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**SERIES E: OVERALL NETWORK OPERATION,
TELEPHONE SERVICE, SERVICE OPERATION AND
HUMAN FACTORS**

**Network management – International network
management**

Framework for operations requirements of next generation networks and services

Recommendation ITU-T E.4110

ITU-T E-SERIES RECOMMENDATIONS

OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

INTERNATIONAL OPERATION	
Definitions	E.100–E.103
General provisions concerning Administrations	E.104–E.119
General provisions concerning users	E.120–E.139
Operation of international telephone services	E.140–E.159
Numbering plan of the international telephone service	E.160–E.169
International routing plan	E.170–E.179
Tones in national signalling systems	E.180–E.189
Numbering plan of the international telephone service	E.190–E.199
Maritime mobile service and public land mobile service	E.200–E.229
OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICE	
Charging in the international telephone service	E.230–E.249
Measuring and recording call durations for accounting purposes	E.260–E.269
UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON-TELEPHONY APPLICATIONS	
General	E.300–E.319
Phototelegraphy	E.320–E.329
ISDN PROVISIONS CONCERNING USERS	E.330–E.349
INTERNATIONAL ROUTING PLAN	E.350–E.399
NETWORK MANAGEMENT	
International service statistics	E.400–E.404
International network management	E.405–E.419
Checking the quality of the international telephone service	E.420–E.489
TRAFFIC ENGINEERING	
Measurement and recording of traffic	E.490–E.505
Forecasting of traffic	E.506–E.509
Determination of the number of circuits in manual operation	E.510–E.519
Determination of the number of circuits in automatic and semi-automatic operation	E.520–E.539
Grade of service	E.540–E.599
Definitions	E.600–E.649
Traffic engineering for IP-networks	E.650–E.699
ISDN traffic engineering	E.700–E.749
Mobile network traffic engineering	E.750–E.799
QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVES AND DEPENDABILITY PLANNING	
Terms and definitions related to the quality of telecommunication services	E.800–E.809
Models for telecommunication services	E.810–E.844
Objectives for quality of service and related concepts of telecommunication services	E.845–E.859
Use of quality of service objectives for planning of telecommunication networks	E.860–E.879
Field data collection and evaluation on the performance of equipment, networks and services	E.880–E.899
OTHER	E.900–E.999
INTERNATIONAL OPERATION	
Numbering plan of the international telephone service	E.1100–E.1199
NETWORK MANAGEMENT	
International network management	E.4100–E.4199

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

Recommendation ITU-T E.4110

Framework for operations requirements of next generation networks and services

Summary

Recommendation ITU-T E.4110 provides the framework for supporting and defining the role of operations for the next generation networks and services. This Recommendation provides guidance in the development of processes and systems supporting operations, including fulfilment, provisioning, configuration and activation of NGN&S. In the NGN&S domain, billing and online charging is moving from the traditional back-office to the front office.

Operations are the backbone of service providers in ensuring that services are provided to meet customer expectations, while supporting the key business objectives of the corporation. Operations organizations take into account, but are not limited to, the entire value chain across an operator from strategy to service introduction, maintenance, management, and administration. Operations require real-time access to all information about the services and networks that are supported or being introduced. Having a real-time information view of all the systems implicitly implies an integrated and automated back end but also a shared information model. A definition of real time is necessary considering that real time can be milliseconds or even hours. This should relate directly to the customers' experience.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.4110	2010-01-13	2

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). 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.

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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, 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/>.

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CONTENTS

	Page
1 Scope	1
2 References.....	1
3 Definitions and abbreviations	1
3.1 Terms defined elsewhere	1
3.2 Terms defined in this Recommendation.....	2
3.3 Abbreviations	2
4 Introduction	3
5 Operational goals, concerns and policies.....	3
5.1 Operations goals	3
5.2 Operations concerns	5
5.3 Operations policies	6
5.4 Operational processes	6
6 NGN operations functions	7
7 Process definitions.....	9
7.1 eTOM enterprise view	9
7.2 The role of operations support and readiness	10
7.3 Importance of alignment.....	11
7.4 Where does ITIL fit in?	11
Bibliography.....	12

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Recommendation ITU-T E.4110

Framework for operations requirements of next generation networks and services

1 Scope

This Recommendation provides the framework for supporting and defining the role of operations for the next generation networks and services. This Recommendation provides guidance in the development of processes and systems supporting operations.

Operations are the backbone of service providers in ensuring that services are provided to meet customer expectations, while supporting the key business objectives of the corporation. Operations organizations take into account, but are not limited to, the entire value chain across an operator from strategy to service introduction, maintenance, management, and administration (FAB). Operations require real-time access to all information about the services and networks that are supported or being introduced.

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; 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. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [ITU-T E.410] Recommendation ITU-T E.410 (1998), *International network management – General information*.
- [ITU-T M.3050.x] Recommendation ITU-T M.3050.x-series (2007), *Enhanced Telecom Operations Map (eTom)*.
- [ITU-T P.800] Recommendation ITU-T P.800 (1996), *Methods for subjective determination of transmission quality*.

3 Definitions and abbreviations

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 next generation network (NGN) [b-ITU-T Y.2001]: A next generation network (NGN) is a packet-based network able to provide telecommunication services and able to make use of multiple broadband, QoS-enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies. It enables unfettered access for users to networks and to competing service providers and/or services of their choice. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users.

It can be observed that the NGN is characterized by the following fundamental aspects:

- packet-based transfer;
- separation of control functions among bearer capabilities, call/session, and application/service;
- decoupling of service provision from transport, and provision of open interfaces;



Documents

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