ITU-T

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU E.164 Supplement 4 Amendment 1 (11/2009)

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

International operation – Numbering plan of the international telephone service

The international public telecommunication numbering plan

Supplement 4 – Operational and administrative issues associated with the implementation of ENUM for non-geographic country codes

Amendment 1

Recommendation ITU-T E.164 – Supplement 4 (2004) – Amendment 1



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.120–E.139 Numbering plan of the international telephone service E.100–E.169 International routing plan services E.100–E.109 Maritime mobile service and public land mobile service E.100–E.199 Maritime mobile service and public land mobile service E.200–E.299 OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICE Charging in the international telephone service E.200–E.299 Measuring and recording call durations for accounting purposes E.200–E.209 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.300–E.319 Phototelegraphy E.320–E.329 INTERNATIONAL GULAN INTERNATIONAL GULAN NUTROR MANAGEMENT INTERNATIONAL GULAN INTERNATIONAL GULAN Measurement and recording of traffic Forecasting of traffic E.400–E.404 International service statistics E.400–E.404 Forecasting of traffic E.506–E.509 Determination of the number of circuits in manual operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circuits in automatic and semi-automatic operation E.500–E.509 Determination of the number of circu		
DefinitionsE. 100-E. 103General provisions concerning usersE. 104-E. 119General provisions concerning usersE. 120-E. 139Operation of international telephone servicesE. 140-E. 159Numbering plan of the international telephone serviceE. 160-E. 169International routing planE. 170-E. 179Tones in national signalling systemsE. 180-E. 189Numbering plan of the international telephone serviceE. 200-E. 229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEE. 200-E. 229INTERNATIONAL TELEPHONE SERVICEE. 230-E. 249Measuring and recording call durations for accounting purposesE. 230-E. 249Measuring and recording call durations for accounting purposesE. 200-E. 329UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE. 300-E. 319GeneralE. 300-E. 319PhototelegraphyE. 330-E. 329ISDN PROVISIONS CONCERNING USERSE. 330-E. 329ISDN PROVISIONS CONCERNING USERSE. 400-E. 404International service statisticsE. 400-E. 404International service statisticsE. 400-E. 404International service statisticsE. 400-E. 505Forecasting of trafficE. 506-E. 509Poternination of the number of circuits in manual operationE. 510-E. 519Determination of the number of circuits in automatic and semi-automatic operationE. 520-E. 539Grade of serviceE. 530-E. 649Taffic engineeringE. 730-E. 749OUALTY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODE	INTERNATIONAL OPERATION	
General provisions concerning AdministrationsE.104–E.119General provisions concerning usersE.120–E.139Operation of international telephone servicesE.140–E.159Numbering plan of the international telephone serviceE.160–E.169International routing planE.170–E.179Tones in national signalling systemsE.180–E.189Numbering plan of the international telephone serviceE.200–E.299OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEINTERNATIONAL TELEPHONE SERVICECharging in the international telephone service can public land mobile serviceE.230–E.249Measuring and recording call durations for accounting purposesE.260–E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300–E.319PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.400–E.404International retwork managementE.400–E.404International network managementE.400–E.505Charging of trafficE.504–E.509Determination of the international telephone serviceE.30–E.319PhototelegraphyE.300–E.319PhototelegraphyE.300–E.319PhototelegraphyE.300–E.449International network managementE.400–E.404International network managementE.400–E.404International network managementE.300–E.519Determination of the number of circuits in automatic and semi-automatic operationE.510–E.519Determination of the number of circuits in auto		E.100-E.103
General provisions concerning usersE.120-E.139Operation of international telephone servicesE.140-E.159Numbering plan of the international telephone serviceE.160-E.160International routing planE.170-E.179Tones in national signalling systemsE.180-E.189Numbering plan of the international telephone serviceE.200-E.229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEINTERNATIONAL TELEPHONE SERVICECharging in the international telephone serviceE.230-E.249Measuring and recording call durations for accounting purposesE.200-E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300-E.319PhototelegraphyE.330-E.329ISDN PROVISIONS CONCERNING USERSE.330-E.339INTERNATIONAL ROUTING PLANE.300-E.319NETWORK MANAGEMENTNETWORK MANAGEMENTInternational network managementE.400-E.404International network managementE.400-E.404Checking of trafficE.400-E.505Forecasting of trafficE.500-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in automatic and semi-automatic operationE.500-E.539Grade of serviceE.540-E.649Taffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Opelermination of the number of circuits in manual operationE.50	General provisions concerning Administrations	E.104-E.119
Operation of international telephone serviceE.140-E.159Numbering plan of the international telephone serviceE.160-E.169International routing planE.170-E.179Tones in national signalling systemsE.180-E.189Numbering plan of the international telephone serviceE.190-E.199Maritime mobile service and public land mobile serviceE.200-E.229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEINTERNATIONAL TELEPHONE SERVICECharging in the international telephone serviceE.230-E.249Measuring and recording call durations for accounting purposesE.260-E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300-E.319PhototelegraphyE.320-E.329ISDN PROVISIONS CONCERNING USERSE.30-E.349INTERNATIONAL ROUTING PLANE.500-E.499NETWORK MANAGEMENTInternational network managementInternational network managementE.400-E.404International network managementE.400-E.405Checking the quality of the international telephone serviceE.490-E.505Forecasting of trafficE.506-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in anal operationE.510-E.519Determination of the number of circuits in anal operationE.500-E.509District engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.7		
Numbering plan of the international telephone serviceE.160–E.169International routing planE.170–E.179Tones in national signalling systemsE.180–E.189Numbering plan of the international telephone serviceE.190–E.199Maritime mobile service and public land mobile serviceE.200–E.229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEINTERNATIONAL TELEPHONE SERVICECharging in the international telephone serviceE.230–E.249Measuring and recording call durations for accounting purposesE.260–E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON-TELEPHONY APPLICATIONSE.300–E.319PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.320–E.329INTERNATIONAL ROUTING PLANE.320–E.404International service statisticsE.400–E.404International network managementE.400–E.404International network managementE.500–E.505Forecasting of trafficE.500–E.509Potermination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.500–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749OUALTY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, O		
International routing planE.170-E.179Tones in national signalling systemsE.180-E.189Numbering plan of the international telephone serviceE.190-E.199Maritime mobile service and public land mobile serviceE.200-E.229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICEE.230-E.249Measuring and recording call durations for accounting purposesE.260-E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300-E.319GeneralE.300-E.319PhototelegraphyE.320-E.329ISDN PROVISIONS CONCERNING USERSE.330-E.349INTERNATIONAL ROUTING PLANE.350-E.399NETWORK MANAGEMENTE.400-E.404International network managementE.400-E.404Checking the quality of the international telephone serviceE.400-E.404MaratificeE.506-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in automatic and semi-automatic operationE.520-E.539Grade of serviceE.540-E.519DefinitionsE.600-E.649Traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749OutITING OF The UNDERSCIPPOSCIPPOSCIPUESCONCEPTS, MODELS, OBJECTIVESAND DEPENDABILITY PLANINGE.800-E.809Models for telecommunication servicesE.840-E.844Objectives for qua	• •	
Tones in national signalling systemsE. 180–E. 189Numbering plan of the international telephone serviceE. 190–E. 199Maritime mobile service and public land mobile serviceE. 200–E. 229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEE. 200–E. 229INTERNATIONAL TELEPHONE SERVICEE. 230–E. 249Measuring and recording call durations for accounting purposesE. 260–E. 269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE. 300–E. 319GeneralE. 300–E. 319PhototelegraphyE. 320–E. 329ISDN PROVISIONS CONCERNING USERSE. 330–E. 339NTERNATIONAL ROUTING PLANE. 350–E. 399NETWORK MANAGEMENTE. 400–E. 404International service statisticsE. 400–E. 404International network managementE. 402–E. 489Checking the quality of the international telephone serviceE. 506–E. 509Determination of the number of circuits in manual operationE. 510–E. 519Determination of the number of circuits in automatic and semi-automatic operationE. 520–E. 539Grade of serviceE. 540–E. 649Traffic engineering for IP-networksE. 650–E. 649DefinitionsE. 600–E. 649Traffic engineering for IP-networksE. 650–E. 649Carling engineeringE. 700–E. 749Mobile network traffic engineeringE. 700–E. 749 <td></td> <td></td>		
Numbering plan of the international telephone serviceE. 190–E. 199Maritime mobile service and public land mobile serviceE. 200–E. 229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THEINTERNATIONAL TELEPHONE SERVICECharging in the international telephone serviceE. 230–E. 249Measuring and recording call durations for accounting purposesE. 260–E. 269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE. 300–E. 319GeneralE. 300–E. 319PhototelegraphyE. 320–E. 329ISDN PROVISIONS CONCERNING USERSE. 330–E. 349INTERNATIONAL ROUTING PLANE. 350–E. 399NETWORK MANAGEMENTE. 400–E. 404International service statisticsE. 400–E. 404International network managementE. 405–E. 419Checking the quality of the international telephone serviceE. 490–E. 505Forecasting of trafficE. 506–E. 509Determination of the number of circuits in manual operationE. 510–E. 519Determination of the number of circuits in automatic and semi-automatic operationE. 520–E. 539Grade of serviceE. 650–E. 509ISDN traffic engineeringE. 700–E. 749Mobile network traffic engineeringE. 840–E. 809Mobile network tra		
Maritime mobile service and public land mobile serviceE.200-E.229OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICEE.230-E.249Measuring and recording call durations for accounting purposesE.260-E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300-E.319GeneralE.300-E.319PhototelegraphyE.320-E.329ISDN PROVISIONS CONCERNING USERSE.330-E.349INTERNATIONAL ROUTING PLANE.350-E.399NETWORK MANAGEMENTE.400-E.404International service statisticsE.400-E.404International network managementE.405-E.419Checking the quality of the international telephone serviceE.420-E.505Forecasting of trafficE.506-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in automatic and semi-automatic operationE.520-E.539Grade of serviceE.540-E.509DefinitionsE.600-E.609ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESAND DEPENDABILITY PLANNINGE.800-E.809Terms and definitions related to the quality of telecommunication servicesE.800-E.809Models for telecommunication servicesE.845-E.859Use of quality of service objectives for planning of tele		
OPERATIONAL PROVISION'S RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICEE.30-E.249Charging in the international telephone serviceE.260-E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300-E.319PhototelegraphyE.320-E.329ISDN PROVISIONS CONCERNING USERSE.330-E.349INTERNATIONAL ROUTING PLANE.350-E.399NETWORK MANAGEMENTInternational service statisticsInternational service statisticsE.400-E.404International network managementE.405-E.419Checking the quality of the international telephone serviceE.420-E.309PRAFFIC ENGINEERINGE.400-E.505Forceasting of trafficE.506-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in automatic and semi-automatic operationE.540-E.539Grade of serviceE.540-E.599DefinitionsE.600-E.649Traffic engineering for IP-networksE.650-E.699ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.800-E.809Mobile network traffic engineeringE.800-E.809Mobile network traffic engineering		
Measuring and recording call durations for accounting purposesE.260–E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300–E.319GeneralE.300–E.319PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.350–E.399NETWORK MANAGEMENTE.400–E.404International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGEMeasurement and recording of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.600–E.609ITaffic engineering for IP-networksE.600–E.609ISDN traffic engineeringE.700–E.749Mobile network traffic of the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication networksE.800–E.879	OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE	
Measuring and recording call durations for accounting purposesE.260–E.269UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONSE.300–E.319GeneralE.300–E.319PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.350–E.399NETWORK MANAGEMENTE.400–E.404International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGEMeasurement and recording of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.600–E.609ITaffic engineering for IP-networksE.600–E.609ISDN traffic engineeringE.700–E.749Mobile network traffic of the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication networksE.800–E.879	Charging in the international telephone service	E.230-E.249
TELEPHONY APPLICATIONSGeneralE.300–E.319PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.350–E.399NETWORK MANAGEMENTE.400–E.404International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.400–E.505Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.609Ison traffic engineering for IP-networksE.650–E.699Ison traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.750–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESAND DEPENDABILITY PLANNINGTerms and definitions related to the quality of telecommunication servicesE.810–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879		E.260-E.269
PhototelegraphyE.320–E.329ISDN PROVISIONS CONCERNING USERSE.330–E.349INTERNATIONAL ROUTING PLANE.350–E.399NETWORK MANAGEMENTE.400–E.404International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.500–E.699ISDN traffic engineeringE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Models for telecommunication servicesE.800–E.809Models for telecommunication servicesE.800–E.809Models for telecommunication services for planning of telecommunication networksE.800–E.879Use of quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.800–E.879	UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON- TELEPHONY APPLICATIONS	
ISDN PROVISIONS CONCERNING USERSE.330-E.349INTERNATIONAL ROUTING PLANE.350-E.399NETWORK MANAGEMENTE.400-E.404International service statisticsE.400-E.404International network managementE.405-E.419Checking the quality of the international telephone serviceE.420-E.489TRAFFIC ENGINEERINGE.400-E.505Forecasting of trafficE.506-E.509Determination of the number of circuits in manual operationE.510-E.519Determination of the number of circuits in automatic and semi-automatic operationE.520-E.539Grade of serviceE.600-E.649Traffic engineering for IP-networksE.650-E.609ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.700-E.749Mobile network traffic engineeringE.750-E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESAND DEPENDABILITY PLANNINGTerms and definitions related to the quality of telecommunication servicesE.800-E.809Models for telecommunication servicesE.810-E.844Objectives for quality of service and related concepts of telecommunication servicesE.845-E.859Use of quality of service objectives for planning of telecommunication networksE.860-E.879	General	E.300-E.319
INTERNATIONAL ROUTING PLANE.350–E.399NETWORK MANAGEMENTE.400–E.404International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.490–E.505Forecasting of trafficE.490–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Trems and definitions related to the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service objectives for planning of telecommunication networksE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	Phototelegraphy	E.320-E.329
NETWORK MANAGEMENTInternational service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.490–E.505Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749OUALLITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.800–E.879		E.330-E.349
International service statisticsE.400–E.404International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.409–E.505Measurement and recording of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749Mobile network traffic engineeringE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	INTERNATIONAL ROUTING PLAN	E.350-E.399
International network managementE.405–E.419Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERINGE.490–E.505Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.509DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.800–E.809Models for telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	NETWORK MANAGEMENT	
Checking the quality of the international telephone serviceE.420–E.489TRAFFIC ENGINEERING	International service statistics	E.400-E.404
TRAFFIC ENGINEERINGE.490–E.505Measurement and recording of trafficE.506–E.509Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESAND DEPENDABILITY PLANNINGTerms and definitions related to the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	International network management	E.405-E.419
Measurement and recording of trafficE.490–E.505Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.750–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication networksE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879		E.420-E.489
Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.750–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.810–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	TRAFFIC ENGINEERING	
Forecasting of trafficE.506–E.509Determination of the number of circuits in manual operationE.510–E.519Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.750–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.810–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	Measurement and recording of traffic	E.490-E.505
Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.800–E.879		E.506-E.509
Determination of the number of circuits in automatic and semi-automatic operationE.520–E.539Grade of serviceE.540–E.599DefinitionsE.600–E.649Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.700–E.749QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800–E.809AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.800–E.879	Determination of the number of circuits in manual operation	E.510-E.519
DefinitionsE.600-E.649Traffic engineering for IP-networksE.650-E.699ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.750-E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800-E.809AND DEPENDABILITY PLANNINGE.800-E.809Terms and definitions related to the quality of telecommunication servicesE.800-E.809Models for telecommunication servicesE.810-E.844Objectives for quality of service and related concepts of telecommunication servicesE.845-E.859Use of quality of service objectives for planning of telecommunication networksE.860-E.879	Determination of the number of circuits in automatic and semi-automatic operation	E.520-E.539
Traffic engineering for IP-networksE.650–E.699ISDN traffic engineeringE.700–E.749Mobile network traffic engineeringE.750–E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVES AND DEPENDABILITY PLANNINGE.800–E.809Terms and definitions related to the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	Grade of service	E.540-E.599
ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.750-E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800-E.809AND DEPENDABILITY PLANNINGE.800-E.809Models for telecommunication servicesE.810-E.844Objectives for quality of service and related concepts of telecommunication servicesE.845-E.859Use of quality of service objectives for planning of telecommunication networksE.860-E.879	Definitions	E.600-E.649
ISDN traffic engineeringE.700-E.749Mobile network traffic engineeringE.750-E.799QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVESE.800-E.809AND DEPENDABILITY PLANNINGE.800-E.809Models for telecommunication servicesE.810-E.844Objectives for quality of service and related concepts of telecommunication servicesE.845-E.859Use of quality of service objectives for planning of telecommunication networksE.860-E.879	Traffic engineering for IP-networks	E.650-E.699
QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVES AND DEPENDABILITY PLANNINGE.800-E.809Terms and definitions related to the quality of telecommunication servicesE.800-E.809Models for telecommunication servicesE.810-E.844Objectives for quality of service and related concepts of telecommunication servicesE.845-E.859Use of quality of service objectives for planning of telecommunication networksE.860-E.879		Е.700-Е.749
AND DEPENDABILITY PLANNINGTerms and definitions related to the quality of telecommunication servicesE.800–E.809Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	Mobile network traffic engineering	E.750-E.799
Models for telecommunication servicesE.810–E.844Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879		
Objectives for quality of service and related concepts of telecommunication servicesE.845–E.859Use of quality of service objectives for planning of telecommunication networksE.860–E.879	Terms and definitions related to the quality of telecommunication services	E.800-E.809
Use of quality of service objectives for planning of telecommunication networks E.860–E.879	Models for telecommunication services	E.810-E.844
Use of quality of service objectives for planning of telecommunication networks E.860–E.879	Objectives for quality of service and related concepts of telecommunication services	E.845-E.859
Field data collection and evaluation on the performance of equipment, networks and services E.880–E.899	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	OTHER	E.900-E.999
INTERNATIONAL OPERATION	INTERNATIONAL OPERATION	
Numbering plan of the international telephone service E.1100–E.1199	Numbering plan of the international telephone service	E.1100-E.1199
NETWORK MANAGEMENT	NETWORK MANAGEMENT	
International network management E.4100–E.4199	International network management	E.4100-E.4199

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

Recommendation ITU-T E.164

The international public telecommunication numbering plan

Supplement 4 – Operational and administrative issues associated with the implementation of ENUM for non-geographic country codes

Amendment 1

Summary

Amendment 1 to Supplement 4 to Recommendation ITU-T E.164 proposes amendments to Recommendation ITU-T E.164 Supplement 4 due to the approval of Recommendation ITU-T E.101.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.164/I.331	1984-10-19	
2.0	ITU-T E.164/I.331/Q.11 bis	1988-11-25	
3.0	ITU-T E.164/I.331	1991-08-23	II
4.0	ITU-T E.164	1997-05-30	2
4.1	ITU-T E.164 Suppl. 2	1998-11-13	2
4.2	ITU-T E.164 Suppl. 3	2002-05-16	2
4.3	ITU-T E.164 Suppl. 4	2003-05-02	2
4.4	ITU-T E.164 Suppl. 5	2008-05-15	2
5.0	ITU-T E.164	2005-02-24	2
5.1	ITU-T E.164 Suppl. 1	1998-03-09	2
5.2	ITU-T E.164 Suppl. 2	2009-11-24	2
5.3	ITU-T E.164 Suppl. 3	2004-05-28	2
5.4	ITU-T E.164 Suppl. 3 Amd. 1	2009-11-24	2
5.5	ITU-T E.164 Suppl. 4	2004-05-28	2
5.6	ITU-T E.164 Suppl. 4 Amd. 1	2009-11-24	2
5.7	ITU-T E.164 Suppl. 5	2009-11-24	2
5.8	ITU-T E.164 (2005) Amend. 1	2009-11-24	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 publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this publication is voluntary. However, the publication may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the publication 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 publication is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this publication 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 publication development process.

As of the date of approval of this publication, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this publication. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <u>http://www.itu.int/ITU-T/ipr/</u>.

© ITU 2010

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

Recommendation ITU-T E.164

The international public telecommunication numbering plan

Supplement 4 – Operational and administrative issues associated with the implementation of ENUM for non-geographic country codes

Amendment 1

1) Clause 2.2

Add the following reference to clause 2.2, ITU-T references:

Recommendation ITU-T E.101 (2009), *Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) for public telecommunication services and networks in the E-series Recommendations.*

2) Clause 3

Delete the following definitions from clause 3, Definitions:

address,
administrator,
assignment,
country,
domain name,
E.164 number,
name.

3) Clause 3

Add the following text as preamble to clause 3, Definitions:

Definitions for terms not found in this clause can be found in Recommendation ITU-T E.101.

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 Terminals and subjective and objective assessment methods
- 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