INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.733.3

Amendment 1

(07/2001)

SERIES Q: SWITCHING AND SIGNALLING

Specifications of Signalling System No. 7 – ISDN supplementary services

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Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of calls to busy subscriber (CCBS)

Amendment 1

ITU-T Recommendation Q.733.3 – Amendment 1

(Formerly CCITT Recommendation)

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ITU-T Recommendation Q.733.3

Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of calls to busy subscriber (CCBS)

AMENDMENT 1

Summary

This amendment contains the modifications to ITU-T Q.733.3 in order to accommodate changes being made to the CCBS supplementary service dealing with CCBS/CFNR interactions at a diverting exchange and the inclusion of the Additional Called Party Number parameter for CCBS (used to transfer the private called party number in the CCBS request linked to a VPN call).

Source

Amendment 1 to ITU-T Recommendation Q.733.3 was prepared by ITU-T Study Group 11 (2001-2004) and approved under the WTSA Resolution 1 procedure on 13 July 2001.

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.

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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, 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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Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of calls to busy subscriber (CCBS)

AMENDMENT 1

The following new or revised text should be added to the present Recommendation.

1) Table 3-1/Q.733.3 – Definition of operations for the CCBS supplementary service

Replace the complete table with the following (changes denoted by revision marks):

```
CCBS-Protocol {itu-t recommendation q 733 3 modules(2) operations-and-
errors(1) ~~version1~~version2 (~~1~~2)}
DEFINITIONS EXPLICIT TAGS::=
BEGIN
IMPORTS
OPERATION, ERROR
FROM TCAPMessages {ccitt recommendation q 773 moduleA(0)};
-- operations types
CcbsRequest::= OPERATION
          PARAMETER  SEQUENCE{
               calledPartyNumber               CalledPartyNumber,
               retainSupported                 BOOLEAN DEFAULT FALSE,
               userServiceInf                  [1] IMPLICIT USICode OPTIONAL,
               callingPartyNumber              [2] IMPLICIT CallingPartyNumber
                                               OPTIONAL,
               userServiceInfPrime             [3] IMPLICIT USICode OPTIONAL,
               accessTransportParameter        [4] IMPLICIT AccessTransport
                                               OPTIONAL,...,
               additionalCalledPartyNumber     [5] IMPLICIT
                                               AdditionalCalledPartyNumber
                                               OPTIONAL}
          RESULT    SEQUENCE{
               retainSupported                 BOOLEAN DEFAULT FALSE,...}
          ERRORS {
               ShortTermDenial,
               LongTermDenial}
-- Timer T = CCBS-T2
CcbsCancel ::= OPERATION
          PARAMETER
               cancelCause                     CauseCode
                         -- the cancelCause parameter is optional
                         -- and may not be sent in certain circumstances
CcbsSuspend ::=    OPERATION
CcbsResume ::=     OPERATION
RemoteUserFree ::= OPERATION
--error type definitions
ShortTermDenial ::= ERROR
LongTermDenial ::=  ERROR
--constants and data type definitions
CalledPartyNumber ::=    OCTET STRING (SIZE (1..10))
                         -- the calling party number is coded as described
                         -- in itu-t recommendation q763
CallingPartyNumber ::=   OCTET STRING (SIZE (1..10))
                         -- the calling party number is coded as described
                         -- in itu-t recommendation q763
```

```
CauseCode ::= ENUMERATED{
                    cCBS-T3-Timeout (1),
                    cCBS-T4-Timeout (2),
                    cCBS-T7-Timeout (3),
                    cCBS-T9-Timeout (4)}
USICode ::=         OCTET STRING (SIZE (1..11))
          -- the USICode is coded as described in itu-t recommendation q763
AccessTransport ::= OCTET STRING (SIZE (1..maxAccessTransportLength))
          -- the ATP is used to carry HLC, LLC, Calling Party SUB and
          -- Called Party SUB as described in ccitt recommendation q931
AdditionalCalledPartyNumber ::= OCTET STRING (SIZE (1..11))
-- the AdditionalCalledPartyNumber is coded as the Generic Number parameter
-- (with Number qualifier indicator set to "additional called number")
-- described in itu-t recommendation q763
maxAccessTransportLength              INTEGER::=255
-- object identifier path
ccbsOID OBJECT IDENTIFIER ::= {itu-t recommendation q 733 3 operations-and-
errors(1)}
-- operation values
ccbsRequest CcbsRequest ::=           globalValue:{ccbsOID ccbsrequest(1)}
ccbsCancel CcbsCancel ::=             globalValue:{ccbsOID ccbscancel(2)}
ccbsSuspend CcbsSuspend ::=           globalValue:{ccbsOID ccbssuspend(3)}
ccbsResume CcbsResume ::=             globalValue:{ccbsOID ccbsresume(4)}
remoteUserFree RemoteUserFree ::=     globalValue:{ccbsOID remoteuserfree(5)}
-- error values
shortTermDenial ShortTermDenial ::=   globalValue:{ccbsOID shorttermdenial(6)}
longTermDenial   LongTermDenial ::=   globalValue:{ccbsOID longtermdenial(7)}
END -- of CCBS Protocol
```

2) Clause 3.5.1.1.1.1

Insert the following new list item before The TC-INVOKE primitive shall instruct the TC to start the CCBS request timer CCBS-T2:

– The Additional Called Party Number parameter shall be included, if available.

3) Clause 3.6.10.2.2 a)

Replace the complete text with the following (changes denoted by revision marks):

3.6.10.2.2 Destination local exchange (B)

a) Call forwarding is (are) already activated on receipt of a CCBS request.

On receipt of a CCBS request:

– if destination B has a CFU activated, the destination B's local exchange rejects the CCBS request with short-term denial as the reason (see 3.5.5.4.1 c)). If any other call diversion is activated in addition to CFU, the result should be the same;

– if destination B has only a CFB activated, destination B's local exchange accepts the CCBS request;

– if destination B has CFNR activated (with or without a CFB in addition), destination B's local exchange shall ~~reject the CCBS request with short term denial as the reason [see 3.5.5.4.1 e)]~~accept the CCBS request if destination B is busy and shall reject the CCBS request if destination B is free.

NOTE – A local exchange is not aware of the activation of any call deflection. Consequently, a CCBS request is always accepted by the local exchange of such a user.

Insert the following new item d) at the end of the clause:

d) Call diversion is invoked at destination B.

On receipt of a release message with cause parameter containing value #17 or #34 (regardless of the value of the CCBS indicator in the diagnostic field):

- if the reason for the call diversion is CFU or CFNR or CD, the diagnostic field is changed to a "CCBS not possible" indication;
- if the reason for the call diversion is CFB, the diagnostic field is changed to indicate whether or not CCBS is possible. If CCBS is not possible, e.g. if destination B's local exchange knows that destination B's CCBS queue is set to zero, then the diagnostic field shall be set to "CCBS not possible" otherwise the diagnostic field shall be set to "CCBS possible".

4) Clause 3.7.7.2.1.1

Replace the complete text with the following (changes denoted by revision marks):

3.7.7.2.1.1 Activation

The "retainSupported" is coded TRUE, in the CCBS request, by the originating local exchange only if received from user A.

This information shall be sent to the ISPBX by the destination local exchange, and the "retainSupported" in the CCBS request return result is coded TRUE only if received from user B (if B ISPBX).

If available, the OLE shall send the additional called party number to the destination local exchange in the CCBS request.

If received by the DLE in the CCBS request, the additional called party number (optional parameter) is forwarded towards the private network B.

If received by the destination local exchange in the CCBS request, the CLI optional parameter is forwarded towards the private network B in order to allow interworking with existing private networks using CLI in a linkage mechanism.

The destination local exchange shall start the supervision timer Tsup on sending the CCBS request to the private network.

The originating local exchange shall start the supervision timer Tsup on receipt of a successful service activation indication.

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