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OF ITU

Q.1200

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SERIES Q: SWITCHING AND SIGNALLING

Intelligent Network

**General series Intelligent Network
Recommendation structure**

ITU-T Recommendation Q.1200

(Previously CCITT Recommendation)

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 AND No. 5	Q.120–Q.249
SPECIFICATIONS OF SIGNALLING SYSTEM No. 6	Q.250–Q.309
SPECIFICATIONS OF SIGNALLING SYSTEM R1	Q.310–Q.399
SPECIFICATIONS OF SIGNALLING SYSTEM R2	Q.400–Q.499
DIGITAL EXCHANGES	Q.500–Q.599
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For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATION Q.1200

GENERAL SERIES INTELLIGENT NETWORK RECOMMENDATION STRUCTURE

Summary

This Recommendation explains the structure of the Q.1200-series Intelligent Network (IN) Recommendations and provides the outline of all general (i.e. Q.120x-series) Recommendations.

Source

ITU-T Recommendation Q.1200 was revised by ITU-T Study Group 11 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 12th of September 1997.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The 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 their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 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, the 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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GENERAL SERIES INTELLIGENT NETWORK RECOMMENDATION STRUCTURE

(revised in 1997)

0 Introduction

A block of one hundred numbers has been set aside in the Q series for the development of Intelligent Network (IN) Recommendations. This Recommendation, the first in that series, has been developed to organize the Recommendations in a meaningful way in order to assist users in locating topics of interest. It defines the structure of the Q.1200-series Recommendations and assigns blocks of numbers to the groupings of IN capabilities known as Capability Sets (CSs) and blocks of numbers for general and vocabulary sections. In addition, this Recommendation provides a structural overview of the content of each Recommendation.

This Recommendation has been developed with a long range view in mind. By assigning blocks of numbers to each capability set (CS-1, CS-2, CS-n), an organized, parallel structure across capability sets can be maintained; for example, CS-1 has been assigned the Q.121x block of numbers and CS-2 the Q.122x block of numbers.

Associated work has been documented in the I-series Recommendations. For the sake of consistency, Recommendations Q.1201, Q.1202 and Q.1203 have been assigned numbers in the I-series Recommendations (I.312, I.328 and I.329, respectively).

1 General structure

Table 1 shows the overall Q.1200-series Intelligent Network Recommendation structural distribution through the "ten" digits (1201, 1211, 1221, etc.) and the "one" digits (i.e. 1201, 1211, 1221, etc.).

Table 1/Q.1200 – Recommendation framework structure

00 – General	
10 – CS-1	1 – Principles introduction
20 – CS-2	2 – Service plane (not included for CS-1)
30 – CS-3	3 – Global functional plane
40 – CS-4	4 – Distributed functional plane
50 – CS-5	5 – Physical plane
60 – CS-6	6 – For future use
70 – CS-7	7 – For future use
80 – CS-8	8 – Interface Recommendation
90 – Glossary	9 – Intelligent Network user's guide
NOTE 1 – 1200 is assigned as for the IN Recommendation framework structure.	
NOTE 2 – 1290-series has been set aside for the glossary.	

2 Q-series Intelligent Network Recommendation overview

Q.1200 – General series Intelligent Network Recommendation structure

- 0 Introduction
- 1 General structure
- 2 Q-series Intelligent Network Recommendation overview

I.312/Q.1201 – Principles of Intelligent Network architecture

- 1 Objectives, overall description
 - 1.1 Motivation, objectives, scope of Intelligent Network
 - 1.1.1 Motivation
 - 1.1.2 Objectives of Intelligent Network
 - 1.1.3 Scope of Intelligent Network
 - 1.2 Definition of Intelligent Network
 - 1.3 Evolution of Intelligent Network Recommendations
 - 1.3.1 General considerations on the standardization process
 - 1.3.2 Recommendation areas
 - 1.3.3 Phased standardization and definition of capability sets
- 2 IN functional requirements
 - 2.0 Introduction
 - 2.1 Service requirements
 - 2.1.1 Overall requirements
 - 2.1.2 Service creation
 - 2.1.3 Service management
 - 2.1.4 Service processing
 - 2.1.5 Service interworking
 - 2.2 Network requirements
 - 2.2.1 Overall requirements
 - 2.2.2 Service creation
 - 2.2.3 Service management
 - 2.2.4 Network management
 - 2.2.5 Service processing
 - 2.2.6 Network interworking
- 3 IN architectural concept
 - 3.1 IN Conceptual Model (INCM)
 - 3.1.1 Service plane
 - 3.1.2 Global functional plane
 - 3.1.3 Distributed functional plane
 - 3.1.4 Physical plane
 - 3.1.5 Relationship with the 3-stage method
 - 3.1.6 Service logic
 - 3.1.7 Application Programming Interface (API)
 - 3.1.8 Relationships among different planes
 - 3.1.9 Service interaction
 - 3.1.10 Service and network interworking
 - 3.1.11 Management functionality
- 4 Intelligent Network (IN) long-term architecture framework
 - 4.1 Introduction
 - 4.2 Intelligent Network Conceptual Model
 - 4.3 Architecture structure
 - 4.3.1 Logical architecture
 - 4.3.2 Physical architecture
 - 4.3.3 Open distributed processing view
 - 4.4 Service considerations
 - 4.4.1 Service/service feature interaction
 - 4.5 Technology basis
 - 4.5.1 Broadband capabilities
 - 4.5.2 Distributed processing
 - 4.5.3 Open Systems Interconnection (OSI)
 - 4.5.4 Object-oriented modelling
 - 4.5.5 Information technology
 - 4.5.6 Cooperative processing
 - 4.5.7 Distributed control
 - 4.5.8 Management of services and networks
 - 4.5.9 Verification/validation
 - 4.5.10 Artificial intelligence

I.328/Q.1202 – Intelligent Network Service plane architecture

- 1 General
- 2 Service plane architecture
 - 2.0 General
 - 2.1 Characterization of services and service capability requirements
 - 2.2 Service plane modelling
 - 2.3 Service and service feature interaction
 - 2.3.1 The service and feature interaction problem
 - 2.3.2 A solution: Which one?
 - 2.3.3 A solution: When?
 - 2.3.4 A solution: How?

Annex A – Alphabetical list of abbreviations used in this Recommendation

Annex B – A thesaurus of examples

- B.1 General
- B.2 Call Forwarding Unconditional and Terminating Key Code Screening
 - B.2.1 First case
 - B.2.2 Second case
- B.3 Call Forwarding Unconditional and Automatic Call Back
 - B.3.1 First case
 - B.3.2 Second case
- B.4 Call Forwarding Unconditional and Terminating Call Screening

I.329/Q.1203 – Intelligent Network global functional plane architecture

- 1 General
- 2 Scope of IN global functional plane architecture
- 3 References
- 4 Global functional plane modelling
- 5 Service independent building blocks
 - 5.1 Definition of an SIB
 - 5.2 Characteristics of an SIB
 - 5.3 Data parameters for SIBs
 - 5.4 Method to describe SIBs
 - 5.5 Flowchart analysis
 - 5.6 Interaction management
 - 5.6.1 Interaction between SIBs
- 6 Basic call process
 - 6.1 General
 - 6.2 Basic call process functionality
- 7 Global service logic
 - 7.1 General

Annex A – Alphabetical list of abbreviations used in this Recommendation

Q.1204 – Intelligent Network distributed functional plane architecture

- 1 General
- 2 Distributed functional plane model
 - 2.1 Explanation of diagram
 - 2.1.1 Functional entities
 - 2.1.2 Relationships
 - 2.3 Definition of functional entities related to IN service execution
 - 2.4 Definition of IN service creation/management related functional entities

- 3 Functional entity call/service logic processing models
 - 3.1 General
 - 3.2 Modelling objectives/criteria
 - 3.2.1 Call modelling objectives/criteria
 - 3.2.2 Modelling of service logic processing objectives/criteria
 - 3.3 General assumptions
 - 3.3.1 Scope of functional entity call/service logic processing models
 - 3.3.2 Relation to IN conceptual model
 - 3.3.3 Use of functional entity call/service logic processing models
 - 3.3.4 Other considerations
 - 3.4 Overview of call/service logic processing related functional entities
 - 3.5 Call/service logic processing functional entity models
- 4 Relationship between functional entities
 - 4.1 General
 - 4.2 Relationships
 - 4.3 Information flows between functional entities
- 5 Mapping the global functional plane to the distributed functional plane
 - 5.1 Mapping requirements
 - 5.2 Relationship to IN conceptual model
 - 5.3 An example of mapping some selected SIBs to functional entities

Annex A – Example basic call state model (BCSM)

Annex B – Object-oriented finite state machine modelling

Annex C – Call segment model

Q.1205 – Intelligent Network physical plane architecture

- 1 General
- 2 Requirements and assumptions
 - 2.1 Requirements
 - 2.2 Assumptions
- 3 Physical entities (PEs)
- 4 Mapping the distributed functional plane to the physical plane
 - 4.1 Mapping of functional entities to physical entities
 - 4.2 Selection of underlying protocol platforms
- 5 User interfaces

Q.1208 – General aspects of the Intelligent Network application protocol

- 1 Introduction
- 2 Background
- 3 Definition methodology
- 4 Evolutionary requirements

Q.1210 – Q.1210-series Intelligent Network Recommendation structure

- 1 General Q.1200-series structure
- 2 Q.121x-series Intelligent Network Recommendation overview

Q.1220 – Q.1220-series Intelligent Network Capability Set 2 Recommendation structure

- 0 Introduction
- 1 General Q.1200-series structure
- 2 Q.121x-series Intelligent Network Recommendation overview

Q.1230 – Q.1230-series Intelligent Network Capability Set 3

- 1 General Q.1200-series structure
- 2 Q.123x-series Intelligent Network Recommendation overview

Q.1290 – Glossary of terms used in the definition of Intelligent Networks

- 1 General
 - 1.1 Introduction
 - 1.2 Conventions
- 2 Terms and definitions (listed alphabetically)

Annex A – Acronyms

ITU-T RECOMMENDATIONS SERIES

Series A	Organization of the work of the ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
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	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	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
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 and open system communications
Series Y	Global information infrastructure
Series Z	Programming languages