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**Digital cellular telecommunications system (Phase 2+) (GSM);
Universal Mobile Telecommunications System (UMTS);
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Telecommunication management;
Principles and high level requirements
(3GPP TS 32.101 version 14.0.0 Release 14)**

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Foreword

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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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[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).