, technological, or man-made events that threaten serious damage to human life; human welfare; the environment; the economy; and or security within the Commonwealth of The Bahamas. A PWS could consist of a mixture of technologies that work best for a country. Countries

including the United States, Taiwan, Switzerland, Sweden, South Korea, Singapore, Romania, Norway, New Zealand, Netherlands, Lithuania, Japan, Israel, India, Greece, Germany, Finland, Czechia, Canada, Belgium, and Australia have implemented public warning systems using mobile networks. Typically, the reason for using the cellular mobile network is that there is a high level of penetration in the mobile market and a large percentage of the public has access to a mobile phone which facilitates the PWS being used as a tool for communicating with the public in times of national emergencies.

URCA believes that there is a need to establish regulations for the NAWS to ensure that critical information from the authorities is disseminated to the public in the most effective and efficient manner possible through the mobile networks. The Draft Regulations will provide the framework necessary to ensure that Participating Service Providers know what is expected of them at all times. This approach could lead to a system that is mutually beneficial to all stakeholders and consistent with international best practices.

1.2 Objectives of this Consultation

Pursuant to section 11 of the Comms Act, URCA is required to allow persons with sufficient interest a reasonable opportunity to comment on proposed regulatory or other measures which are of public significance in URCA's opinion. URCA considers the Draft Regulations to be a regulatory measure of public significance as they will lead to a significant impact on the persons carrying on activities in the Bahamian ECS and the general public in The Bahamas. Considering the foregoing, URCA is of the view that public consultation is warranted to provide the members of the public, licensees within the Bahamian ECS and other interested parties a reasonable opportunity to provide comments on the Draft Regulations.

In this Consultation Document, URCA:

- i. provides a rationale for the Draft Regulations;
- ii. sets out the Draft Regulations it proposes to implement in support of a NAWS in The Bahamas;
and
- iii. invites comments from interested parties and members of the public on URCA's proposals.

1.3 Responding to this Consultation

Respondents should submit written responses to this document to URCA by 5:00 p.m. on 28 February 2023. Persons may send their written responses or comments to URCA's Chief Executive Officer, either:

- by hand, to URCA’s office at Frederick House, Frederick Street, Nassau, Bahamas; or
- by mail, to P. O. Box N-4860, Nassau, Bahamas; or
- by fax, to (242)-393-0237; or
- by email, to info@urcabahamas.bs.

1.4 Confidentiality

URCA considers that, as a matter of transparency and good regulatory practice, it is important for the public and interested parties to this consultation process to have sight of the views and positions expressed by all Respondents. As such, as soon as reasonably practicable after the close of the response date for this consultation, URCA intends to publish all responses on the URCA website at www.urcabahamas.bs.

However, URCA may treat responses that are clearly marked (in part or full) as being confidential. An explanation should be provided to URCA to justify any information that is submitted on a confidential basis. In such circumstances, a redacted version should also be submitted to URCA. URCA has the sole discretion to determine whether to publish any submission marked as confidential.

1.5 Structure of this Document

The remainder of this Consultation Document is structured as follows:

- Section 2 outlines the regulatory framework for this consultation process;
- Section 3 provides context for the proposed regulatory intervention;
- Section 4 provides the Draft National Alert Warning System Regulations;
- Section 5 sets out the Assessment of Regulatory Options;
- Section 6 sets out the next steps; and
- Section 7 lists the public consultation questions

2 Regulatory Framework for this Consultation

In this section of the consultation document, URCA sets out the regulatory framework under which URCA proposes to establish and implement the Draft Regulations.

2.1 **Communications Act, 2009**

Section 4 of the Comms Act sets out the main objectives of the electronic communications policy of The Bahamas which URCA is mandated to advance, namely:

- (a) to further the interest of consumers by promoting competition and in particular –
 - (i) to enhance the efficiency of the Bahamian electronic communications sector and the productivity of the Bahamian economy;
 - (ii) to promote investment and innovation in electronic communications networks and services;
 - (iii) to encourage, promote and enforce sustainable competition; and
 - (iv) to promote the optimal use of state assets, including radio spectrum; and

- (b) to further the interests of persons in The Bahamas in relation to the electronic communications sector by –
 - (i) promoting affordable access to high quality networks and carriage services in all regions of The Bahamas;
 - (ii) maintaining public health and safety;
 - (iii) contributing to the protection of personal privacy;
 - (iv) limiting public nuisance through electronic communications;
 - (v) limiting any adverse impact on networks and carriage services on the environment; and
 - (vi) promoting availability of a wide range of content services which are of high quality.

Section 5 of the Comms Act directs URCA to ensure that all policy measures, decisions and laws to take effect in the ECS in The Bahamas should be made with a view to implementing the electronic communications policy objectives but must also comply with the following guidelines:

- (a) market forces shall be relied upon as much as possible as the means of achieving the electronic communications policy objectives;
- (b) regulatory and other measures shall be introduced –

- i. wherein the view of URCA, market forces are unlikely to achieve the electronic communications policy objective within a reasonable time frame; and
 - ii. having due regard to the costs and implications of those regulatory and other measures on affected parties;
- (c) regulatory and other measures shall be efficient and proportionate to their purpose and introduced in a manner that is transparent, fair and non-discriminatory

Section 8(1) of the Comms Act empowers URCA as the regulator for the ECS in The Bahamas, to amongst other things, make determinations, issue regulations, issue directions and decisions, impose conditions and penalties by order and issue technical rules and standards.

Section 11 (1) of the Comms Act mandates URCA to:

- (a) Allow persons with sufficient interest a reasonable opportunity to comment on proposed regulatory or other measures which in the opinion of URCA, are of public significance;
- (b) Accept as having sufficient interest for the purpose of paragraph (a) persons whose rights or interests may be materially adversely affected or prejudiced by the proposed regulatory and or measures; and
- (c) Give due consideration to the comments of persons having sufficient interest prior to introducing the regulatory and other measures concerned.

Section 13 of the Comms Act states that a regulatory and other measure is likely to be of public significance if it relates to electronic communications services or networks and can lead to one or more of the following –

- (a) invoke a major change in the activities carried on by URCA under the Comms Act;
- (b) a significant impact on persons carrying on activities in those areas where URCA has functions under the Comms Act; and
- (c) a significant impact on the general public in The Bahamas.

URCA is satisfied that the Draft Regulations are matters of public significance as they will lead to a significant impact on the persons carrying on activities in the Bahamian ECS and the general public in The

Bahamas. Considering the foregoing, URCA is of the view that public consultation is warranted to provide the members of the public, licensees within the Bahamian ECS and other interested parties a reasonable opportunity to provide comments on the Draft Regulations.

2.2 Other Relevant Laws and Authorities

URCA recognizes paragraphs 20 and 21 of Annex 1 of the *Electronic Communications Sector Policy 2020-2023* (ECSP), which identifies the dependency on electronic communications in disaster risk reduction initiatives, and in particular, the pilot national alert messaging system launched in 2017 with the intent of notifying residents during emergency events to reduce risks and loss of life and property.

URCA recognizes the authority of the Office of the Prime Minister of the Commonwealth of The Bahamas with respect to Disaster Preparedness, Management and Reconstruction and the authority granted to the National Emergency Management Agency (NEMA) on 1 March 2006 under the Disaster Preparedness and Response Act, 2006 (DPRA). The DPRA establishes NEMA as the governmental agency with responsibility for disaster relief management especially as it relates to the mitigation of, preparedness for, response to, and recovery from emergencies and disasters on a national level and charges NEMA with the responsibility to provide technical advice on draft regulations under any Act relating to the mitigation of, preparedness for, response to and recovery from emergencies and disasters in The Bahamas.

URCA recognizes the authority and powers of the Minister responsible for National Security as granted by section 148B (1) and (2) of the Child Protection Act, (Ch. 32) (CPA) as amended from time to time, to:

- make regulations providing the protocols to be observed before and at the time an alert is issued with respect to a missing child (also known as a Marcos Alert); and
- to collaborate with relevant agencies to coordinate the support of such agencies in partnering with law enforcement with the goal of recovering missing children.

URCA also recognizes the Child Protection (Marco Alert) Regulations, 2016 issued on 26 January 2016 by the said Minister which sets out, amongst other things, the requirements for the conditions of the operation of Marco Alert.

URCA recognizes the authority of any other relevant laws, rules, or regulations.

3 Context for this Consultation

The CPA, amongst other things, establishes the guidelines for when alerts are to be broadcast, and the media used for broadcasts. Section 148A (2) of the CPA states upon the issuance of an alert pursuant to subsection (1), the Commissioner of Police shall cause an alert to be broadcast via -

- i. commercial radio stations;
- ii. television broadcasts;
- iii. teletext communications;
- iv. electronic network systems;
- v. the erection of billboards; or
- vi. such other means as the Minister responsible for national security may deem appropriate.

The CPA was later followed by the *Child Protection (Marco Alert) Regulations, 2016* (CPR). In the CPR issued by the Minister responsible for National Security, the Minister addressed the following issues:

- i. protocol for activating Marco Alerts;
- ii. runaways, etc;
- iii. activation of alerts;
- iv. contents of alert;
- v. broadcast or publication of alerts;
- vi. frequency and cessation of alerts;
- vii. recording of alerts; and
- viii. notification.

Other key contributors of note to the requirement for alert warning systems are the devastation caused by Hurricane Dorian in 2019 and the toll on the economy and healthcare system as a result of the Covid-19 Pandemic. The aforementioned events represent classic examples of instances where an alert warning system would perform an essential role in the economic and social welfare of The Bahamas in times of unpredictable and unforeseen conditions that have the potential to adversely impact the public.

A conventional method for warning citizens is the use of sirens strategically placed in communities. Today, there are various methods that Governments use to warn the public of an emergency situation. Some common PWS, inter alia, are:

- i. SMS Text Systems;
- ii. Outdoor Public Warning e.g., sirens and speakers;

- iii. Mass Notification Systems i.e., the distribution of recorded messages via landline; and
- iv. Cell Broadcast Systems.

A PWS requires the coordination of public authorities, agencies, and wireless or cellular mobile Participating Service Providers (CMSP) to ensure that the alert is disseminated in a timely and accurate manner. It is equally important that measures be put in place to ensure that people and communities that are likely to be or have been affected receive the alerts without failure and without interference from others who may seek to infiltrate an insecure system with the intention of causing fear and panic amongst the public in a non-emergency event.

It is against this backdrop that URCA seeks to consult the relevant stakeholders on a framework designed to ensure that the NAWS in The Bahamas is secure, effective, and acts as a life-saving tool that promotes the social and economic welfare of the public.

3.1 Alert Capabilities

Conventional PWS have different capabilities in terms of security, data rate, and latency. The capabilities of the PWS depend on the design of protocols to deliver warning messages and interfaces between the PWS and the public. Table 1 below provides an overview of the technologies that could implement a PWS and have a general warning.¹

Table 1: Overview of systems to disseminate warning messages

Systems and relevant bearer services		Alert capability	Information	Coverage	Availability	Security	Data rate	Latency	Multicast Broadcast	Geocast
Siren		+++	-	+	++	+++	-	+++	++	+
Tannoy		+++	+	+	+++	-	-	-	++	++
Information electronic billboard		-	+	+	+++	+++	++	+++		
Land mobile wireless networks	SMS	++	+	+++	++	+	+	++	-	++
	Cell Broadcast	++	+	+	++	+	+	++	+++	++
	Internet access	++	+++	++	++	+	+++	+++	+++	+++

¹ Source: Science Direct: Design Aspects in Multi-channel Public Warning Systems, 2016

Terrestrial data networks	Internet access	-	+++	++	++	+	+++	+++	+++	+++
Satellite data networks		+	+++	+++	+++	++	+++	+	+++	+
Pager systems	Data channel	++	+	+	++	++	+	++	-	-
TV Broadcast (S, T, C)	Data carousel	+	+++	+++	+++	++	+++	+	+++	+
Hybrid broadband broadcast TV	Data carousel	+	+++	+++	+++	++	+++	+	+++	+
	IP connection	+	+++	+	++	+	+++	+++	+++	+
Radio Broadcast	Radio Data Service (RDS)	+	+	+	+++	++	+	++	++	+
SBAS* / GNSS**		+	+++	++	+++	+++	+	+	++	+++
Building security system	Notification systems	+++	+	+	+++	+++	+	+++	++	++
	Evacuation systems	+++	++	+	+++	+++	++	+++	++	++

Note: '+++’ means highly effective; ‘++’ means moderately effective; ‘+’ means least effective; and ‘-’ means ineffective.

Note: SBAS means Satellite Based Augmentation System and GNSS means Global Navigation Satellite System.

Table 1 lists several information and communication technologies that may be used to deliver warning messages. The most primitive form of PWS systems includes a network of sirens that sound imminent threats and communicate the steady state of an event. Although the transmission of alert messages using traditional media, such as TV and radio, is still relevant, technological, and behavioural constraints make it advisable to use multi-channel warning approaches, which include the use of personal receiver devices, such as smartphones, tablets, PCs and navigators to increase alert message penetration and therefore alert message efficiency.²The mobile device PWS is in this view a complement to a whole set of communication media and should be taken into consideration by authorities when organizing civil safety, in the frame of an overall scheme for population protection.³

² Cristina Párraga Niebla, Javier Mulero Chaves, and Tomaso De Cola, “Design Aspects in Multi-channel Public Warning Systems” Public Warning System - an overview | ScienceDirect Topics, 2016, 227-261 accessed December 1, 2022, <https://www.sciencedirect.com/science/article/pii/B9781785480522500086>

³ ETSI TS 102 900 V1.3.1 (2019-02) Technical Specification. Emergency Communications (EMTEL); European Public Warning System (EU-ALERT) using the Cell Broadcast Service, February 2019, accessed 1 December 2022, https://www.etsi.org/deliver/etsi_TS/102900_102999/102900/01.03.01_60/ts_102900v010301p.pdf

3.2 International Regulatory Framework

European Telecommunications Standards Institute (ETSI) is an independent, not-for-profit, standardization organization in the field of information and communications and has developed and tested global technical standards for PWSs used in the USA, Canada, and Europe. The substantive international regulatory framework on PWSs was set out in:

- Digital cellular telecommunications system (Phase 2+) GSM: Universal Mobile Telecommunications Systems (UMTS) LTE Study for requirements for Public Warning System (PWS) service (3GPP TR 22.968 version 15.0.0 release 15);
- Emergency Communications (EMTEL); European Public Warning System (EU-ALERT) using the Cell Broadcast Service (ETSI TS 102 900 V1.3.1);
- Digital cellular telecommunications system (Phase 2+) GSM: Universal Mobile Telecommunications Systems (UMTS) Public Warning System (PWS) requirements (3GPP TR 22.968 version 16.4.0 release 16);
- Federal Communications Commission (FCC), 47 CFR Part 10 – Wireless Emergency Alerts; and
- Canadian Radio-Television and Telecommunications Commission (CRTC) – National Public Alerting System.

3.3 Infrastructure Requirements

ETSI's Emergency Communications (EMTEL); European Public Warning System (EU-ALERT) using the Cell Broadcast Service defined the system requirements for European Public Warning Systems using Cell Broadcast Technology as a means of message distribution and delivery to User Equipment (UE). The PWS having the ability to send important announcements to network users in real-time is a critical capability of mobile networks and even a legal requirement in many countries. The current development of personal and portable receiver devices that provide a wide range of communication interfaces (including the use of terrestrial, satellite, and mobile wireless networks as well as global navigation satellite systems (GNSS)) makes it possible to develop public warning applications that can directly receive alert messages generated by public warning systems without being processed or manipulated by any intermediate broadcaster. PWS support in the cellular architecture relies on the concept called Cell Broadcasting which is the ability to trigger the radio network to simultaneously broadcast one short message to multiple

mobile devices in the network.

3.3.1 Equipment Requirements

To ensure the full functionality of mobile devices, it is proposed that Participating Service Providers shall ensure that mobile devices, dependent on the Participating Service Provider's infrastructure, are able to perform the following functions:

- i. authenticate interactions with the Participating Service Provider's infrastructure;
- ii. monitor for alert messages;
- iii. maintain subscriber alert opt-out selections;
- iv. maintain subscriber alert language preferences, if any;
- v. extract alert content in English or the subscriber's preferred language, if applicable;
- vi. present alert content to the device, consistent with subscriber opt-out selections. National Alerts must always be presented;
- vii. detect and suppress duplicate alerts; and
- viii. preserve alert messages in a consumer-accessible format and location for at least 24 hours or until deleted by the subscriber.

Question 1: Equipment Requirements

Do you believe that The Bahamas should require Participating Service Providers to ensure that mobile phones are able to perform the aforementioned functions? If not, please provide reasoning for your answer(s).

3.3.2 Service Provider Alert Gateway Requirements

URCA believes that it is imperative for a Participating Service Provider's Alert Gateway to be able to perform several functions to be able to allow the Participating Service Provider to effectively participate in the NAWS. This section proposes specific relevant Alert Gateway requirements that is applicable to each Participating Service Provider's infrastructure.

- i. **General** – The Participating Service Provider's Alert Gateway shall provide secure, redundant, and reliable connections to receive alert messages from Ministry of National Security's Alert Gateway. Each Participating Service Provider's Alert Gateway must be identified by a unique IP address or

domain name.

- ii. **Authentication and Validation** - The Participating Service Provider's Alert Gateway must authenticate interactions with the Ministry of National Security's Alert Gateway and validate alert message integrity and parameters. The Participating Service Provider's Alert Gateway must provide an error message immediately to the Ministry of National Security's Alert Gateway if validation fails.

- iii. **Security** - The Participating Service Provider's Alert Gateway must support standardized IP-based security mechanisms such as a firewall, and associated protocols between the Ministry of National Security's Alert Gateway and the Participating Service Provider's Alert Gateway.

- iv. **Message Management** -
 - a. **Formatting** - The Participating Service Provider's Alert Gateway is not required to format or translate an alert message except for transcoding a text, audio, video, or multimedia file into the format supported by mobile devices.
 - b. **Reception** – The Participating Service Provider's Alert Gateway must have the functionality to start and stop alert messages from the Ministry of National Security's Alert Gateway to the Participating Service Provider's Alert Gateway.
 - c. **Prioritization** - The Participating Service Provider's Alert Gateway must process an alert message on a first in-first out basis except for National Alerts, which must be processed before all non-National Alerts.
 - d. **Distribution** - A Participating Service Provider must deploy one or more Participating Service Provider Gateways to support the distribution of alert messages and to manage alert message traffic.
 - e. **Retransmission** - The Participating Service Provider's Alert Gateway must manage and execute alert message retransmission and support a mechanism to manage congestion within the Participating Service Provider's infrastructure.

- v. **Alert Logging** – The Participating Service Provider's Alert Gateway must be capable of performing the following functions relative to logging:
 - a. **Logging Requirements** – A Participating Service Provider is required to log data pertaining to all alert messages received at the Participating Service Provider Alert Gateway inclusive of time stamps of messages received, rebroadcasted, or rejected by the Participating

Service Provider's Alert Gateway, and log relevant error code generated by a rejected alert message.

- b. **Maintenance of Logs** – A Participating Service Provider is required to maintain a log of all active and canceled alert messages for a minimum of one year after receipt of the alert or cancellation. This does not include test alert messages.
- c. **Availability of Logs** – A Participating Service Provider is required to make alert logs available to URCA upon reasonable request.

Question 2: Service Provider Alert Gateway Requirements

Do you believe that The Bahamas should require Participating Service Providers to comply with the Alert Gateway requirements? If not, please provide reasoning for your answer(s).

3.4 Alert Message Requirements and Classification

The purpose of a PWS is to alert and inform the public of imminent threats to life and property. PWS must provide officials with an effective way to warn the public about severe emergencies in real-time. Therefore, the PWS must consist of infrastructure that enables instantaneous, continuous, and coordinated broadcasting of information to the public. Typical use cases for PWS include sending warning messages about natural disasters, child abductions, and other important public announcements.

URCA proposes that every Participating Service Provider shall receive from the authorized authority and broadcast to users on the Participating Service Provider's network any of the four classes of alert messages described below:

- i. **National Alert:** A National Alert is an alert issued by the Prime Minister of The Bahamas or the Prime Minister's authorized designate, or by the Minister of National Security. National alerts may be nationwide. National alerts may be issued when environmental disasters, technological, biological (epidemic/pandemics), or man-made events among others threaten serious injury or damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on a national level.
- ii. **Emergency Alert:** An Emergency alert is an alert issued by the Prime Minister of The Bahamas or the Prime Minister's authorized designate, the Minister of National Security, or the National Emergency Management Agency (NEMA). Emergency alerts should be restricted to affected

islands only. Emergency alerts may be issued when environmental disasters, technological, biological (epidemic/pandemics), or man-made events among others threaten serious damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on specific islands.

- iii. **Marco's Alert:** A Marco's alert is an alert issued by the Minister of National Security or the Royal Bahamas Police Force. Marco's alerts should be restricted to affected islands only. Marco alerts may be issued pursuant to Regulation 3 of the *Child Protection (Marco Alert) Regulations, 2016*.
- iv. **Public Safety Message:** A Public Safety Message is an essential public safety advisory that prescribes one or more actions likely to save lives and/or safeguard property during an emergency. A Public Safety Message may only be issued in connection with an alert message classified in subsections (i), (ii), or (iii) of this section.

Question 3: Alert Message Requirements and Classification

Do you agree that URCA should require every Participating Service Provider to receive and broadcast to users, any of the four classes of alert messages? If not, please provide reasoning for your answer(s).

3.5 Option to opt out of Alert Notifications

In Canada, there have been discussions regarding the mandatory receipt of alert messages. Senior Officials Responsible for Emergency Management (SOREM),⁴ has developed a list of alert messages known as "broadcast immediately" (BI). These alert messages are recommended for immediate broadcast by last mile distributors. Based on studies conducted by CRTC anent stakeholder preferences, it found that most wireless Participating Service Providers submitted that users should have the ability to opt out or disable the ring tone and vibration for certain types of alerts. On the other hand, emergency management officials strongly supported mandatory receipt, or no opt out. In light of its findings, CRTC mandated the reception of emergency alert messages on mobile devices based on SOREM's BI list.

The United States' position on mandatory receipt provides subscribers with the option to opt out of three out of the four classes of alerts. The most severe alert known as the Presidential or National Alert is the only alert where subscribers are not given the option to opt out. Therefore, in the US, mandatory receipt

⁴ SOREM: A federal/provincial/territorial (FPT) body responsible for the harmonization of emergency practices through Canada

of alert messages only applies to the Presidential Alert.

Similar to the US, the 3GPP specifications i.e., TS 22.268 v 15.2.0 Rel 15, that apply to the EU-Alert have three types of warning notifications ranging from level 1 to level 3, with level 1 being compatible with the Presidential Alert in the US Wireless Emergency Alerts system. The aforementioned EU-Alert specifications have mandatory receipt of alert messages for level 1, and the option to opt-out for levels 2 and 3.

Section 4 (b)(ii) of the Comms Act requires URCA to further the interest of persons in The Bahamas by maintaining public safety and security, and section 4 (b)(iv) limiting public nuisance through electronic communications. Therefore having regard for section 4 (b)(ii), URCA proposes to require that it be mandatory for users to receive the following classes of alerts since these relate to critical public safety and security issues such as environmental disasters, technological, biological (epidemic/pandemics), or man-made events, inter alia, that threaten serious injury or damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on a national or island-specific level:

- i. National Alert; and
- ii. Emergency Alert

Question 4: Mandatory Alert Notifications

Do you agree that it should be mandatory for users to receive the National and Emergency Alerts without the ability to opt out? If not, please provide reasoning for your answer(s).

Also, having regard to section 4 (b)(iv), URCA proposes to require users to receive the following classes of alerts by default, but given the option to opt out:

- i. Marco's Alert: opt-out capability; and
- ii. Public Safety Message: opt-out capability

Question 5: Option to opt out of Notifications

Do you agree that users should receive Marco's Alert and Public Safety Message by default, but given the option to opt out? If not, please provide reasoning for your answer(s).

3.6 Test Framework for NAWS

Testing is an essential element of the successful implementation of any PWS. In the US, the FCC requires its Participating Service Providers to conduct monthly tests to ensure that its Wireless Emergency Alert (WEA) system is available and functional in the event of an emergency or a need to issue public advisories. The US requires that its testing be compliant with the alert message requirements as set out in the WEA regulations found in 47 CFR Part 10. Conversely, Canada requires that tests over the mandatory channel (i.e., no opt-out) be conducted once per year. Having considered the foregoing, URCA proposes to establish a *Test Framework for NAWS*. The proposed Test Framework for NAWS is set out below.

- i. **Required quarterly tests.** Testing of the NAWS from the Ministry of National Security's Alert Gateway to each Participating Service Provider infrastructure shall be conducted at least once every three (3) months. A Participating Service Provider shall:
 - a. ensure the Gateway supports the ability to receive a required quarterly test (RQT) message initiated by the Ministry of National Security's Alert Gateway Administrator;
 - b. schedule the distribution of the RQT to their NAWS coverage area over a 24-hour period commencing upon receipt of the RQT at the Participating Service Provider's Alert Gateway;
 - c. determine the method to distribute the RQTs;
 - d. ensure the RQT is initiated only by the Ministry of National Security's Alert Gateway Administrator using a defined test message. Real event codes or alert messages shall not be used for the PWS RQT message;
 - e. distribute an RQT within its NAWS coverage area within 24 hours of receipt by the Participating Service Provider's Alert Gateway unless pre-empted by actual alert traffic or unable due to an unforeseen condition; and
 - f. retain an automated log of RQT messages received by the Participating Service Provider's Alert Gateway from the Ministry of National Security's Alert Gateway.

Regarding the required quarterly test requirements, a Participating Service Provider may:

- g. schedule the delivery of RQTs over geographic subsets of their coverage area to manage traffic loads and to accommodate maintenance windows over the 24 hour period;
- h. forego an RQT if the RQT is pre-empted by actual alert traffic or if an unforeseen condition in the Participating Service Provider's infrastructure precludes the distribution of the RQT,

and shall indicate the unforeseen condition by a response code to the Ministry of National Security's Alert Gateway; and

- i. provide mobile devices with the capability of receiving RQT messages.
- ii. **Periodic interface testing.** In addition to the required quarterly tests, a Participating Service Provider must participate in periodic testing of the interfaces between the Ministry of National Security's Alert Gateway and its Participating Service Provider's Alert Gateway. This periodic interface testing is not intended to test the Participating Service Provider's infrastructure nor the mobile devices but rather is required to ensure the availability/viability of both Gateway functions. Each Participating Service Provider's Alert Gateway shall send an acknowledgment to the Ministry of National Security's Alert Gateway upon receipt of such interface test messages. Real event codes or Alert Messages shall not be used for periodic interface testing.
- iii. **Ministry of National Security's NAWS Testing.** A Participating Service Provider's Gateway shall support the ability to receive a Ministry of National Security's NAWS test message initiated by the Ministry of National Security's Alert Gateway Administrator and the Participating Service Provider:
 - a. Shall support Ministry of National Security's NAWS tests in a manner that complies with the Alert Message Requirements specified in Section 3.4;
 - b. shall immediately broadcast a Ministry of National Security's NAWS test to the geographic area specified by the alert originator; and
 - c. may forego a Ministry of National Security's NAWS test if the Ministry of National Security's NAWS test is pre-empted by actual alert traffic or if an unforeseen condition in the Participating Service Provider's infrastructure precludes distribution of the Ministry of National Security's NAWS test. If a Participating Service Provider Gateway forgoes a Ministry of National Security's NAWS test, it shall send a response code to the Ministry of National Security's Alert Gateway indicating the reason for forgoing a Ministry of National Security's NAWS test.

Question 6: Test Framework for NAWS

Do you agree with the Test Framework for NAWS as set out in section 3.6? If not, please provide reasoning for your answer(s).

3.7 Language Requirements

URCA is aware, through anecdotal evidence, of the presence of other nationalities residing in The Bahamas to the extent that, persons in The Bahamas whose native tongue is not English comprise a significant percentage of the Bahamas' population. The NAWS should be developed to ensure that alert messages are easily understood by the majority of the population. Having regard to the foregoing, URCA proposes that Participating Service Providers shall broadcast NAWS alert messages in the language issued by the Minister of National Security.

Question 7: Language Requirements

Do you agree that Participating Service Providers should be required to broadcast NAWS alert messages in the language issued by the Minister of National Security? If not, please provide reasoning for your answer(s).

3.8 Network Participation and Exemptions

The National Communications Commission of Taiwan auctioned spectrum licenses for LTE services in October 2013 and providing PWS via cell broadcast was a mandatory component of that license. The service has been active since 2015 and is compliant with the Alliance for Telecommunications Industry Solutions (ATIS) and 3GPP public warning Cell Broadcast standards.

Similar to Taiwan, in 2018, article 110 of the European Electronic Communications Code made it mandatory for all the Member States of the European Union to deploy a Public Warning System using telephone networks to alert everyone located in a specific area of an ongoing crisis or upcoming disaster by June 2022.

Since December 2014, the Netherlands Alert (NL-Alert) in mobile networks has been made mandatory for all Dutch telecommunications Participating Service Providers under Dutch Telecom law. The Dutch Government has decided to discontinue the use of sirens and only use the NL-Alert. Android, Windows OS, and Apple's iOS devices sold by operators are pre-configured for NL-Alert.

In 2017, the Canadian regulator, CRTC, consulted with the telecom stakeholders regarding mandatory

participation, and found that most respondents agreed that Wireless Service Providers should be required to participate in Canada's public warning system. Hence, CRTC asserted that participation of wireless Participating Service Providers would be in the public interest and help protect the Canadian public from imminent threats to life and property.

On the contrary, the US Wireless Emergency Alert policy allows for voluntary participation in its public warning system. Service providers wishing to withdraw from participating in part or whole must notify affected subscribers inclusive of the regulatory authority.

Having reviewed the requirements of the benchmarked countries, URCA considers that mandatory participation in NAWS would best advance the Section 4 (Comms Act) requirements to further the interests of consumers by maintaining public safety and security. Also, given The Bahamas' recent experience with Hurricane Dorian, the Covid-19 Pandemic, and other previous weather-related emergency events, URCA believes that mandating the participation of all cellular mobile Participating Service Providers in the NAWS would best further the Electronic Communication Sector Policy (ECSP) Objectives.

Question 8: Network Participation and Exemptions

Do you agree that all cellular mobile Participating Service Providers should be required to participate in the NAWS? If not, please provide reasoning for your answer(s).

3.9 Costs/Billing

In the Inter-American telecommunications region, Canada and the United States addressed the issue of cost and billing. In Canada, Participating Service Providers expressed that the implementation and maintenance of a PWS would create new capital and operating costs that should be recovered through the provision of services. Along the same lines, respondents expressed a variety of opinions in regard to how costs may be recovered such as the inclusion of an annual fee charged to wireless Participating Service Providers' customers and by way of federal funding. In contrast, one of the wireless Participating Service Providers, *Rogers Communications Canada Inc.*, submitted that it would not add additional charges to its subscribers' invoices to cover maintenance and implementation of the alerting system. The CRTC noted that based on the information received by its Participating Service Providers, that implementation, operational, and maintenance costs, would result in nominal costs on a per-customer

basis, but it would not be appropriate to identify a separate fee on subscribers' bills. In the US, there is no additional charge for these wireless emergency alerts. Having regard to the foregoing, URCA agrees that it would be inappropriate for any costs whatsoever in connection with the NAWS, including but not limited to its the implementation, operation, and maintenance, to be borne by the subscribers of communications service providers. Therefore, URCA proposes that Participating Service Providers shall be prohibited from charging their subscribers any fee whatsoever in connection with the NAWS.

Question 9: Costs/Billing

Do you agree that Participating Service Providers should be prohibited from charging their subscribers any fee whatsoever in connection with the NAWS? If not, please provide reasoning for your answer(s).

3.10 Standards and Technology

Standards

Standards play an important role in a PWS as they are the specific requirements, specifications, guidelines, and characteristics to which Participating Service Providers are to adhere. Standards help to foster an efficient environment, provide a level of uniformity across multiple Participating Service Providers' platforms, and lend to an overall PWS ecosystem that is trustworthy, secure, and effective. Some of the popular standardization bodies in the PWS ecosystem are 3GPP, ATIS, ETSI, and ISO.

In its review of the international regulatory environment relating to standards, URCA found that Canada adopted the ATIS standard citing that it "will assure Canadians of the authenticity of emergency alert messages received on their mobile devices."⁵ Also, in the US, ATIS in partnership with the Telecommunications Industry Association (TIA) developed standards in regard to the US' WEA.

URCA notes that traditionally, Participating Service Providers and the Bahamian public purchase mobile phones and other electronic consumer goods in the North American markets. Therefore, URCA proposes to require Participating Service Providers to comply with ATIS Standard for the NAWS in the event cell broadcast service is utilized, and other relevant international standards for full implementation of the NAWS.

⁵ Canadian Radio-television and Telecommunications Commission (CRTC) Government of Canada, "Telecom Regulatory Policy CRTC 2017-91," CRTC, April 6, 2017, assessed on December 1, 2023, <https://crtc.gc.ca/eng/archive/2017/2017-91.htm>

Technologies

The following two technologies are predominately used to deploy a PWS using mobile telephone networks that can alert the public located in a specific area of an ongoing crisis or upcoming disaster:

- **Cell Broadcast** is a standardised technology that makes it possible to send alerts to a geo-targeted population, directly on their mobile phones without being susceptible to network. When cell broadcast technology is deployed, people present in the disaster area would receive an alert with a distinctive ringtone and vibration on the mobile device. Public authorities can use this technology to instantly alert the public.
- **Location-based SMS** is another technology that can be used to alert the population of a given area in near real-time but is subject to network congestion. In Location-based SMS, warning messages are broadcasted using regular SMS.

In the US and Canada, both countries utilize Cell Broadcast as it is a technology that conforms to the ATIS standard. While there may be intrinsic benefits in the use of Location-based SMS, one of the major concerns is that to date there is no known standard for this technology that could ensure uniformity and consistency across the alerting media. On this premise, URCA proposes that Participating Service Providers should be required to utilize Cell Broadcast technology, or any other technology that achieves the objectives of the NAWS.

Question 10: Standards and Technology

Do you agree that Participating Service Providers should be required to utilize Cell Broadcast technology, or any other technology that achieves the objectives of the NAWS? If not, please provide reasoning for your answer(s).

3.11 Prioritization

In the US, the highest priority is given to the highest level of alert known as Presidential Alert. All other classes of alert are treated as low priority and shall be pre-empted in instances that evoke the Presidential Alert. All other alerts are to be broadcasted on a first in-first out basis. The National Alert in The Bahamas is equivalent to the Presidential Alert in the United States. Hence, URCA proposes that National Alerts shall pre-empt all other Alert Messages, while Emergency Alerts, Marco's Alerts, and Public Safety Messages shall be broadcast on a first in-first out (FIFO) basis.

Question 11: Prioritization

Do you agree that National Alerts shall pre-empt all other Alert Messages, while Emergency Alerts, Marco’s Alerts, and Public Safety Messages shall be broadcast on a first in-first out (FIFO) basis? If not, please provide reasoning for your answer(s).

3.12 Implementation Timeline

URCA is aware of the progress made regarding the implementation of the NAWS led by the Ministry of National Security in partnership with Aliv and BTC among others. URCA also understands that there is still more work to be done toward the full implementation of the NAWS. In the interest of persons in The Bahamas in relation to public safety and security, URCA has taken the position that Participating Service Providers may commence distribution of emergency alert and test messages at any time prior to and upon promulgation of the regulations. URCA believes Participating Service Providers should be afforded a reasonable amount of time to ensure that their infrastructure is fully compatible with regulations. URCA proposes an implementation timeline of one (1) year from the publication of the instant regulations.

Question 12: Implementation

Do you agree with the proposed implementation timeline of one (1) year from the publication of the regulations? If not, please provide reasoning for your answer(s).

4 Draft National Alert Warning System Regulations

Based on the contextual discussion set out in Section 3 of this document, URCA proposes to draft the Regulations as set out below. URCA will consider the responses to this consultation document and will synthesize the respondents' views with URCA's views and amend the Draft Regulations accordingly.

PART 1: Introduction

- 1.1 In the exercise of the powers and duties conferred upon it by section 8 (1) (d) of the Communications Act, 2009 (Comms Act), the Utilities Regulation and Competition Authority (URCA) hereby issues the following Regulations. These Regulations may be cited as the "*National Alert Warning System Regulations*".
- 1.2 The purpose of these Regulations is to establish the regulatory framework for the National Alert Warning System in The Bahamas and to ensure that National Alert, Emergency Alert, Marco's Alert, and Public Safety Messages are disseminated to the public in a standardised manner through the Participating Service Provider's network.

PART 2: Application

- 2.1 These Regulations shall apply to and be binding upon all Licensees designated as Participating Service Providers in accordance with these Regulations.
- 2.2 Upon the issuance of these Regulations by URCA, all Cellular Mobile Service Providers, hereinafter defined in Part 3 of these Regulations, are designated as Participating Service Providers.
- 2.3 URCA may notify any other Licensee of its designation as a Participating Service Provider under these Regulations, where in URCA's discretion such designation would further the objectives of these Regulations or the Electronic Communications Policy.

Question 13: Application

Do you agree with the provisions of paragraphs 2.1, 2.2, & 2.3 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 3: Interpretation

3.1 In these Regulations, any words or expressions to which a meaning has been assigned in the Comms Act has the meaning so assigned and, unless the context otherwise requires, the following terms will have the following meanings:

“Alert Message” means a message distributed by a Participating Service Provider to warn the public of an imminent threat to life or property.

“Cellular Mobile Service Provider” means an URCA licensee granted a licence to operate a cellular mobile network in The Bahamas.

“National Alert Warning System (NAWS)” means a Commercial Mobile Alert System (CMAS) which is a public warning system that delivers warning notifications provided by warning notification providers.

“Participating Service Provider” means all Cellular Mobile Service Providers or any other URCA licensee designated by URCA in accordance with paragraph 2.3 of these Regulations.

3.2 In these Regulations, unless the contrary appears:

- i. headings are for convenience only and do not affect interpretation;
- ii. a reference to a statute or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- iii. words in the singular include the plural and vice versa;
- iv. words importing persons include a body whether corporate, politic or otherwise;
- v. where a word or phrase is defined, its other grammatical forms have a corresponding meaning; and
- vi. mentioning anything after include, includes or including does not limit what else might be included.

Question 14: Interpretation

Do you agree with the provisions of paragraph 3.1 and 3.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 4: Alert Message Requirements and Classification

4.1 Participating Service Providers shall receive from the authorized authority and broadcast to users on the Participating Service Provider's network any of the four classes of alert messages described below:

- i. **National Alert:** A National Alert is an alert issued by the Prime Minister of The Bahamas or the Prime Minister's authorized designate, or by the Minister of National Security. National alerts may be nationwide. National alerts may be issued when environmental disasters, technological, biological (epidemic/pandemics), or man-made events among others threaten serious injury or damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on a national level.
- ii. **Emergency Alert:** An Emergency alert is an alert issued by the Prime Minister of The Bahamas or the Prime Minister's authorized designate, the Minister of National Security, or the National Emergency Management Agency (NEMA). Emergency alerts should be restricted to affected islands only. Emergency alerts may be issued when environmental disasters, technological, biological (epidemic/pandemics), or man-made events among others threaten serious damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on specific islands.
- iii. **Marco's Alert:** A Marco's alert is an alert issued by the Minister of National Security or the Royal Bahamas Police Force. Marco's alerts should be restricted to affected islands only. Marco alerts may be issued pursuant to Regulation 3 of the Child Protection (Marco Alert) Regulations, 2016.
- iv. **Public Safety Message:** A Public Safety Message is an essential public safety advisory that prescribes one or more actions likely to save lives and/or safeguard property during an emergency. A Public Safety Message may only be issued in connection with an alert message classified in subsections (i), (ii), or (iii) of this section.

Question 15: Alert Message Requirements and Classification

Do you agree with the provisions of paragraph 4.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 5: Infrastructure Requirements

- 5.1 Participating Service Providers shall ensure that mobile devices, dependent on the Participating Service Provider's infrastructure, are able to perform the following functions:
- i. authenticate interactions with the Participating Service Provider's infrastructure;
 - ii. monitor for alert messages;
 - iii. maintain subscriber alert opt-out selections;
 - iv. maintain subscriber alert language preferences, if any;
 - v. extract alert content in English or the subscriber's preferred language, if applicable;
 - vi. present alert content to the device, consistent with subscriber opt-out selections. National Alerts must always be presented;
 - vii. detect and suppress duplicate alerts; and
 - viii. preserve alert messages in a consumer-accessible format and location for at least 24 hours or until deleted by the subscriber.

Question 16: Equipment Requirements

Do you agree with the provisions of paragraph 5.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

- 5.2 The Alert Gateway infrastructure of each Participating Service Provider shall meet the following requirements:
- i. **General** – The Participating Service Provider's Alert Gateway shall provide secure, redundant, and reliable connections to receive alert messages from the Ministry of National Security's Alert Gateway. Each Participating Service Provider's Alert Gateway must be identified by a unique IP address or domain name.
 - ii. **Authentication and Validation** - The Participating Service Provider's Alert Gateway must authenticate interactions with the Ministry of National Security's Alert Gateway, and validate alert message integrity and parameters. The Participating Service Provider's Alert Gateway must provide an error message immediately to the Ministry of National Security's Alert Gateway if validation fails.
 - iii. **Security** - The Participating Service Provider's Alert Gateway must support standardized

IP-based security mechanisms such as a firewall, and associated protocols between the Ministry of National Security's Alert Gateway and the Participating Service Provider's Alert Gateway.

iv. **Message Management** -

- a. **Formatting** - The Participating Service Provider's Alert Gateway is not required to format or translate an alert message except for transcoding a text, audio, video, or multimedia file into the format supported by mobile devices.
- b. **Reception** – The Participating Service Provider's Alert Gateway must have the functionality to start and stop alert messages from the Ministry of National Security's Alert Gateway to the Participating Service Provider's Alert Gateway.
- c. **Prioritization** - The Participating Service Provider's Alert Gateway must process an alert message on a first in-first out basis except for National Alerts, which must be processed before all non-National Alerts.
- d. **Distribution** - A Participating Service Provider must deploy one or more Participating Service Provider Gateways to support the distribution of alert messages and to manage alert message traffic.
- e. **Rebroadcast** - The Participating Service Provider's Alert Gateway must manage and execute alert message rebroadcast and support a mechanism to manage congestion within the Participating Service Provider's infrastructure.

v. **Alert Logging** – The Participating Service Provider's Alert Gateway must be capable of performing the following functions relative to logging:

- a. **Logging Requirements** – A Participating Service Provider is required to log data pertaining to all alert messages received at the Participating Service Provider Alert Gateway inclusive of time stamps of messages received, rebroadcasted, or rejected by the Participating Service Provider's Alert Gateway, and log relevant error code generated by a rejected alert message.
- b. **Maintenance of Logs** – A Participating Service Provider is required to maintain a log of all active and canceled alert messages for a minimum of one year after receipt of the alert or cancellation. This does not include test alert messages.
- c. **Availability of Logs** – A Participating Service Provider is required to make alert logs available to URCA upon reasonable request.

Question 17: Service Provider Alert Gateway Requirements

Do you agree with the provisions of paragraph 5.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 6: Option to opt out of Notifications

- 6.1 It shall be mandatory for users to receive the following classes of alerts since these relate to critical public safety and security issues such as environmental disasters, technological, biological (epidemic/pandemics), or man-made events, inter alia, that threaten serious injury or damage to human life, human welfare, the environment, the economy, and/or security within The Bahamas on a national or island-specific level:
- i. National Alert; and
 - ii. Emergency Alert

Question 18: Mandatory Alert Notifications

Do you agree with the provisions of paragraph 6.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

- 6.2 It shall be mandatory for users to receive the following classes of alerts by default, but users shall be given the option to opt out.

Question 19: Option to opt out of Notifications

Do you agree with the provisions of paragraph 6.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 7: Testing Framework for NAWS

- 7.1 Participating Service Providers shall comply with the *Test Framework for NAWS* as set out below.
- i. **Required quarterly tests.** Testing of the NAWS from the Ministry of National Security's Alert Gateway to each Participating Service Provider infrastructure shall be conducted at least once every three (3) months. Each Participating Service Provider shall:

- a. ensure the Participating Service Provider's Alert Gateway supports the ability to receive a required quarterly test (RQT) message initiated by the Ministry of National Security's Alert Gateway Administrator;
- b. schedule the distribution of the RQT to their NAWS coverage area over a 24-hour period commencing upon receipt of the RQT at the Participating Service Provider's Alert Gateway;
- c. determine the method to distribute the RQTs;
- d. ensure the RQT is initiated only by the Ministry of National Security's Alert Gateway Administrator using a defined test message. Real event codes or alert messages shall not be used for the PWS RQT message;
- e. distribute an RQT within its NAWS coverage area within 24 hours of receipt by the Participating Service Provider's Alert Gateway unless pre-empted by actual alert traffic or unable due to an unforeseen condition; and
- f. retain an automated log of RQT messages received by the Participating Service Provider's Alert Gateway from the Ministry of National Security's Alert Gateway.

Regarding the required quarterly test requirements, a Participating Service Provider may:

- g. in regard to paragraph 7.1(i)(e), schedule the delivery of RQTs over geographic subsets of their coverage area to manage traffic loads and to accommodate maintenance windows over a 24 hour period;
 - h. forego an RQT if the RQT is pre-empted by actual alert traffic or if an unforeseen condition in the Participating Service Provider's infrastructure precludes the distribution of the RQT, and shall indicate the unforeseen condition by a response code to the Ministry of National Security's Alert Gateway; and
 - i. provide mobile devices with the capability of receiving RQT messages.
- ii. **Periodic interface testing.** In addition to the required quarterly tests, a Participating Service Provider must participate in periodic testing of the interfaces between the Ministry of National Security's Alert Gateway and its Participating Service Provider's Alert Gateway. This periodic interface testing is not intended to test the Participating Service Provider's infrastructure nor the mobile devices but rather is required to ensure the availability/viability of both Gateway functions. Each Participating Service Provider's Alert Gateway shall send an acknowledgment to the Ministry of National Security's Alert

Gateway upon receipt of such interface test messages. Real event codes or Alert Messages shall not be used for periodic interface testing.

- iii. **Ministry of National Security NAWS Testing.** A Participating Service Provider's Gateway shall support the ability to receive a Ministry of National Security's NAWS test message initiated by the Ministry of National Security's Alert Gateway Administrator and the Participating Service Provider:
- a. shall support Ministry of National Security's NAWS tests in a manner that complies with the Alert Message Requirements specified in paragraph 4.1;
 - b. shall immediately broadcast a Ministry of National Security's NAWS test to the geographic area specified by the alert originator; and
 - c. may forego a Ministry of National Security's NAWS test if the Ministry of National Security's NAWS test is pre-empted by actual alert traffic or if an unforeseen condition in the Participating Service Provider's infrastructure precludes distribution of the Ministry of National Security's NAWS test. If a Participating Service Provider Gateway forgoes a Ministry of National Security's NAWS test, it shall send a response code to the Ministry of National Security's Alert Gateway indicating the reason for forgoing a Ministry of National Security's NAWS test.

Question 20: Test Framework for NAWS

Do you agree with the provisions of paragraph 7.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 8: Language Requirements

- 8.1 Participating Service Providers shall broadcast NAWS alert messages in any language issued by the Minister of National Security.

Question 21: Language Requirements

Do you agree with the provisions of paragraph 8.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 9: Costs/Billing

- 9.1 Participating Service Providers shall not charge their subscribers any fee whatsoever in connection with the NAWS, including its implementation, operation and maintenance costs.

Question 22: Costs/Billings

Do you agree with the provisions of paragraph 9.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 10: Standards and Technology

- 10.1 Participating Service Providers shall comply with ATIS Standard and other relevant international standards for full implementation of the NAWS.

Question 23: Standards

Do you agree with the provisions of paragraph 10.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

- 10.2 Participating Service Providers shall utilize Cell Broadcast technology, or any other technology that achieves the objectives of the NAWS.

Question 24: Technology

Do you agree with the provisions of paragraph 10.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 11: Prioritization

- 11.1 The National Alert shall pre-empt all other Alert Messages, while Emergency Alerts, Marco's Alerts, and Public Safety Messages shall be broadcast on a first in-first out (FIFO) basis.

Question 25: Prioritization

Do you agree with the provisions of paragraph 11.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

PART 12: Implementation Timeline

12.1 Participating Service Providers shall implement and comply with all requirements under these Regulations within one (1) year from the date of issuance of these instant Regulations by URCA.

Question 26: Implementation Timeline

Do you agree with the provisions of paragraph 12.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

5 Assessment of Regulatory Options

In this Section, URCA assesses the regulatory options considered in respect of the matters that are the subject of this consultation process. URCA's primary aim is to further the overall ECS Policy objectives and the interests of stakeholders in The Bahamas. Consequently, URCA has considered the following regulatory options:

Option 1: The 'Do Nothing' Option (i.e., maintain the status quo)

URCA may take a 'Do Nothing' approach. This option should be taken where URCA considers that market forces will cause the advancement of the ECSP objectives or when cost implications are unfavourable. However, as previously noted, URCA finds that the 'Do Nothing' approach in this regard:

- i. poses a significant and continuing risk to the safety of life and property and the security of the Bahamian public and therefore threaten the sustainability of the socioeconomic development of the country;
- ii. disregards the recommendation from reputable international standardization bodies including but not limited to, the ITU, 3GPP, ATIS, and ETSI; and
- iii. does not reflect a proactive approach considering that The Bahamas could be potentially impacted by future disasters and/or disaster emergencies declared by the Prime Minister or his delegates, and criminal activities requiring public notification for the Commission of Police.

Having regard to the foregoing, URCA considers the 'Do Nothing' option to be untenable.

Option 2: The Proposed Regulatory Measure Option

Alternatively, URCA may advance the ECS Policy objectives by proposing regulatory measures. It is URCA's view that market forces will not achieve the ECS Policy objectives. URCA is confident that the draft Regulations as specified in Section 4 of this consultation document are consistent with principles set out in section 5 of the Comms Act and complies with the guidelines set out in subsections (a), (b), and (c) of section 5.

Question 27: Assessment of Regulatory Options

Do you agree that Option 2 is the most appropriate option to further the overall ECS Policy objectives and the interests of stakeholders in The Bahamas? If not, please provide reasoning for your answer(s).

6 Conclusions and Next Steps

URCA invites responses to this Consultation Document from interested parties. After assessing the responses, URCA will:

- i. publish the respondents' responses to this consultation document;
- ii. issue the Statement of Results; and
- iii. issue a second round consultation document or alternatively, the Final Regulations.

7 Public Consultation Questions

Question 1: Equipment Requirements

Do you believe that The Bahamas should require Participating Service Providers to ensure that mobile phones are able to perform the aforementioned functions? If not, please provide reasoning for your answer(s).

Question 2: Service Provider Alert Gateway Requirements

Do you believe that The Bahamas should require Participating Service Providers to comply with the Alert Gateway requirements? If not, please provide reasoning for your answer(s).

Question 3: Alert Message Requirements and Classification

Do you agree that URCA should require every Participating Service Provider to receive and broadcast to users, any of the four classes of alert messages? If not, please provide reasoning for your answer(s).

Question 4: Mandatory Alert Notifications

Do you agree that it should be mandatory for users to receive the National and Emergency Alerts without the ability to opt out? If not, please provide reasoning for your answer(s).

Question 5: Option to opt out of Notifications

Do you agree that users should receive Marco's Alert and Public Safety Message by default, but be given the option to opt out? If not, please provide reasoning for your answer(s).

Question 6: Test Framework for NAWS

Do you agree with the Test Framework for NAWS as set out in section 3.6? If not, please provide reasoning for your answer(s).

Question 7: Language Requirements

Do you agree that Participating Service Providers should be required to broadcast NAWS alert messages in the language issued by the Minister of National Security? If not, please provide reasoning for your answer(s).

Question 8: Network Participation and Exemptions

Do you agree that all cellular mobile Participating Service Providers should be required to participate in the NAWS? If not, please provide reasoning for your answer(s).

Question 9: Costs/Billing

Do you agree that Participating Service Providers should be required to accept any costs associated with the implementation of the NAWS, and should not be permitted to identify a separate fee on subscribers' bills? If not, please provide reasoning for your answer(s).

Question 10: Standards and Technology

Do you agree that Participating Service Providers should be required to utilize Cell Broadcast technology, or any other technology that achieves the objectives of the NAWs? If not, please provide reasoning for your answer(s).

Question 11: Prioritization

Do you agree that National Alerts shall pre-empt all other Alert Messages, while Emergency Alerts, Marco's Alerts, and Public Safety Messages shall be broadcast on a first in-first out (FIFO) basis? If not, please provide reasoning for your answer(s).

Question 12: Implementation

Do you agree with the proposed implementation timeline of one (1) year from the publication of the regulations? If not, please provide reasoning for your answer(s).

Question 13: Application

Do you agree with the provisions of paragraphs 2.1, 2.2, & 2.3 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 14: Interpretation

Do you agree with the provisions of paragraph 3.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 15: Alert Message Requirements and Classification

Do you agree with the provisions of paragraph 4.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 16: Equipment Requirements

Do you agree with the provisions of paragraph 5.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 17: Service Provider Alert Gateway Requirements

Do you agree with the provisions of paragraph 5.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 18: Mandatory Alert Notifications

Do you agree with the provisions of paragraph 6.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 19: Option to opt out of Notifications

Do you agree with the provisions of paragraph 6.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 20: Test Framework for NAWS

Do you agree with the provisions of paragraph 7.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 21: Language Requirements

Do you agree with the provisions of paragraph 8.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 22: Costs/Billings

Do you agree with the provisions of paragraph 9.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 23: Standards

Do you agree with the provisions of paragraph 10.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 24: Technology

Do you agree with the provisions of paragraph 10.2 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 25: Prioritization

Do you agree with the provisions of paragraph 11.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 26: Implementation Timeline

Do you agree with the provisions of paragraph 12.1 of the Draft Regulations as proposed by URCA? If not, please provide your suggested revision and supporting reasons.

Question 27: Assessment of Regulatory Options

Do you agree that Option 2 is the most appropriate option to further the overall ECS Policy objectives and the interests of stakeholders in The Bahamas? If not, please provide reasoning for your answer(s).