

INTERCONNECT TESTING OF BASIC CALL AND SUPPLEMENTARY SERVICES ON THE PSTN-ISDN- PLMN ISUP SIGNALLING INTERFACE FOR SWEDEN

A Swedish Application Guide for handling tests of basic call procedures and supplementary services between public telecommunication operators (of both public land mobile networks and fixed public telecommunications networks) in Sweden in national interconnections.

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Preface

This Application Guide is structured in the following way:

Introduction is a general introduction to the document.

Clause 1 describes the scope of the document.

Clause 2 lists reference documents.

Clause 3 lists terms and definitions used in the document.

Clause 4 explains symbols and abbreviations used in the document.

Clause 5 describes the reference configuration.

Clause 6 describes the test cases.

This Application Guide is produced by Working Group 15, AG15 Team ISUP of Information Technology Standardisation, ITS. Members of the group have been interested parties representing the telecommunications operators and industry.

Introduction

This Application Guide describes tests of the interconnecting interfaces between public telecommunications networks for national interconnections in Sweden based on the Swedish ISUP standard.

This Application Guide is concerned with technical issues. It is assumed that the public telecommunication operator concerned agrees on the interconnection, traffic cases, services and procedures. The extent to which the guide shall be applied will be settled in these agreements.

1 Scope

This Application Guide describes the test cases applicable to the interconnection interface defined in SS 63 63 93. To secure proper interworking on the interconnecting interface between public telecommunications networks in Sweden, it is not sufficient to only test the protocol. It is also important to carry out end-to-end testing of the interface (see Figure 1).



Figure 1 End-to-end testing

This Application Guide:

- deals with Signalling System No. 7 protocol for the network interface between public telecommunication operators in Sweden according to SS 63 63 93.
- makes reference, if possible, to recommendations/specifications already defined by other standardisation bodies like ITU-T and ETSI.

2 References

The following documents contain provisions, which, through reference in this text, constitute provisions of this Application Guide. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this Application Guide are encouraged to investigate the possibility of applying the most recent editions of the documents indicated below. For undated references, the latest edition of the document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

SS 63 63 90:1999, edition 1	Number portability in Sweden – Network solutions for Service Provider Portability for fixed public network telecommunications services
SS 63 63 92:2000, edition 1	Mobile Number Portability in Sweden – Network solutions for Service Provider Portability for public digital mobile telephony services
SS 63 63 93:2000, edition 1	PSTN-ISDN-PLMN ISUP signalling interface for Sweden
ITU-T Rec. Q.733.3, 06/97	Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of calls to busy subscriber (CCBS)
ITU-T Rec. Q.733.5, 03/99	Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of Calls on No Reply (CCNR)
ITU-T Rec. Q.763, 03/99	Signalling System No. 7 – ISDN User Part formats and codes
ITU-T Rec. Q.764, 03/99	Signalling System No. 7 – ISDN User Part signalling procedures
ITU-T Rec. Q.765, 05/98	Signalling System No.7; ISDN User Part; Application Transport Mechanism (APM)
ITU-T Q.784.1, 07/96	ISUP basic call test specification: Validation and compatibility for ISUP'92 and Q.767 protocols
ITU-T Q.788, 06/97	User-network-interface to user-network-interface compatibility test specifications for ISDN, non-ISDN and undetermined accesses interworking over international ISUP

3 Terms and definitions

Originating network

a network of an operator with whom the test is initiated.

Terminating network

a network of an operator to whom the test is directed .

4 Symbols and abbreviations

For the purposes of this Application Guide the following abbreviations are used:

NNI	Network Network Interface
UNI	User Network Interface

5 Reference configuration

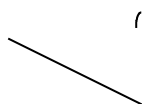


Figure 2 Reference configuration

For these tests, it is assumed that, from the signalling point of view, the terminal is either a PSTN terminal or an ISDN terminal. The ISDN terminal can also be a mobile phone (GSM). To be able to make all the tests, it is preferable to have the ISDN terminal connected via a 30B+D and 2B+D. However, if this is not possible, the tests may be limited to what is possible to perform on the access. The monitoring of ISUP signalling is performed on the route between the networks.

6 Test cases

6.1 Exceptions to Q.784.1

The column test number refers to the test number as defined in Recommendation Q.784.1. The Q.784 document should be used for reference to check that the test result is correct.

The following test cases are applicable to the interface:

Test	Subtitle	Test number
Circuit supervision	Non-allocated circuits	1.1
Reset of circuits	RSC received on an idle circuit	1.2.1
Reset of circuits	RCS sent on an idle circuit	1.2.2
Reset of circuits	RSC received on a locally blocked circuit	1.2.3
Reset of circuits	RSC received on a remotely blocked circuit	1.2.4
Reset of circuits	Circuit group reset received	1.2.5
Reset of circuits	Circuit group reset sent	1.2.6
Reset of circuits	Circuit group reset received on remotely blocked circuits	1.2.7
Circuit group blocking/unblocking	CGB and CGU received	1.3.1.1.
Circuit group blocking/unblocking	CBG and CGU sent	1.3.1.2
Circuit blocking/unblocking	BLO received	1.3.2.1
Circuit blocking/unblocking	BLO sent	1.3.2.2
Circuit blocking/unblocking	Blocking from both ends; removal of blocking from one end	1.3.2.3
Circuit blocking/unblocking	IAM received on a remotely blocked circuit	1.3.2.4
Circuit blocking/unblocking	Blocking with CGB, unblocking with UBL	1.3.2.5
Both way circuit selection	IAM sent by controlling SP	2.1.1
Both way circuit selection	IAM sent by non-controlling SP	2.1.2

Called address sending	"en bloc" operation	2.2.1
Called address sending	Overlap operation (with SAM)	2.2.2
Successful Call setup	Ordinary call (with various indications in ACM)	2.3.1
Successful Call setup	Ordinary call (with ACM, CPG, and ANM)	2.3.2
Successful Call setup	Ordinary call with CON	2.3.3.
Successful Call setup	Blocking and unblocking during a call (initiated)	2.3.5
Successful Call setup	Blocking and unblocking during a call (received)	2.3.6
Normal call release	Calling party clears before address complete	3.1
Normal call release	Calling party clears before answer	3.2
Normal call release	Calling party clears after answer	3.3.
Normal call release	Called party clears after answer	3.4
Normal call release	Suspend initiated by the network	3.5
Normal call release	Suspend and resume initiated by a calling party	3.6.
Normal call release	Suspend and resume initiated by a called party	3.7
Normal call release	Collision of REL message	3.8
Unsuccessful call setup	Validate a set of known causes for release	4.1
Timers	T9: waiting for ANM	5.2.2
Timers	T6: waiting for RES (Network) message	5.2.4
Automatic repeat attempt	Dual seizure for non-controlling SP	6.2.1
Automatic repeat attempt	Blocking of a circuit	6.2.2
Dual seizure	Dual seizure for controlling SP	6.3.1
Simple segmentation	Sending of SGM	6.5.1
Simple segmentation	Receipt of SGM	6.5.2.
Simple segmentation	Receipt of a SGM in forward direction	6.5.4
Simple segmentation	Receipt of a SGM in backward direction	6.5.5
64 kbit/s unrestricted	Successful call setup	7.1.1
64 kbit/s unrestricted	Unsuccessful call setup	7.1.2
64 kbit/s unrestricted	Dual seizure	7.1.3

3.1 kHz audio	Successful call setup	7.2.1
Multirate connection types	Successful multirate outgoing call setup	7.3.1
Multirate connection types	Successful multirate incoming call setup	7.3.2
Multirate connection types	Unsuccessful multirate call setup – one circuit already busy	7.3.3
Multirate connection types	Dual seizure of different connection types: Controlling exchange	7.3.4
Multirate connection types	Dual seizure of different connection types: Non-controlling exchange	7.3.5
Automatic congestion control	Receipt of a release message containing an automatic congestion level parameter	8.1.1
Automatic congestion control	Sending of a release message containing an automatic congestion level parameter	8.1.2
Echo control procedure according to Q.767	Q.767 echo control procedure for call setup (initiated in SP A)	9.1.1
Echo control procedure according to Q.767	Q.767 echo control procedure for call setup (initiated in SP B)	9.1.2

6.2 Exceptions to Q.788

The column test number refers to the test number as defined in Recommendation Q.788. The Q.788 document should be used for reference to check that the test result is correct.

The following test cases are applicable to the interface:

NOTE 1 - The use of the COT message is not applicable to the interface.

Title	Test number
Successful Call Set-up – Transport of BC/HLC/LLC IE – BC/HLC/LLC Combination In this test case the use of TMR 64 kbit/s preferred is not applicable	1.1.3.1
Successful Call Set-up – Transport of BC/HLC/LLC IE – BC = 64 kbit/s with rate adaptation	1.1.3.2

Title	Test number	Priority
Calling Line Identification – CLIP – network provided without calling party subaddress	2.1.1	High
Calling Line Identification – CLIP – network provided	2.1.2	Low
Calling Line Identification – CLIP – user provided, verified and passed	2.1.3	High
Calling Line Identification – CLIP – user provided, not verified	2.1.4	Low
Calling Line Identification – CLIR – network provided – without calling party subaddress	2.1.5	High
Calling Line Identification – CLIR – network provided	2.1.6	Low
Calling Line Identification – CLIR – user provided, verified and passed	2.1.7	High
Calling Line Identification – CLIR – user provided, not verified	2.1.8	Low
Subaddressing – Transport of called party subaddress	2.2.1	High
Connected Line Identification – COL – Request	2.3.1	High
Connected Line Identification – COLP – network provided	2.3.2	High
Connected Line Identification – COLP – user provided, verified and passed	2.3.3	High
Connected Line Identification – COLP – user provided, not verified	2.3.4	Low
Connected Line Identification – COLR – network provided	2.3.5	High
Connected Line Identification – COLR – user provided, verified and passed	2.3.6	High
Connected Line Identification – COLR – user provided, not verified	2.3.7	Low
Connected Line Identification – COL not available	2.3.9	High
Closed User Group – Decentralized – CUG call with outgoing access allowed (both UNIs belong to the same CUG)	2.4.1	Low
Closed User Group – Decentralized – CUG call with outgoing access allowed (called party not in a CUG)	2.4.2	Low
Closed User Group – Decentralized – CUG call with outgoing access allowed (one network supports CUG)	2.4.3	Low

Closed User Group – Decentralized – CUG call with outgoing access not allowed, to a network offering CUG (called party in same CUG)	2.4.4	High
Closed User Group – Decentralized – CUG call with outgoing access not allowed, to a network offering CUG (called party outside CUG)	2.4.5	High
Closed User Group – Decentralized – CUG call with outgoing access allowed, to a network offering CUG (called party in a different CUG, no incoming access allowed)	2.4.6	Low
Closed User Group – Decentralized – CUG call with outgoing access allowed, to a network offering CUG (called party in a different CUG, incoming access allowed)	2.4.7	Low
Closed User Group – Decentralized – CUG call with outgoing access not allowed, to a network offering CUG (called party in same CUG, incoming calls barred at Network B's UNI)	2.4.8	High
Closed User Group – Decentralized – CUG call with outgoing access not allowed, to a network not offering CUG	2.4.9	High
Closed User Group – Decentralized – Non-CUG call towards a CUG destination with incoming access not allowed	2.4.10	High
Closed User Group – Decentralized – Non-CUG call towards a CUG destination with incoming access allowed	2.4.11	High
Malicious Call Identification – Successful request	2.5.1	High
Call Forwarding Busy (network determined) – full notification	2.6.1	High
Call Forwarding Busy (user determined) – full notification	2.6.3	High
Call Forwarding Busy (user determined) – Unsuccessful	2.6.4	Low
Call Forwarding No Reply (option A, late release) – full notification	2.7.1	Low
Call Forwarding No Reply (option B, immediate release) – full notification	2.7.3	High
Call Forwarding No Reply (option A, late release) – Unsuccessful	2.7.4	High
Call Forwarding No Reply (option B, immediate release) – full notification	2.7.5	Low
Call Forwarding Unconditional – full notification	2.8.1	High
Call Forwarding Unconditional – Unsuccessful	2.8.3	Low
Call Deflection during alerting (option B,	2.9.1	High

immediate release – full notification		
Call Deflection immediate response (option B, immediate release – full notification)	2.9.3	High
Call Deflection during alerting (option A, late release – full notification)	2.9.4	Low
Call Deflection during alerting (option B, immediate release – Unsuccessful)	2.9.5	Low
Call Deflection immediate response (option B, immediate release – Unsuccessful)	2.9.6	Low
Call Deflection during alerting (option A, late release – Unsuccessful)	2.9.7	High
Call Waiting successful	2.10.1	High
Call Waiting rejection	2.10.2	High
Call Waiting ignored	2.10.3	High
Call Hold – Hold and Retrieval during waiting for ANM	2.11.1	High
Call Hold – Hold call and clear before Retrieval during waiting for ANM	2.11.2	High
Call Hold – Hold and Retrieval during active phase	2.11.3	High
Call Hold – Hold during active phase; served user clears call during held state	2.11.4	High
Call Hold – Hold during active phase; non-served user clears call during held state	2.11.5	High
Terminal Portability – Successful	2.12.1	High
Terminal Portability – Unsuccessful, Timer expiry	2.12.2	High
Conference Calling – Establishment of a conference and termination of the conference	2.13.1	Low
Conference Calling – Isolation, Reattachment and Disconnection of one party of the conference	2.13.2	Low
Conference Calling – Splitting and Adding of a party	2.13.3	Low
Conference Calling – Floating of a conference (explicit request)	2.13.4	Low
Conference Calling – Call clearing by served user when floating is allowed	2.13.5	Low
Three-party service – Invocation and splitting of a Three-party conversation	2.14.1	Low
Three-party service – Served user disconnects one of the remote users	2.14.2	Low
Three-party service – Disconnect sent by one of the remote users	2.14.3	Low
Three-party service – Disconnect of the entire	2.14.4	Low

call		
User-to-User Signalling service 1 – Implicit request – Successful – UII in the forward and backward messages	2.15.1	High
UUS service 1 – Explicit request – Successful – UII in the forward and backward messages	2.15.3	Low
User-to-User Signalling service 1 – Explicit request (essential) – Explicit rejection by the called user	2.15.7	Low
User-to-User Signalling service 2 – Successful – UII in the forward and the backward messages	2.16.1	High
User-to-User Signalling service 2 – Essential – Explicit rejection	2.16.4	Low
User-to-User Signalling service 2 – Essential – Explicit rejection – multipoint	2.16.5	Low
User-to-User Signalling service 3 – Successful – UII in both directions, request during call establishment	2.17.1	High
User-to-User Signalling service 3 – Non essential – Explicit rejection, request during call establishment	2.17.3	Low
User-to-User Signalling service 3 – Successful – UII in both directions – Request during call	2.17.5	High
User-to-User Signalling service 3 – Implicit rejection – Request during call	2.17.6	Low
User-to-User Signalling service 3 – Explicit rejection – Request during call	2.17.7	Low

6.3 Hop counter

Test number: 1 **Ref.:** 2.17/Q.764 and 3.80/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: Hop Counter

Purpose: To verify that the hop counter is decreased in the network.

Arrange the exchange data so that the Hop counter is inserted in the message by Network A.

Expected message sequence:

Network A	Network B	
IAM	✕	Hop counter: less than the originally set value.
	⌚	ACM
	⌚	ANM
REL	✕	Cause Ind.: Normal call clearing (16), location user (0000)
	⌚	RLC

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Check the presence of the Hop counter in the IAM message at NNI of Network B.
3. Clear the call from UNI of Network A.
4. Check that all resources are released.
5. Repeat steps 1 - 4 with Networks A and B interchanged.

6.4 Collect call

Test number: 2 **Ref.:** 2.18/Q.764 and 3.81/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: Call collect request

Purpose: To verify the presence of the Collect call request in the call.
 Arrange the exchange data so that the call is a collect call from Network A.

Expected message sequence:

Network A	Network B	
IAM	✕	Verify the presence of the Collect call request parameter, Collect call request indicator (1).
	⌚	ACM
	⌚	ANM
REL	✕	Cause Ind.: Normal call clearing (16), location user (0000)
	⌚	RLC

Test description:

1. Network B. Make a call from UNI of Network A to UNI of Network B.
2. Check the presence of the Collect call request parameter in the IAM message at NNI of Network B.
3. Clear the call from UNI of Network A.
4. Check that all resources are released.
5. Repeat steps 1 - 4 with Networks A and B interchanged.

6.5 Calling geodetic location support

Test number: 3 **Ref.:** 2.20/Q.764 and 3.88/Q.763.
Config.: Multiple ISDN Accesses (See Figure 1)
Title: Calling geodetic location
Purpose: To verify that the Calling geodetic location parameter is present in the call.

Arrange the exchange data so that the calling geodetic location procedure is supported in Network A.

Expected message sequence:

Network A	Network B	
IAM	✂	Verify the presence of Calling geodetic location parameter.
	⌚	ACM
	⌚	ANM
REL	✂	Cause Ind.: Normal call clearing (16), location user (0000)
	⌚	RLC

Test description:

1. Network B. Make a call from UNI of Network A to UNI of Network B.
2. Check the presence of the Calling geodetic location parameter in the IAM message at NNI of Network B.
3. Clear the call from UNI of Network A.
4. Check that all resources are released.
5. Repeat steps 1 - 4 with Networks A and B interchanged.

6.6 Pre-release

Test number: 4 **Ref.:** 2.3.5/Q.764 and Table 52/Q.763.
Config.: Multiple ISDN Accesses (See Figure 1)
Title: Pre-release
Purpose: To verify that the Pre-release information message can be sent on the interface.

Arrange the exchange data so that the Pre-release information message is sent by Network B.

Expected message sequence:

Network A	Network B	
IAM	✕	
	⌚	ACM
	⌚	ANM
	⌚	PRI Verify that the pre-release information message is sent
	⌚	SGM <i>Optional message</i>
	⌚	REL Cause Ind.: Normal call clearing (16), location user (0000)
RLC	✕	

Test description:

1. Network B. Make a call from UNI of Network A to UNI of
2. B. Send Pre-release message from NNI of Network
3. the interface. Verify that the Pre-release message is sent on
4. Clear the call from UNI of Network B.
5. Check that all resources are released.
6. interchanged. Repeat steps 1 - 5 with Networks A and B

6.7 Application transport mechanism

Test number: 5 **Ref.:** Q.765 and Table 51/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: Application transport mechanism

Purpose: To verify that the sending of APM message.

Arrange the exchange data so that APM information is sent during the call.

Expected message sequence:

Network A		Network B	
IAM	✕		
	⌚	APM	Verify that the APM message is transported on the interface.
	⌚	SGM	<i>Optional message</i>
	⌚	ACM	
	⌚	APM	Verify that the APM message is transported on the interface.
	⌚	SGM	<i>Optional message</i>
	⌚	ANM	
	⌚	APM	Verify that the APM message is transported on the interface.
	⌚	SGM	<i>Optional message</i>
	⌚	REL	Cause Ind.: Normal call clearing (16), location user (0000)
RLC	✕		

Test description:

1. Network B. Make a call from UNI of Network A to UNI of
2. before ACM. Send the APM message to NNI of Network B
3. Send ACM from NNI of Network B.
4. NNI before ANM. Send APM message from NNI of Network B
5. Send ANM from NNI of Network B.
6. Send APM message from NNI of Network B.
7. Release the call
8. Check that all resources are released.
9. interchanged. Repeat steps 1 - 8 with Networks A and B

Test number: 6 **Ref.:** Q.765 and 3.82/Q.763.
Config.: Multiple ISDN Accesses (See Figure 1)
Title: Application transport mechanism
Purpose: To verify that the sending of Application transport parameter in existing messages.

Arrange the exchange data so that Application transport parameter is sent in existing messages during the call.

Expected message sequence:

	Network A		Network B	
	IAM	✕		Verify that the Application transport parameter is present in the message
Case A		⌚	ACM	Verify that the Application transport parameter is present in the message
		⌚	CPG	Verify that the Application transport parameter is present in the message
		⌚	ANM	Verify that the Application transport parameter is present in the message
Case B		✕	CPG	Verify that the Application transport parameter is present in the message
			CON	Verify that the Application transport parameter is present in the message
		⌚	REL	Cause Ind.: Normal call clearing (16), location user (0000)
	RLC	✕		

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Check the presence of the Application transport parameter in the IAM message at NNI of Network B.
3. Send ACM (or CON) from NNI of Network B.
4. Check the presence of the Application transport parameter in the ACM (or CON) message at NNI of Network A.
5. Send CPG from NNI of Network B.
6. Check the presence of the Application transport parameter in the CPG message at NNI of Network A.
7. Send ANM from NNI of Network B.
8. Check the presence of the Application transport parameter in the ANM message at NNI of Network A.
9. Send CPG from NNI of Network A.
10. Check the presence of the Application transport parameter in the CPG message at NNI of Network B.

11. Release the call
12. Check that all resources are released.
13. Repeat steps 1 - 12 with Networks A and B interchanged.

6.8 CCNR

Test number: 7 **Ref.:** Q.733.5 and 3.83/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: CCNR call

Purpose: To verify that the CCNR and CCSS parameters are present in the calls.

Arrange the exchange data so that the Called subscriber is not busy and that CCNR is allowed to that subscriber.

Expected message sequence:

Network A	Network B	
IAM	✘	
⌚	ACM	Backward call indicators: Called party's status indicator (01 – subscriber free), CCNR possible indicator: CCNR possible indicator (1 – CCNR possible)
⌚	REL	Cause Ind.: No answer from user (19)
RLC	✘	
IAM	✘	Verify the presence of the CCSS parameter.
⌚	ACM	
⌚	ANM	
REL	✘	Cause Ind.: Normal call clearing (16), location user (0000)
⌚	RLC	

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Send ACM from NNI of Network B with possibility of CCNR.
3. Release the call
4. Check that all resources are released.
5. Check the presence of the CCBS parameter in the IAM message at NNI of Network B.
6. Clear the call from UNI of Network A.
7. Check that all resources are released.

8. Repeat steps 1 - 4 with Networks A and B interchanged.

6.9 CCBS

Test number: 8 **Ref.:** Q.733.3 and 3.63/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: CCBS call

Purpose: To verify that the CCBS and CCSS parameters are present in the calls.

Arrange the exchange data so that the Called subscriber is busy and that CCBS is allowed to that subscriber.

Expected message sequence:

Network A	Network B
IAM	✘ ⌚
	REL Cause Ind.: User busy (17); location user, diagnostics (00000001 – CCBS possible)
RLC	✘
IAM	✘
	Verify the presence of the CCSS parameter.
	⌚ ACM
	⌚ ANM
REL	✘
	Cause Ind.: Normal call clearing (16), location user (0000)
	⌚ RLC

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Clear the call from UNI of Network B with cause busy and possibility of CCBS in the diagnostics.
3. Check that all resources are released.
4. Subscriber B becomes idle.
5. Check the presence of the CCBS parameter in the IAM message at NNI of Network B.
6. Clear the call from UNI of Network A.
7. Check that all resources are released.
8. Repeat steps 1 - 7 with Networks A and B interchanged.

6.10 Support of NP

Test number: 9 **Ref.:** SS NP 63 63 92, SS 63 63 90 11.2 and 3.9/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: Number portability

Purpose: To verify the nature of address value 8 in Called party number.

Arrange the exchange data so that the Called subscriber is ported from the originating/serving network A to network B.

Expected message sequence:

Network A	Network B	
IAM	✘	Verify that the nature of address field in the called party number has the value 8 Note: As an alternative method can nature of address value 3 be used together with routeing prefix 394.
	⌚	ACM
	⌚	ANM
REL	✘	Cause Ind.: Normal call clearing (16), location user (0000)
	⌚	RLC

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Check the nature of address value in the called party number parameter in the IAM message at NNI of Network B.
3. Clear the call from UNI of Network A.
4. Check that all resources are released.
5. Repeat steps 1 - 4 with Networks A and B interchanged (if network B is an All Call Query network).

Test number: 10 **Ref.:** SS NP 63 63 92, SS 63 63 90 11.2 and 3.101/Q.763.

Config.: Multiple ISDN Accesses (See Figure 1)

Title: Number portability

Purpose: To verify that the Number portability forward information parameter is present in the call.

Arrange the exchange data so that the Called subscriber is ported from the originating/serving network A to network B.

Expected message sequence:

Network A		Network B	
IAM	✕		Verify the presence of the Number portability forward information parameter.
	⌚	ACM	
	⌚	ANM	
REL	✕		Cause Ind.: Normal call clearing (16), location user (0000)
	⌚	RLC	

Test description:

1. Make a call from UNI of Network A to UNI of Network B.
2. Check the presence of the Number portability forward information parameter in the IAM message at NNI of Network B.
3. Clear the call from UNI of Network A.
4. Check that all resources are released.
5. Repeat steps 1 - 4 with Networks A and B interchanged (if network B is an All Call Query network).