

# ETSI TS 132 721 V8.0.0 (2009-01)

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*Technical Specification*

**Digital cellular telecommunications system (Phase 2+);  
Universal Mobile Telecommunications System (UMTS);  
LTE;  
Telecommunication management;  
Configuration Management (CM);  
Repeater network resources Integration Reference Point (IRP):  
Requirements  
(3GPP TS 32.721 version 8.0.0 Release 8)**

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**Reference**

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**Keywords**

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## Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

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## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

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## Introduction

The present document is part of a TS-family covering the 3<sup>rd</sup> Generation Partnership Project; Technical Specification Group Services and System Aspects; Telecommunication management; as identified below:

- 32.721: Configuration Management (CM); Repeater network resources Integration Reference Point (IRP); Requirements**
- 32.722: Configuration Management (CM); Repeater network resources Integration Reference Point (IRP); Information Service (IS)
- 32.723: Configuration Management (CM); Repeater network resources Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set (SS)
- 32.725: Configuration Management (CM); Repeater network resources Integration Reference Point (IRP); Bulk CM eXtensible Markup Language (XML) file format definition

Configuration Management (CM), in general, provides the operator with the ability to assure correct and effective operation of the 3G 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 3G network, or as part of a complex procedure involving actions on many resources/objects in one or several NEs.

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# 1 Scope

The present document defines, in addition to the requirements defined in 3GPP TS 32.101 [1], 3GPP TS 32.102 [2] and 3GPP TS 32.600 [3], the requirements for the present Repeater network resources IRP.

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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.
- 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 32.600: "Telecommunication management; Configuration Management (CM); Concept and high-level requirements".

[4] 3GPP TS 25.106: "UTRA repeater radio transmission and reception".

[5] 3GPP TS 32.150: "Telecommunication management; Integration Reference Point (IRP) Concept and definitions".

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

**Integration Reference Point (IRP):** See 3GPP TS 32.150 [5].

**Managed Object (MO):** an abstract entity, which may be accessed through an open interface between two or more systems, and representing a Network Resource (NR) for the purpose of management. The Managed Object (MO) is an instance of a Managed Object Class (MOC) as defined in a Management Information Model (MIM). The MIM does not define how the MO or NR is implemented; only what can be seen in the interface.

**Managed Object Class (MOC):** a description of all the common characteristics for a number of MOs, such as their attributes, operations, notifications and behaviour.

**Management Information Model (MIM):** also referred to as NRM – see the definition below. There is a slight difference between the meaning of MIM and NRM – the term MIM is generic and can be used to denote any type of management model, while NRM denotes the model of the actual managed telecommunications Network Resources (NRs).

**Network Element (NE):** is a discrete telecommunications entity, which can be, managed over a specific interface e.g. the RNC.

**Network Resource (NR):** is a component of a NE, which can be identified as a discrete separate entity and is in an object oriented environment for the purpose of management represented by an abstract entity called Managed Object (MO).

**Network Resource Model (NRM):** a model representing the actual managed telecommunications Network Resources (NRs) that a System is providing through the subject IRP. An NRM describes Managed Object Classes (MOC), their associations, attributes and operations. The NRM is also referred to as "MIM" (see above) which originates from the ITU-T TMN.

**Operations System (OS):** indicates a generic management system, independent of its location level within the management hierarchy.

## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CM	Configuration Management
GSM	Global System for Mobile communication
IRP	Integration Reference Point
MIM	Management Information Model
MO	Managed Object
MOC	Managed Object Class
NE	Network Element
NR	Network Resource
NRM	Network Resource Model
UMTS	Universal Mobile Telecommunications System
UTRAN	Universal Terrestrial Radio Access Network

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## 4 Requirements

The following general and high-level requirements apply for the present IRP:

- a) IRP-related requirements in 3GPP TS 32.101 [1].
- b) IRP-related requirements in 3GPP TS 32.102 [2].
- c) IRP-related requirements in 3GPP TS 32.600 [3].

In addition to the above, the following more specific requirements apply:

### 4.1 Configuration Management

It shall be possible for IRPManager to achieve basic configuration and inventory information of repeater see 3GPP TS 25.106 [4].

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## 5 Issues

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## Annex A (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	R	Subject/Comment	Cat	Old	New
Sep 2006	SA_33	SP-060558	--	--	Submitted to TSG SA #33 for Information	--	--	1.0.0
Dec 2006	SA_34	SP-060745	--	--	Submitted to TSG SA #34 for Approval.	--	2.0.0	7.0.0
Mar 2007	SA_35	SP-070046	0001	--	Correct the wrong references	F	7.0.0	7.1.0
Dec 2008	SA_42	--	--	--	Upgrade to Release 8	--	7.1.0	8.0.0



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# History

<b>Document history</b>		
V8.0.0	January 2009	Publication