



TERMS OF REFERENCE

The *Australian Telecommunications Alliance Device End-To-End Service Testing (DETEST)* Group has been established to develop industry technical guidance and share technical information in relation to device testing to facilitate the end-to-end testing performed via:

- the Controlled Test Facility (CTF) (University of Technology, Sydney - National Telecom Resilience Centre); and
- device testing performed by mobile network operators (MNOs),

for the technical operational arrangements of the Emergency Call Service and the National Messaging System.

1. EMERGENCY CALL SERVICE

Recent changes in the telecommunications environment, including changes to the *Telecommunications (Emergency Call Service) Determination 2019*, have introduced obligations for Carriers and Carriage Service Providers (C/CSPs) to take measures to test the ability of mobile phones to access the emergency call service via both the home and 'camp on' networks.

Role and responsibilities

The role of the DETEST Group, in relation to the ECS, is to develop industry guidance for the following:

- a general device testing framework, including interactions/coordination. MNOs will coordinate with their respective equipment suppliers / infrastructure providers where applicable/required;
- to identify what aspects are to be included in the end-to-end (E2E) testing, noting that the ECP to ESO component of the service is outside the C/CSP's visibility and outside the purview of DETEST;
- to work with equipment suppliers to identify what aspects of devices are to be specified for connecting to the ECS for voice calls to support the E2E testing of these services;
- to work with MNOs, who will coordinate with their respective network equipment suppliers, to identify what aspects of the MNO's networks are to be specified/configured to enable devices to connect to the ECS for emergency calls
- to work with the ACMA and equipment suppliers to improve the processes for ensuring emergency calling capability and how compliance is tested/demonstrated;

Note: the ACMA and equipment suppliers have the accountability to ensure that devices supplied in the Australian market comply with the relevant Australian and International Standards as well as all Regulatory requirements regarding support for emergency calls.

- to consider and provide guidance and/or solutions (in part arising from the recommendations of the Bean Review, particularly Recommendations 3 and 4) with regards to the ECS Determination, including:
 - device testing and a common approach to permitted devices, including the future development of a proposed ACMA/government database;
 - the approach to blocking of non-permitted/non-compliant devices;

- the E2E device and network testing of Triple Zero capability, including camp on (limited-service state) and the sharing of technical information of identified issues and test results, including for:
 - devices supplied to the Australian market in the past;
 - devices to be supplied to the Australian market in the future;
 - grey market devices already accessing networks;
 - grey market devices accessing networks in the future,
 - current and future network technologies;

with a view to developing an industry database for device issues and capabilities in relation to Triple Zero capability, to assist MNOs with their management of device capabilities. This information may be used to assist the development of an ACMA/Government database in the future. (Initially any database will not be publicly available – DETEST Group will determine when this is appropriate).

Note: E2E device and network testing of Triple Zero capability, including camp on (limited-service state) for a limited number of agreed devices is also being performed by the CTF. Also refer to the registered industry code [C674:2025 Emergency Calling – Network and Mobile Phone Testing](#).

- life cycle aspects of devices, including updates to the device OS software (being via carrier, manufacturer, or user-enabled).
- take into consideration the MNP test plans and QoS specifications, developed under the Network Reference Panel, as inputs for creating test plans;
- take into consideration devices that are being used on private networks;
- facilitate consistency across the various network implementations and devices; e.g collaboration and seeking optimisation for reliability in relation to the emergency calling ecosystem;
- to consider Federal and State based regulatory frameworks.

2. NATIONAL MESSAGING SYSTEM (NMS)

The establishment of the NMS has come into place as a result of the findings of the *2020 Royal Commission into National Natural Disaster Arrangements*. It found that emergency warning systems are critical for governments to deliver warnings, and with the introduction of Emergency Cell Broadcast (ECB) technology, this will allow emergency services across Australia to send targeted warning messages to compatible devices in near real time.

With the introduction of the NMS, Carriers and Carriage Service Providers (C/CSPs) are taking measures to test whether mobile phones with specified characteristics can receive messages sent via the National Messaging System and display them to the user.

Role and responsibilities

The role of the DETEST Group, in relation to the NMS, is to provide industry guidance for the following:

- to identify what aspects are to be included in the E2E testing. This includes those involved in the provision of the NMS, including the mobile network operators and equipment suppliers.
- the E2E device and network testing of the Emergency Cell Broadcast (ECB) requirements for ECB-capable devices.
- to work with equipment suppliers to identify what aspects of the devices are to be specified for receiving ECB messages, to support the end-to-end testing of these services.

- to consider Federal and State based regulatory frameworks.
- to liaise with DITRDCSA and NEMA in the development, implementation, and execution of the operational processes for the NMS. These may include NMS message length and the implementation of multiple languages.

3. GENERAL

Representation and participation

- interested members from the *WC107 PMTS and Satellite Service Customer Equipment Standards* Working Committee.
- interested members from the Communications Resilience Administration Industry Group (CRAIG).
- other interested Australian Telecommunications Alliance members.
- DITRDCSA and NEMA to be invited to attend meetings as needed.

Meeting frequency

- initially ad hoc, taking into consideration international time zones for overseas members.

Reference documents

- *Telecommunications (Emergency Call Service) Determination 2019.*
- *Telecommunications (Emergency Call Service) Amendment Determination 2024 (No. 1).*
- *Telecommunications (Emergency Call Service) Amendment Determination 2025 (No. 2).*
- *Telecommunications (Labelling Notice for Customer Equipment and Customer Cabling) Instrument 2025.*
- *Telecommunications (Customer Communications for Outages) Industry Standard 2024.*
- AS/CA S042.1 Requirements for connection to an air interface of a Telecommunications Network— Part 1: General Customer Equipment Standard.
- C536 Emergency Call Services Requirements (Incorporating Variation No.1/2025) Industry Code
- C674:2025 Emergency Calling – Network and Mobile Phone Testing Industry Code.
- Australian Government Response to the Bean Review Final Report - Review into the Optus outage of 8 November 2023 (April 2024).
- any relevant material relevant to the testing of devices to support NMS.

Deliverables

- an overarching guideline to provide a framework for the testing arrangements for ECS and NMS, identifying relevant regulatory instruments, Australian Telecommunications Alliance publications and other materials.
- individual guidelines/specifications to support the overarching guideline, including test approaches and a schedule priority order of activities.
- a template for an ACMA/government database for device issues and capabilities in relation to Triple Zero and NMS capability.
- a relational map showing the various parties of interest and network components of the test regime.

Liaisons

- DITRDCSA and NEMA on the implementation of Emergency Cell Broadcast (ECB) supporting the National Messaging System (NMS).
- ATA Network Reference Panel (NRP) on the development of a National Messaging System CBE / CBC interface specification.
- ATA Operations Reference Panel (ORP) in relation to operational issues, e.g. outage reporting, device testing.
- ATA Customer Equipment and Cable Reference Panel (CECRP) in relation to linkages of any AS/CA industry standards.
- Australian Telecommunications Alliance WC107 on the revision of the AS/CA S042.1 *Requirements for connection to an air interface of a Telecommunications Network— Part 1: General* Customer Equipment Standard. (inactive).
- WC125 on the development of C674 Emergency Calling – Network and Mobile Phone Testing industry code. (inactive).
- UTS as the nominated Controlled Test Facility (CTF) on the development of testing scenarios relating to C674.