

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:

congestion signal is returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

CGC

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – An address complete signal (without subscriber free) may be sent in the backward direction before a CGC signal is sent.

Note 2 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that the call will be immediately released by the outgoing signalling point if a national network congestion signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:

signal is returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

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<-----

NNC

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – An address complete signal (without subscriber free) may be sent in the backward direction before a NNC signal is sent.

Note 2 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:

congestion signal is returned to the call request, where SP A is now an I/C exchange

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

NNC

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – An address complete signal (without subscriber free) may be sent in the backward direction before a NNC signal is sent.

Note 2 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that on receipt of an address incomplete message the call is immediately released and the correct indication given to the calling party

PRE-TEST CONDITIONS:

number of digits has not been received

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

ADI

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Make a call from SP A to SP B, but do not enter the final digit.
Record the message sequence using a signal monitor.

2.

CHECK A: WAS THE CORRECT TONE OR ANNOUNCEMENT SENT TO THE CALLING
SUBSCRIBER?

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party.

In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:
has not been received

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

ADI

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<-----

DLF

RLG

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TEST DESCRIPTION

1.

Make a call from SP B to SP A, but do not enter the final digit.
Record the message sequence using a signal monitor.

2.

CHECK A: WAS THE CORRECT TONE OR ANNOUNCEMENT SENT TO THE CALLING
SUBSCRIBER?

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that the call will be immediately released by the outgoing signalling point if a call failure signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:

is returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

CFL

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – An address complete signal may be sent in the backward direction before a CFL signal is sent.

Note 2 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:
the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

CFL

440

Fascicle VI.9 – Rec. Q.783

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<-----

CLF

RLG

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TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.

Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – An address complete signal may be sent in the backward direction before a CFL signal is sent.

Note 2 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that the call will be immediately released by SP A if a Subscriber-busy signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

SSB

CLF

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<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence with a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

Note 2 – This sequence may not be possible at International Gateways.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:
signal

PRE-TEST CONDITIONS:

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

SSB

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<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

Note 2 – This sequence may not be possible at International Gateways.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that the call will be immediately released by SP A if an Unallocated-number signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

UNN

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence with a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

Note 2 – This sequence may not be possible at International Gateways.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

UNN

----->

<-----

CLF

RLG

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TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

Note 2 – This sequence may not be possible at International Gateways.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: Verify that the call will be immediately released by SP A if a Line out of service signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

LOS

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence with a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party.
In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

LOS

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note 1 – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

Note 2 – This sequence may not be possible at International Gateways.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that a call will be immediately released by the outgoing signalling point if a send-special-information-tone signal is received and the correct indication is given to the calling party

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

SST

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B
Record the message sequence with a signal monitor.

2.

CHECK A:

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:
signal

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

SST

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A
Record the message sequence with a signal monitor.

2.

CHECK A:

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that because of incompatible CUG information the call is rejected and an access barred signal is returned to the call request

PRE-TEST CONDITIONS:

contained in the IAI is compatible with the information stored at SP B

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAI

----->

<-----

ACB

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Make a CUG call from SP A to SP B.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE
CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party.
In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAI

ACB

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Make a CUG call from SP B to SP A.
Record the message sequence using a signal monitor.

2.

CHECK A: IS THE APPROPRIATE TONE OR ANNOUNCEMENT RETURNED TO THE CALLING PARTY?

3.

CHECK B:

4.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that the call will be immediately released by the SP A if a digital path not provided signal is received and the correct indicator is given to the calling party

PRE-TEST CONDITIONS:

- a) Ensure the IAM is set to indicate that an all digital path is required.

- b) Ensure the data in signalling point B is configured such that a digital path not provided signal is returned to the call request.

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

DPN

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.

Ensuring that the IAM is set to indicate that an all digital path is required. Record the message sequence using a signal monitor.

2.

CHECK A:

3.

CHECK B:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:
returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

DPN

476

Fascicle VI.9 – Rec. Q.783

----->

<-----

CLF

RLG

----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A.
Record the message sequence with a signal monitor.

2.

CHECK B:

3.

CHECK C:

Note – It may not be possible to confirm that the appropriate tone is returned to the calling party. In this case it must be verified that the signalling point under test retransmits the signal received.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that if the signalling point is unable to return a circuit to the idle condition in response to a clear forward signal, the circuit will be blocked

PRE-TEST CONDITIONS:
the circuit to the idle condition in response to a clear forward signal

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----

IAM

ACM

----->

Ringing tone

ANC

----->

Speech

Speech

<-----

CLF

BLO

----->

<-----

BLA

RLG

----->

TEST DESCRIPTION

1.

Make a call from SP A to SP B.
Record the message sequence using a signal monitor.

2.

CHECK A:

3.

The called party should answer the call

4.

CHECK B:

5.

The calling party should release the call.

6.

CHECK C:

7.

CHECK D:

8.

Repeat this test in the reverse direction.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE: To verify that if signalling point is unable to return the circuit to an idle condition in response to a backward signal, the circuit will be blocked

PRE-TEST CONDITIONS:
the circuit to an idle condition in response to a backward signal

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

----->

<-----

ADI

BLO

----->

<-----

BLA

CLF

----->

<-----

RLG

TEST DESCRIPTION

1.

Make a call from SP A to SP B, but do not enter the final digit.

2.

CHECK A:

EXCHANGE

3.

CHECK B:

4.

Repeat this test in the reverse direction.

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:

message is not returned to the call request

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

IAM

—
----->

½

T2 ½ T2 | 20–30 seconds

½

CLF —

----->

<-----

RLG

TEST DESCRIPTION

1.

Attempt to make a call from SP A to SP B.
Record the message sequence with a signal monitor.

2.

CHECK A:

SECONDS?

3.

CHECK B:

4.

CHECK C:

TUP LEVEL 4 TEST SPECIFICATION

TEST NUMBER:

REFERENCE:

TITLE:

SUBTITLE:

PURPOSE:

PRE-TEST CONDITIONS:

a)
received.

b) Arrange the data in signalling point B such that a clear forward signal is not returned in response to an address incomplete message.

CONFIGURATION:

TYPE OF TEST:

TYPE OF SP:

EXPECTED MESSAGE SEQUENCE:

SP

SP

<-----
IAM

ADI -
----->

$\frac{1}{2}$

T3 $\frac{1}{2}$
4-15 seconds

$\frac{1}{2}$

CFL -
----->

<-----
CLF

RLG
----->

TEST DESCRIPTION

1.

Attempt to make a call from SP B to SP A but do not dial the last digit.
Record the message sequence using a signal monitor.

2.

CHECK A: WAS A CALL FAILURE SIGNAL SENT BETWEEN 4–15 SECONDS AFTER
SENDING OF THE ADDRESS INCOMPLETE MESSAGE?

3.

CHECK B:

4.

CHECK C:

