ETSI TS 132 600 V13.0.0 (2016-02)

Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Configuration Management (CM);
Concept and high-level requirements
(3GPP TS 32.600 version 13.0.0 Release 13)

Reference
RTS/TSGS-0532600vd00

Keywords
GSM,LTE,UMTS

ETSI

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Contents

Foreword

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Introduction

Configuration Management (CM), in general, provides the operator with the ability to assure correct and effective operation of the PLMN network as it evolves. CM actions have the objective to control and monitor the actual configuration on the Network Elements (NEs) and Network Resources (NRs), and they may be initiated by the operator or by functions in the Operations Systems (OSs) or NEs.

CM actions may be requested as part of an implementation programme (e.g. additions and deletions), as part of an optimisation programme (e.g. modifications), and to maintain the overall Quality of Service (QoS). The CM actions are initiated either as single actions on single NEs of the PLMN network, or as part of a complex procedure involving actions on many resources/objects in one or several NEs.

Clauses 4 to 6 give an introduction and description of the main concepts of CM, which are not mandatory for compliance with this specification. Clause 7 contains the specific definitions for the standardised interface Itf-N, which are necessary to follow for compliance.

Clause 4 provides a brief background of CM, while Clause 5 explains CM services available to the operator. Clause 6 breaks these services down into individual CM functions, which support the defined services. Clause 7 defines the Itf-N (see 3GPP TS 32.102 [2]) to be used for CM.

1 Scope

The present document describes the Configuration Management (CM) aspects of managing a PLMN network. This is described from the management perspective in 3GPP TS 32.101 [1] and 3GPP TS 32.102 [2].

The present document defines a set of controls to be employed to effect set-up and changes to a PLMN network in such a way that operational capability and Quality Of Service (QOS), network integrity and system inter working are ensured. In this way, the present document describes the interface definition and behaviour for the management of relevant NEs in the context of the described management environment. The context is described for both the management system (OS) and Network Element (NE) functionality.

Clause 7 contains the specific definitions for the standardised Itf-N, which are necessary to follow for compliance to this specification.

The Itf-N for CM is built up by a number of Integration Reference Points (IRPs) and a related Name Convention, which realise the functional capabilities over this interface. The basic structure of the IRPs is defined in 3GPP TS 32.150 [9]. For CM, a number of IRPs (and a Name Convention [8]) are defined, used by this as well as by other specifications for Telecom Management produced by 3GPP.

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 TS 32.101: "Telecommunication management; Principles and high level requirements".

[2] 3GPP TS 32.102: "Telecommunication management; Architecture".

[3] 3GPP TS 32.622: "Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)".

[4] ITU-T Recommendation X.721: "Information technology - Open Systems Interconnection - Structure of management information: Definition of management information".

[5] ITU-T Recommendation X.730: "Information technology - Open Systems Interconnection - Systems Management: Object Management Function".

[6] ITU-T Recommendation X.731: "Information technology - Open Systems Interconnection - Systems Management: State management function".

[7] ITU-T Recommendation X.734: "Information technology - Open Systems Interconnection - Systems Management: Event report management function".

[8] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".

[9] 3GPP TS 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".