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SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS

Public data networks – Maintenance

Network-network management services for data networks

ITU-T Recommendation X.171

(Formerly CCITT Recommendation)

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Network-network management services for data networks

Summary

This Recommendation defines management services exchanged at the boundary between two networks based on the Network-Network Management (NNM) architecture defined in ITU-T X.170. The defined management services are generic and can be applied to many kinds of service networks. They are described irrespective of underlying management protocols.

Source

ITU-T Recommendation X.171 was prepared by ITU-T Study Group 7 (1997-2000) and approved under the WTSC Resolution 1 procedure on 31 March 2000.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSC Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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Network-network management services for data networks

1 Scope

This Recommendation is one of a set of Recommendations dealing with Network-Network Management Interface for data networks, which include:

- the definition of the architectural framework to exchange management information for the provision of total Customer Network Management (CNM) Services by the carrier accommodating its subscribers;
- the description of management services between two networks;
- the definition of management information elements, such as the managed object (MO) classes, attribute types, action types, notification types;
- compliance requirements placed on other ITU-T Recommendations definitions;
- conformance requirements.

When a carrier provides CNM Services, there may be requirements to exchange management information or operations with its adjacent network related to internetwork communication. This Recommendation resolves such requirements for the provision of total management services at the NNM interface.

This Recommendation makes use of the principles of the CNM and the TMN X-Interface. Within this overall framework, it meets requirements specific to data networks and the provision of CNM Services.

2 References

The following ITU-T Recommendations and other references contain provisions, which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

2.1 Identical Recommendations | International Standards

- ITU-T X.701 (1997) | ISO/IEC 10040:1998, *Information technology – Open Systems Interconnection – Systems management overview.*
- ITU-T X.710 (1997) | ISO/IEC 9595:1998, *Information technology – Open Systems Interconnection – Common Management Information Service.*
- ITU-T X.711 (1997) | ISO/IEC 9596-1:1998, *Information technology – Open Systems Interconnection – Common Management Information Protocol: Specification.*
- ITU-T X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information.*
- ITU-T X.730 (1992) | ISO/IEC 10164-1:1993, *Information technology – Open Systems Interconnection – Systems Management: Object management function.*



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