International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.827.1

Amendment 1

(03/2007)

SERIES Q: SWITCHING AND SIGNALLING

Q3 interface

Requirements and analysis for the common management functions of NMS-EMS interfaces

Amendment 1: Addition of a common managed entity EMS

ITU-T Recommendation Q.827.1 (2004) – Amendment 1

ITU-T Q-SERIES RECOMMENDATIONS

SWITCHING AND SIGNALLING

SIGNALLING IN THE INTERNATIONAL MANUAL SERVICE	Q.1–Q.3
INTERNATIONAL AUTOMATIC AND SEMI-AUTOMATIC WORKING	Q.4–Q.59
FUNCTIONS AND INFORMATION FLOWS FOR SERVICES IN THE ISDN	Q.60–Q.99
CLAUSES APPLICABLE TO ITU-T STANDARD SYSTEMS	Q.100–Q.119
SPECIFICATIONS OF SIGNALLING SYSTEMS No. 4, 5, 6, R1 AND R2	Q.120–Q.499
DIGITAL EXCHANGES	Q.500–Q.599
INTERWORKING OF SIGNALLING SYSTEMS	Q.600–Q.699
SPECIFICATIONS OF SIGNALLING SYSTEM No. 7	Q.700–Q.799
Q3 INTERFACE	**Q.800–Q.849**
DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1	Q.850–Q.999
PUBLIC LAND MOBILE NETWORK	Q.1000–Q.1099
INTERWORKING WITH SATELLITE MOBILE SYSTEMS	Q.1100–Q.1199
INTELLIGENT NETWORK	Q.1200–Q.1699
SIGNALLING REQUIREMENTS AND PROTOCOLS FOR IMT-2000	Q.1700–Q.1799
SPECIFICATIONS OF SIGNALLING RELATED TO BEARER INDEPENDENT CALL CONTROL (BICC)	Q.1900–Q.1999
BROADBAND ISDN	Q.2000–Q.2999
SIGNALLING REQUIREMENTS AND PROTOCOLS FOR THE NGN	Q.3000–Q.3999

For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation Q.827.1

Requirements and analysis for the common management functions of NMS-EMS interfaces

Amendment 1

Addition of a common managed entity EMS

Summary

This amendment adds a new managed entity (EMS) and modifies the related UML diagrams and Appendix I.

Source

Amendment 1 to ITU-T Recommendation Q.827.1 (2004) was approved on 16 March 2007 by ITU-T Study Group 4 (2005-2008) under the ITU-T Recommendation A.8 procedure.

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 Assembly (WTSA), 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 WTSA 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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

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, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

CONTENTS

ITU-T Recommendation Q.827.1

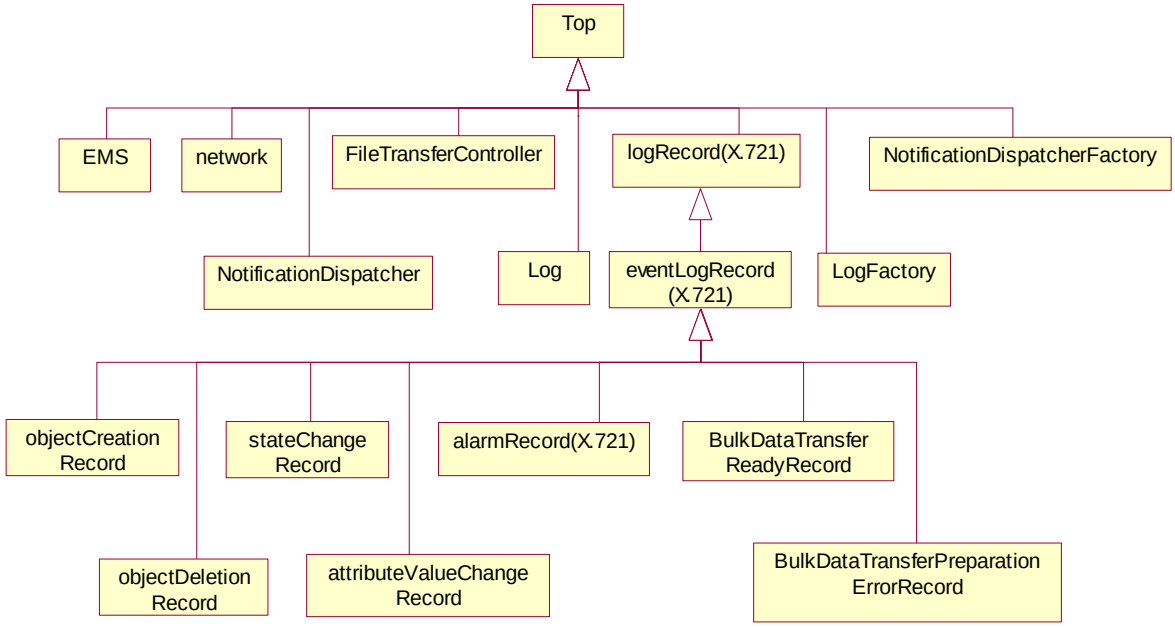
Requirements and analysis for the common management functions of NMS-EMS interfaces

Amendment 1

Addition of a common managed entity EMS

1) Figure 7-1

Replace Figure 7-1 with the following one:



2) New Figure 7-2.1

Add the following new figure:

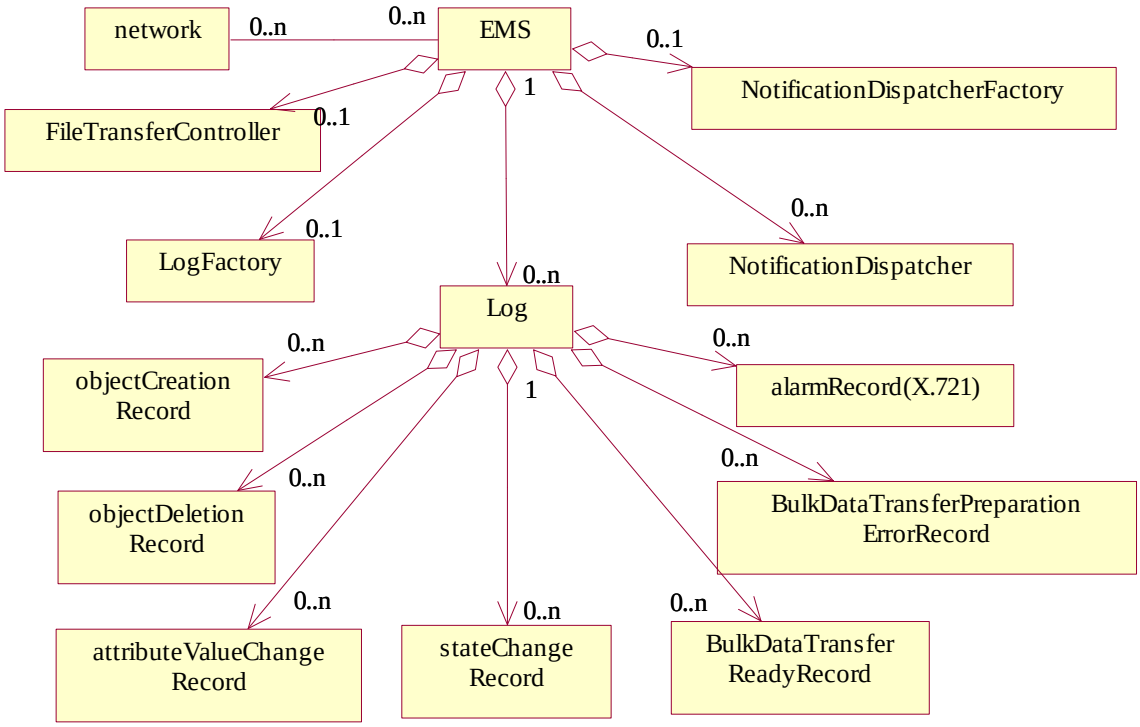


Figure 7-2.1 – Containment diagram of common management with EMS

3) New clause 7.2.1.17

Add the following new clause:

7.2.1.17 EMS

Behaviour: This managed entity represents Element Management System.			
Attributes			
Name	**Description**	**Type**	**Qualifier**
emsId	This is the unique identifier of the managed entity	Integer	M, R
userLabel	This attribute is assigned by user as a user-friendly name to EMS, see [ITU-T M.3100] for details	String	M, R/W
softwareVersion	This attribute describes the software version of EMS. It may include the version of the software that the EMS is currently running, see [ITU-T M.3100] for details	String	M, R
vendorName	This attribute describes the identifier of the vendor associated with this EMS, see [ITU-T M.3100] for details	String	M, R
location	This attribute describes the location of EMS, see [ITU-T M.3100] for details	String	M, R
operationalState	This attribute describes the operability of the managed entity, which has two possible values: disabled and enabled. See [ITU-T X.731] for details	ENUM: {enabled, disabled}	M, R
alarmStatus	This attribute describes the occurrence of an abnormal condition. See [ITU-T X.731] for details	ENUM: {critical, major, minor, indeterminate, warning, pending, cleared}	M, R
emsType	This attribute describes the type of EMS. It can be a free format string indicating the type of EMS	String	O, R
Reportable Notifications			
attributeValueChange			O
stateChange			O
Relationships: This managed entity can be associated with zero or more network entities.			

4) Appendix I

Replace the table in Appendix I by the following table:

Managed entity name in this Recommendation	Statement
NotificationDispatcher	Defined in this Recommendation. Related to eventForwardingDiscriminator in [ITU-T X.721].
NotificationDispatcherFactory	Defined in this Recommendation.
Log	Defined in this Recommendation. Related to log defined in [ITU-T X.721].
LogFactory	Defined in this Recommendation.
logRecord [ITU-T X.721]	Defined in [ITU-T X.721].
eventLogRecord [ITU-T X.721]	Defined in [ITU-T X.721].
alarmRecord [ITU-T X.721]	Defined in [ITU-T X.721].
attributeValueChangeRecord [ITU-T X.721]	Defined in [ITU-T X.721].
stateChangeRecord [ITU-T X.721]	Defined in [ITU-T X.721].
objectCreationRecord [ITU-T X.721]	Defined in [ITU-T X.721].
objectDeletionRecord [ITU-T X.721]	Defined in [ITU-T X.721].
BulkDataTransferReadyRecord	Defined in this Recommendation.
BulkDataTransferPreparationErrorRecord	Defined in this Recommendation.
FileTransferController	Defined in this Recommendation.
network [ITU-T M.3100]	Defined in [ITU-T M.3100].
MeasurementJob	Defined in this Recommendation.
MeasurementJobFactory	Defined in this Recommendation.
ThresholdMonitor	Defined in this Recommendation.
ThresholdMonitorFactory	Defined in this Recommendation.
ASAP	Defined in this Recommendation. Related to alarmSeverityAssignmentProfile in [ITU-T M.3100].
ASAPFactory	Defined in this Recommendation.
EMS	Defined in this Recommendation.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	**Switching and signalling**
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems

Printed in Switzerland
Geneva, 2007