

**Source:** SA5 (Telecom Management)  
**Title:** 32.101 CR, "Terminology corrections" (S5-000330)  
**Document for:** Approval  
**Agenda Item:** 6.5.3

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Spec	CR	Phase	Subject	Ca	Versi	Versi	Doc-2nd-Level
32.101	005	R99	Terminology correction	F	3.1.1	3.2.0	S5-000330

**3GPP TSG-SA5 (Telecom Management)**  
**Meeting #12, Rome, 5–9 June 2000**

**SA5#12(00)0330**

*e.g. for 3GPP use the format TP-99xxx  
or for SMG, use the format P-99-xxx*

<b>CHANGE REQUEST</b>		<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>	
<b>32.101 CR 005</b>		Current Version: <b>3.1.1</b>	
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>↑ CR number as allocated by MCC support team</small>	
For submission to: <b>SA#8</b> <small>list expected approval meeting # here ↑</small>	for approval for information	<input checked="" type="checkbox"/>	strategic <input type="checkbox"/> (for SMG use only) non-strategic <input type="checkbox"/>

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** SA5#12 **Date:** 9 June 2000

**Subject:** Terminology correction to 32.101

**Work item:** 32.101 3G Telecom Management principles and high level requirements

<b>Category:</b>	F Correction	<input checked="" type="checkbox"/>	<b>Release:</b> Phase 2	<input type="checkbox"/>
<small>(only one category shall be marked with an X)</small>	A Corresponds to a correction in an earlier release	<input type="checkbox"/>	Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>	Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>	Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>	Release 99	<input checked="" type="checkbox"/>
			Release 00	<input type="checkbox"/>

**Reason for change:** Align Terminology in 32.101 with latest referenced M-series specifications, removal of term Q3, to be replaced with Q and CMIP

**Clauses affected:** 4.1.1 & 4.2

<b>Other specs affected:</b>	Other 3G core specifications	<input type="checkbox"/>	→ List of CRs:	
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**

### 4.1.1 Requirements

The requirements and decomposition of Telecom Management for UMTS do not differ radically from that of 2G systems. The following requirements have been identified:

- to be capable of managing equipment supplied by different vendors including the management systems themselves.
- to minimise the complexity of UMTS management.
- to provide the communication between UMTS Network Elements and UMTS Operations Systems or between UMTS Operations Systems themselves via standardised interfaces (e.g. CMIP Q3, CORBA, SNMP, etc.) as appropriate and necessary.
- to minimise the costs of managing a UMTS network such that it is a small component of the overall operating cost.
- to provide UMTS configuration capabilities that are flexible enough to allow rapid deployment of services.
- to provide integrated Fault Management capabilities.
- to simplify maintenance interventions by supporting remote maintenance operations.
- to allow interoperability between Network Operators/Service Providers for the exchange of management/charging information. This includes interoperability with other networks and services (e.g. ISDN/B-ISDN, PSTN, and UPT) as well as other UMTS networks.
- to enable the support and control of a growing number of resources. This would allow the system to start from a small and simple configuration and grow as needed, both in size and complexity.
- to re-use existing relevant standards (e.g. GSM, IN, ISDN/B-ISDN, ITU-T, TMF etc.) where applicable
- to support the security management of UMTS (e.g. key management, access control management, operation and administration of security mechanisms) with particular emphasis on new features such as automatic roaming and packet switched services.
- to provide and support a flexible billing and accounting administration, to support charging across UMTS and non-UMTS systems.
- to address the management and assessment of system performance and operation through the use of common measurements, etc. This would enable a Network Operator/Service Provider to assess actual performance against planned targets.
- to expose any information only once.  
(Example: In case an operator would like to change one parameter in a cell: Then all occurrences of this parameter, e.g. transceiver frequency, hand-over relationships, performance measurements, frequency hopping control, etc., should be changed by one action only.)
- to support the restoration of a UMTS Operations System (e.g. resynchronisation and atomic transactions).
- to have one name convention for network resources under management in the 3GPP context. To perform network management tasks, co-operating applications require identical interpretation of names assigned to network resources under management. Such names are required to be unambiguous as well.

It is acknowledged that the introduction of new architecture to support new services or the introduction of new services themselves may impact the detailed requirements of some or all of the above.

## 4.2 ITU-T TMN

ITU-T TMN (Telecommunications Management Network standard from the International Telecommunications Union), as defined in [1], provides:

- an architecture, made of OS (Operations Systems) and NEs (Network Elements), and the interfaces between them (Q3, within one Operator Domain and X, between different Operators);
- the methodology to define those interfaces;
- other architectural tools such as LLA (Logical Layered Architecture) that help to further refine and define the Management Architecture of a given management area;
- a number of generic and/or common management functions to be specialised/applied to various and specific ITU-T TMN interfaces.

The UMTS Management Architecture is based on ITU-T TMN, and will reuse those functions, methods and interfaces already defined (or being defined) that are suitable to the management needs of UMTS. However, the UMTS Management needs to explore the incorporation of other concepts (other management paradigms widely accepted and deployed) since:

- UMTS incorporates other technologies to which ITU-T TMN is not applied fully;
- UMTS faces new challenges that ITU-T TMN does not address today;

The ITU-T standards are mainly concentrated in the element management and network management layers. They have been developed from the bottom up, making it difficult to apply the standards as part of a business case. It is also difficult to have a customer centric focus.

An example of another management paradigm that will be employed to try and address these difficulties is the Telecom Operations Map from TeleManagement Forum (TMF). The Telecom Operations Map, using the TMN model as a foundation, addresses operation support and management for any communications service from a top down customer oriented standpoint.

It must be noted that these concerns are applicable to other telecommunication areas as well as to UMTS, it is expected that the eventual evolution of ITU-T TMN will cover this ground. Indeed, most of the above concepts are already being taken into account by ITU-T TMN evolution (protocols and methodologies).