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SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

OSI management – Management functions and ODMA functions

Enhanced event control function

ITU-T Recommendation X.754

(Formerly CCITT Recommendation)

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ITU-T Recommendation X.754

Enhanced event control function

Summary

This Recommendation presents enhancement event control functions to handle the unavailability of the logging systems.

Source

ITU-T Recommendation X.754 was prepared by ITU-T Study Group 4 (1997-2000) and approved under the WTSC Resolution 1 procedure on 4 February 2000.

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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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ITU-T Recommendation X.754

Enhanced event control function

1 Scope

This function is an enhancement to the functionality specified in ITU-T X.734 | ISO/IEC 10164-5 and provides the capability for configuring managed systems to be able to retain events in case the connection to the managing system is lost. This function models the retention of event reports and the forwarding of these retained event reports by an aggregate of support managed objects called a **disseminator complex**. The disseminator complex consists of one **disseminator log** and at least one **disseminator queue** managed object instance. Event reports, which cannot be forwarded, due to communications failure conditions may be retained for subsequent transmission. The model for the enhanced event control function is built upon the model for logging defined in ITU-T X.735 | ISO/IEC 10164-6 and the event report management model defined in ITU-T X.734 | ISO/IEC 10164-5. However, the mechanisms and managed objects used to implement this functionality though derived from the above Recommendations are different from those specified there. This model will support forwarding of event reports under both normal (real-time) and failure conditions and may, therefore, be implemented as a sole mechanism as an alternative to the mechanisms specified in ITU-T X.734. However, this function is not a replacement for the functionality specified in ITU-T X.734 and systems not requiring storage of events during failure conditions need only support the simpler functionality specified in ITU-T X.734.

This Recommendation:

– establishes user requirements for the enhanced event control function;
– establishes models that relate the services provided by the function to user requirements;
– defines the services provided by the function;
– specifies the protocol that is necessary in order to provide the services;
– defines the relationship between the services and SMI operations and notifications;
– defines relationships with other systems management functions;
– specifies conformance requirements.

This Recommendation does not:

– define the nature of any implementation intended to provide the enhanced event control function;
– specify the manner in which management is accomplished by the user of the enhanced event control function;
– define the nature of any interactions which result in the use of the enhanced event control function;
– specify the services necessary for the establishment, normal and abnormal release of a management association;
– specify the authorization requirements for the use of the enhanced event control function or for any associated activity;
– define the managed objects related to the management of particular protocol machines.

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2 Normative 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; 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 regulary published.

2.1 Identical Recommendations | International Standards

– ITU-T X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model.*

– ITU-T X.210 (1993) | ISO/IEC 10731:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: Conventions for the definition of OSI services.*

– ITU-T X.680 (1997) | ISO/IEC 8824-1:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*

– ITU-T X.681 (1997) | ISO/IEC 8824-2:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Information object specification.*

– ITU-T X.682 (1997) | ISO/IEC 8824-3:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification.*

– ITU-T X.683 (1997) | ISO/IEC 8824-4:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications.*

– ITU-T X.690 (1997) | ISO/IEC 8825-1:1998, *Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER).*

– ITU-T X.691 (1997) | ISO/IEC 8825-2:1998, *Information technology – ASN.1 encoding rules – Specification of Packed Encoding Rules (PER).*

– 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.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.*

– ITU-T X.731 (1992) | ISO/IEC 10164-2:1993, *Information technology – Open Systems Interconnection – Systems Management: State management function.*

– ITU-T X.735 (1992) | ISO/IEC 10164-6:1993, *Information technology – Open Systems Interconnection – Systems Management: Log control function.*

– ITU-T X.739 (1993) | ISO/IEC 10164-11:1994, *Information technology – Open Systems Interconnection – Systems Management: Metric objects and attributes.*

2.2 Paired Recommendations | International Standards equivalent in technical content

– ITU-T X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts.*

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ISO/IEC 9646-1:1991, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*

– ITU-T X.700 (1992), *Management framework for Open Systems Interconnection (OSI) for CCITT applications.*

ISO/IEC 7498-4:1989, *Information processing systems – Open Systems Interconnection – Basic Reference Model – Part 4: Management framework.*

3 Definitions

For the purposes of this Recommendation, the following definitions apply.

3.1 Basic reference model definitions

This Recommendation makes use of the following terms defined in ITU-T X.200 | ISO/IEC 7498-1:

a) open system;

b) systems management.

3.2 Service convention definitions

This Recommendation makes use of the following term defined in ITU-T X.210 | ISO/IEC 10731:

– primitive.

3.3 Management framework definitions

This Recommendation makes use of the following terms as defined in ITU-T X.700 and ISO/IEC 7498-4:

a) management information;

b) managed object;

c) systems-management-application-entity.

3.4 Systems management overview definitions

This Recommendation makes use of the following terms defined in ITU-T X.701 | ISO/IEC 10040:

a) agent role;

b) dependent conformance;

c) general conformance;

d) management support object;

e) manager role;

f) notification;

g) systems management functional unit;

h) systems management operation.

3.5 Common management information service definitions

This Recommendation makes use of the following terms defined in ITU-T X. 710 | ISO/IEC 9595:

a) attribute;

b) common management information services;

c) common management information service element.

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