3GPP TSG-SA WG2#170 S2-2506496

Gothenburg, Sweden, 25-29 August 2025 (was S2-250xxxx)

**Source: Qualcomm Incorporated**

**Title: Architectural Assumptions and Requirements**

**Document for: Discussion/Approval**

**Agenda Item: 20.8.1**

**Work Item / Release: FS\_SMS2EC\_ARC**

*Abstract of the contribution: a set of architectural assumptions and requirement is provided based on the SID description.*

# 1. Text proposal

It is proposed to agree the following changes vs. TS 23.700-65:

>>>>BEGINNING OF CHANGES<<<<

# 4 Architectural Assumptions and Requirements

## 4.1 Architectural Assumptions

Editor's Note: This clause documents the common architecture assumptions identified for the study.

* The architectures for SMS over NAS (see TS 23.272, TS 23.401, TS 23.501, TS 23.502) and SMS over IP (see TS 23.204), and the architectural principles of Emergency Services (see TS 23.167) will be used as a basis.

(Ericsson) Editor’s Note: the SMS over NAS in EPS over the SGs interface is FFS.

* SMS over IP can be applied for both 3GPP access and non-3GPP access (either over EPS or 5GS).
* For EPS, 3GPP access (including TN and NTN) is in scope.
* For 5GS, 3GPP access (including TN and NTN) and non-3GPP access are in scope
* UEs in limited service state are not in scope of this document.
* Short Messages initiated by the Emergency Response Center in response to a Short Message to the Emergency Response Center sent from the UE are treated as regular Short Messages.
* (NOKIA) Short Messages can be routed to different Emergency Response Centers, depending on the type of emergency service.
* (Google) The identification of the type of emergency service (police, ambulance, fire brigade, etc.) is based on the same mechanism used for emergency calls [x5].
* (Ericsson) Emergency numbers used for emergency call are re-used for the SMS delivery to the emergency centre.
* (Google) The identification of an SMS to Emergency Response Center is based on the use of emergency numbers [x5].
* (Google) This study builds upon requirements specified in TS 22.101 clause 36 [x5] and considers ETSI TS 103 625 [x6] recommendations for Advanced Mobile Location (AML) and routing via visited network's SMSC using country-specific E.164 addresses, aligned with GSMA emergency communication guidelines [x7]. For SMS over IP emergency routing, existing IMS emergency services architecture [x4] shall be leveraged.
* (Google) The emergency SMS payload structure should be consistent across SMS over NAS and SMS over IP transport mechanisms to ensure uniform PSAP processing capabilities.
* (OPPO) The Short Message Service to emergency response center shall be supported also for roaming UEs, where roaming subscribers’ SMS can be routed to a local PSAP, according to the local regulations of the UE’s location. (also Google has requirement on roaming).

## 4.2 Architectural Requirements

Editor's Note: This clause defines the architectural requirements that serve as the foundation for the study.

Solutions shall be defined both for networks supporting IMS and networks not supporting IMS.

>>>>END OF CHANGES<<<<