ETSI TS 132 101 V13.0.0 (2016-01)

Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Principles and high level requirements
(3GPP TS 32.101 version 13.0.0 Release 13)

Reference
RTS/TSGS-0532101vd00

Keywords
GSM,LTE,UMTS

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Contents

Intellectual Property Rights 2
Foreword 2
Modal verbs terminology 2
Foreword 6
1 Scope 7
2 References 7
3 Definitions and abbreviations 10
3.1 Definitions 10
3.2 Abbreviations 11
4 General 13
4.1 PLMN Telecom Management 13
4.1.1 Basic objectives for PLMN management 13
4.1.2 3GPP reference model 14
4.1.3 3GPP provisioning entities 14
4.1.4 Management infrastructure of the PLMN 14
4.2 ITU-T TMN 15
5 Architectural framework 16
5.1 Management reference model and interfaces 16
5.1.1 Overview 16
5.1.2 Interfaces from Operations Systems to NEs (Type 1 & 2) 17
5.1.2.1 Interfaces from EM Operations Systems to NEs (Type 1) 18
5.1.2.2 Interfaces from NM Operations Systems to NEs (Type 2) 18
5.1.3 Interfaces to Enterprise Systems (Type 3) 19
5.1.3a Interface between Network Managers (Type 4) 19
5.1.3b Interface between Domain Managers (Type 4a) - the Itf-P2P Interface 19
5.1.4 Interfaces to Operations Systems in other organisations (Type 5) 19
5.1.5 Inter-NE interfaces (Type 6) 19
5.1.6 Interface between NMLS and NM (Type 7) 20
5.2 Interface levels 20
5.2.1 Overview 20
5.2.2 Information Model level 20
5.2.3 Solution Set (SS) level 20
5.2.4 Management-application-layer-protocol level 20
5.2.5 Networking protocol level 21
5.2.6 Physical level 21
5.3 3GPP compliance conditions 21
5.4 Service Oriented Architecture (SOA) 21
5.4.1 Basic elements of SOA 21
5.4.2 Aggregation of SOA basic elements 22
5.4.3 Information transfer bus 23
5.4.4 SOA elements within the Management reference model 23
5.4.5 SOA-based representation of the Management Reference Model 24
5.4.6 SOA-supporting Solution Set 25
5.5 Converged Management 25
5.5.1 Introduction to FNIM 25
5.5.2 FNIM Features 25
5.5.3 FNIM Elements 26
5.5.3.1 FNIM components 26
5.5.3.2 Relations between model components (including UIM) 26
5.5.3.3 Relations among pairs of model components 27
6 PLMN management processes 28

6.1 Process decomposition 28
6.2 Void 29
6.3 Void 29
6.4 Void 29
6.5 Customer Relationship Management (CRM) processes 29
6.5.1 CRM Support & Readiness 29
6.5.2 Customer Interface Management 30
6.5.3 Marketing Fulfilment Response 30
6.5.4 Selling 30
6.5.5 Order Handling 30
6.5.6 Problem Handling 30
6.5.7 Customer QoS/SLA Management 30
6.5.8 Billing & Collections Management) 30
6.5.9 Retention & Loyalty 30
6.6 Service Management & Operations (SM&O) Processes 31
6.6.1 SM&O Support & Readiness 31
6.6.2 Service Configuration & Activation 32
6.6.3 Service Problem Management 32
6.6.4 Service Quality Management 32
6.6.5 Service & Specific Instance Rating 32
6.7 Resource Management & Operations (RM&O) Processes 32
6.7.1 RM&O Support & Readiness 33
6.7.2 Resource Provisioning 33
6.7.3 Resource Trouble Management 34
6.7.4 Resource Performance Management 34
6.7.5 Resource Data Collection & Processing 34
6.8 Supplier/Partner Relationship Management (S/PRM) processes 35
6.8.1 S/PRM Support & Readiness 35
6.8.2 S/P Requisition Management 35
6.8.3 S/P Problem Reporting & Management 35
6.8.4 S/P Performance Management 36
6.8.5 S/P Settlements & Billing Management 36
6.8.6 S/P Interface Management 36

7 PLMN management functional architecture 37
7.1 TM architectural aspects 37
7.2 Performance Management 38
7.2.1 Overview 38
7.2.2 Standardisation objectives 38
7.3 Roaming management overview 39
7.4 Fraud management overview 39
7.5 Fault Management 40
7.5.1 Overview 40
7.5.2 Standardisation objectives 41
7.6 Security Management 42
7.6.1 Overview 42
7.6.1.1 Layer B - OAM&P Transport IP Network 42
7.6.1.2 Layer A - Application Layer 42
7.6.1.3 Common Services 43
7.7 Software Management 44
7.7.1 Overview 44
7.7.1.1 Main Software Management process 44
7.7.1.2 Software Fault Management 46
7.8 Configuration Management 48
7.9 Accounting Management 48
7.10 Subscription Management 49
7.11 Subscriber and Equipment Trace Management 50
7.12 OAM&P of the PLMN "Management Infrastructure" 50
7.13 Service Level Trace Management 50

Annex A (normative): 3GPP Management-application-layer-protocols 51

Annex B (normative): 3GPP management network layer protocols 52

Annex C (normative): 3GPP management IRP Solution Sets 53

Annex D (informative): QoS Management 54

D.1 Overview 54

D.2 QoS Provisioning 55
D.2.1 Conceptual Architecture 56
D.2.2 NML QoS Policy Provisioning 57
D.2.3 EML QoS Policy Provisioning 57
D.2.4 Policy Decision Point 58
D.2.5 Policy Enforcement Point 58

D.3 QoS Monitoring 59
D.3.1 QoS Monitoring Conceptual Architecture 59
D.3.2 Network Element 60
D.3.3 Element Management Layer 61
D.3.4 Network Management Layer 62

D.4 QoS Management References 63
D.4.1 Policy Based QoS Provisioning References 63
D.4.2 Policy Based QoS Monitoring References 64

Annex E (normative): Type 2 protocols and information model for use in Type 4a management interface 66

Annex F (informative): Change history 67

History 68

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1 Scope

The present document establishes and defines the management principles and high-level requirements for the management of PLMNs.

In particular, the present document identifies the requirements for:

- the upper level of a management system;
- the reference model, showing the elements the management system interacts with;
- the network operator processes needed to run, operate and maintain a network;
- the functional architecture of the management system;
- the principles to be applied to management interfaces.

The requirements identified in the present document are directed to the further development of management specifications as well as the development of management products. The present document can be seen as guidance for the development of all other Technical Specification addressing the management of PLMNs.

The present document does not provide physical architectures of the management system. These aspects are defined and discussed in more detail in TS 32.102 [101].

Verbal forms used to indicate requirements in the present document (e.g. "shall", "should", "may") are used in compliance with 3GPP specification Drafting Rules TR 21.801 [104].

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] ITU-T Recommendation M.3010 (2000): "Principles for a telecommunications management network".

[2] 3GPP TS 22.101: "Service aspects; Service Principles".

[3] 3GPP TS 32.111-1: "Telecommunication management; Fault Management; Part 1: 3G fault management requirements".

[4] IETF RFC 959: "File Transfer Protocol (FTP)"; October 1985, J. Postel, J. Reynolds, ISI. (Status: Standard).

[5] IETF RFC 783: "Trivial File Transfer Protocol (TFTP)"; rev. 2, June 1981, K.R. Sollins MIT. (Status: Unknown).

[6] IETF RFC 1157: "Simple Network Management Protocol (SNMP)": May 1990, J. Case, SNMP Research, M. Fedor, Performance Systems International, M. Schoffstall, Performance Systems International, J. Davin, MIT Laboratory for Computer Science. (Status: Standard).

[7] IETF RFC 2401: "Security Architecture for the Internet Protocol"; November 1998. (Status: Proposed Standard).