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TECHNICAL SPECIFICATION

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Architecture enhancements for 5G System (5GS)
to support network data analytics services
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Contents

Foreword

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1 Scope

The present document defines the Stage 2 architecture enhancements for 5G System (5GS) to support network data analytics services in 5G Core network.

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.
- For a specific reference, subsequent revisions do not apply.
- 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 23.501: "System Architecture for the 5G System; Stage 2".

[3] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[4] 3GPP TS 23.503: "Policy and Charging Control Framework for the 5G System; Stage 2".

[5] Void.

[6] 3GPP TS 28.532: "Management and orchestration; Generic management services".

[7] 3GPP TS 28.550: "Management and orchestration; Performance Assurance".

[8] 3GPP TS 28.552: "Management and orchestration; 5G performance measurements".

[9] 3GPP TS 28.545: "Management and orchestration; Fault Supervision (FS)".

[10] 3GPP TS 28.554: "Management and orchestration; 5G end to end Key Performance Indicators (KPI)".

[11] ITU-T Recommendation P.1203.3: "Parametric bitstream-based quality assessment of progressive download and adaptive audiovisual streaming services over reliable transport - Quality integration module".

[12] 3GPP TS 38.215: "NR; Physical layer measurements".

[13] Void.

[14] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

[15] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification".

[16] 3GPP TS 38.413: "NG-RAN; NG Application Protocol (NGAP)".

[17] 3GPP TS 29.244: "Interface between the Control Plane and the User Plane Nodes".

[18] 3GPP TS 29.510: "5G System; Network function repository services; Stage 3".

[19] 3GPP TS 28.533: "Management and orchestration; Architecture framework".

[20] 3GPP TS 37.320: "Radio measurement collection for Minimization of Drive Tests (MDT); Overall description; stage 2".

[21] 3GPP TS 28.201: "Charging management; Network slice performance and analytics charging in the 5G System (5GS); stage 2".

[22] 3GPP TS 28.541: "Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3".

[23] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[24] 3GPP TS 28.310: "Management and orchestration; Energy efficiency of 5G".

[25] 3GPP TS 29.518: "5G System; Access and Mobility Management Services; Stage 3".

[26] 3GPP TS 29.503: "Unified Data Management Services; Stage 3".

[27] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia Telephony; Media handling and interaction".

[28] 3GPP TS 26.247: "Transparent end-to-end Packet-switched Streaming Service (PSS); Progressive Download and Dynamic Adaptive Streaming over HTTP (3GP-DASH)".

[29] 3GPP TS 26.118: "Virtual Reality (VR) profiles for streaming applications".

[30] 3GPP TS 26.346: "Multimedia Broadcast/Multicast Service (MBMS); Protocols and codecs".

[31] 3GPP TS 26.512: "5G Media Streaming (5GMS); Protocols".

[32] 3GPP TS 26.531: "Data Collection and Reporting; General Description and Architecture".

[33] 3GPP TS 22.261: "Service requirements for the 5G system; Stage 1".

[34] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[35] 3GPP TS 22.071: "Technical Specification Group Systems Aspects; Location Services (LCS)".

[36] 3GPP TS 29.508: "5G System; Session Management Event Exposure Service; Stage 3".

[37] 3GPP TS 29.572: "5G System; Location Management Services; Stage 3".

[38] GSMA TS.06: "IMEI Allocation and Approval Process".

[39] 3GPP TS 23.273: "5G System (5GS) Location Services (LCS); Stage 2".

[40] ITU-T Y.1540: "Internet protocol data communication service - IP packet transfer and availability performance parameters".

[41] 3GPP TS 28.622: "Telecommunication management; Generic Network Resource Model (NRMs). Integration Reference Point (IRP): Information Service (IS)".

[42] 3GPP TS 32.422: "Subscriber and equipment trace: Trace control and configuration management".

[43] 3GPP TS 26.532: "Data Collection and Reporting; Protocols and Formats".

[44] 3GPP TS 38.455: "NG-RAN; NR Positioning Protocol A (NRPPa)".

[45] 3GPP TS 28.104: "Management and orchestration; Management Data Analytics (MDA)".

[46] 3GPP TS 28.537: "Management and orchestration; Management capabilities".

[47] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[48] 3GPP TS 29.515: "Gateway Mobile Location Services; Stage 3".

[49] 3GPP TS 33.501: "Security architecture and procedures for 5G system".

[50] 3GPP TS 28.558: "User Equipment (UE) level measurements for 5G system".

[51] 3GPP TS 29.564: "5G System; User Plane Function Services; Stage 3".