INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.699
Addendum 1
(12/99)

SERIES Q: SWITCHING AND SIGNALLING

Interworking of Signalling Systems – Interworking between Digital Subscriber Signalling System No. 1 and Signalling System No. 7

Interworking between ISDN access and non-ISDN access over ISDN user part of Signalling System No. 7

Addendum 1: DSS1-SS7 interworking for call completion on no reply

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ITU-T RECOMMENDATION Q.699

INTERWORKING BETWEEN ISDN ACCESS AND NON-ISDN ACCESS OVER ISDN USER PART OF SIGNALLING SYSTEM No. 7

ADDENDUM 1

DSS1-SS7 interworking for call completion on no reply

Summary

This addendum (1997) specifies the signalling interworking between DSS1 (Q.953.5) and SS No. 7 (Q.733.5).

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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ADDENDUM 1

DSS1-SS7 interworking for call completion on no reply

(*Geneva, 1999*)

1 Call Completion on No Reply (CCNR)

The DSS1 aspects are specified in Recommendation Q.953.5 (1999) and the SS No. 7 aspects are specified in Recommendation Q.733.5 (1999).

1.1 Interworking at the Originating Local Exchange

1.1.1 CCNR call set-up

Table 1/Q.699

SETUP →	IAM →
Facility information element: CCBSCall invoke component or CCBS-T-Call invoke component	CCSS parameter: CCSS call

1.1.2 CCNR available indication

a)   Coincident S and T reference point

Table 2/Q.699

← ALERTING	← ACM (subscriber free), ← CPG (alerting)
Facility information element: CallInfoRetain invoke component	CCNR Possible Indicator parameter: CCNR possible

b)   T reference point

Table 3/Q.699

← ALERTING	← ACM (subscriber free), ← CPG (alerting)
Facility information element: CCBS-T-Available invoke component	CCNR Possible Indicator parameter: CCNR possible

1.1.3 CCNR request

a)   Coincident S and T reference point

Table 4/Q.699

FACILITY →	TC-BEGIN →
Facility information element: CCNRRequest invoke component	CcnrRequest invoke

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← FACILITY	← TC-CONTINUE
Facility information element: CCNRRequest return result	CcnrRequest return result

b)   T reference point

Table 6/Q.699

REGISTER →	TC-BEGIN→
Facility information element: CCNR-T-Request invoke component: destinationAddress retentionSupported q931InfoElement presentationAllowedIndicator originatingAddress	CcnrRequest invoke: calledPartyNumber retainSupported userServiceInf (BC or BC 1) userServiceInfPrime (BC 2) accessTransportParameter callingPartyNumber

Table 7/Q.699

← FACILITY	← TC-CONTINUE
Facility information element: CCNR-T-Request return result	CcnrRequest return result

1.1.4 Remote user free

a)   Coincident S and T reference point

Table 8/Q.699

← FACILITY	← TC-CONTINUE
NOTE – First, user A monitoring procedure takes place. Facility information element: CCBSRemoteUserFree invoke component	RemoteUserFree

b)   T reference point

Table 9/Q.699

← FACILITY	← TC-CONTINUE
Facility information element: CCBS-T-RemoteUserFree invoke component	RemoteUserFree

1.1.5 Suspend/Resume request

a)   Coincident S and T reference point

At the coincident S and T reference point, there are no specific signalling interworking aspects for CCNR.

b)   T reference point

Table 10/Q.699

FACILITY →	TC-CONTINUE →
Facility information element: CCBS-T-Suspend invoke component or CCBS-T-Resume invoke component	CcbsSuspend invoke component or CcbsResume invoke component

1.1.6 Deactivation request

a)   Coincident S and T reference point

Table 11/Q.699

FACILITY →	TC-END →
Facility information element: CCBSDeactivate invoke component	CcbsCancel invoke component

b)   T reference point

At the T reference point, there are no specific signalling interworking aspects for CCNR.

1.2   Interworking at the Destination Local Exchange

1.2.1   CCNR call set-up

a)   Coincident S and T reference point

At the coincident S and T reference point, there are no specific signalling interworking aspects for CCNR.

b)   T reference point

Table 12/Q.699

IAM →	SETUP →
CCSS parameter: CCSS call	Facility information element: CCBS-T-Call invoke component

1.2.2   CCNR request

a)   Coincident S and T reference point

The receipt of TC-BEGIN with the CcnrRequest invoke component triggers the activation procedures at the destination local exchange.

b)   T reference point

Table 13/Q.699

TC-BEGIN →	REGISTER →
CcnrRequest invoke: CalledPartyNumber retainSupported userServiceInf (BC or BC 1) userServiceInfPrime (BC 2) accessTransportParameter callingPartyNumber	Facility information element: CCNR-T-Request invoke component: destinationAddress retentionSupported q931InfoElement presentationAllowedIndicator originatingAddress

Table 14/Q.699

← TC-CONTINUE	← FACILITY
CcnrRequest return result	CCNR-T-Request return result

1.2.3   Remote user free

a)   Coincident S and T reference point

The sending of TC-CONTINUE with RemoteUserFree invoke component is part of the CCNR recall procedure at the destination local exchange.

b)   T reference point

Table 15/Q.699

← TC-CONTINUE	← FACILITY
RemoteUserFree	Facility information element: CCBS-T-RemoteUserFree invoke component

1.2.4   CCNR available indication

a)   Coincident S and T reference point

At the coincident S and T reference point, there are no specific signalling interworking aspects for CCNR.

b)   T reference point

Table 16/Q.699

← ACM (subscriber free), ← CPG (alerting)	← ALERTING
CCNR Possible Indicator parameter: CCNR possible	Facility information element: CCBS-T-Available invoke component

1.2.5   Suspend/Resume request

a)   Coincident S and T reference point

At the coincident S and T reference point, there are no specific signalling interworking aspects for CCNR.

b)   T reference point

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TC-CONTINUE →	FACILITY →
CcbsSuspend invoke component or CcbsResume invoke component	Facility information element: CCBS-T-Suspend invoke component or CCBS-T-Resume invoke component

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