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**Universal Mobile Telecommunications System (UMTS);  
LTE;  
Service capability exposure functionality  
over Ns reference point  
(3GPP TS 29.153 version 13.1.0 Release 13)**



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## 1 Scope

This document defines the protocol for Ns reference point between the Service Capability Exposure Function (SCEF) and RAN Congestion Awareness Function (RCAF).

The Ns reference point and related stage 2 procedures are defined in 3GPP TS 23.682 [2].

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## 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
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- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".
- [3] IETF RFC 3588: "Diameter Base Protocol".
- [4] 3GPP TS 29.217: "Congestion reporting over Np reference point".
- [5] IETF RFC 7683: "Diameter Overload Indication Conveyance".
- [6] 3GPP TS 29.229: "Cx and Dx interfaces based on Diameter protocol; Protocol details".
- [7] 3GPP TS 29.336: "Home Subscriber Server (HSS) diameter interfaces for interworking with packet data networks and applications Diameter Base Protocol".
- [8] 3GPP TS 29.154: "Service Capability Exposure Functionality over Nt reference point".
- [9] 3GPP TS 29.274: "3GPP Evolved Packet System. Evolved GPRS Tunnelling Protocol for EPS (GTPv2)".
- [10] IETF RFC 5719: "Updated IANA Considerations for Diameter Command Code Allocations".
- [11] IETF RFC 2234: "Augmented BNF for syntax specifications".
- [12] 3GPP TS 29.213: "Policy and charging control signalling flows and Quality of Service (QoS) parameter mapping".
- [13] IETF draft-ietf-dime-drmp-02: "Diameter Routing Message Priority".

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