



**TYPE APPROVAL VERIFICATION**

**(SIM ENABLED DEVICES)**

**GUIDELINES 2020**

**DECEMBER 2020**

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## 1. PRELIMINARY PROVISIONS

- 1.1. The Guidelines herein shall be referred to as Botswana Information and Communications Technology (ICT) Type Approval Verification Guidelines (SIM Enabled Devices) of 2020.
- 1.2. The Guidelines make reference to Section 84 of the CRA Act of 2012 which provides that all types of communication equipment shall be specified for purposes for the provisioning of communications services.
- 1.3. In these Guidelines, unless the context requires otherwise, the Act means the Communications Regulatory Authority Act (CRA Act of 2012).
- 1.4. The Type Approval Verification (SIM Enabled Devices) Guidelines shall apply to all Mobile Network Operators, SIM Enabled Device Supply Chain and SIM Enabled Device users.
- 1.5. These Guidelines are established in the interest of the general public to ensure that SIM Enabled Device that shall be manufactured, imported, exported, advertised, sold, distributed or used in Botswana are registered in accordance with the provisions of the CRA Act of 2012.
- 1.6. Granfathering:
  - 1.6.1. All existing SIM Enabled devices already registered in the MNO's EIRs, shall be exempted from the verification process until the device life span.

## 2. DEFINITIONS/ INTERPRETATION

2.1. In these Guidelines, unless the context otherwise requires, the following expression or word will bear the meaning assigned to them below;

**“ACT” or “CRA Act of 2012”**

means the Communications Regulatory Act of 2012;

**“Authority”**

means Botswana Communications Regulatory Authority established under the CRA Act;

**“Central Equipment Identification Register, (CEIR)”**

means a shared electronic database of all Equipment Identification Registers of all MNOs, which holds unique pairs of phone numbers and IMEIs. The CEIR classifies the IMEI numbers into “compliant”, “non-compliant” and “pending compliance”

**“Compliant devices”**

means devices for which services must granted denied in the telecommunication network because it has fully met the requirements of these Guidelines

**“Counterfeit ICT Device”**

means an information and communication technology (ICT) device that explicitly infringes the trademark, copies hardware or software designs, or infringes brand or packaging rights of an original or authentic product;

**“Customer”**

means a person who receives a network service under an agreement with or pursuant to terms and conditions established by a MNOs;

**“Data”**

means the information to be shared between the CEIR and MNOs on International Mobile Equipment Identity (IMEI) information of non-compliant equipment;

**“Equipment Identification Register, (EIR)”**

means an electronic database which holds unique pairs of phone numbers and IMEIs within the infrastructure of the MNOs;

**“Global System for Mobile Communication Association (GSMA)”**

means a worldwide association of mobile communication operators;

**“International Mobile Equipment Identifier (IMEI)”**

means a unique code used to identify an individual Mobile Device in mobile communications networks;

**“International Mobile Subscriber Identity (IMSI)”**

means, a number that uniquely identifies every user of a cellular network. It is stored as a 64-bit field and is sent by the Mobile Device to the network;

**“Mobile Device”**

means a specific type of equipment which is SIM enabled (cellular phone, Tablet, Smart Watch, Dongle, etc.) used by consumers and is uniquely identified by its IMEI;

**“Mobile Network Operator (MNO)”**

means a communications services provider that owns or controls all the elements necessary to sell and deliver communication services to an end user;

**“Mobile Station International Subscriber Directory Number (MSISDN)”**

means a number uniquely identifying a subscription in a mobile communication system and is used for the mapping of the mobile number to the SIM in a Mobile Device;

**“Non-Compliant Devices”**

means devices for which services must be denied in the telecommunication network because it has failed to meet requirements of these Guidelines;

**“On-Line Registration”**

means the device registration via the Internet;

**“On-Net Registration”**

means device registration on a home MNO’s network;

**“Port of Entry”**

means a border post or airport where customs officers are stationed to oversee people and goods entering or leaving a country;

**“Service Provider”**

means any person who provides telecommunications services;

**“Standard”**

means a document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory;

**“Subscriber Identity Module, (SIM)”**

means an integrated circuit that is intended to securely store the International Mobile Subscriber Identity (IMSI) and the related keys used to identify and authenticate subscribers on mobile telephony devices;

**“Substandard Device”**

means a category of ICT device that is sold in contravention of applicable national and international technical standards, conformity processes, as well as national regulatory requirements;

**“Supply Chain”**

means all the SIM enabled Device Suppliers, Retailers, Resellers, Local Agent and Manufacturers;

**“Type Approval Certificate”**

means a certificate of conformity granted to an equipment/product that meets a minimum set of regulatory requirements, technical standards and safety requirements;

**“Type Approval Verification (SIM Enabled Devices) System,” (TAVS)**

means a system used to register the Mobile Devices;

### 3. INTRODUCTION

- 3.1. The mandate of Botswana Communications Regulatory Authority (BOCRA, hereinafter, The Authority) among others is to protect both the consumers and the ICT users of services in the regulated Sector.
- 3.2. The Communications Regulatory Act (CRA Act of 2012), Section 84, empowers the Authority to; specify the types of telecommunications equipment which may be used for providing telecommunications services. It further empowers the Authority to type approve and maintain a register of all Type Approvals.
- 3.3. To ensure that the mobile devices used in the public networks are compliant with the national standards they must follow the Type Approval requirements. The Authority has implemented a device registration system that will verify compliance to Type Approval process by registering and continuously monitoring devices that are connected to the public networks.
- 3.4. Authority hereby issues the Type Approval Verification (SIM Enabled Devices) Guidelines to regulate the specific type of devices in this context the “SIM Enabled Devices” (hereinafter referred to as “devices”) used in or connected to a public telecommunication system network within Botswana.

## 4. OBJECTIVES

- 4.1. The aim of these Guidelines is to:
  - 4.1.1. Protect both the ICT networks and the consumers against adverse effects introduced about by the proliferation of non-Type Approved counterfeit and substandard devices; and
  - 4.1.2. Ensure that the only registered devices are used in public networks.

## 5. THE VERIFICATION SYSTEM

- 5.1. The verification shall be carried out using a Type Approval Verification System (TAVS).
- 5.2. The TAVS is a system used to capture and process the devices identity connecting to the mobile networks.
- 5.3. The TAVS shall capture and allow access the network only the Type Approved devices ; and
- 5.4. TAVS Process Details are referenced in **Annexure 1**.

## 6. THE VERIFICATION PROCESS

- 6.1. All interested parties involved in the SIM Enabled Device supply chain must complete Type Approval registration process for both the locally manufactured and imported devices.
- 6.2. Following the Type Approval registration process, the parties must complete the Type Approval Verification process. This follows a two-step process as outlined below:



### **6.3. Step 1: Online Verification**

- i. BOCRA has set up an online platform, [www.bocra.org.bw](http://www.bocra.org.bw), accessible from anywhere in the world by both the supply chain and individuals.
- ii. The online verification shall capture the following details:
  - a. Device Make and Model;
  - b. IMEI/TAC number; and
  - c. BOCRA Type Approval Number.
- iii. Upon successful completion of the verification process, the system shall issue a Verification Certificate which will give full details of each device unit.

### **6.4. Step 2: On-net Verification**

- i. Upon connecting to the network, the device information (IMEI Number) shall be captured into the MNOs Equipment Identity Registers (EIRs).
- ii. The device information shall be relayed to Central Equipment Identity Register (CEIR) to verify whether the device has been registered.
- iii. Upon successful completion of the verification process, the compliant device shall be given access to the network, non-compliant devices denied access to service and devices pending compliance are held temporarily in the network EIRs pending compliance with 14 days.
- iv. For non-compliant devices and devices pending compliance, notification message shall be sent to the individual devices.

## **7. RESPONSIBILITIES AND OBLIGATIONS**

**7.1.** This section outlines the obligations of all parties involved.

### **7.2. The Authority**

The Authority shall:

**7.2.1.** Be responsible for the coordination of the overall verification process, including process review and improvement;

**7.2.2.** Operate, access and control the CEIR by;

- i.** Keeping it up to date;
- ii.** Storing the registered devices from the respective EIRs;
- iii.** Keep a register of device classifications of registered devices (compliant, non-compliant or pending confirmation);
- iv.** Keep a register of IMEI numbers and associated owners;
- v.** Ensuring that it is in line with the Numbering allocations (e.g. IMSI and MSISDN numbers);
- vi.** Ensuring that updates from the MNOs' EIRs are submitted in real time;
- vii.** Verifying mobile device IMEIs through GSMA database; and
- viii.** Broadcast the non-compliant IMEI to all other mobile networks EIRs.

### **7.3. Mobile Network Operators (MNOs)**

The MNOs shall:

- 7.3.1. Establish an EIR interface delivering device identity details to the CEIR in real time;
- 7.3.2. Relay the following information to the CEIR;
  - i. MSISDN/IMSI number; and
  - ii. IMEI number.
- 7.3.3. Use information from the CEIR on non-compliant devices to;
  - i. Deny service in case of non-compliance;
  - ii. Limit the time of service for pending compliance devices; and
  - iii. Broadcast of notification of non-compliance and pending compliance devices to the users.

#### **7.4. The Equipment Supply Chain**

The Equipment Supply chain:

- 7.4.1. Shall Ensure that the verification process is successfully completed; and
- 7.4.2. Are encouraged to dispose off the non-compliant devices in accordance with the Department of Waste Management waste disposal procedures.

#### **7.5. The Individual users**

The individual users shall ensure that:

- 7.5.1. Both the imported or locally acquired devices for personal use shall be registered through the BOCRA's online device verification system.

## **8. GENERAL PRINCIPLES**

The general principles for this Guidelines are: i.e. Enforcement, Compliance and Investigation, Inspections, Reporting, Record Keeping, Penalties, Publication, Reviews/Amendments and Implementations.

### **8.1. ENFORCEMENT**

The Authority shall:

- 8.1.1.** Take appropriate measures to enforce the requirements of the Type Approval Verification (SIM Enabled) Guidelines.

### **8.2. COMPLIANCE AND INVESTIGATION**

The Authority shall:

- 8.2.1.** Continuously monitor to ensure that the Guidelines are followed by the licensees;
- 8.2.2.** Where contraventions are done by entities outside the Authority regulatory ambit, the matters shall be referred to relevant authorities;
- 8.2.3.** Investigate at any time the EIRs recording procedures of MNO;
- 8.2.4.** May, from time to time, either by order or by direction, specify uniform record keeping procedures and formats including guidelines on data extraction for devices; and  
Carry out and audit investigation on the EIRs.

### **8.3. INSPECTION**

The Authority or any person authorized by the Authority shall:

- 8.3.1. At all reasonable time enter upon the premises of the MNO and supply chain for inspection for the purposes of ascertaining compliance with these Guidelines; and
- 8.3.2. Inspect the Mobile Device consignment at the ports of entries against the active Type Approval Guidelines, Device Verification Certificates and CEIR information during the clearance phase for verification and validation purposes.

#### **8.4. REPORTING**

The MNOs shall:

- 8.4.1. Submit the Type Approval Mobile Device Verification reports as may be required by the Authority from time to time.

#### **8.5. RECORD KEEPING**

MNOs shall:

- 8.5.1. Maintain documented processes of data collection for each device contained in these Guidelines and submit the same to the Authority as required from time to time; and
- 8.5.2. Complete and provide accurate records of its compliance for each device specified in such a manner and in such a format, as may be prescribed by the Authority from time to time.

#### **8.6. PUBLICATION**

The Authority shall publish the Type Approval Verification Report as triggered by the:

- 8.6.1. Compliance reports, showing compliant and non-compliant of devices reported to the Authority by the MNOs under these Guidelines; and
- 8.6.2. Results of the audit and assessment of the Device Verification undertaken by the Authority or its authorized agent.

## **8.7. PENALTIES**

The Penalties shall be administered according to the CRA Act of 2012:

- 8.7.1. Section 84 (6), states that “Any person who contravenes subsection (2) commits an offence and is liable to a fine of not less than P10 000 but not more than P2 000 000, or to imprisonment for a term of not less than one year but not more than 10 years, or to both”;
- 8.7.2. Section 86 provides that “(1) Where any licensee contravenes any provision of this Act, or fails to comply with any lawful direction or requirement of the Authority under the provisions of this Act, or where the Authority is satisfied that the conditions of any license are not being adhered to, the Authority may revoke, suspend or impose further conditions upon such licensee and shall publish a notice of such revocation, suspension or imposition in two consecutive issues of the Gazette and two newspapers circulating in Botswana”; and
- 8.7.3. Section 88 states that “(1) Any reference in this Act to the liability and imposition of a civil penalty which has not been specifically provided for shall — (a) in the case of an individual, attract a civil penalty not exceeding P50 000; or (b) in the case of a body corporate, attract a civil penalty not exceeding 10 per cent of the

net turnover of the body corporate for the previous financial year and where no net turnover for the previous financial year exists, 10 per cent of the gross revenue for the period of existence shall be used to determine the quantum of the civil penalty; and where a corporation was not trading in the previous year, the current net turn over shall be used”.

## **8.8. REVIEWS AND AMENDMENTS**

- 8.8.1.** The Authority may review the Type Approval Verification Guidelines from time to time in collaboration with stakeholders.
- 8.8.2.** Amendments will be made in collaboration with stakeholders with consideration of regional and international trends as and when there is need to accommodate technological developments in the ICT industry.

## **9. IMPLEMENTATION**

- 9.1.** These Guidelines shall be implemented and come into effect on the 1st January 2022.
- 9.2.** MNOs are expected to have met the requirements of the Guidelines within six (6) months before coming into effect.

Signed at..... this ..... day of.....2020

Mr. Martin Mokgware  
Chief Executive

## ANNEXURE 1

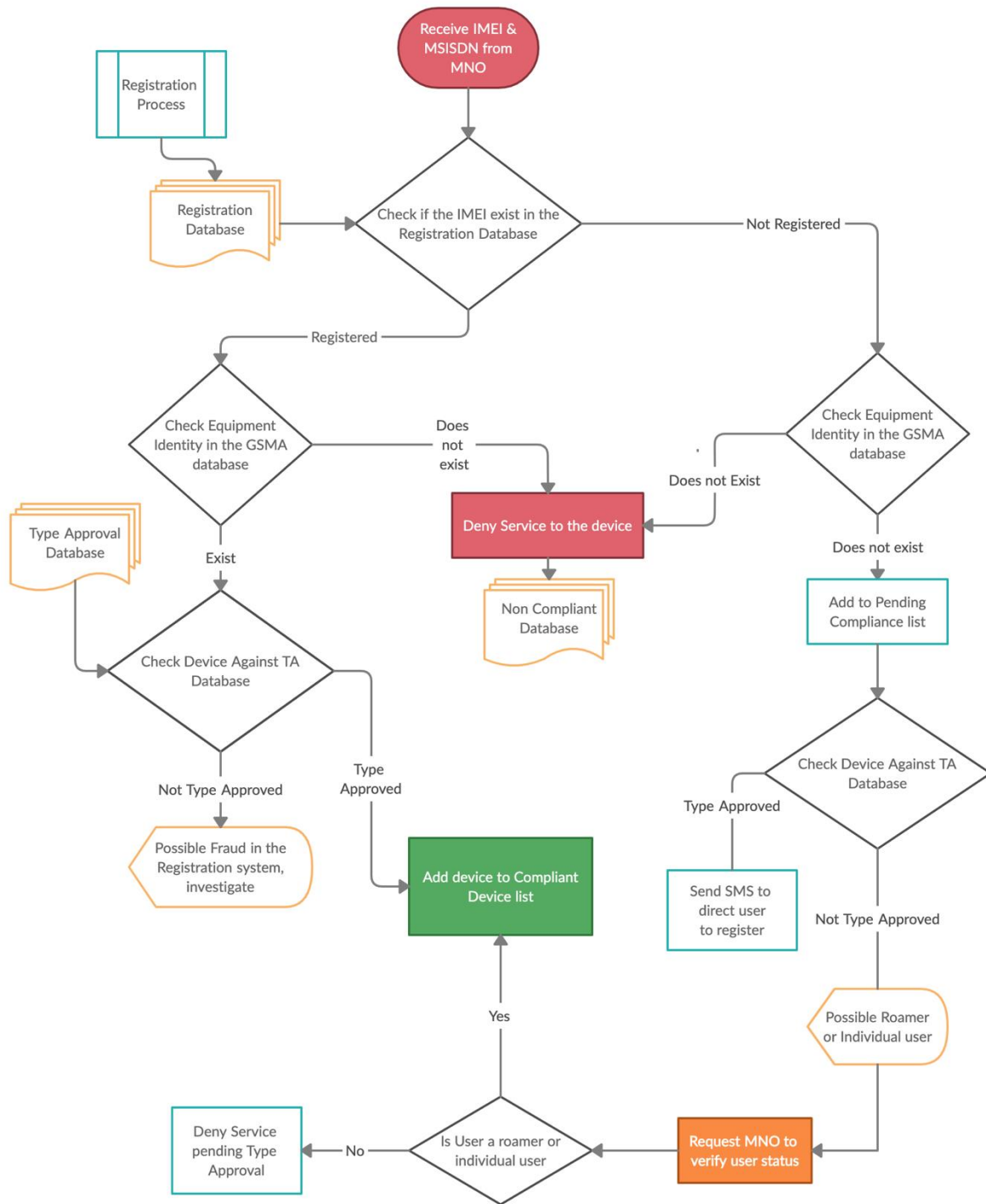
### TYPE APPROVAL VERIFICATION PROCESS

1. The network shall be configured to give service only to equipment that has been Type Approved and Verified by the Authority.
2. The MNO's network shall connect and give service to a device requesting the service.
3. After the device is connected its information (MSISDN & IMEI) will be sent to CEIR.
4. The CEIR will process the device information to determine if the device is compliant.
5. The following actions shall be taken by the CEIR System after receiving information from the EIR:
  - i. Check if the IMEI of the device has been registered in the Registration database of the CEIR;
  - ii. If the device is registered the system will verify the equipment identity with GSMA database using the IMEI number;
    - a) If the equipment identity is positive, i.e. the IMEI number matched the equipment model then the system will check it against the Type Approval Database to ensure that indeed the device is Type Approved;
    - b) If the confirmation is negative, i.e. the IMEI does not exist, or the IMEI returns a different device; then the device is classified as a counterfeit and is blacklisted. A message will be relayed back to EIR to instruct the device to be denied service.
  - iii. Following Type Approval Confirmation, the device will be added into a compliant device.



- iv. The registration database will be updated to link the device with the registered owner.
6. If the device is not registered:
- i. The system will verify the equipment identity with GSMA database using the IMEI number;
  - ii. If the confirmation is positive, i.e. the IMEI number matched the equipment model then the device will be added to the non-compliant waiting confirmation.
  - iii. The system will check it against the Type Approval Database to ensure that indeed the device is Type Approved.
    - a) If the Type Approval is positive, then an SMS is sent to the MSISDN number to require registration within a set time.
    - b) If the device is not Type approved, then the device could either be a roamer or an individual user. For non-roamers and an SMS is send to the MSISDN number to require registration within a set time.
    - c) If the confirmation is negative, i.e. the IMEI does not exist, or the IMEI returns a different device; then the device is classified as a counterfeit and must be denied service. A message will be relayed back to EIR to instruct the device to be denied service.

The user Registration process is demonstrated in Figure 1 below:



**Figure 1 Device Verification Process**