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Digital cellular telecommunications system (Phase 2) (GSM); Base Station System (BSS) management information (GSM 12.20)

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ICS:

33.070.50	Globalni sistem za mobilno telekomunikacijo (GSM)	Global System for Mobile Communication (GSM)
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**Digital cellular telecommunications system (Phase 2);
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(GSM 12.20)**

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Foreword

This European Telecommunication Standard (ETS) was produced by the Special Mobile Group (SMG) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS provides the management information model for the Configuration and Fault Management aspects of the GSM BSS Network Element as seen on the Q3 interface between the OS (e.g. OMC) and the BSS within the Digital cellular telecommunications system. This ETS corresponds to GSM technical specification, GSM 12.20, version 4.2.1.

NOTE: TC-SMG has produced documents which give technical specifications for the implementation of the Digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TSs). These specifications may subsequently become I-ETs (Phase 1), or European Telecommunication Standards (ETs)(Phase 2), whilst others may become ETSI Technical Reports (ETRs). These ETSI-GSM Technical Specifications are, for editorial reasons, still referred to in this ETS.

Transposition dates	
Date of adoption of this ETS:	06 June 1996
Date of latest announcement of this ETS (doa):	26 September 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	27 March 1997
Date of withdrawal of any conflicting National Standard (dow):	27 March 1997

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Introduction

The management of a GSM PLMN follows the systems management model outlined in CCITT X.701 [7] which breaks systems management into various aspects. The GSM 12.20 Specification addresses the information and functional aspects of the CCITT model. The model presented in GSM 12.20 defines the management information and, together with the behaviours and notifications, specifies the functional aspects as well.

For the purposes of this document, the management information consists of managed object classes, packages, attributes, name bindings, actions, notifications, and behaviours as described in CCITT X.722 [9], the Guidelines for the Definition of Managed Objects (GDMO). A managed object is the abstract view of a resource that is subject to management. An essential part of this view is the relationship between the properties of the resource as represented by the attributes in the model, and the operational behaviour of the resource. This relationship must be specified for each property and is found in the behaviour descriptions associated with the model elements.

The model described in this document should be seen as the basic model for configuration and fault management of a GSM BSS Network Element. It is, however, expected that in order to support the management of enhanced functionality introduced in the BSS, additions will later on have to be made to this model. These additions can either be pure extensions to the model or alternatives to already existing parts of the model.

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1 Scope

This European Telecommunication Standard (ETS) provides the management information model for the Configuration and Fault Management aspects of the GSM Base Station System (BSS) Network Element as seen on the Q3 interface between the OS (e.g. OMC) and the BSS.

The information defined in this model is that which is required to manage the BSS Network Element as set forth in the GSM core specifications for telecommunications operation, and as specified in the GSM 12-series Specifications for management requirements. The management information defined in this ETS is primarily related to what is termed configuration and fault management within the CCITT X.701 [7] definition of Management Functional Areas. Additional management information elements of the BSS model for other management areas are defined in other GSM 12-series Specifications. For example, the management information related to the performance Management Functional Area is to be found in GSM 12.04 [27]. See GSM 12.00 [24] for a complete overview of the GSM 12-series specifications.

In addition to the formal GDMO definitions, additional information is included to aid in understanding the model and its elements. Summary descriptions, containment and inheritance diagrams, and entity relationship diagrams are provided for this purpose.

The general management information contained in the models specified in CCITT M.3100 [3] and CCITT X.7xx Recommendations is referenced in this ETS but the formal definitions are contained in the referenced documents.

2 Normative references

This ETS incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to, or revisions of, any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] CCITT Recommendation M.3010: "Principles for a Telecommunications Management Network".
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- [2] CCITT Recommendation M.3020: "TMN Interface Specification Methodology".
- [3] CCITT Recommendation M.3100: "Generic Network Information Model".
- [4] CCITT Recommendation M.3200: "TMN Management Services: Overview".
- [5] CCITT Recommendation M.3400: "TMN Management Functions".
- [6] CCITT Recommendation X.208: "Specification of Abstract Syntax Notation One (ASN.1)".
- [7] CCITT Recommendation X.701(ISO/IEC 10040): "Information technology - Open Systems Interconnection - Systems Management Overview".
- [8] CCITT Recommendation X.721 (ISO/IEC 10165-2): "Information technology - Open Systems Interconnection - Structure of management information: Definition of Management Information".
- [9] CCITT Recommendation X.722 (ISO/IEC 10165-4): "Information technology - Open Systems Interconnection - Structure of management information: Guidelines for the Definition of Managed Objects".
- [10] CCITT Recommendation X.730 (ISO/IEC 10164-1): "Information technology - Open Systems Interconnection - Systems Management: Object Management Function".