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DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1

STAGE 3 DESCRIPTION FOR SUPPLEMENTARY SERVICES USING DSS 1

DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1 (DSS 1) – SUPPLEMENTARY SERVICES PROTOCOLS, STRUCTURE AND GENERAL PRINCIPLES

ITU-T Recommendation Q.950

(Previously “CCITT Recommendation”)

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. 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, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation Q.950 was prepared by the ITU-T Study Group XI (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 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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CONTENTS

Page

1 Definition 1

2 Description 1

2.1 Structure of Q.95x-Series Recommendations 1

3 General principles 2

3.1 Generic protocol procedures 2

3.2 ASN.1 data type 2

3.3 Generic syntax of operations 2

4 Library of operation values 4

4.1 Assignment of INTEGER values for operations and errors 4

Appendix I – Clause headings of each Recommendation 10

DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1 (DSS 1) – SUPPLEMENTARY SERVICES PROTOCOLS, STRUCTURE AND GENERAL PRINCIPLES

(Helsinki, 1993)

1 Definition

This Recommendation provides an overview of the Q.95x-Series Recommendations on the Stage 3 descriptions of ISDN Supplementary Services and the general principles on which these Stage 3 descriptions are based.

2 Description

2.1 Structure of Q.95x-Series Recommendations

The Q.95x-Series Recommendations is structured and numbered in a similar manner to the I.25x-Series Recommendations on Stage 1 ISDN supplementary services descriptions and the Q.8x-Series Recommendations on Stage 2 descriptions.

The Q.95x-Series Recommendations cover the protocol descriptions for DSS 1. The SS No. 7 protocol descriptions are provided in Recommendations Q.731-Q.737.

The Stage 3 supplementary services definitions are structured as follows:

Recommendation Q.951	Number Identification supplementary services
Clause 1	Direct-Dialling-In (DDI)
Clause 2	Multiple Subscriber Number (MSN)
Clause 3	Calling Line Identification Presentation (CLIP)
Clause 4	Calling Line Identification Restriction (CLIR)
Clause 5	Connected Line Identification Presentation (COLP)
Clause 6	Connected Line Identification Restriction (COLR)
Clause 7	Malicious Call Identification (MCID)
Clause 8	Sub-addressing (SUB)
Recommendation Q.952	Call Offering supplementary services
Clause 1	Call Transfer (CT)
Clause 2	Call Forwarding Busy (CFB)
Clause 3	Call Forwarding No Reply (CFNR)
Clause 4	Call Forwarding Unconditional (CFU)
Clause 5	Call Deflection (CD)
Clause 6	Line Hunting (LH)

Recommendation Q.953	Call Completion supplementary services
Clause 1	Call Waiting (CW)
Clause 2	Call Hold (HOLD)
Clause 3	Completion of Calls to Busy Subscriber (CCBS)
Clause 4	Terminal Portability (TP)
Recommendation Q.954	Multiparty supplementary services
Clause 1	Conference Calling (CONF)
Clause 2	Three Party Service (3PTY)
Recommendation Q.955	Community of Interest supplementary services
Clause 1	Closed User Group (CUG)
Clause 2	Private Numbering Plan (PNP)
Clause 3	Multi-level Precedence and Preemption (MLPP)
Recommendation Q.956	Charging supplementary services
Clause 1	Credit Card Calling (CRED)
Clause 2	Advice of Charge (AOC)
Clause 3	Reverse Charging (REV)
Recommendation Q.957	Additional Information Transfer supplementary services
Clause 1	User-to-User Signalling (UUS)

3 General principles

3.1 Generic protocol procedures

The Stage 3 protocol descriptions in the Q.95x-Series using the facility information element of the functional protocol are based on the generic procedures established in Recommendation Q.932. Any of the generic procedures in Recommendation Q.932 (Keypad, Feature Key Management, and functional protocols) can be used for the control of supplementary services. The detailed functional protocol procedures are provided in the Q.95x-Series Recommendations.

3.2 ASN.1 data type

The operation required by the Q.95x supplementary services using the Q.932 Functional procedures are defined as ASN.1 data types in the Q.95x-Series Recommendations. This Recommendation contains the definition of DSS 1 operation values and errors as a Library of these values. These operation and error values can be imported and used as required by the individual supplementary services. Their associated detailed definitions of operations and errors using ASN.1 (Abstract Syntax Notation One) are provided in the Q.95x-Series Recommendations for the individual services.

3.3 Generic syntax of operations

This subclause provides the definition of data related functions associated with a particular service. The operation is derived from the remote operations concept defined in Recommendations X.219 and X.229 and allows the data structures transmitted for a particular object to be defined in terms of an invoke, return result or a return error. The concrete syntax and thus the particular protocol to be implemented are provided in the definition of the protocol to be used and as defined in the individual Recommendations of the Q.95x-Series. These definitions may be provided in informal text or using the formal ASN.1 notation employing the OPERATION and ERROR macros defined in Recommendation X.219.

3.3.1 Specification of operations

Module identifier

The module identifier is a unique identifier in order to identify ASN.1 modules.

The module identifier shall follow a uniform structure with the individual Recommendation clause number as value for the identification of the supplementary service concerned as given in the following example on Call Diversion:

{ccitt recommendation q 952 call-diversion (2) operations-and-errors (1)}

To specify an operation, the following must be defined:

- the operation name;
- the operation value;
- the operation class;
- the supporting parameters, if any;
- the error codes and associated parameters, if any;
- the required linked operations; if any.

Operation name

A unique name, in order to identify the operation from another operation within the same set of standards.

Operation value

A unique identifier to the Application Entity (AE) being defined. The identifier may be:

- local, i.e. specific to the application context in which it is being used; or
- global, i.e. specified using an object identifier and unique worldwide.

The choice of the above will be affected by whether the value is to be imported or exported to other Application Service Elements (ASEs).

The use of any library method for operations and data elements may also affect this choice.

Operation class

The definition of the operation must define the class of operation required, as specified in Recommendation X.219 (or Q.775 with different class numbers) and identified below:

- Operation class 1

  Synchronous, reporting success or failure (result or error)

  NOTE 1 – This class is not used by TCAP, and may not be appropriate to DSS 1.

- Operation class 2 (TCAP class 1)

  Asynchronous, reporting success or failure (result or error)

- Operation class 3 (TCAP class 2)

  Asynchronous, reporting failure (error) only, if any

- Operation class 4 (TCAP class 3)

  Asynchronous, reporting success (result) only

- Operation class 5 (TCAP class 4)

  Asynchronous, outcome not supported.

The most useful of these classes of operation will be operation classes 2 and 5.

NOTE 2 – Some protocols may not support all classes of operation. If there is not a common subset then this could cause problems in the specification of those protocols where a class is not supported.

The supporting parameters

The operation class will define which components are required. The required components shall consist of an invoke component, and optionally a return result, or a return error component.

The invoke component may optionally (as specified by a particular operation) contain further essential information to supplement that provided by the instance of the operation, defined by the operation value. The allowed information shall be specified as the ARGUMENT.

The return result component may optionally (as specified by a particular operation) contain further essential information to supplement that provided by the instance of the result component in the operation. The allowed information shall be specified as the RESULT.

The return error component may optionally (as specified by a particular operation) contain a parameter indicating the reason for the failure response. The list of valid errors shall be specified as ERRORS.

Error codes and supporting parameters

Each specified error in the ERRORS, shall be specified using the following information:

- the error name;
- the error value;
- the supporting parameters, if any.

The error name shall be a unique name, in order to identify the error from any other error within the same set of standards.

The error identifier shall be a unique identifier to the ASE being defined. The identifier may be:

- local, i.e. specific to the application context in which it is being used; or
- global, i.e. specified using an object identifier and unique worldwide.

The choice of the above will be affected by whether the value is to be imported or exported to other ASEs.

The error may optionally (as specified by a particular error) contain additional information. This shall be specified as PARAMETER.

Linked operations

In some instances it may be necessary to group operations into a set of linked operations, formed by one-parent operation and one or more child operations.

4 Library of operation values

4.1 Assignment of INTEGER values for operations and errors

This subclause lists the allocated INTEGER values for operations and errors to be employed for operations of supplementary services within the Q.95x-Series Recommendations.

This assignment includes INTEGER values specified in the *Blue Book* for the UUS supplementary service plus new INTEGERs. The individual ERROR values are complemented by a brief definition of the error characteristics.

4.1.1 Operation value assignment

Name	Value	Module of definition
uUs	1	{ccitt recommendation q 957 user-to-user-signalling (1) operations-and-errors (1)}
cUGCall	2	{ccitt recommendation q 955 cug (1)}
mCIDRequest	3	{ccitt recommendation q 951 mcid (7) operations-and-errors (1)}
beginTPY	4	{ccitt recommendation q 954 three-party (2) operations-and-errors (1)}
endTPY	5	{ccitt recommendation q 954 three-party (2) operations-and-errors (1)}
eCTRequest	6	{ccitt recommendation : Reserved for ECT}
activationDiversion	7	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
deactivationDiversion	8	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
activationStatusNotificationDiv	9	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
deactivationStatusNotificationDiv	10	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
interrogationDiversion	11	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
diversionInformation	12	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
callDeflection	13	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
callRerouting	14	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
divertingLegInformation2	15	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
invokeStatus	16	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
interrogationDiversion1	17	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
divertingLegInformation1	18	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
divertingLegInformation3	19	{ccitt recommendation q 952 diversion (2) operations-and-errors (1)}
explicitReservationCreationControl	20	{ccitt recommendation q 932 explicit-network-controlled-channel-reservation (4)}
explicitReservationManagement	21	{ccitt recommendation q 932 explicit-network-controlled-channel-reservation (4)}
explicitReservationCancel	22	{ccitt recommendation q 932 explicit-network-controlled-channel-reservation (4)}
mLPP lfb Query	24	{ccitt recommendation q 955 mlpp (3) operations-and-errors (1)}
mLPP Call Request	25	{ccitt recommendation q 955 mlpp (3) operations-and-errors (1)}
mLPP Call preemption	26	{ccitt recommendation q 955 mlpp (3) operations-and-errors (1)}
chargingRequest	30	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCSCurrency	31	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCSSpecialArrangement	32	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCDCurrency	33	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCDChargingUnit	34	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCECurrency	35	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
aOCEChargingUnit	36	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
identificationOfCharge	37	{ccitt recommendation q 956 advice-of-charge (2) operations-and-errors (1)}
beginConf	40	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
addConf	41	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
splitConf	42	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
dropConf	43	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
IsolateConf	44	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
reattachConf	45	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
partyDISC	46	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
floatConf	47	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
endConf	48	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
identifyConferee	49	{ccitt recommendation q 954 conference-add-on (1) operations-and-errors (1)}
requestREV	60	{ccitt recommendation q 956 reverse-charging (3) operations-and-errors (1)}

4.1.2 Error value assignment

Errors	Values	Implemented in:									
		UUS	CUG	CD	TPY	AOC	CONF	MCID	MLPP	Q.932	REV
User nor subscribed	0		X	X	X	X	X	X	X		
Rejected by network	1	X							X		
Not available	3			X	X	X	X	X			
Insufficient info	5			X							
Invalid Served User Number	6			X							
Invalid Call State	7				X	X	X	X			
Not Incoming Call	9							X			
Suppl. Service Interaction not allowed	10				X		X	X			
Basic Service not provided	8		X	X		X	X				
Resource unavailable	11			X	X		X				
Invalid Diverted Number	12			X							
Operator Access	13			X							
Special Service Number	14			X							
Diversion to Served User Number	15			X							
Incoming Call Accepted By Other Terminals	23			X							
Number of Diversion Counter Exceeded	24			X							
Invalid or Unregistered CUG Index	16		X								
Requested Basic Service Violates CUG Contraints	17		X								
Outgoing Calls barred within CUG	18		X								
Incoming Calls barred within CUG	19		X								
User not Member of CUG	20		X								
Inconsistency in Designated Facility and Subscriber Class	21		X								
Rejected by User	2	X									
Call Failure	25			X							
No charging Info Available	26					X					
CUG Violation	27						X				
Illegal Conference ID	28						X				
Illegal Party ID	29						X				
Number of parties have exceeded	30						X				
Not active	31						X				
Not allowed	32						X				
Max. Number of Reservations reached	33									X	
No explicit Reservation exists or Invalid Reservation indicator	34									X	
Unwanted Reservation created	35									X	
Implicit Reservation used	36									X	
Procedural Error	43										
Unauthorized Precedence Level	44								X		
User ignored	45										X
notActivated	46			X							
uusReqAsEssential	47			X							

4.1.3 Definition of the General Error List

```
General-Error-List {ccitt Recommendation q 950 general-error-list (1)}

DEFINITIONS ::=

BEGIN

EXPORTS

        userNotSubscribed,
        rejectedByNetwork,
        rejectedByUser,
        notAvailable,
        insufficientInfo,
        invalidServedUserNumber,
        invalidCallState,
        basicServiceNotProvided,
        notIncomingCall,
        supplementaryServiceInteractionNotAllowed,
        resourceUnavailable,
        callFailure,
        proceduralError;

userNotSubscribed                                   ERROR ::= 0

        -- is an indication that the user has not subscribed to this service.

rejectedByNetwork                                   ERROR ::=1

        -- is an indication that the requested service is rejected by the network.

rejectedByUser                                      ERROR ::=2

        -- is an indication that the requested service is provided by the network but that the remote user has rejected
        -- this service request.

notAvailable                                        ERROR ::=3

        -- is an indication that the user has subscribed to this service but the requested service is not available
        -- combined with the basic service or the other services (e.g. operation).

insufficientInformation                             ERROR ::=5

        -- is an indication that the content of operation argument is incomplete, or absent entirely.

invalidServedUserNumber                             ERROR ::=6

        -- is an indication that the requested service cannot be performed because of the usage of an invalid served
        -- user number.

invalidCallState                                    ERROR ::=7

        -- is an indication that no match exists between the service request and the valid Basic Call Control state, this
        -- applies also to invalid auxiliary states or an invalid combination of Basic call states and auxiliary states.

basicServiceNotProvided                             ERROR ::=8

        -- is an indication that the service request is directed to a Basic Service which is not provided (e.g. this return
        -- error value is used in cases where a supplementary service is to be invoked with a SETUP message but
        -- indicating the wrong Basic Service).

notIncomingCall                                     ERROR ::=9

        -- is an indication that the service request has been invoked for an outgoing call, which is not permitted for
        -- that service.
```

supplementaryServiceInteractionNotAllowed ERROR ::=10

-- is an indication that the Service request is not permitted in combination with either a further requested or
-- active supplementary service.

resourceUnavailable ERROR ::=11

-- is an indication that the service provider has temporarily no resource available for the provision of the
-- requested service.

callFailure ERROR::=25

-- is an indication that the requested supplementary service was not executable by virtue of a Basic Call
-- Failure. The parameter is included under circumstances where the call failure was remote from the Q.931
-- interface over which the error is to be sent. For example when:

a) no Q.931 clearing message is provided locally, or

b) the cause information element included in the Q.931 clearing message represents only the reason for local basic call clearing.

In these cases the parameter value represents the clearing cause included in the remote clearing procedure.

proceduralError ERROR ::=43

-- is an indication that a transport message (e.g. SETUP, REGISTER etc.) is received which has one or more
-- operation PDUs which have a valid content but which are not specified as valid information content of the
-- transport message used.

END

-- end of General ERROR List

4.1.4 List of service-specific Errors

invalidDivertedNumber ERROR ::=12

-- is an indication that the diverted to number delivered with the service request has been determined to be
-- invalid.

operatorAccess ERROR ::=13

-- is an indication that the diverted to number delivered with the service request is an operator assistance
-- number, or one which includes an operator assistance number to which diversion is not allowed.

specialServiceNumber ERROR ::=14

-- is an indication that the diverted to number delivered with the service request belongs to a special service
-- to which diversion is not allowed.

diversionToServedUserNumber ERROR ::=15

-- is an indication that the diverted to number delivered with the service request is the served users own
-- number. Return to own number is not permitted.

invalidOrUnregisteredCugIndex ERROR ::=16

-- is an indication delivered with a rejected call request and indicating that the CUG index does not exist at
-- the service provider's data base.

requestedBasicServiceViolatesCugConstrains ERROR ::=17

-- is an indication delivered with a rejected call request and indication that the CUG index exists but is not
-- appropriate to the requested basic service.

outgoingCallsBarredWithinCug ERROR ::=18

-- is an indication delivered with a rejected call request and indicating that the CUG user is prohibited from
-- making calls to users subscribed to the same CUG.

incomingCallsBarredWithinCug ERROR ::=19

-- is an indication delivered with a rejected call request and indicating that the CUG user is prohibited from
-- receiving calls from users subscribed to the same CUG.

userNotMemberOfCug ERROR ::=20

-- is an indication that no match exists between the CUG interlock code and the CUG-index at the called
-- user side.

inconsistencyInDesginatedFacilityAndSubscriberClass ERROR ::=21

-- is an indication delivered with a rejected call requested and indicating that the attributes assigned to
-- a CUG user do not match with the CUG information received from the calling user.

incompatibleDestination ERROR ::=22

-- is an indication that the destination of a call is unable to provide the requested supplementary service
-- (e.g. CCBS).

incomingCallAcceptedByOtherTerminals ERROR ::=23

-- is an indication e.g. to a CFB user that the incoming call has been accepted by another terminal at the
-- same access.

numberOfDiversionCounterExceeded ERROR ::=24

-- is an indication from the service provider delivered with a service request rejection and indicating that the
-- allowed maximum number of diverted connections is exceeded.

noChargingInfoAvailable ERROR ::=26

-- is an indication that the charging information cannot be sent to the served user due to a fault situation in
-- the network.

illegalConferenceId ERROR ::=28

-- is an indication that the conference ID used by the served user is not associated with a conference.

illegalPartyId ERROR ::=29

-- is an indication that the Party ID used by the served user is not associated with a conference party.

number of parties have exceeded ERROR ::=30

-- is an indication that the conference bridge cannot accept this additional party since the maximum number
-- of parties has already been reached.

notActive ERROR ::=31

-- is an indication that the conference bridge cannot accept the service request because the conference has not
-- successfully been established.

notAllowed ERROR ::=32

-- is an indication that the conference bridge cannot accept the service request because the call to be added
-- has not been routed via the conference bridge, or cannot be routed via the conference bridge.

maximumNumberOfReservationsReached ERROR ::=33

-- is an indication that the network is unable to provide the requested reservation since the allowed maximum
-- number of reservations has already been reached for the Connection Endpoint Identifier (CEI).

noExplicitReservationExistsOrInvalidReservationIndicator ERROR ::=34

-- is an indication that the network is unable to provide the requested reservation function (e.g. reservation
-- creation or cancellation of a reservation) since no explicit reservation is in use or the reservation indicator
-- used is not valid.

unwantedReservationCreated ERROR ::=35

-- is an indication that the network has created a reservation either explicit or implicit in case that no explicit
-- reservation management request was included in a call control message.

implicitReservationUsed ERROR ::=36

-- is an indication that the network uses an existing implicit reservation in case that no explicit reservation
-- request was included in a call control message.

unauthorizedPrecedenceLevel ERROR ::=44

-- is an indication that the calling user has exceeded the authorized maximum precedence level.

user ignored ERROR ::=45

-- is an indication that the remote user has ignored the service request (neither explicit acceptance nor
-- rejection by the remote user).

notActivated ERROR ::=46

-- is an indication of a call diversion failure due to the fact that the supplementary service has not
-- been activated.

uusReqAsEssential ERROR ::=47

-- is an indication of a call diversion failure due to the fact that the user-to-user supplementary service has
-- been requested as essential.

Appendix I

Clause headings of each Recommendation

(This appendix does not form an integral part of this Recommendation)

Each clause of each Recommendation of the Q.95x-Series is numbered similarly. The following format should be used. Headings which are not applicable to the protocol (e.g. “Actions at the intermediate exchange” in DSS 1 documents) should be entered to preserve the numbering sequence of the clauses. The text of each such section should read: “This clause is not applicable to DSS 1”.

The clause on interaction with other supplementary services (clause 6) should only contain interactions among the services that are under consideration at present. Other future services should be marked “No applicable interaction at this time”.

Clause headings

1 Definition

2 Description

- 2.1 General description
- 2.2 Specific terminology
- 2.3 Qualification on the applicability to telecommunication services
- 2.4 State definitions

3 Operational requirements

- 3.1 Provision/withdrawal
- 3.2 Requirements on the originating network side

3.3 Requirements in the network

3.4 Requirements on the terminating network side

4 Coding requirements

5 Signalling requirements

5.1 Activation/deactivation/registration

5.2 Invocation and operation

5.2.1 Normal operation

5.2.1.1 Actions at the originating local exchange

5.2.1.2 Actions at the transit exchange

5.2.1.3 Actions at the destination local exchange

5.2.2 Exceptional procedures

6 Interaction with other supplementary services

6.1 Call Waiting

6.2 Call Transfer

6.3 Connected Line Identification Presentation

6.4 Connected Line Identification Restriction

6.5 Calling Line Identification Presentation

6.6 Calling Line Identification Restriction

6.7 Closed User Group

6.8 Conference Calling

6.9 Direct Dialling In

6.10 Call diversion (call forwarding) services

6.10.1 Call Forwarding Busy

6.10.2 Call Forwarding No Reply

6.10.3 Call Forwarding Unconditional

6.10.4 Call Deflection

6.11 Line Hunting

6.12 Three-Party Service

6.13 User-to-User Signalling

6.13.1 Service 1

6.13.2 Service 2

6.13.3 Service 3

6.14 Multiple Subscriber Number

6.15 Call Hold

6.16 Advice of Charge

6.17 Sub-addressing

6.18 Terminal Portability

6.19 Completion of Calls to Busy Subscribers

6.20 Malicious Call Identification

6.21 Reverse Charging

6.22 Multi-Level Precedence and Preemption

7 Interaction with other networks

7.1 Interactions with non-ISDNs

7.2 Procedures for interworking with private ISDNs

8 Signalling flows

9 Parameter value (timers)

10 Dynamic description (SDLs)

NOTE – This layout may not be followed completely by all Recommendations of the Q.95x-Series.