

INTERNATIONAL TELECOMMUNICATION UNION



THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE



SERIES Q: SWITCHING AND SIGNALLING Specifications of Signalling System No. 7 – Test Specification

# **MTP LEVEL 3 TEST SPECIFICATION**

Reedition of CCITT Recommendation Q.782 published in the Blue Book, Fascicle VI.9 (1988)

## NOTES

1 CCITT Recommendation Q.782 was published in Fascicle VI.9 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

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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#### MTP LEVEL 3 TEST SPECIFICATION

#### 1 Introduction

This Recommendation contains a set of detailed tests of signalling system No. 7 MTP level 3 protocol. These tests intend to validate the protocol specified in Q.704 and Q.707 Recommendations. The level 3 performance aspects specified in Q.706 Recommendation are also partly checked whenever possible. This Recommendation conforms to the Q.780 Recommendation. However, in addition to the objectives and guidelines of the latter Recommendation, other general principles specific to level 3 tests are presented below.

#### 2 General principles of level 3 tests

#### 2.1 *Presentation of test descriptions*

Each test description mentions the type of SP involved in the test. Three cases are possible:

-	test applicable to an SP having no STP function:	SP
-	test applicable to an SP having STP function:	STP
-	test applicable to all types of SPs:	ALL

Each test description includes the environment in which the point under test must be inserted in order to pass the test. Four test configurations are necessary (named A, B, C and D); they are presented in § 3.

Each test is precisely described. Nevertheless, some events not directly concerning the point under test, or without direct link with the test nature, are not explicitly described. This is, for example, the case of TFPs propagation when a point becomes isolated, or of the changeover procedure in a test concerning transfer allowed procedure.

In order to preserve the test description implementation independence, a certain flexibility has been left in the test descriptions. This is particularly the case when it is necessary to deactivate a link (where it is only mentioned "Deactivate" with no more precision). The operator will choose, according to the implementation particularities and the events expected in the test description, the appropriate deactivation means (MML, provoked failure, etc.).

In the test descriptions, the signalling links are identified as follows: "number of linkset" – "number of link in the linkset" (e.g. 1 - 1 means link 1 of the linkset 1). This identification is independent of SLC attributed to these links. When the number of the link is X, that means that the concerned message can use any link of the linkset. When the field "number of link in the linkset" is, for example, "1, 2, . . .", that means that the traffic uses all indicated links. Finally, when the links are identified by the mention ALL, that means that the traffic will use all available links of the point.

The orders "Start traffic", "Wait" and "Stop traffic" apply to the test configuration. They are placed at the beginning of the line.

#### 2.2 Presentation of the test list

These tests, as a whole, aim at a complete validation of the level 3 protocol without redundancies.

The test list is presented in § 4. The national options and the various signalling link management "policies" are not included in this Recommendation.

The first set of tests in the list checks that, before some more precise tests, the point under test can perform the basic functions, i.e. can connect itself to the external environment and exchange signalling messages.

The second set basically validates the signalling message handling function of the point under test. A main point of this part concerns the validation of load sharing procedures. If an implementation does not use the load sharing between linksets, some tests would not be applicable, and other should be adapted.

The third and fourth sets check changeover and changeback procedures. They include tests like changeover and changeback to/from two linksets which will be performed only if the point under tests allows this possibility.

Rerouting procedures are checked using the tests in parts 5 and 6.

Part 7 concerns tests to check inhibition and uninhibition procedures. To limit the test numbers, it was not considered that the messages used in these procedures can be transferred via STPs.

Part 8 concerns tests to check transfer controlled procedure and MTP user flow control for the international signalling network.

Part 9 concerns tests to check signalling route management functions in a point having an STP function. To limit the test numbers and to avoid to complicate the test configuration, it was not considered that TFPs and TFAs can be transferred via STPs.

Part 10 concerns tests for the point restart procedure.

Part 11 deals with STP traffic test.

Part 12 checks the signalling link test procedure.

Finally, part 13 contains solely validation tests and aims at checking the actions of the tested system on reception of invalid level 3 messages.

## 2.3 Test traffic

Running the tests described in this Recommendation requires the exchange of traffic between the point under test and its environment. The traffic used is a test traffic especially generated for the test of the system. It uses variable length messages, structured as described below:



The mechanisms of generation and reception of this test traffic may be internal to the point under test or external (using a simulator for example). The tests presented here do not impose the choice of one of these mechanisms except for the tests of the STP function itself (tests 2.7, 8.2, 10 and 11) where the test traffic is necessarily generated outside the STP. The test traffic should be recorded and analysed subsequently for each described test.

*Note* – For compatibility testing (CPT), use SI value for MTP testing user part, for validation testing (VAT) value is to be chosen as required.

# **3** Test configurations

#### 3.1 *Definition*

The set of tests described in this Recommendation assumes that the point under test is inserted in a test environment called "test configuration". A **test configuration** is defined as being:

- a) the set of points, real or simulated, linked between them by signalling linksets, real or simulated, and of which some are connected to the point under test by one or several signalling linksets,
- b) the set of routing rules applied in different points and also in point under test,
- c) the flows of test traffic generated and received by:
- d) a set of generation and reception means (see § 2.3),
- e) the means (program, operator interface, etc.) to run the described tests; notably the possibilities of storage and analysis of test traffic and level 3 messages, and, in the case of validation tests, the possibility to send at any stage of a test, any messages (level 3 or test) valid or not.

## 3.2 *Presentation of test configurations*

## 3.2.1 General

The set of tests described in this Recommendation requires 4 different configurations named A, B, C and D. For each test, only the three first aspects of the above definition are precisely defined (set of points, set of routing rules and test traffic flows, see § 3.1).

## 3.2.2 Configuration A

This simple configuration is adapted to the validation of all procedures concerning only one or more signalling links belonging to one linkset. It is used for the tests:

- of activation and deactivation of links;
- of changeover and changeback procedures;
- of inhibition and uninhibition of links;
- invalid messages.

Configuration A is shown in Figure 1/Q.782.



Configuration A makes use of a point C in all validation tests in order to check the impact of the procedures on various traffic flows. Point C is not used in configuration A in the case of compatibility tests.

Linkset 1 has four signalling links in order to check, for example, changeover procedure to several links within a linkset (test 3.15).

In real networks, the procedures checked with this configuration act on the traffic carried in both directions of a link. Consequently, the flows of test traffic used are, regarding the routing label of messages:

- OPC = A, DPC = B and OPC = B, DPC = A
- OPC = A, DPC = C and OPC = C, DPC = A (in validation test only).

3

## TABLE 1/Q.782

## Routing rules in configuration A

	А	В	С
А	_	L1	L1
В	L1	-	L2
C	L2	L2	<u> </u>

# 3.2.3 *Configuration B*

Configuration B is adapted to the validation of all procedures concerning several signalling linksets. It is used for the tests:

- of signalling message handling;
- of changeover and changeback;
- of forced and controlled rerouting.

Configuration B is shown in Figure 2/Q.782.



In configuration B, Table 2/Q.782, the point under test A is linked to the external world with 3 signalling linksets. This is the minimum required number of linksets in order to check:

- load sharing between three linksets;
- changeover and changeback from/to two linksets (Recommendation Q.704, § 5.3.1).

When the SP A is an SP having no STP function, this configuration is also the minimum to run the tests in a network situation where associated mode and quasi—associated mode are used (Recommendation Q.701, § 3.1.2).

This configuration comprises point D in all validation tests in order to check the impact of the procedures on various traffic flows (relations A—D and A—E). The point D is not used in configuration B in case of compatibility tests.

In a real network, some procedures (changeover, changeback) checked with this configuration act on the traffic in both directions on the concerned linksets. Consequently, the test traffic flows used are, regarding the routing label of messages:

- OPC = A, DPC = E and OPC = E, DPC = A
- OPC = A, DPC = D and OPC = D, DPC = A (in validation test only).

#### TABLE 2/Q.782

## Routing rules in configuration B

<b>├</b> ─── <b>►</b>	A	В	с	D	E
Α	_	L2,L3	L3,L2	L1-L2-L3	L2-L3
В	L2,L4	_	L4	L5,L4	L6,L4
c	L3,L4	Ľ4		L8,L4	L7,L4
D	L1,L5,L8	L5,L8	L8,L5	_	Any
Е	L7,L6	L6,L7	L7,L6	Any	_

Li,Lj: Li normal linkset and Lj alternative linkset Li-Lj: load sharing between Li and Lj

## 3.2.4 *Configuration C*

This configuration is adapted to the validation of some functions specific to an STP like:

- message transfer function;
- sending of TFC;
- traffic test.

Configuration C is shown in Figure 3/Q.782.



FIGURE 3/Q.782 Configuration C

In configuration C, Table 3/Q.782, the point under test A carries the test traffic from B to C and from C to B. The linkset 1 has two links, this a minimum to create an overload situation to trigger the sending of TFC independently of the implementation of the flow control procedure.

The tests performed with this configuration require that the traffic crosses the STP under test in both directions. Consequently the test traffic flows are, regarding the routing label of messages:

- OPC = B, DPC = C and OPC = C, DPC = B

## TABLE 3/Q.782

## Routing rules in configuration C

	A	В	С
A	1	L1	L2
В	L1	_	L1
С	L2	L2	_

#### 3.2.5 *Configuration D*

This configuration is adapted to the validation of all procedures concerning exclusively the points having an STP function. It is used to check the signalling route management procedures.

Configuration D is shown in Figure 4/Q.782.





# FIGURE 4/Q.782 Configuration D

Configuration D, Table 4/Q.782, is used only to check the signalling route management: transfer prohibited and transfer allowed procedures. Consequently, all linksets of this configuration have only one signalling link.

The STP under test is linked to the external world with three linksets: one terminal linkset (to an SP without STP function) and two inter STP linksets. This structure is minimal to check the various aspects of the broadcasting of TFPs and TFAs:

- TFPs or TFAs concerning several destinations;
- TFPs or TFAs to several destinations.

This configuration includes points D and E. This is necessary in order to check the sending of TFP on an alternative linkset: in A the routing rules are such that the linksets 1 and 2 are used to reach D using normal/alternative routing and to reach E using load sharing routing (sending of TFP in the first case and not in the second).

The tests performed with this configuration, which check the signalling route procedures, require that the test traffic uses the concerned signalling routes. The test traffic flows used in this Recommendation are, regarding the routing label messages:

- OPC = F, DPC = D OPC = D, DPC = F
- OPC = F, DPC = E OPC = E, DPC = F
- OPC = A, DPC = D OPC = A, DPC = E OPC = A, DPC = F

#### TABLE 4/Q.782

#### Routing rules in configuration D

		1 ····· ··				
	A	В	С	D	E	F
A		L1,L2	L2,L1	L1,L2	L1,L2	L3
В	L1,L4	_	L4	L5,L4	L6,L4	L1
С	L2,L4	Ľ4		L8,L4	L7,L4	L2
D		Any		_	A	ny
E		A	зу	<u>1</u>	_	Any
F	L3	L3	L3	L3	L3	_

#### 4 Test list

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All tests with the indication "\*" are validation and compatibility tests. The tests without asterisk are validation test only.

- 1 Signalling link management
- 1.1 First signalling link activation
- 1.2 Signalling linkset deactivation
  - 1.3 Signalling linkset activation
    - 2 Signalling message handling
      - 2.1 Message received with an invalid SSF (discrimination function)
      - 2.2 Message received with an invalid DPC (discrimination function)
      - 2.3 Message received with an invalid SI (distribution function)
      - 2.4 Load sharing within a linkset
        - 2.4.1 All links available

- 2.4.2 With one link unavailable
- 2.5 Load sharing between linksets
  - 2.5.1 Between two linksets
  - 2.5.2 Between three linksets
  - 2.5.3 Between three linksets and one route unavailable
  - 2.5.4 Between three linksets and one linkset unavailable
- 2.6 Inaccessible destination
  - 2.6.1 Due to a linkset failure
  - 2.6.2 Due to a route failure
  - 2.6.3 Due to a linkset and route failures
- 2.7 Message transfer function
- 3 Changeover
  - 3.1 Changeover initiated at one side of a linkset (COO <--> COA)
  - 3.2 Changeover initiated at the both ends at the same time (COO < --> COO)
  - 3.3 Changeover on expiration of timer T2 (COO or ECO  $\rightarrow$  )
  - 3.4 Unreasonable FSN in COO/COA
  - 3.5 Reception of a changeover acknowledgement without sending a changeover order (— <— COA or ECA)
  - 3.6 Reception of an additional changeover order (— <— COO or ECO)
  - 3.7 Emergency changeover at one side of a linkset (COO <--> ECA)
  - 3.8 Emergency changeover at one side of a linkset (COO <--> ECO)
  - 3.9 Emergency changeover at one side of a linkset (ECO <--> COA)
  - 3.10 Emergency changeover at one side of a linkset (ECO <--> ECA)
  - 3.11 Emergency changeover at one side of a linkset (ECO <--> COO)
  - 3.12 Emergency changeover initiated at the both ends at the same time (ECO <--> ECO)
  - 3.13 Reactivation of a link during a changeover procedure
  - 3.14 Simultaneous changeover
  - 3.15 Changeover to several alternative links within a linkset
- 3.16 Changeover to another linkset with the adjacent SP accessible
- 3.17 Changeover to another linkset with the adjacent SP inaccessible
  - 3.18 Changeover to two linksets
  - 3.19 Changeover due to various reasons
  - 3.20 Changeover as compatibility test
  - 3.21 Reception of a changeover order on an available link
  - 4 Changeback

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- 4.1 Changeback within a linkset
- 4.2 Additional CBA
- 4.3 Additional CBD
- 4.4 No acknowledgement to first CBD
- 4.5 No acknowledgement of repeat changeback declaration

		4.6 Simultaneous changeback
		4.7 Changeback from several alternative links within a linkset
*		4.8 Changeback from another linkset
		4.9 Changeback from two linksets
		4.10 Changeback due to various reasons
*		4.11 Time controlled diversion procedure
*	5	Forced rerouting
*	6	Controlled rerouting
	7	Management inhibiting
		7.1 Inhibition of a link
*		7.1.1Available link
*		7.1.2 Unavailable link
		7.2 Inhibition not permitted
*		7.2.1 Local reject on an available link
*		7.2.2 Local reject on an unavailable link
		7.2.3 Sending of LID
		7.2.4 Reception of LID
		7.3 Expiration of T14
		7.3.1 On an available link
		7.3.2 On an unavailable link
		7.4 Additional inhibition messages (LIA, LID, LIN)
		7.5 Inhibition asked by the both ends
		7.6 Manual uninhibition of a link
*		7.6.1 With changeback
*		7.6.2 Without changeback
		7.7 Expiration of T12
*		7.8 Not possible uninhibition
		7.9 Automatic uninhibition of a link
		7.10 Forced uninhibition of a link
		7.10.1 Sending of LFU
		7.10.2 Reception of LFU
		7.11 Expiration of T13
		7.12 Additional uninhibition messages (LUA, LUN, LFU)
		7.13 Uninhibition at one side after test 7.5
		7.14 Automatic uninhibition after test 7.5
		7.15 Automatic uninhibition when two links are inhibited
		7.16 Reception of traffic on an inhibited link
		7.17 Management inhibiting test
*		7.17.1 Normal procedure
		7.17.2 Reception of an LLT or LRT on an uninhibited link

		7.17.3 Reception of an LLT on a link locally inhibited
		7.17.4 Reception of an LRT on a link remotely inhibited
	8	Signalling traffic flow control
		8.1 Reception of a TFC
		8.2 Sending of TFCs
		8.3 Reception of an UPU
		8.4 Sending of an UPU
	9	Signalling route management
		9.1 Sending of a TFP on an alternative route
*		9.1.1 Failure of normal linkset
*		9.1.2 On reception of a TFP
		9.2 Broadcast of TFPs
*		9.2.1 On one linkset failure
*		9.2.2 On multiple failures
		9.3 Reception of a message for an unaccessible destination
		9.4 Sending of a TFA on an alternative route
*		9.4.1 Recovery of normal linkset
*		9.4.2 On reception of a TFA
		9.5 Broadcast of TFAs
*		9.5.1 On one linkset recovery
*		9.5.2 Various reasons
		9.6 Periodic sending of signallint—route—set—test messages
		9.7 Reception of signalling—route—set—test messages
	10	Signalling point restart
		10.1 Recovery of a linkset (SP A has not the STP function)
*		10.1.1 With use of point restart procedure
		10.1.2 Without use of point restart procedure
		10.2 Recovery of a linkset (SP A has the STP function)
*		10.2.1 With use of point restart procedure
		10.2.2 Without use of point restart procedure
		10.3 An adjacent signalling point becomes accessible via another signalling point (SP A has not STP function)
		10.4 An adjacent signalling point becomes accessible via another signalling point (SP A has STP function)
*		10.5 Restart of an SP having no STP function
*		10.6 Restart of an SP having STP function
		10.7 Reception of an unexpected TRA
		10.7.1 In an SP having no STP function
		10.7.2 In an SP having STP function
	11	Traffic test
	12	Signalling link test

- 12.1 After activation of a link
- 12.2 No acknowledgement to first SLTM
- 12.3 No acknowledgement to second SLTM
- 12.4 Unreasonable field in an SLTA
- 12.5 Reception of an SLTM in an attempt state
- 12.6 Additional SLTA, SLTM
- 13 Invalid messages

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- 13.1 Invalid H0.H1 in a signalling network management message
- 13.2 Invalid changeover messages
- 13.3 Invalid changeback messages
- 13.4 Invalid changeback code
- 13.5 Invalid inhibition messages
- 13.6 Invalid transfer control messages
- 13.7 Invalid signalling route management messages
- 13.8 Invalid Signalling—Route—Set—Test messages
- 13.9 Invalid traffic restart allowed message
- 13.10 Invalid H0—H1 in a signalling network testing and maintenance message
- 13.11 Invalid signalling link test messages
- 13.12 Invalid user part unavailable messages

·	NUMBER:	1.1			PAGE: 1 of 1
REFER	RENCE: Q	.704 § 3 Fig. 7, Fig. 36	5, Fig. 37, Fig. 38		
TITLE	: Signalling	g link management			
SUBTI	TLE: First	signalling link activat	ion		
PURPO	DSE: To pu	it into service a signal	ling linkset with 1 signalli	ng link	
PRE-T	EST COND	ITIONS: Signalling	inks deactivated	<u> </u>	· · · · · · · · · · · · · · · · · · ·
С	ONFIGUR	ATION: A	TYPE OF TEST:	VAT, CPT	TYPE OF SP: ALL
MESSA	GE SEQUI	ENCE:	ar <u>an</u> ú		
		SP A			SP B
	Link			Link	
1	1 _ 1	· A ativata		1 - 1	:Activate
,	. – .	Activate	<	1 - 1	SLTM
1	1 1 1 1	SLTA SI TM	>		
	1	SETW	<>	1 – 1	SLTA
:Start ti	raffic			• •	52111
1	l - 1	TRAFFIC	>		
			<	1 - 1	TRAFFIC
:Wait					
:Stop tr	affic				
TEST E	DESCRIPTI	ON			·
1.	_Check the	at the signalling <u>link b</u>	ecomes available.	<del></del>	
2.	Check the end of th	e reception and sendin is linkset (and, in case	g of variable length messa of VAT, from/to other S	ges on the activated I P crossing the SP at t	inkset from/to the SP at the other be other end of this linkset)
3.	Check the	at, after the alignment.	the level 2 does not send	any message received	before or during the descrivation
4.	Check the	at all messages are cor	rectly received (no loss of	messages no duplica	tion and no missequencing)
			,		and no missoquenemy.
5.	Stop traff	fic.			

REFERENCE:       Q.704 § 3 Fig. 7, Fig. 36, Fig. 37, Fig. 38         TITLE:       Signalling link management         SUBTITLE:       Signalling linkset deactivation         PURPOSE:       To remove from service a signalling link (1-1) activated         CONFIGURATION:       A         TYPE OF TEST:       VAT, CPT         TYPE OF SP:       ////////////////////////////////////	
TITLE:       Signalling link management         SUBTITLE:       Signalling linkset deactivation         PURPOSE:       To remove from service a signalling link (1-1) activated         CONFIGURATION:       A       TYPE OF TEST:         VAT, CPT       TYPE OF SP:         MESSAGE SEQUENCE:       SP         SP       A         Link       Link         1 - 1       :Deactivate         TEST DESCRIPTION         1.       Check that the signalling linkset becomes unavailable.	
SUBTITLE:       Signalling linkset deactivation         PURPOSE:       To remove from service a signalling link (1-1) activated         CONFIGURATION:       A       TYPE OF TEST:       VAT, CPT       TYPE OF SP: /         MESSAGE SEQUENCE:       SP       SP       Link       1 – 1       :Deactivate         TEST DESCRIPTION       I       Check that the signalling linkset becomes unavailable.       Interval       Interval       Interval       Interval	
PURPOSE:       To remove from service a signalling linkset with 1 signalling link         PRE-TEST CONDITIONS:       One signalling link (1-1) activated         CONFIGURATION:       A       TYPE OF TEST:       VAT, CPT       TYPE OF SP: //         MESSAGE SEQUENCE:       SP       SP       SP         Link       Link       Link       1 – 1       :Deactivate         TEST DESCRIPTION         1.       Check that the signalling linkset becomes unavailable.	
PRE-TEST CONDITIONS: One signalling link (1-1) activated         CONFIGURATION: A       TYPE OF TEST: VAT, CPT       TYPE OF SP: /         MESSAGE SEQUENCE:       SP       SP         Link       Link       Link         1 – 1       :Deactivate       SP         TEST DESCRIPTION         1.       Check that the signalling linkset becomes unavailable.	
CONFIGURATION: A     TYPE OF TEST: VAT, CPT     TYPE OF SP: /       MESSAGE SEQUENCE:     SP     SP       Link     Link     Link       1 - 1     :Deactivate     SP	
MESSAGE SEQUENCE:       SP       SP         Link       Link       Ink         1 - 1       :Deactivate       Image: Sequence in the signal integration of the signal integratesis of the signal integrates integrates integr	ALL
SP A     SP       Link     Link       1 - 1     :Deactivate         TEST DESCRIPTION       1.     Check that the signalling linkset becomes unavailable.	
Link Link   1 - 1 :Deactivate     TEST DESCRIPTION     1. Check that the signalling linkset becomes unavailable.	В
1 – 1     :Deactivate         TEST DESCRIPTION         1. Check that the signalling linkset becomes unavailable.	
TEST DESCRIPTION         1.       Check that the signalling linkset becomes unavailable.	
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1. Check that the signalling linkset becomes unavailable.	<i></i>
	<u>.</u>

TEST NU	UMBER:	1.3			PAGE: 1 of 1	
REFERE	ENCE: Q.	704 § 3, 12.2.4.1 Fig. 7	, Fig. 36, Fig. 37, Fig. 38			
TITLE:	Signalling	link management			<u>, , , , , , , , , , , , , , , , ,</u>	
SUBTITI	LE: Signa	lling linkset activation		·,		
PURPOS	E: To pu	t into service a signall	ing linkset with 4 signalling 1	inks		
PRE-TES	ST CONDI	TIONS: Signalling li	nks deactivated			
CO	NFIGURA	TION: A	TYPE OF TEST: VAT	I, CPT	TYPE OF SP: 4	ALL
MESSAG	E SEQUE	NCE:				
		SP A			SP	В
Li	ink			Link		
1 -	- 1	:Activate		1 – 1	:Activat	e
1 -	- 2	:Activate		1 - 2	:Activat	e
1 -	- 3	:Activate		1 - 3	:Activat	e
1 -	- 4	:Activate		1 - 4	:Activat	e
:Start traf	ffic					
1 -	- 1	TRAFFIC	> , <	1 – 1	TRAFFIC	
1 -	- 2	TRAFFIC	> <	1 - 2	TRAFFIC	
1 -	- 3	TRAFFIC	> < <b></b> >	1 - 3	TRAFFIC	
1 -	- 4	TRAFFIC	>	1 – 4		
:Wait			· · · · · · · · · · · · · · · · · · ·	1 – 4	I KAFFIU	
Stop trafi	fic					
Note – 7 signalling aligned, ci checked in	This test de links of th hangeback n other test	escribes the activation ne signalling linkset (Q procedures will be pe ts).	of a linkset. The signalling lin .704 § 12.2.4.1). However, dep rformed. This test does not d	nk activation ord pending on in wi escribe the transi	er is given simultaneously hich order the links are ge tory states (changeback pr	to all tting ocedure i
		л		<u> </u>		_
1. 2.	Check that Check the end of the	t the signalling links b reception and sending	ecome available and start tra of variable length messages	ffic between A an on the activated	nd B (and A and C in VA linkset from/to the SP at	T). the other
3. 4.	Check that Check that	t, after the alignment, t all messages are corr	of vA1, from/to other SP cr the level 2 does not send any ectly received (no loss of mes	ossing the SP at a message receive sages, no duplication	the other end of this links d before or during the dea ation and no missequencir	et). activation. ng).
5.	Stop traffi	с.	·	<u> </u>		0,-

	RENCE: Q.704 § 3 Fig. 24 § 2.4				
TITLE	: Signalling message handling				
SUBTI	TLE: Message received with an	invalid SSF (discrimination	n function)		
PURPO	DSE: To check the response to a	a message with an invalid S	SF		
PRE-T	EST CONDITIONS: Signalling	linkset activated			
С	CONFIGURATION: A	TYPE OF TEST	: VAT	TYPE OF SP:	ALL
MESSA	AGE SEQUENCE:				
	SP A			SP	В
	Link		Link		
		<	1 - 1	Invalid SLTM:	
			<u>.</u>		
TEST J	 DESCRIPTION				
TEST J	DESCRIPTION Send an SLTM with an error	eous SSF.			
TEST J 1. 2.	DESCRIPTION Send an SLTM with an erron Check that no response is rec	eous SSF.			· · · ·
TEST J 1. 2.	DESCRIPTION Send an SLTM with an erron Check that no response is rec	eous SSF. eived.	·		· · · •
TEST J 1. 2.	DESCRIPTION Send an SLTM with an erron Check that no response is rec	eous SSF.			· · · •

TEST NUMBER: 2.2		PAGE: 1 of 1
REFERENCE: Q.704 § 2 Fig. 24, Fig.	26	
TITLE: Signalling message handling		
SUBTITLE: Message received with an	invalid DPC	
PURPOSE: To check the response to a	message with an invalid DPC	
PRE-TEST CONDITIONS: Signalling	linkset activated	······································
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link	Link	
	< 1 – 1	:Invalid ECO (erronenous DPC)
1 – 1 TFP	$\rightarrow \rightarrow $	ed point A has an STP function)
TEST DESCRIPTION		
TEST DESCRIPTION 1. Send a ECO message with an of the second sec	erroneous DPC.	

REFER	ENCE: Q.704 § 2.4 Fig. 24, F	Fig. 25			
FITLE:	Signalling message handling				<u>.                                    </u>
SUBTIT	LE: Message received with a	n erroneous SI (distribution fu	nction)		
PURPO	SE: To check the response to	a message received with an en	roneous SI		
PRE-TE	ST CONDITIONS: Signallin	ng linkset activated		· · · · · · · · · · · · · · · · · · ·	
C	ONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP:	ALL
MESSA	GE SEQUENCE:			L	
	SP A			SP	В
]	Link		Link		
		<	1 - 1	:invalid SLTM (invalid SI)	
			•		
TEST D	PESCRIPTION		<u></u>		
1.	Send an SLTM message wit	h an invalid SI.	<u> </u>		
2.	Check that no response is re-	eceived.			

TEST N	NUMBER	: 2.4.1			PAGE: 1 of 1	
REFER	ENCE:	Q.704 Fig. 26; §2.3 Q	.705 § 4.4		<u> </u>	
TITLE:	Signalli	ng message handling				
SUBTI	LE: Lo:	ad sharing within a linl	set – all links available			
PURPO	SE: To	check the load sharing	within a linkset with all t	the links available	<u> </u>	
PRE-TE	EST CON	DITIONS: Signalling	linkset activated	···•· .		<u> </u>
C	ONFIGU	RATION: A	TYPE OF TEST:	VAT, CPT	TYPE OF SP:	ALL
MESSA	GE SEQU	JENCE:				
		SP A			SP	В
:	Link			Link		
:Start tr	affic					
1	- 1	TRAFFIC	>	>		
1	- 2	TRAFFIC	~>	> 1-1	IKAFFIC	
1	- 3	TRAFFIC	<>	- 1 - 2	TRAFFIC	
1	A		<	- 1 - 3	TRAFFIC	
1	- 4	IKAFFIC	> <	> - 1 4	TRAFFIC	
:Wait						
:Stop tra	affic					
TEST D	FSCR IPT	TON				
1.	Start tra	affic to B (and C in VA	T) for all SLS.			
2.	Stop tra	hat there was no loss	sages have been transmit	ted on the correct lini	k in accordance with the	SLS field.
		nat there was no loss o	messages, no duplicatio	n and no missequenci	ng.	

	MBER:	2.4.2			PAGE: 1 of 1
REFERE	NCE: (	Q.704 Fig. 26; § 2.3 Q.	705 § 4.4		
TITLE:	Signallin	g message handling			
SUBTITL	E: Loa	d sharing within a links	set – one link unavailable		<u> </u>
PURPOSI	: To c	heck the load sharing v	vithin a linkset when one link	is unavailable	
PRE-TES	Г CONE	DITIONS: Signalling	ink 1 – 3 deactivated		
COI	FIGUR	ATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSAG	E SEQU	ENCE:		<u>.</u>	······································
		SP A			SP B
Li	nk			Link	
:Start traf	ĩc				
1 -	- 1	TRAFFIC	> <>	1 – 1	TRAFFIC
1 -	- 2	TRAFFIC	>		
1 -	- 4	TRAFFIC	<>	1 – 2	TRAFFIC
			<	1 - 4	TRAFFIC
:Wait					
:Stop trafi	ĩc				
TEST DE					
1.	Start the	e traffic to B and C for	all SLS, wait and stop.	· · · · ·	
2.	Check t remaini	nat the messages have l ng links.	been transmitted on the correct	link in accordan	ice with the SLS field on the

REFERENCE:       Q.704 Fig. 26; § 2.3       Q.705 § 4.4         TITLE:       Signalling message handling         SUBTITLE:       Load sharing between linksets – between two linksets         PURPOSE:       To check the load sharing between two linksets under normal conditions         PRE-TEST CONDITIONS:       All linksets and routes available         CONFIGURATION:       B       TYPE OF TEST:       VAT, CPT         MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Start traffic         3 - 1       TRAFFIC	REFER TITLE: SUBTIT PURPO	ENCE: Q.704 Fig. 26; § 2.3 Signalling message handlin	3 Q.705 § 4.4			
TITLE: Signalling message handling         SUBTITLE: Load sharing between linksets – between two linksets         PURPOSE: To check the load sharing between two linksets under normal conditions         PRE-TEST CONDITIONS: All linksets and routes available         CONFIGURATION: B       TYPE OF TEST: VAT, CPT         TYPE OF SP: ALL         MESSAGE SEQUENCE:         SP       A         Start traffic         3 - 1       TRAFFIC	TITLE: SUBTIT PURPO	Signalling message handlin				
SUBTITLE:       Load sharing between linksets – between two linksets         PURPOSE:       To check the load sharing between two linksets under normal conditions         PRE-TEST CONDITIONS:       All linksets and routes available         CONFIGURATION:       B       TYPE OF TEST:       VAT, CPT         MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Start traffic       3 - 1       TRAFFIC       7 - 1       TRAFFIC         3 - 1       TRAFFIC	SUBTI PURPO		g			
PURPOSE:       To check the load sharing between two linksets under normal conditions         PRE-TEST CONDITIONS:       All linksets and routes available         CONFIGURATION:       B       TYPE OF TEST:       VAT, CPT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Link       Start traffic         3 - 1       TRAFFIC	PURPO	TLE: Load sharing between	linksets – between two	o linksets		
PRE-TEST CONDITIONS: All linksets and routes available         CONFIGURATION: B       TYPE OF TEST: VAT, CPT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Link       Link       SP       SP       C       SP       E         3 - 1       TRAFFIC		SE: To check the load shar	ing between two linkse	ts under normal conditions	<u> </u>	
CONFIGURATION: B       TYPE OF TEST: VAT, CPT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP A       SP B       SP C       SP E         Link       Link       Link       Link       Start traffic $3 - 1$ TRAFFIC	PRE-TE	ST CONDITIONS: All lin	ksets and routes availal	ble		
MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Link       Link $3 - 1$ TRAFFIC	C	ONFIGURATION: B	TYPE OF T	EST: VAT, CPT	TYPE OF SP:	ALL
SP       A       SP       B       SP       C       SP       E         Link       Link       Link       Link       Link       Start traffic $3 - 1$ TRAFFIC	MESSA	GE SEQUENCE:	<b>I</b>		<u></u>	- <b>-</b>
Link       Link       Link       Link         Start traffic $3 - 1$ TRAFFIC $7 - 1$ TRAFFIC $3 - 2$ TRAFFIC $3 - 1$ $7 - 1$ TRAFFIC $3 - 2$ TRAFFIC $3 - 1$ $7 - 1$ TRAFFIC $2 - 1$ TRAFFIC $ $		SP A	SP B	SP C	SP	Е
Start traffic         3 - 1       TRAFFIC	Link		Link	Link	Link	
3 - 1       TRAFFIC	:Start tra	affic				
<ul> <li>3 - 2 TRAFFIC</li></ul>	3 - 1	TRAFFIC		> 7 - 1	>	
<ul> <li>Xart the traffic to E for all SLS.</li> <li>Start the traffic to E for all SLS.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ul>	3 - 2	 TRAFFIC		3 - 1 <	7 1	TRAFF
2 - 1       TRAFFIC      >       6 - 1      >         2 - 2       TRAFFIC      >       6 - 1      >         Wait       :Stop traffic       :Stop traffic       :Stop traffic         TEST DESCRIPTION         1.       Start the traffic to E for all SLS.         2.       Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.         3.       Check that there was no loss of messages, no duplication and no missequencing		<		3 - 2 <	7 - 1	TRAFF
<ul> <li>2 - 2 TRAFFIC&gt; 6 - 1&gt;</li> <li>Wait</li> <li>Stop traffic</li> <li>TEST DESCRIPTION</li> <li>1. Start the traffic to E for all SLS.</li> <li>2. Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>3. Check that there was no loss of messages, no duplication and no missequencing</li> </ul>	2 - 1	TRAFFIC	-> 6 - 1		>	
<ul> <li>Wait</li> <li>Stop traffic</li> <li>TEST DESCRIPTION</li> <li>1. Start the traffic to E for all SLS.</li> <li>2. Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>3. Check that there was no loss of messages, no duplication and no missequencing</li> </ul>	2 - 2	TRAFFIC	-> 6 - 1			
<ul> <li>Stop traffic</li> <li>TEST DESCRIPTION</li> <li>1. Start the traffic to E for all SLS.</li> <li>2. Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>3. Check that there was no loss of messages, no duplication and no missequencing</li> </ul>	:Wait					
TEST DESCRIPTION         1.       Start the traffic to E for all SLS.         2.       Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.         3.       Check that there was no loss of messages, no duplication and no missequencing	:Stop tra	ıffic				
TEST DESCRIPTION         1.       Start the traffic to E for all SLS.         2.       Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.         3.       Check that there was no loss of messages, no duplication and no missequencing						
<ol> <li>TEST DESCRIPTION</li> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>						
<ol> <li>Start the traffic to E for all SLS.</li> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>	TEST D	ESCRIPTION				
<ol> <li>Stop the traffic and check that the messages have been transmitted on the correct linkset in accordance with the SLS and DPC.</li> <li>Check that there was no loss of messages, no duplication and no missequencing</li> </ol>	1.	Start the traffic to E for all	SLS.			
3. Check that there was no loss of messages, no duplication and no missequencing	2.	Stop the traffic and check t SLS and DPC.	hat the messages have l	been transmitted on the correc	t linkset in accordance	e with the
	3.	Check that there was no los	ss of messages, no dupl	ication and no missequencing.		

		· .				
TITLE	Signalling messa	ge handlir	ıg			
SUBTI	FLE: Load sharin	g between	linksets – between three	e linksets		
PURPC	SE: To check the	load shar	ring between three linkset	s under normal conditions		
PRE-TI	EST CONDITION	S: All lin	eksets and routes availabl	e		
С	ONFIGURATION	: В	TYPE OF	TEST: VAT	TYPE OF SP:	ALL
MESSA	GE SEQUENCE:		1	·		
	SP A		SP B	SP C	SP	D
Link			Link	Link	Link	
:Start ti	affic					
1 – 1	TRAFFIC				>	
1 _ 2		<			1 - 1	TRAFFI
1 – 2	IKAFFIC	<			> > 1 - 2	TRAFFI
3 - 1	TRAFFIC			> 8 - 1	>	
3 - 2	TRAFFIC			> 8 - 1	>	
2 - 1	TRAFFIC		> 5 - 1		>	
2 - 2	TRAFFIC		> 5 - 1		>	
:Wait						•
:Stop tr	affic					
TECT I						
1631 L	ESCRIPTION					
1.	Start the traffic	to D for a	ill SLS.			
2.	Stop the traffic accordance with	and check the SLS.	that the messages have b	een transmitted on the corre	ct linkset and on the	correct link
3.	Check that there	was no le	oss of messages, no dupli	cation and no missequencing	<u>z</u> .	

TEST NUMBER: 2.5.3		P.	AGE: 1 of 1
REFERENCE: Q.704 Fig. 26; § 2.	3 Q.705 § 4.4	<u> </u>	
TITLE: Signalling message handling	ng		<u> </u>
SUBTITLE: Load sharing between	linksets – between thre	e linksets and one route una	vailable
PURPOSE: To check the load sha	ing between three linkset	s when one route is unovoile	
	ets 4 and 8 unavailable (7	FFP, PC = D  from  C  to  A	
CONFIGURATION: B	TYPE OF	TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			· · · · · · · · · · · · · · · · · · ·
SP A	SP B	SP C	SP D
Link	Link	Link	Link
:Start traffic			
1 – 1 TRAFFIC			>
< <u>1 - 2</u> TRAFFIC			1 – 1 TRAFFIC
< <b></b>			1 – 2 TRAFFIC
2 – 1 TRAFFIC	-> 5 - 1 <b></b>		>
2 – 2 TRAFFIC	-> 5 - 1		>
: Wait			
TEST DESCRIPTION			
1. Start the traffic for all SLS	, wait and stop.		
2. Check that the traffic to D	via C has been shared o	n the remaining linksets.	

<ul> <li>between three linkset</li> <li>en two linksets after th</li> <li>vated</li> <li>TYPE OF TEST:</li> <li>B</li> </ul>	s and one linkset u e unavailability of t VAT	navailable he third linkset TYPE OF SP:	ALL
en two linksets after th vated TYPE OF TEST: B	e unavailability of t	the third linkset	ALL
TYPE OF TEST:	VAT	TYPE OF SP:	ALL
TYPE OF TEST:	VAT	TYPE OF SP:	ALL
В	····· •		
В			
	SP C	SP	D
ink	Link	Link	
>	8 1	>	
>	8 - 1	>	
- 1		<b>-</b> > <b></b> 5 - 1	TRAFFI
- 1 - 2 <		> 5 - 1	TRAFFI
· · · · · · · · · · · · · · · · · · ·			
ait and stop.			
ait and stop. ed on the remaining li	nksets.		
	- 1> - 1 < 1 <	> 8 - 1 - 1> 8 - 1 - 1 < - 2 <	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

REFERENCE:       0.704 Fig. 26         TITLE:       Signalling message handling         SUBTITLE:       Inaccessible destination – due to a linkset failure         PURPOSE:       To check the signalling message handling when a destination becomes inaccessible due to a linkset failure         PRE-TEST CONDITIONS:       Signalling linkset with one link available         CONFIGURATION:       A       TYPE OF TEST:         SP       A       SP         Link       Link         Start traffic       1 – 1       TRAFFIC         1 – 1       TRAFFIC	TEST	NUMBER: 2.6.1			PAGE: 1 of 1	
TITLE:       Signalling message handling         SUBTITLE:       Inaccessible destination - due to a linkset failure         PURPOSE:       To check the signalling message handling when a destination becomes inaccessible due to a linkset failure         PRE-TEST CONDITIONS:       Signalling linkset with one link available         CONFIGURATION:       A       TYPE OF TEST:       VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       Link         Start traffic       1 - 1       TRAFFIC       TRAFFIC	REFE	RENCE: Q.704 Fig. 26			I	
SUBTITLE:       Inaccessible destination - due to a linkset failure         PURPOSE:       To check the signalling message handling when a destination becomes inaccessible due to a linkset failure         PRE-TEST CONDITIONS:       Signalling linkset with one link available         CONFIGURATION:       A       TYPE OF TEST:       VAT         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Signalling       SIGNATION:       A       TYPE OF TEST:       VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       Link       Signalling       Signal	TITLE	: Signalling message handling				
PURPOSE:       To check the signalling message handling when a destination becomes inaccessible due to a linkset failure         PRE-TEST CONDITIONS:       Signalling linkset with one link available         CONFIGURATION:       A       TYPE OF TEST:       VAT         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Start traffic       I = 1       TRAFFIC         1 = 1       TRAFFIC       I = 1       TRAFFIC         1 = 1       :Deactivate       I = 1       I = 1         TEST DESCRIPTION       I       Start the traffic for all SIS to B and C.       I = 1         2.       Deactivate the last link 1 = 1 and check that the linkset becomes unavailable.       I = 1       Check that all messages stored or received after the unavailability of the linkset are discarded.	SUBTI	TLE: Inaccessible destination	- due to a linkset failure			
PRE-TEST CONDITIONS: Signalling linkset with one link available         CONFIGURATION:       A       TYPE OF TEST:       VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       Link       SP       B         Link       Link       Link       Sate traffic       Image: Start traffic image: Sta	PURP	DSE: To check the signalling m	nessage handling when a desti-	nation becomes ir	accessible due to a links	et failure
CONFIGURATION: A       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP A       SP B         Link       Link       Start traffic         1 - 1       TRAFFIC	PRE-T	EST CONDITIONS: Signallin	g linkset with one link availab	ole		, <u> </u>
MESSAGE SEQUENCE:         SP A       SP B         Link       Link         Start traffie       I - 1       TRAFFIC         1 - 1       TRAFFIC       I - 1         1 - 1       :Deactivate       I - 1         TEST DESCRIPTION         1.       Start the traffic for all SLS to B and C.         2.       Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.         3.       Check that the SPs B and C become inaccessible.         4.       Check that all messages stored or received after the unavailability of the linkset are discarded.	C	CONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP:	ALL
SP A       Link         Start traffic	MESSA	AGE SEQUENCE:			<u> </u>	
Link         :Start traffic         1 - 1       TRAFFIC		SP A			SP	В
Start traffic 1 - 1 TRAFFIC		Link		Link		
1 - 1       TRAFFIC         1 - 1       TRAFFIC         1 - 1       TRAFFIC         1 - 1       TRAFFIC    TEST DESCRIPTION          1       Start the traffic for all SLS to B and C.         2       Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.         3       Check that the SPs B and C become inaccessible.         4.       Check that all messages stored or received after the unavailability of the linkset are discarded.	:Start t	raffic		Link		
<ul> <li>I = 1 TRAFFIC</li> <li>I = 1 ;Deactivate</li> </ul>		1 – 1 TRAFFIC	>			
1 - 1       :Deactivate         TEST DESCRIPTION         1.       Start the traffic for all SLS to B and C.         2.       Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.         3.       Check that the SPs B and C become inaccessible.         4.       Check that all messages stored or received after the unavailability of the linkset are discarded.			<	1 – 1	TRAFFIC	
TEST DESCRIPTION         1.       Start the traffic for all SLS to B and C.         2.       Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.         3.       Check that the SPs B and C become inaccessible.         4.       Check that all messages stored or received after the unavailability of the linkset are discarded.		1 – 1.:Deactivate				
<ol> <li>TEST DESCRIPTION</li> <li>Start the traffic for all SLS to B and C.</li> <li>Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.</li> <li>Check that the SPs B and C become inaccessible.</li> <li>Check that all messages stored or received after the unavailability of the linkset are discarded.</li> </ol>						
<ol> <li>Start the traffic for all SLS to B and C.</li> <li>Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.</li> <li>Check that the SPs B and C become inaccessible.</li> <li>Check that all messages stored or received after the unavailability of the linkset are discarded.</li> </ol>					<del></del>	
<ol> <li>Start the traffic for all SLS to B and C.</li> <li>Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.</li> <li>Check that the SPs B and C become inaccessible.</li> <li>Check that all messages stored or received after the unavailability of the linkset are discarded.</li> </ol>	TEST I	DESCRIPTION				
<ol> <li>Deactivate the last link 1 - 1 and check that the linkset becomes unavailable.</li> <li>Check that the SPs B and C become inaccessible.</li> <li>Check that all messages stored or received after the unavailability of the linkset are discarded.</li> </ol>	1.	Start the traffic for all SLS to	B and C.			
<ol> <li>Check that the SPs B and C become inaccessible.</li> <li>Check that all messages stored or received after the unavailability of the linkset are discarded.</li> </ol>	2.	Deactivate the last link $1 - 1$	1 and check that the linkset be	comes unavailable	e.	
4. Check that all messages stored or received after the unavailability of the linkset are discarded.	3.	Check that the SPs B and C	become inaccessible.			
	4.	Check that all messages store	d or received after the unavail	ability of the link	set are discarded.	

REFE	RENCE:	Q.704 Fig. 26	- <u> </u>			
FITLE	: Signallin	ng message handling				
SUBTI	TLE: Ina	ccessible destination -	due to a route failure	· · · · · · · · · · · · · · · · · · ·		
PURPO	DSE: To a	check the signalling me	ssage handling when a destinati	on becomes inac	ccessible on reception of	of a TFP.
PRE-T	EST CON	DITIONS: All links a	nd routes available			
C	ONFIGUI	RATION: A	TYPE OF TEST: VA	Т	TYPE OF SP:	ALL
MESSA	AGE SEQU	JENCE:		I		
		SP A			SP	В
	Link			Link		
Start t	raffic					
	1 – 1	TRAFFIC	>			
			<	1 - 1	TRAFFIC	
	1 – 2	TRAFFIC	>			
	1_3	TP A FEIC	<	1 – 2	TRAFFIC	
	1 – 3	IKAFFIC	<>	1 - 3	TRAFFIC	
	1 4	TRAFFIC	>	1		
			<	1 - 4	TRAFFIC	
			<	1 – X	TFP, $PC = C$	
				18/2		
fest i	DESCRIPT	TION				
1	Start th	e traffic to B and C for	all SLS.		•• •	
2.	Provok	e the sending of a TFP	(PC = C) from SP B to SP A.			
3.	Check t	that the SP C becomes :	inaccessible.			
4.	Stop tra	affic.				
5.	Check t	hat all messages stored	or received after the inaccessibi	lity have been di	scarded.	
		0		,		

REFERENCE: (	2.704 Fig. 26			
TITLE: Signallin	g message handling		<u> </u>	
SUBITLE: Inacc	essible destination – du	e to a linkset and a route	failure	· · ·
PURPOSE: To c failu	heck the signalling mess re	age handling when a desti	nation becomes inacce	essible due to a linkset and a rou
PRE-TEST CONE	DITIONS: Linkset 4 un	available		
CONFIGUE	RATION: B	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAGE SEQU	ENCE:		n I	
	SP A		SP B	SP C
Link		Li	ink	Link
:Start traffic				
1 - 1, 2	TRAFFIC	< <b></b>		> SP
3 - 1	TRAFFIC		>	To D and E
3 - 2	TRAFFIC	<	>	3 - 1 TRAFFIC (from E) To D and E
		<		3 - 2 TRAFFIC (from E)
2 - 1	TRAFFIC	>	To D and E	
$2 \rightarrow 2$	TRAFFIC	>	To D and E	7 1 Deactivate
		<		3 - X TFP, PC=E
2 - 1	TRAFFIC	>	To D and E	
		<	2 - 1 TRAFFIC (from E)	
2 - 2	TRAFFIC	>	To D and E	
		<	2 – 2 TRAFFIC (from E)	
2 - 1	:Deactivate		(	
2 - 2	:Deactivate			
1 - 1, 2	TRAFFIC	<		> SP (
:Wait				
:Stop traffic				
Note – The trans	sitory states (signalling n	etwork management proce	dures) are not describe	ad in this test which checks only
the signalling mess	sage handling.	<b>U</b>	,	····· <b>·</b>
	<b></b>			
TEST DESCRIPT	ION			
1. Start the	traffic to the SPs D and	d E for all SI S	16974-1	
2. Initiate	the sending of a TFP (D traffic to D is not distur	PC = E) from SP C to SP .	A, check that the traffi	ic to E is routed via B and check
inde the	ciulitie to 15 is not distui	ovu.		

REEE			TAGE. TOT
KUTEF	RENCE: Q.704 § 2 Fig. 26		
TITLE	: Signalling message handling		
SUBTI	TLE: Message transfer function	1	
PURPO	DSE: To test the transfer function	on in an STP	·
PRE-T	EST CONDITIONS: All links	available	<u></u>
C	ONFIGURATION: C	TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSA	AGE SEQUENCE:		
	SP B	SP A	SP C
	Link	Link	Link
:Start ti	raffic		
1	– 1, 2 TRAFFIC	> 2 - 1 < 1 - 1, 2 <	> TRAFFIC
:Wait			
Stop to	-offi o		
Note – TEST I	- The traffic used in this test is i	in conformance with the traffic model presented	l in Recommendation Q.706.
Note – TEST I	- The traffic used in this test is in the traffic used in this test is in the traffic between P and C.	in conformance with the traffic model presented	l in Recommendation Q.706.
Note – TEST I	- The traffic used in this test is i DESCRIPTION Start traffic between B and C Check that transfer function	in conformance with the traffic model presented in both directions via A.	1 in Recommendation Q.706.
Note – TEST I 1. 2. 3.	- The traffic used in this test is in DESCRIPTION Start traffic between B and C Check that transfer function in Stop traffic and check that the information field of these me	in conformance with the traffic model presented in both directions via A. is correctly performed. there were no loss of messages, no duplication an essages has not been corrupted.	l in Recommendation Q.706.
Note – FEST I 1. 2. 3.	- The traffic used in this test is in DESCRIPTION Start traffic between B and C Check that transfer function in Stop traffic and check that the information field of these me	in conformance with the traffic model presented in both directions via A. is correctly performed. iere were no loss of messages, no duplication ar ssages has not been corrupted.	l in Recommendation Q.706.

TEST N	NUMBER: 3.1		PAGE: 1 of 1		
REFER	ENCE: Q.704 § 5 Fig.	28, Fig. 29, Fig. 30			
TITLE:	Changeover				
SUBTI	LE: Changeover initia	ted at one side of a	ı linkset (COO <	-> COA)	
PURPC	OSE: To check the norm	al changeover proc	cedure		
PRE-TI	EST CONDITIONS: L	inkset with two ava	ilable links		
С	ONFIGURATION: A	т	YPE OF TEST:	VAT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:	I ,		····	
	SP	Α			SP B
	Link			Link	
:Start tr	affic				
1	– 1 TRAFFIC	· · · · · · · · · · · · · · · · · ·	>	1 ~ 1	TRAFFIC
1	– 2 TRAFFIC	 <	>	1 - 2	TRAFFIC
1	- 1 :Deactiv	ate (MML commar	nd or failure)		
1	- 2 COO, SL	C1 – 1 –	>		
1	- 2 TRAFFIC	< 	>	1 - 2	COA, SLC 1 – 1
	(110111 -	<		1 - 2	TRAFFIC (from $1 - 1$ )
:Wait					
:Stop tr	affic				
- TEST D	DESCRIPTION				
1.	Start traffic to B and	C on all the links			
-2	Deactivate-link $1 - 1$ T2.	, check that a COO	is sent (from A)	for 1 - 1 on 1 -	2 and respond with a COA within
3.	Check that the time be	etween the deactivat	tion and the send	ing of the COO is	inside the specified value (see O.70
4.	Check that the traffic $1 - 2$ is passed over 1	from link $1 - 1$ is to $1 - 2$ .	changed over to	1 - 2 and check t	hat the traffic normally carried by
5.	Stop traffic and check	it has been receive	d correctly (no lo	st messages no dui	plication and no missequencing)
6.	Repeat the test by sen	ding the COO from	B (instead of A)	In addition, chec	k that the time between the receptio

<u> </u>				
REFERENCI	E: Q.704 § 5 Fig. 28, Fig. 29	, Fig. 30		
TITLE: Cha	ngeover			
SUBTITLE:	Changeover initiated at both	ends at the same time (C	00 <-> COO)	
PURPOSE:	To check the changeover pro	cedure when the changeov	er is initiated at t	he both ends simultaneously
PRE-TEST C	ONDITIONS: Linkset with	two available links		
CONFI	GURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAGE S	EQUENCE:			
	SP A			SP B
Link			Link	
:Start traffic				
1 - 1	TRAFFIC	>		
1 - 2	TRAFFIC	< >	1 - 1	TRAFFIC
<u>1</u>		<	1 - 2	TRAFFIC
1 – 1	:Deactivate (MML	command or failure)		
1 - 2	COO (SLC 1 - 1)	>		
1 - 2	COA (SLC   1 - 1)	<>	1 – 2	COO (SLC 1 - 1)
_		<	1 - 2	COA (SLC 1 - 1)
1 - 2	TRAFFIC (from 1 - 1)	>		
		<	1 - 2	TRAFFIC
:Wait				(10m 1 - 1)
:Stop traffic				
-				
TEST DESC	RIPTION			
	<u>· · · · · · · · · · · · · · · · · · · </u>	<u></u>	- · · · ·	
1. Sta	rt the traffic to B and C on a	ll the links.		
2. De	activate the link $1 - 1$ , check	that the COOs and COAs	for $1 - 1$ are re	ceived on link $1 - 2$ .
3. Ch	eck that the traffic from link	1 - 1 changed over to $1 - 1$	- 2 and stop traff	ĩc.
4. Re	peat the test without sending	of COA from SP B to SP	4	

		PAGE: 1 of 1		
REFER	ENCE: Q.704 § 5 Fig. 28, Fig. 2	29, Fig. 30		
TTLE:	Changeover			
UBTI	ILE: Changeover on expiration	of timer T2 (COO or ECO	-> -)	
URPC	SE: To check the changeover pr	ocedure when no COA is r	eceived in respons	se of a COO previously sent
RE-TI	EST CONDITIONS: Linkset wit	h two available links		
C	ONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
1ESSA	GE SEQUENCE:			
	SP A			SP B
	Link		Link	
Start tr	affic			
1	- 1 TRAFFIC	>	1 – 1	TRAFFIC
1	– 2 TRAFFIC	>		
		<	1 - 2	TRAFFIC
1	$\sim 1$ :Deactivate (MM	L command or failure)		
		>		
	T2			
1	- 2 TRAFFIC	>		
	(10m 1 - 1)	<	1 – 2	TRAFFIC (from $1 - 1$ )
Wait				
Stop tr	affic			
EST D	DESCRIPTION		·····	
1.	Start traffic to B and C on all	the links.		
2.	Deactivate link $1 - 1$ , check the second s	nat a COO is received for 1	- 1 on link 1 -	2.
3. 4.	After the expiration of T2, che Check that the duration of T2	ck that the changeover proc	edure is performed	<b>i</b> .
5.	Stop traffic and check that the system should not perform retr	e was no duplication and n eival.	o missequencing,	some messages may be lost as the
6	Repeat the test but replacing C	00 by ECO		

		J.4			FAGE: 1 OI I
REFER	ENCE: (	Q.704 § 5 Fig. 28, Fig. 29	9, Fig. 30		
TITLE:	Changeo	ver		. <del>.</del>	
SUBTIT	LE: Uni	easonable FSN in COO	/COA		
PURPO	SE: To c	heck the changeover pro	ocedure on reception of a CO	O/COA contain	ing an unreasonable FSN
PRE-TE	ST CONI	DITIONS: Linkset with	two available links		
CC	ONFIGUE	RATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSA	GE SEQU	IENCE:			
		SP A			SP B
J	Link			Link	
:Start tra	affic				
1	- 1	TRAFFIC	>		
			<	· 1 – 1	TRAFFIC
1	- 2	TRAFFIC	> < <b></b> >	1 – 2	TRAFFIC
1	- 1	Deactivate (MMI	command or failure)	. 2	
1	- 2	COO, SLC $1 - 1$	>		
			<	1 - 2	COA, SLC 1 – 1 (unreasonable FSN)
91	- 2	TRAFFIC (from 1 - 1)	>		
Wait			<	1 - 2	TRAFFIC (from $1 - 1$ )
.walt					
:Stop tra	11110				
TEST D	ESCRIPT	TION			
1.	Start tra	affic to B and C on all t	he links.	<u>. –</u>	<u>,</u>
2.	Deactiv contain	ate link 1 – 1, check th ing an unreasonable FSI	at a COO is received for $1 - 1$ .	1 on link 1 – 2	and respond within T2 with a CC
3.	Stop tra	offic, check that the chan	geover procedure has been pe	rformed.	
4.	Check that there was no duplication and no missequencing. Some messages may be lost as the system should not perform retreival.				
5.	Check (	hat an indication is give	n by the system.		
1	Person the text with a COO cast from D (intend COA) and it				

	NUMBER				PAGE: 1 of 1	
REFER	RENCE:	Q.704 § 5 Fig. 28, Fig. 2	29, Fig. 30			
TITLE	: changed	over				
SUBTI	TLE: Re	ception of a changeover	acknowledgement without sen	ding a changeov	er order (- <- COA or ECA)	
PURPO	DSE: To	check the changeover pr	ocedure on reception of an un	expected change	over acknowledgement	
PRE-T	EST CON	DITIONS: Linkset wit	h two available links			
С	ONFIGU	RATION: A	TYPE OF TEST: VA	AT	TYPE OF SP: ALL	
MESSA	AGE SEQU	JENCE:			-	
		SP A			SP B	
	Link			Link		
:Start ti	raffic					
i	1 1	TRAFFIC	>			
1	1 - 2	TRAFFIC	<>	1 - 1	TRAFFIC	
			<	1 — 2	TRAFFIC	
			<	1 - 2	COA, SLC 1 - 1	
1	1 — 1	TRAFFIC	>			
1	1 - 2	TRAFFIC	<>	1 – 1	TRAFFIC	
			<	1 - 2	TRAFFIC	
:Wait						
Stop tr	affic					
TEST D	DESCRIPT	ION				
1.	Start traffic to B and C on all the links.					
2.	Send a	COA for 1 – 1 on link	1 - 2, check that this message	is ignored.		
3.	Stop tra	ffic and check that it ha	as been received correctly.			
4	Repeat	the test with an ECA in	stand of a COA			

TEST NUMBER: 3.6					PAGE: 1 of 1	
REFER	ENCE: (	2.704 § 5 Fig. 28, Fig. 29,	Fig. 30			
FITLE:	Changeo	ver				
- Subtit	LE: Reco	eption of an additional ch	angeover order (- <- COC	) or ECO)		
PURPO	SE: To c comp	heck the action of the sys pletion of changeover	tem when a changeover ord	er relating to a pa	articular link is received after	
PRE-T	EST CON	DITIONS: Linkset with	the link 1 – 2 available		<u> </u>	
C	DNFIGUR	ATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL	
MESSA	GE SEQU	ENCE:				
		SP A			SP B	
J	Link			Link		
:Start tr:	affic					
1	- 2	TRAFFIC	>			
			<	1 - 2	TRAFFIC	
			<	1 - 2	COO, SLC 1 - 1	
1	- 2	ECA, SLC $1 - 1$	>			
1	- 2	TRAFFIC	>			
			<	1 - 2	TRAFFIC	
Wait						
Stop tra	affic					
fest d	ESCRIPT	ION				
1.	Start tra	ffic to B and C on link 1	- 2.			
2.	Send a (	COO for 1 – 1 on link 1	-2 and check that an EC.	A is received in T2	2.	
	Stop tra	ffic and check that it has	been received correctly.			
3.	Check that an indication is given by the system.					
3. 4.	Check th	nat an indication is given	by the system.			

TEST NUMBER: 3.7					PAGE: 1 of 1
REFEF	RENCE: 0	Q.704 § 5 Fig. 28, Fig. 2	29, Fig. 30		
TITLE	: Changeo	over	<b>20</b> 44		
SUBTI	TLE: Em	ergency changeover at	one side of a linkset (COO <-	> ECA)	
PURPO	DSE: To a	check the emergency ch	angeover procedure when a CC	O is acknowledg	ed by an ECA
PRE-T	EST CONI	DITIONS: Linkset wit	th two available links		
c	ONFIGUE	RATION: A	TYPE OF TEST: VA	AT	TYPE OF SP: ALL
MESSA	AGE SEQU	JENCE:			
		SP A			SP B
	Link			Link	
Start to	raffic				
	1 – 1	TRAFFIC	>		
	·		<	1 - 1	TRAFFIC
	1 – 2	TRAFFIC	>	1 0	
1	1 – 1	Deactivata (MM	T command or failure)	1 - 2	IKAFFIU
:	1 - 2	COO, SLC $1 - 1$	>		
		-	<	1 - 2	ECA, SLC $1 - 1$
			<	1 2	TRAFFIC (from $1 - 1$ )
1	1 - 2	TRAFFIC (from 1 - 1)	>		
Wait					
Stop tr	affic				
-					
TEST I	DESCRIPT	TION			
1.	Start tra	iffic to B and C on all	links.		
2.	Check t	he sending of a COO (i	from A) for 1 - 1 on 1 - 2 an	d check that an I	ECA is sent inside T2.
3.	Check t	hat the traffic is change	ed over from $1 - 1$ to $1 - 2$ .		
4.	Stop tra may be	ffic and check that it h lost as the system shou	as been received correctly; no d ld not perform retreival.	uplication and no	o missequencing. Some messages
	1	-	-		
TEST NU	JMBER: 3.8		PAGE: 1 of 1		
-------------	--	---	--------------------	--	
REFERE	NCE: Q.704 § 5 Fig. 28, Fig	. 29, Fig. 30			
TITLE:	Changeover				
SUBTITL	E: Emergency changeover a	t one side of a linkset (COO	<-> ECO)		
PURPOS	E: To check the emergency of	changeover procedure when a	COO is acknowle	edged by an ECO	
PRE-TES	T CONDITIONS: Linkset v	vith two available links.		····· ··· ··· ··· ··· ················	
CO	NFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL	
MESSAG	E SEQUENCE:				
	SP A			SP B	
Li	nk		Link		
:Start traf	fic				
1 -	- 1 TRAFFIC	> <	1 - 1	TRAFFIC	
	- 2 TRAFFIC	> <>	1 – 2	TRAFFIC	
1 -	- 1 :Deactivate (M	ML command or failure)			
1 -	- 2 COO, SLC 1 - - 2 COA, SLC 1 -	1> <> 1>	1 - 2	ECO, SLC 1 - 1	
1 -	- 2 TRAFFIC (from 1 - 1)	>			
:Wait		<	1 - 2	TRAFFIC (from $1 - 1$ )	
:Stop traf	fic				
TEST DE	SCRIPTION			· ·· ·· ·· · · · · · · · · · · · · · ·	
1.	Start traffic to B and C on al	ll links.			
2.	Check the sending of a COO a COA is received.	(from A) for $1 - 1$ on $1 - 1$	2 and check that a	n ECO is sent (before T2 expires) as	
3.	Check that the traffic is chan	ged over from $1 - 1$ to $1 - 1$	2.		
4.	Stop traffic and check that it may be lost as the system sho	has been received correctly; not perform retreival.	no duplication and	no missequencing. Some messages	
1					

TEST NI	JMBER:	3.9			PAGE: 1 of 1
REFERE	NCE: Q.	704 § 5 Fig. 28, Fig. 2	29, Fig. 30	– <u> </u>	
TITLE:	Changeove	er			· · · · · · · · · · · · · · · · · · ·
SUBTITI	E: Emerg	gency changeover at a	one side of a linkset (ECO <-	-> COA)	
PURPOS	E: To che	ck the emergency cha	angeover procedure when an I	ECO is acknowled	dged by a COA
PRE-TES	T CONDI	TIONS: Linkset wit	h two available links		
CO	NFIGURA	TION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSAC	E SEQUE	NCE:		·· /	
		SP A			SP B
Li	nk			Link	
:Start traf	fic				
1 ·	- 1	TRAFFIC	> <>	1 – 1	TRAFFIC
1 -	- 2	TRAFFIC	>	11	
			< <b></b>	1 - 2	TRAFFIC
1 -	- 1	:Deactivate (failur	re)		
1 -	- 2	ECO, SLC $1 - 1$	>		
			< <b></b>	1 – 2	COA, SLC $1 - 1$
1 -	- 2	TRAFFIC (from 1 - 1)	<>	1 – 2	TRAFFIC (from $1 - 1$ )
:Wait					
Stop trafi	ĩic				
TEST DE	SCRIPTIO	N			
1.	Start traffi	to B and C on all 1	nke		
2.	- Check that	an ECO is received $\cdot$	for 1 - 1 or 1 - 2 4 4		n anna in the state of the stat
3.	Check that	traffic is changed or	er from $1 = 1$ to $1 = 2$ and that :	a CUA is sent be	tore 12 expires.
4.	Stop traffic may be los	and check that it hat the system should	s been received correctly; no o	juplication and n	o missequencing, some messages
5.	Repeat the	test but send ECO fr	om B (instead of A).		
			~ (motout of rij.		

REFERI	ENCE: Q	.704 § 5 Fig. 28, Fig. 2	9, Fig. 30		
TITLE:	Changeov	er			
SUBTIT	LE: Emer	gency changeover at o	ne side of a linkset (ECO <	-> ECA)	
PURPO	SE: To ch	eck the emergency cha	ngeover procedure when an	ECO is acknowled	iged by an ECA
PRE-TE	ST COND	ITIONS: Linkset with	n two available links		
СС	ONFIGURA	ATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSA	GE SEQUE	ENCE:		l	
		SP A			SP B
I	Link			Link	
:Start tra	affic				
1	- 1	TRAFFIC	>		
1	2		<	1 1	TRAFFIC
1-	2	I-KAFF1C	<>	1 - 2	TRAFFIC
1	- 1	:Deactivate (failu	re)		
1	- 2	ECO, SLC 1 – 1	>		
			<	1 - 2	ECA, SLC $1 - 1$
1	- 2	TRAFFIC	<>	1 – 2	TRAFFIC (from $1 - 1$ )
Wait		(Irom I - 1)			
Stop tr	offic				
:Stop tra	ame				
TEST D	DESCRIPT	ION			
1	<b>0</b>	Cata David Cara IV	1:1		
1. 2	Charles	nc to B and C on all	for 1 1 or 1 0 4		an tana ang ang ang ang ang ang ang ang ang
∠. 3	Check th	at traffic is shanged as	for $1 - 1$ on $1 - 2$ and that	i an ECA is sent t	beiore 12 expires.
3. 4.	Stop traf	fic and check that it h	as been received correctly; no	duplication and i	no missequencing. Some messages
5.	Repeat t	he test but send ECO f	rom B (instead of A).		

			PAGE: 1 of 1	
REFERI	ENCE: Q.704 § 5 Fig. 28, Fig.	29, Fig. 30		
TITLE:	Changeover			
SUBTIT	LE: Emergency changeover at	one side of a linkset (ECO <	<-> COO)	
PURPOS	E: To check the emergency ch	angeover procedure when a	COO is received i	n response to an ECO
PRE-TES	ST CONDITIONS: Linkset wi	th two available links		
со	NFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAC	JE SEQUENCE:		<u>_</u>	
	SP A			SP B
L	ink		Link	
:Start tra	ffic			
1	– 1 TRAFFIC	>		
1		<	1 - 1	TRAFFIC
	- 2 IKAFFIC	<>	1 – 2	TRAFFIC
1	– 1 :Deactivate (failu	ire)		
1	-2 ECO, SLC 1 - 1	<b></b> >		
1	$\sim 2$ FCA SIC 1 – 1	<- <b></b>	1 – 2	COO, SLC $1 - 1$
1	- 2 TRAFFIC (from 1 - 1)	>		
Wait		<	1 – 2	TRAFFIC (from $1 - 1$ )
Stop traf	fic			
lerop du				
	SCRIPTION	<u>.                                    </u>		
. 1	· ·			
1.	Start traffic to B and C on all	links.		
2.	Check that an ECO is received with an ECA.	for $1 - 1$ on $1 - 2$ and that	t a COO is sent b	efore T2 expires and acknowledged
3.	Check that traffic is changed or	ver from $1 - 1$ to $1 - 2$ .		
4.	Stop traffic and check that it has may be lost as the system should	as been received correctly; no ld not perform retrieval.	duplication and	no missequencing. Some messages
1	•	÷		

REFER	ENCE: (	Q.704 § 5 Fig. 28, Fig. 2	9, Fig. 30		
TITLE:	Changeo	over			
SUBTI	TLE: Em	ergency changeover init	iated at both ends at the same	time (ECO <->	> ECO)
PURPC	SE: To c	beck the emergency cha	angeover procedure when it is	initiated at the b	oth ends simultaneously
PRE-TI	EST CONI	DITIONS: Linkset wit	h two available links		
с	ONFIGUE	RATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSA	GE SEQU	JENCE:		<u>.</u>	
		SP A			SP B
	Link			Link	
Start tr	raffic				
1	1 – 1	TRAFFIC	> < <b></b> >	1 - 1	TRAFFIC
ĵ	1 - 2	TRAFFIC	> <	1 - 2	TRAFFIC
:	1 – 1	:Deactivate (failu	re)		
1	1 – 2	ECO, SLC 1 – 1	>		
:	1 - 2	ECA. SLC 1 – 1	<>	1 – 2	ECO, SLC $1 - 1$
			<	1 – 2	ECA, SLC $1 - 1$
:	1 — 2	TRAFFIC (from 1 - 1)	>		
:Wait			<	1 - 2	TRAFFIC (from $1 - 1$ )
:Stop tı	raffic				
TEST I	DESCRIP	ΓΙΟΝ			
1.	Start tr	affic to B and C on all	links.		·
2.	Check the with EC	that an ECO is received	for $1 - 1$ on $1 - 2$ and that	an ECO is sent b	before T2 expires and acknowledge
3.	Check	that traffic is changed o	ver from $1 - 1$ to $1 - 2$ .		
4.	Stop tra may be	affic and check that it h lost as the system shou	as been received correctly; no ld not perform retrieval.	duplication and 1	no missequencing. Some messages
5	Repeat	the test without sending	g ECA from SP B to SP A.		

TEST NU	UMBER:	3.13		F	AGE: 1 of 1	
REFERE	ENCE: Q	).704 § 5 Fig. 28, Fig	. 29, Fig. 30			
TITLE:	Changeo	ver		_		
SUBTITI	LE: Read	ctivation of a link du	ring a changeover procedure	· · · <u>-</u>		
PURPOS	E: To cl proce	heck the changeover edure.	procedure when the link failure of	causing the chang	eover is removed du	ring the
PRE-TES	ST COND	ITIONS: Linkset v	vith two available links			
CO	NFIGUR	ATION: A	TYPE OF TEST: VA	AT	TYPE OF SP	ALL
MESSAC	BE SEQU	ENCE:		- <u> </u>	······································	
		SP A			SP	В
Li	ink			Link		
:Start traf	ffic					
1 ·	- 1	TRAFFIC	>			
1 -	2	TRAFFIC	<>	1 - 1	TRAFFIC	
			<	1 - 2	TRAFFIC	
1 ·	- 1	:Deactivate (fai	lure)			
1 -	- 1	:Activate (end o	of failure)			
:Wait						
Note – ' changebae	This test v ck).	will be performed if	applicable (some systems may ter	minate the chang	cover procedure, then	n perform th
	·					
TEST DE	SCRIPTI					
TEST DE	Start traf	Tic to B and C on al	l links.	······		
1. 2.	Start traf	ffic to B and C on al te the link $1 - 1$ and	l links. d reactivate this link immediately.			i
1. 2. 3.	Start traf Deactiva Stop traf deactivat	fic to B and C on al te the link 1 – 1 and fic and check that th ion and the reactivat	I links. d reactivate this link immediately. te changeover procedure has not b tion, a COO may be sent or not	Deen performed. I	Depending the time b	etween the

				FAGE: 10[ ]	
REFER	ENCE: (	Q.704 § 5 Fig. 28, Fig. 29	9, Fig. 30		
TITLE:	Changec	ver			
SUBTIT	LE: Sim	ultaneous changeover			
PURPO:	SE: To c	heck that the system car	a correctly handle simultaneou	is failures of se	veral links
PRE-TE	ST CONI	DITIONS: Linkset with	three available links		
CC	ONFIGUE	ATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSA	GE SEQU	ENCE:			
		SP A			SP B
I	Link			Link	
:Start tra	uffic				
1	- 1	TRAFFIC	>		
			<	1 - 1	TRAFFIC
1	- 2	TRAFFIC	>	4 0	
1	_ 2		<	1 - 2	TRAFFIC
I	- 5	INAFFIC	<>	1 – 3	TRAFFIC
1 —	1.1 – 2	:Deactivate (MMI	command or failure)		
1	- 3	COO, SLC $1 - 1$	>		
1	- 3	COO, SLC 1 – 2	>		
			< <b></b>	1 – 3	COA, SLC $1 - 1$
			<	1 - 3	COA, SLC 1 – 2
1	- 3	TRAFFIC (from 1 - 1 and 1 - 2)	>		
			< <b></b>	1 - 3	TRAFFIC (from 1 – 1 and 1 – 2)
:Wait					,
:Stop tra	ffic				
TEST D	ESCRIPT	ION			· · · · · · · · · · · · · · · · · · ·
1.	Start tra	ffic to B and C on all 1	inks.	<u> </u>	
2.	Deactiva	ate the links 1 – 1 and	1 – 2 simultaneously.		
3.	Check the the traffic is	hat COOs are received of schanged over from 1 -	on $1 - 3$ for $1 - 1$ and $1 - 2$	2, and respond	with COAs inside T2s. Check that
	Ston tro	ffic and check that it to	s heen received according ( 1	ant massa -	oʻdumlaatian i i i

TEST N	UMBER:	3.15			PAGE: 1 of 1
REFER	ENCE: Q.	704 § 5 Fig. 28, Fig.	29, Fig. 30		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
TITLE:	Changeov	er			
SUBTIT	LE: Chan	geover to several alt	ernative links within a linkse	t	
PURPO	SE: To ch	eck the changeover	porcedure when there are seve	eral alternative lin	ks
PRE-TE	ST COND	TIONS: Linkset w	rith all links available	-	
C	ONFIGUR/	ATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSA	GE SEQUE	ENCE:			
		SP A			SP B
]	Link			Link	
:Start tra	affic				
1	- 1	TRAFFIC	>		
			<	1 — 1	TRAFFIC
1	- 2	TRAFFIC	>		
	_		< <b></b>	1 - 2	TRAFFIC
1	- 3	TRAFFIC	>		
			<	1 - 3	TRAFFIC
1	- 4	TRAFFIC	> <>	1 – 4	TRAFFIC
1	- 1	Deactivate (MI	ML command or failure)		
1 —	2, 3 or 4	COO. SLC 1 - 1	1>		
			<	1 - 2.3  or  4	4 COA SLC $1 - 1$
1	- 2	TRAFFIC	>	1 2, 5 01	
		(110111 1 - 1)	<	1 – 2	TRAFFIC (from $1 - 1$ )
1	- 3	TRAFFIC (from 1 - 1)	>		
			<	1 - 3	TRAFFIC (from $1 - 1$ )
1	- 4	TRAFFIC (from 1 - 1)	>		
			<	1 - 4	TRAFFIC (from $1 - 1$ )
:Wait					
:Stop tra	ıffic				
	ESCRIPT		<u></u>		
	ESCRIPTI	UN			
1.	Start trafi	fic to B and C on al	l links.		
2.	Deactivat	e the link 1 - 1 and	d check that the changeover is	performed to link	1 = 2, 1 = 3 and $1 = 4$ .
3.	Stop trafi linkset.	ic and check that it	has been shared on the altern	ative links accordi	ng to the load sharing policy of this
4.	Check the	at, for each destinati	on and for each SLS, there w	as no lost message	s, no duplication and no

						F2			
REFER	ENCE: Q.704 § 5	Fig. 28, Fig.	29, Fig. 30						
TITLE:	Changeover								
SUBTIT	LE: Changeover	to another li	nkset with ad	jacent SP acc	essible				
PURPO	SE: To check that unavailable	t the system	performs chai	ngeover to an	alternative	route when	the last link of a lin	kset bec	omes
PRE-TE	ST CONDITIONS	S: Linkset 1	and link 3 –	- 1 unavailab	e				
CO	ONFIGURATION	: В	TYPE	E OF TEST:	VAT, CPT		TYPE OF SP:	ALL	
MESSA	GE SEQUENCE:	. <u> </u>				I			
	SP A		SP B		S	SP C	SP	٠	
Link			Link		Link		Link		
:Start tra	affic								
3 - 2	TRAFFIC			>	7 – 1		>	SP	Е
					8 - 1	<		SP	D
		<			3 - 2	<	7 - 1	SP	E
2 - 1, 2	2 TRAFFIC	>	6 - 1	<b></b> _	<b></b>		>	SP	Е
			5 - 1				>	SP	D
		<	- 2 - 1, 2	<			5 - 1	SP	D
3 - 2	:Deactivate (M)	ML comman	d or failure)						
2 – X	COO, SLC 3 - 2	<del>-</del> >	4 - 1	>					
		<	- 2 – X	<	4 – 1 COA	, SLC 3 – 2			
2 - 1, 2	2 TRAFFIC	>	6 - 1				>	SP	Е
	(from 3 - 2)		5 - 1				>	SP	D
		<	- 2 - 1, 2	<			5 1	SP	D
		<	2 - 1, 2	<			6 - 1	SP	Е
:Wait									
:Ston tra	affic								
iotop in									
							<u>.</u>		
TEST D	ESCRIPTION								-
1	Start troffic to P	(and D in )	(AT)				, , <u></u>		
1. 2.	Deactivate link	3 - 2 and ch	eck that a CC	DO (for 3 – 2	?) is sent fro	om A to C vi	a B and that a COA	(from 3	3 – 2
3.	Stop traffic and	check that it	has been sha	red on the alt	ernative linl	ks 2 – 1 and	2 - 2 according to	the loa	d
4	Check that for a	each SLS the	re was no los	t messages m	a duplicatio	n and no mi	sequencing		
	nook mat, 101 t	ຸພຸບມາວມາວ, ເປເ	au was 110 105	IL INCOORTES, IN	o unnincario	пани по тп	SACOLCHCHIQ.		

REFERE	NCE: Q.704 § 5 Fig. 3	28, Fig. 29, Fig. 30			
TITLE:	Changeover		n m = = **	<u>,</u>	
SUBTITI	LE: Changeover to and	other linkset with adjacent SP	inaccessible		
PURPOS	E: To check that the s	system responds correctly when	n there is no path betwe	en the ends of an unavai	lable link.
PRE-TES	T CONDITIONS: Li	nkset 4 unavailable	······································		
СО	NFIGURATION: B	TYPE OF TES	T: VAT, CPT	TYPE OF SP:	ALL
MESSAC	E SEQUENCE:	I	, <sub>190</sub> , 1		
5	SP A	SP B	SP C	SP	Е
Link		Link	Link	Link	
:Start trai	ffic				
2 1	TDATELO	> < 1		_	
2 - 1	TRAFFIC	> 6 - 1		>	
2 - 2	TRAFFIC	> 0 - 1		>	
_3l_	-IKAFFIC		-> 7 - 1	>	
	<		3 - 1 <	7 - 1	TRAFFIC
3 - 2	TRAFFIC	·	-> 7 - 1	>	
	<		3 - 2 <	7 1	TRAFFIC
2 - 1	:Deactivate (MML co	ommand or failure)			
2 - 2	:Deactivate (MML co	ommand or failure)			
	T1				
- ·					
3 - 1	TRAFFIC		-> 7 - 1	>	
	(1011 2 - 1, 2)		2 1 .		
3_2	TPAFFIC		3 - 1 <	/ - 1	IKAFFIC
5 — 2	(from  2 - 1, 2)			>	
	<		3 - 2 <	7 – 1	TRAFFIC
:Wait			·	, .	
:Stop traf	fic				
		· · · · · ·			
TEST DI	SCRIPTION		-		
1.	Start traffic to E on li	nkset 2 and 3.	· · · · · · · · · · · · · · · · · · ·		
2.	Deactivate the linkset	2.			
3.	Check that traffic con-	tinues on linkset 3 at the expir	ration of T1.		
4.	Stop traffic and check linkset 3.	that it has been shared on lin	1 + 3 - 1 = 1 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =	ording to the load sharin	g rules of th
5.	Check that the traffic missequenced or dupli	has been received correctly. So icated	ome messages may have	been lost but none should	d be
	1				

IESI NU	MBER: 3.18	-		PAGE: 1 of 1
REFERE	NCE: Q.704 § 5	5 Fig. 28, Fig. 29, Fig. 30		
TITLE:	Changeover	· · · ·		,, <u>-</u>
SUBTITL	E: Changeover	to two linksets		
PURPOS	E: To check the	changeover procedure when	it is performed to several links	pertaining to two linksets
PRE-TES	T CONDITIONS	S: Link 1 – 1 unavailable,	all other available	
CO	NFIGURATION	: B TYP	E OF TEST: VAT	TYPE OF SP: ALL
MESSAG	E SEQUENCE:			
S	P A	SP B	SP C	SP D
Link		Link	Link	Link
:Start traf	fic			
1 – 2	TRAFFIC			>
1 – 2	:Deactivate (M)	< ML command or failure)		1 – 2 TRAFFIC
2 – X	C00,	> 5 - 1 -		>
<b>•</b> • •	SLC 1 - 2			
or $3 - X$		< 2 - X	> 8 – 1 <>	>
			•	S = 1 - COA, SLC 1 - 2
2 - 1	(from 1 2)	<b>&gt;</b> 5 – 1 –		>
		< 2 – X •	<	5 – 1 TRAFIC
2 - 2	TRAFIC (from 1 - 2)	> 5 - 1 -	<b>_</b>	>
3 - 1	TRAFFIC (from 1 - 2)		> 8 - 1	>
3 - 2	TRAFFIC (from 1 - 2)		> 8 - 1	>
:Wait				
:Stop trafi	fic			
TEST DE	SCRIPTION			
1	Start traffic to D			
2.	Deactivate the lin D to A via B or	nk $1 - 2$ and check that a C C inside T2.	COO for 1 – 2 is sent to D via E	3 or C and that a COA is sent from
3.	Stop traffic and to the load shari	check that it has been shared ng rules in A.	I on the alternative links $2 - 1$ ,	2 - 2, 3 - 1 and $3 - 2$ according
4.	Check that, for e	each SLS, there were no lost	messages, no duplication and no	missequencing.
5.	Repeat the test h	ut replace COO with ECO (		-

TEST N	NUMBER:	3.19			PAGE: 1 of 1
REFER	ENCE: Q	0.704 § 5 ; 3.2.2			
TITLE:	Changeo	ver			
SUBTI	LE: Chai	ngeover due to various	reasons		
PURPO	SE: To cl	heck the interface L2-L	3		
PRE-TH	EST COND	DITIONS: Linkset wit	h two available links	· · <del></del> · · · ·	ingeneration of the second sec
C	ONFIGUR	ATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSA	GE SEQU	ENCE:		<u></u> †	
		SP A			SP B
	Link			Link	
:Start tr	raffic				
1	1 1	TRAFFIC	>		
			<	1 - 1	TRAFFIC
1	1 – 2	TRAFFIC	>		
		<b>_</b>	<	1 - 2	TRAFFIC
1	ι — 1	:Deactivation due	e to various reasons (see Note	e)	
		CHANGEOVER			
1	1 2	TRAFFIC $(from 1 - 1)$	>		
		(110111 - 1)	<	1 – 2	TRAFFIC (from $1 - 1$ )
:Wait					,
:Stop tr	affic				,
···· p •					
Note – Q.704 ( erroneo not to c	- The objec § 3.2.2). Th ous BSN or check the cl	ct of this test is to chec ese reasons are: high e FIB, reception of SIO hangeover procedure it	k the interface L2-L3 by invo rror rate, expiration of timer S, SIN, SIE, SIO and SIPO of self, but only that the COO is	king a changeow T1, T2, T6 and T of L2, and manag s generated for ea	er by the different means listed in 7 of L2, equipement failure, gement request. The goal of this test i ach of these reasons.
TEST I	DESCRIPT	ION			
1.	Start tra	ffic to B and C on all	links.		
2.	Invoke t	the deactivation of the	link 1 – 1 (see Note above).	x	
3.	Check th	hat traffic is changed o	ver from $1 - 1$ to $1 - 2$ .		
	Stop tra	ffic and check that it h	as been received correctly.		
4.	-		······································		

TEST NUMBER: 3.20		PAGE: 1 of 1
REFERENCE: Q.704 § 5, Fig.	28, Fig. 29, Fig. 30	
TITLE: Changeover		
SUB TITLE: Changeover as compa	tibility test	
PURPOSE: To check the changeove	er procedure as compatibility test	
PRE-TEST CONDITIONS: Linkset	with two available links	
CONFIGURATION: A	TYPE OF TEST: CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link		Link
:Start traffic		
1 – 1 TRAFFIC		->
1.0 TD A DDIO	<	1 – 1 TRAFFIC
1 - 2 TRAFFIC	~	> 1 - 2 TRAFFIC
1 – 1 :Deactivate (MML	command or failure)	
CHANGEOVER		
1 – 2 TRAFFIC (from 1	- 1)	->
	<	$1 - 2$ TRAFFIC (from $1 - 1$ )
:Wait		
:Stop traffic		
<i>Note</i> – In a compatibility test it is in description depends of the type of des	mpossible to describe precisely the e activation of the link and of the tim	xchanges of changeover messages because the e necessary to detect the deactivation.
TEST DESCRIPTION		
1. Start traffic to B on links 1	- 1 and 1 - 2	······································
2. Deactivate link $1 - 1$ and	check that the changeover is perform	ned.
3. Check that the sequence of	changeover messages conforms to o	ne of the descriptions 3.1 to 3.12. Stop traffic
4. Repeat the test by invoking	the different reasons listed in the n	ote in test 3.19.

TEST	NUMBER: 3.21		PAGE: 1 of 1
REFE	RENCE: Q.704 § 5, Fig	. 28, Fig. 29, Fig. 30	
TITLE	E: Changeover		
SUB 1	TTLE: Reception of a chang	eover order on an available link	
PURP	OSE: To check the changeov	er procedure on reception of a COO	or ECO for a link in service
PRE-T	EST CONDITIONS: Linkse	t with two available links	
CONF	IGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESS.	AGE SEQUENCE:		
	SP A		SP B
	Link		Link
:Start t	raffic		
	1 – 1 TRAFFIC		>
	1 – 2 TRAFFIC		
		<	1 – 2 TRAFFIC
		<	1 - 2 COO, SLC 1 - 1 (FSN corresponding to the last received message)
	1 – 2 COA, SLC 1 – 1		>
	1 – 2 TRAFFIC (from 1	– 1) ––––––––––––––––––––––––––––––––––	>
		` <	$1 - 2$ TRAFFIC (from $1 - 1$ )
wait			
:Stop tr	affic		
TEST E	DESCRIPTION		
1.	Start traffic to B and C on	all the links.	
2.	Send a COO from B to A f	or $1 - 1$ on link $1 - 2$ and check the	at the COA is received.
3.	Check that the link $1 - 1$	pecomes unavailable.	
4.	Stop traffic and check that	the changeover procedure has been pe	rformed.
5.	Check that there was no los	s of messages, no duplication and no	missequencing.
6.	Repeat the test but send an messages may be lost.	ECO (instead of a COO) and check t	hat an ECA is received (instead of a COA). Some

FERENCE: Q.704 § 6, Fig. 28, Fig. 29, Fig. 31 LE: Changeback B TITLE: Changeback within a linkset RPOSE: To check that the changeback procedure is correctly performed on res E-TEST CONDITIONS: Linkset with one available link (end of test 3.1) NFIGURATION: A TYPE OF TEST: VAT, CPT SSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	toration of a link in a linkset TYPE OF SP: ALL SP B Link
LE: Changeback B TITLE: Changeback within a linkset RPOSE: To check that the changeback procedure is correctly performed on res E-TEST CONDITIONS: Linkset with one available link (end of test 3.1) NFIGURATION: A TYPE OF TEST: VAT, CPT SSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	TYPE OF SP: ALL SP B Link
B TITLE: Changeback within a linkset RPOSE: To check that the changeback procedure is correctly performed on res E-TEST CONDITIONS: Linkset with one available link (end of test 3.1) NFIGURATION: A TYPE OF TEST: VAT, CPT SSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	TYPE OF SP: ALL SP B Link
RPOSE: To check that the changeback procedure is correctly performed on res         E-TEST CONDITIONS: Linkset with one available link (end of test 3.1)         NFIGURATION: A       TYPE OF TEST: VAT, CPT         SSAGE SEQUENCE:         SP       A         Link         urt traffic         1 - 2       TRAFFIC	TYPE OF SP: ALL SP B Link
E-TEST CONDITIONS: Linkset with one available link (end of test 3.1) NFIGURATION: A TYPE OF TEST: VAT, CPT SSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	TYPE OF SP: ALL SP B Link
INFIGURATION: A TYPE OF TEST: VAT, CPT ESSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	TYPE OF SP: ALL SP B Link
ESSAGE SEQUENCE: SP A Link art traffic 1 - 2 TRAFFIC	SP B Link
SP A Link art traffic 1 – 2 TRAFFIC	SP B Link
Link art traffic 1 – 2 TRAFFIC	Link
art traffic	
1 – 2 TRAFFIC>	
<	1 – 2 TRAFFIC
1 - 1 :Activate (depending of the deactivation mean previously used)	
1 - 2 CBD. SLC $1 - 1$ >	
<	1 - X CBA, SLC $1 - 1$
1 – 1 TRAFFIC (from 1 – 2)>	
<	1 – 2 CBD, SLC 1 – 1
1 – X CBA, SLC 1 – 1>	
<	1 - 1 TRAFFIC (from $1 - 2$ )
1 – 2 TRAFFIC>	1 – 2 TRAFFIC
/ait	
op traffic	
ST DESCRIPTION	· · · · · · · · · · · · · · · · · · ·
I. Start traffic to B (and C in VAT) on link $1 - 2$ .	· · · · · · · · · · · · · · · · · · ·
2. Activate the link $1 - 1$ and check that it enters the correct in service stat	te.
3. Check that a CBD for SLC $1 - 1$ is received and that traffic for link $1 - 1$	- 1 is switched back after a CBA is sen
4. Stop traffic and check that it has been received correctly, no lost message	es, no duplication and no missequencing
5. Continue the test by activating the link $1 - 3$ , then $1 - 4$ .	these listed in test 4.10

		_	PAGE: 1 of 1
REFERENCE: Q.704 § 6, Fig	g. 28, Fig. 29, Fig. 31		
TITLE: Changeback			
SUB TITLE: Additional CBA			
PURPOSE: To check the actions of	of the system on reception of an addition	nal CBA	
PRE-TEST CONDITIONS: Links	et with all links available		
CONFIGURATION: A	TYPE OF TEST: VAT	Т	TYPE OF SP: ALL
MESSAGE SEQUENCE:		<u> </u>	
SP A			SP B
Link		Link	
Start traffic			
ALL TRAFFIC	>		
	<	ALL	TRAFFIC
	<	1 – 3	CBA, SLC 1 – X
ALL TRAFFIC	>		
	<	ALL	TRAFFIC
<b>N</b> <i>1</i> <sub>1</sub> , , , ,			
Stop traffic			
EST DESCRIPTION			
1. Start traffic to B and C on	all links.		······································
2. Send an unexpected CBA	to A and check that this message is disca	rded with	out action on the traffic.
3. Stop traffic.			

TEST NOMBER: 4.3		PAGE: 1 of 1
REFERENCE: Q.704 § 6, Fig. 2	8, Fig. 29, Fig. 31	
TITLE: Changeback	·	
SUB TITLE: Additional CBD	·····	
PURPOSE: To check the action of the	ne system on reception of an additional CB	D
PRE-TEST CONDITIONS: Linkset	with all links available	
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:	1	I
SP A		SP B
Link	I	Link
:Start traffic		
ALLTRAFFIC	>	
	< A	LL TRAFFIC
	< 1	– X CBD, SLC 1 – X
1 ~ X CBA, SLC 1 –	x>	
ALL TRAFFIC	>	
	< A	LL TRAFFIC
:Wait		
:Stop traffic		
TEST DESCRIPTION	· ···· - · · · -	·····
1. Start traffic to B and C on	all links.	· · · · · · · · · · · · · · · · ·
2. Send an unexpected CBD t	o A and check that a CBA is send back in r	esponse without impact on the traffic.
3. Stop traffic and check that	it has been received correctly.	

	ABER: : 4.4		PAGE: 1 of 1
REFEREN	CE: Q.704 § 6, Fig	. 28, Fig. 29, Fig. 31	
TITLE: C	hangeback		
SUB TITLI	E: No acknowledgement	to first CBD	
PURPOSE:	To check that a second	CBD is sent if the first is not acknow	vledged
PRE-TEST	CONDITIONS: Linkse	t with one available link	· · · · · · · · · · · · · · · · · · ·
CONFIGU	RATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE	SEQUENCE:		·
	SP A		SP B
Li	nk		Link
:Start traffic	:		
1 -	- 2 TRAFFIC		>
		<	1 – 2 TRAFFIC
1	- 1 :Activate		
1 -	- 2 CBD, SLC 1 – 1		>
	14		
1 -	-2 CBD, SLC 1 - 1		>
1 -	1 TRAFFIC from 1	<	1 – X CBA, SLC 1 – 1
* -	A INALLIC (IIOM )	<	> 1 - 1 TRAFFIC (from 1 2,
1 -	2 TRAFFIC		see note)
		<	-1 - 2 TRAFFIC
Wait			
Stop traffic			
Vote – Br	nay perform a changebac	k or not.	
EST DESC	RIPTION	· · · · · · · · · · · · · · · · · · ·	
1		1 1 4 A	
2. <b>A</b>	tivate link 1 . 1 and c on	$\lim_{n \to \infty} 1 = 2.$	<u>`</u>
3. Ch	leck that after T4 a second	d CBD is received and CBA is some in	n response).
4. Cł	eck that the traffic is cha	anged back on link $1 - 1$	response before 15 expires.
5. St.	op traffic and check that	there were no lost messages, no dupli	ation and no missequencing
1		and a second and a second and a second	and no missequencing,

1651 NUMBEK: 4.5		FAGE. FOR I		
REFERENCE: Q.704 § 6, Fig.	28, Fig. 29, Fig. 31			
IITLE: Changeback				
SUB TITLE: No acknowledgement	of repeat changeback declaration			
PURPOSE: To check that traffic is	changed back after a repeat changebac	k declaration is not acknowledged		
PRE-TEST CONDITIONS: Linkse	t with one available link			
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL		
MESSAGE SEQUENCE:				
SP A		SP B		
Link		Link		
:Start traffic				
1 - 2 IKAFFIC	, <	- 1 - 2 TRAFFIC		
1 - 1 Activate				
1 - 2  CBD, SLC  1 - 1		>		
T4				
	1	~		
1 - 2  UBD, SLUT = 1	I			
T5				
1 - 1 - TD A EFIC (from)	1 - 2)	x		
I - I IKAFIC (IIOM	(	- 1 - 1 TRAFFIC (from 1 - 2.		
		see note)		
1 - 2 TRAFFIC				
	<	- 1 – 2 TRAFFIC		
:Wait				
:Stop traffic				
Note - B may perform a changeba	ack or not.			
TEST DESCRIPTION				
	· · · · · · · · · · · · · · · · · · ·			
1. Start traffic to B and C o	n link $1 - 2$ .			
2. Check that a CBD is rece	ived and not acknowledged.			
3. Check that after T4, a CF	su is repeated and not acknowledged b	y a UBA.		
5. Stop traffic and check the	there were no lost messages no dupli	cation and no missequencing.		
6. Check that an indication	was given by the system ( $\S$ 6.2.3, O. 704	)).		
		-		

1ESI N	UMBER: 4.6		F	PAGE: 1 of 1
REFER	ENCE: Q.704 § 6, Fi	g. 28, Fig. 29, Fig. 31		
TITLE:	Changeback		<u> </u>	<u> </u>
SUB TI	TLE: Simultaneous chang	eback		14
PURPO	SE: To check simultaneou	is changebacks of traffic onto two links	; ;	
PRE-TE	ST CONDITIONS: Links	set with one available link (end of test 2	3.14)	
CONFI	GURATION: A	TYPE OF TEST: VAT	TYP	E OF SP: ALL
MESSA	GE SEQUENCE:	<u> </u>	, [	
	SP A			SP B
	Link		Link	
Start tra	ıffic			
	1 – 3 TRAFFIC		>	
		<	1 - 3	TRAFFIC
	1 - 1 :Activate (dep 1 - 2 :Activate previo	ending of the deactivation mean iously used)		
	1 – 3 CBD, SLC 1 –	1	>	
	1 - 3 CBD, SLC 1 -	2	>	
		<	1 - X	CBA, SLC $1 - 1$
		< <b></b>	1 – X	CBA, SLC 1 - 2
	1 – 1 TRAFFIC (from	1 – 3) –	>	
		<	1 - 1	TRAFFIC (from $1 - 3$ ,
	1 – 2 TRAFFIC (from	1 – 3)	>	sec note;
		<	1 - 2	TRAFFIC (from $1 - 3$ ,
	1 – 3 TRAFFIC			see note)
		<	1-3	TRAFFIC
Nait				-
stop tra	ffic			
lote 1 -	B may perform abanash	ale an est		
lote 1	Charles I I I I I	icks of not.		
angeba	cks, is the final situation.	may be performed in sequence. The traf	fic sequence pr	esented here, after the
EST DI	ESCRIPTION			
1.	Start traffic to B and C or	n link 1 – 3.		
2.	Simultaneously activate lin	nks $1 - 1$ and $1 - 2$ .		
3.	Check that CBDs are rece back on links $1 - 1$ and	ived and CBAs are sent (within T4) for 1 – 2.	1 - 1 and 1 -	- 2 and that the traffic is changed
4.	Stop traffic and check that	t there were no lost messages, no duplic	cation and no n	nissequencing

ST NUMBER: 4.7				PAC	GE: 1 of 1
REFERENCE: Q.7	04 § 6, Fig. 2	28, Fig. 29, Fig. 31			
TITLE: Changeback	k				
SUB TITLE: Chang	geback from sever	al alternative links within a link	set		
PURPOSE: To che	ck the changeback	c procedure when it is performed	l to several lii	nks in a	same linkset
PRE-TEST CONDIT	IONS: Linkset	with one unavailable link (end o	of test 3.15)		
CONFIGURATION	: A	TYPE OF TEST: VAT		TYPE (	OF SP: ALL
MESSAGE SEQUE	NCE:				
	SP A				SP B
Link			Liı	nk	
Start traffic					
1 - 2, 3, 4	TRAFFIC		>		
		<	1 -	- 2, 3, 4	TRAFFIC
1-1	:Activate(dej	pending-of-the-deactivation-mean	n-previously-u	sed)	
1 - 2	CRD SIC 1 -	1	>		
1 - 2 1 - 3	CBD, SLC 1 =		>		
1 - 4	CBD, SLC 1 = CBD SLC 1 =	1	>		
	000,0001	. <	1-	- x	CBA. SLC $1 - 1$
		<	1	- x	CBA, SLC $1 - 1$
		<	1 -	- x	CBA, SLC 1 – 1
1 - 1	TRAFFIC (from 1 - 2, 3)	. 4)	>		
		<	1 -	- 1	TRAFFIC (from $1 - 2, 3, 4$ see note)
1 - 2, 3, 4	TRAFFIC		> 1 -	- 2, 3, 4	TRAFFIC
Wait					
Stop traffic					
Note – B may perf	form changebacks	or not.			
TEST DESCRIPTIO	DN				
4			······		
1.     Start traff       2.     Activate 1       contains 5	ic to B and C on ink $1 - 1$ and ch	links $1 - 2$ , $1 - 3$ and $1 - 4$ . eck that a CBD is sent on links back code	1 - 2, 1 - 3	and 1 -	- 4. Check that each CBD
3. Check the	t the traffic is charge	anged back on link $1 - 1$ .			
1 -100% (110		J			

							PAGE:	1 of 1			
REFERENCI	E: Q.704 § 6, Fig.	28, Fig. 29, Fig.	31								
TITLE: Cha	ngeback		ui	<u> </u>		•			n		
SUB TITLE:	Changeback from and	other linkset					_				
PURPOSE:	To check the changebac	ck procedure wh	en it is perfo	med fro	m anoth	ier lin	kset				
PRE-TEST C	ONDITIONS: Linkset	ts 1 and 3 unava	ilable (end o	f test 3.1	6)						
CONFIGUR/	ATION: B	TYPE OF TH	EST: VAT, (	CPT		туі	PE OF S	P: AL	L		
MESSAGE S	EQUENCE:	_ <b>_</b>			•	L					
	SP A			SP	В		SP	с		SP	•
Link			Link		Liı	nk			Link		
:Start traffic											
2 - 1, 2	TRAFFIC	>	5 - 1					>		SP	
		<	-2 - 1, 2	<				>	5 1	SP SP	
		<	- 2 - 1, 2	<					6 ~ 1	SP	
3 - 2	:Activate (depend	ing of the deacti	vation mean	previous	ly used)						
2 - 1	CBD, SLC 3 – 2	>	4 – 1 –-		>						
2 - 2	CBD, SLC $3 - 2$	<b></b> >	4 – 1 –-	•••	>						
		<			3 -	- 2	CBA,	SLC 3 -	- 2		
		<			3 -	- 2	CBA,	SLC 3 -	- 2		
					CH	IANG	EBACK	<u> </u>			
2 ~ 1, 2	TRAFFIC	>	5 - 1					>		SP	
			6 - 1		··			>		SP	]
3 _ 2		<	- 2 - 1, 2	<			<b></b>		5 - 1	SP	]
J = L	(from  2 - X)	*** <u>**</u> **	·		·> 8- 7_	- 1 · - 1		>		SP	]
Wait	(,				, -	1		/		31	
Stan troffic											

		18. 20, 118. 27, 118. 31			· · · · ·		
TITLE:	Changeback						
SUB TIT	LE: Changeback from t	two linksets					
PURPOS	E: To check the change	back procedure when it is	performe	d from two	linksets		<i>We</i>
PRE-TE:	ST CONDITIONS: Lin	kset 1 unavailable (end of	test 3.18)	•••			
CONFIC		TYPE OF TEST:	VAT		TYPE OF SP:	ALL	
MESSAG	GE SEQUENCE:				1		
	SP A	2	SP B		SP C		SP D
Link		Link		Link		Link	
:Start tra	ffic						
2 - 1	TRAFFIC -	> 5 - 1			>		
	<	< 2 - 1 <				5 - 1	TRAFFIC
2 - 2	TRAFFIC -	> 5 - 1			>	5 1	
3 - 1	TRAFFIC -	2 - 2 <		> 8 - 1	>	5 - 1	IKAFFIC
3 - 2	TRAFFIC -		:	> 8 - 1	>		
1 - 2	:Activate (dependin	g of the deactivation mean	n previous	ily used)			
2 - 1	CBD, SLC $1 - 2 - $	> 5 - 1			>		
2 - 2	CBD, SLC $1 - 2 -$	> 5 – 1 <b></b>			>		
3 - 1 3 - 2	CBD, SLC $1 \sim 2$ -			> 8 - 1 > 8 - 1	>		CBAs
	000,0001 2	< 2 X <	·			5 - 1	SLC $1 - 2$
	· .	< 2 – X <	:			5 — 1	SLC 1 – 2
	•	< 2 – X <	:			5 - 1	SLC 1 – 2
		< 2 - X <			·	5 - 1	SLC $1-2$
1 2	TRAFFIC (from )	linksets 2 and 3)			>	1 2	
						1 – 2	(from linksets 5
2 1							see note)
2 - 1, 3 - 1.	2 TRAFFIC -	> ) [		 > 8 – 1	>		
:Wait				- 0 1			
:Stop tra	ffic						
Note	D may perform changeb	acks or not.					
		· · · · · ·					·
TEST D	ESCRIPTION						
1.	Start traffic on linksets	2 and 3 to D.					
2.	Activate the link $1 - 2$ that each CBD has a di	and check that CBDs are fferent changeback code.	received	and that CB.	As are sent before	T4 expir	res in A. Check
3.	Check that the traffic is	s changed back to link 1 -	2 in acc	ordance with	the load sharing	rules in .	<b>A</b> .

TEST NUMBER: 4.10		PAGE: 1 of 1
REFERENCE: Q.704 § 6, Fig.	. 28, Fig. 29, Fig. 31	1
TITLE: Changeback		
SUB TITLE: Changeback due to v	arious reasons	
PURPOSE: To check the interface	L2-L3	
PRE-TEST CONDITIONS: Linkse	t with one available link (end of 3.19)	
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link		Link
:Start traffic		
1 – 2 TRAFFIC	>	
<b>1 4 4 4 4</b>	<	1 - 2 TRAFFIC
1 - 1 :Activation due to	o various reasons (see Note)	
1 - 2 CBD, SLC $1 - 1$	>	
	<	1 - 2 CBA, SLC $1 - 1$
I – I TRAFFIC (from	1 – 2)>	1 - 2 CBD SIC $1 - 1$
1 - X CBA, SLC $1 - 1$	>	2 Cob, SEC 1 - 1
	< <b></b>	1 - 1 TRAFFIC (from $1 - 2$ )
1 - 2 TRAFFIC	> <	1 – 2 TRAFFIC
:Wait		
:Stop traffic		
Note – The object of this test is to $\$$ 3 (Q.704). These reasons are: initial the remote signalling terminal and m	check the interface L2-L3 by provoking a ch l alignment procedure completed with succes anagement request.	angeback by different means listed in s, processor outage condition has ceased at
TEST DESCRIPTION		······································
1. Start traffic to B and C on	link 1 – 2.	
2. Provoke the activation of t	he link 1 – 1 (see Note above).	
3. Check that the traffic is ch	anged back to $1 - 1$ .	
4. Stop traffic and check that	it has been received correctly.	
o. Repeat the test for each re-	ason.	

TEST NUMBER:	<b>4.11</b> ·			PAGE: 1	of 1
REFERENCE: Q	2.704 § 6.4, Fig.	28, Fig. 29, Fig. 31		<b>1</b>	
TITLE: Changeb	ack		· · · · ·		
SUB TITLE: Tim	ne controlled diversi	on procedure			
PURPOSE: To c	heck the correct ope	ration of the time contr	olled diversion proc	cedure	
PRE-TEST COND	DITIONS: Linksets	1, 2 and 4 unavailable			
CONFIGURATIO	DN: B	TYPE OF TEST: V	AT, CPT	TYPE OF SP:	ALL
MESSAGE SEQU	ENCE:				
Link Start traffic:	SP A	Link	SP B	Link	SP C
3 - 1	TRAFFIC (to D and E)	~	>	- 3 - 1	TRAFFIC (from D and E)
3 - 2	TRAFFIC (to D and E)		> >	<b>-</b> 3 – 2	TRAFFIC
2 1	:Activate (depend	ling of the deactivation	mean previously use	ed) ate 1)	(nom D and D)
3 - 1, 2	TRAFFIC STO	PPED			
2 - 1	TRAFFIC (from 3 – 1, 2)	> < 2	1 TRAFFIC (	(from D, see note )	2)
3 - 1, 2 :Wait :Stop traffic	IRAFFIC		>	- 3 - 1, 2	TRAFFIC (from E)
Note 2 - B perfo procedures are not	t presented to simpli	t procedure and D on refy the test description.	eception of a TFA f	or A reroutes its the	raffic to A. These
TEST DESCRIPT	ION	<u></u>			
<ol> <li>Start tra</li> <li>Activate</li> <li>Check tl</li> <li>Check tl</li> <li>with the</li> <li>Stop tra</li> </ol>	ffic to E (and D in link $2 - 1$ . hat T21 is started in hat traffic on linkset load sharing rules i ffic and check that	VAT) on linkset 3. A, and is stopped on re 3 ceased in A and that n A. there were no lost messa	eception of TRA fro after expiration T3 ges, no duplication	m SP B (see notes traffic diverts to li and no missequen	). ink 2 – 1 in accordance cing.
6. Check th 7. Repeat th perform	hat the duration of the test (in VAT) wi ed when T21 expire	Γ3 is inside the specified thout sending TRA from s.	Trange. B to A and check	that the time contr	rolled diversion is

TEST	NUMBER: 5			PAGE: 1 of	1
REFE	RENCE: Q.704 § 7, Fig.	29, Fig. 32	<u> </u>	u	
TITLE	: Forced rerouting			. <u></u>	
SUB 1	ITLE:			• <u>-</u>	
PURP	OSE: To check that the syste	m can perform forced rere	outing	<u></u>	
PRE-7	EST CONDITIONS: Linkse	ts 1 and 4 unavailable		<u>_</u>	·
CONF	IGURATION: B	TYPE OF TEST: VA	ат, срт	TYPE OF SP: A	
MESS.	AGE SEQUENCE:	<u> </u>			
	SP A		SP B		SP C
]	Link	Link		Link	
:Start †	raffic				
2	– 1, 2 TRAFFIC	> to D and F			
	, <b>_</b>	< 2 - 1, 2	TRAFFIC (fro	om D)	
3	– 1, 2 TRAFFIC		>	to D and E	
		<		3 - 1, 2	TRAFFIC (from E
		6 - 1	:Deactivate		
		< 2 - X	TFP, $PC = E$		
3	– 1, 2 TRAFFIC		>		
(t	o D and from $2 - 1$ , 2 to E)				
2	-1.2 TRAFFIC	<		3 - 1, 2	TRAFFIC (from E)
	-,	< 2 - 1.2	TRAFFIC (fro	m D)	
:Wait		-, <b>-</b>		,	
·C4 -	60° -				
istop ti	raine				
	<u> </u>			<u>.                                    </u>	
TEST I	DESCRIPTION				
1.	Start traffic on linksets 2 an	nd 3 to E (and D in VAT)	<u> </u>		<u> </u>
2.	Deactivate the linkset 6 and	I check the sending of a T	FP concerning E	from B to A.	
3.	Stop traffic and check that not missequenced or duplic	the forced rerouting has b ated.	een performed con	rrectly, messages may h	ave been lost but
4.	Check that the traffic to D and_no missequencing).	carried by the linksets 2 a	nd 3 has not been	disturbed (no lost mes	sages, no duplicatio
5.	Check that an indication w	as given by the system.			

TEST NUMBER: 6			PAGE: 1 of	f 1
REFERENCE: Q.704 § 8, Fig. 29,	Fig. 33	<u> </u>		<u> </u>
TITLE: Controlled rerouting				
SUB TITLE:				· · · · · · · · · · · · · · · · · · ·
PURPOSE: To check that the system ca	an perform controlled rero	outing		
PRE-TEST CONDITIONS: Linksets 1	, 4 and 6 unavailable (end	of test 5)		
CONFIGURATION: B	TYPE OF TEST: VAT,	СРТ	TYPE OF SP:	ALL
MESSAGE SEQUENCE:		1997 - 1997 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 -		
SP A		SP B		SP C
Link	Link		Link	
:Start traffic				
3 – 1, 2 TRAFFIC	<b>_</b>	>	to D and E	
	<		3 - 1, 2	TRAFFIC (from E)
1	6 - 1 < 2 - X	:Activate TFA, PC = E		
т6				
2 - 1, 2 TRAFFIC (to D and from 3 - 1, 2 to E)	>			
3 – 1, 2 TRAFFIC	< 3 - 1, 2	TRAFFIC (from	1 D)	TRAFEIC (from F)
·Wait	<b>、</b>		5 1, 2	
Stop traffic				
F				
TEST DESCRIPTION		•.	· <u>-</u> · · ·	
1. Start traffic to E (and D in V	AT).			
2. Activate the linkset 6 and che	ck the sending of a TFA c	concerning E from	n B to A.	
3. Stop traffic and check that the messages, no duplication and 4. Check that the duration of T6	e controlled rerouting has no missequencing).	been performed o	correctly (for all the	affic flows, no lost
Theorem at the duration of 10	is made the specified fat	150.		

	NUMBER: 7.1.1	PAGE: 1 of 1	
REFE	RENCE: Q.704 § 10,	Fig. 28	
TITLE	: Management inhibiting		·····
SUB T	TTLE: Inhibition of a link	– available link	· · · · · · · · · · · · · · · · · · ·
PURP	OSE: To check for the cor	rect response when link inhibition is reque	sted for an available link
PRE-T	EST CONDITIONS: Link	set with two available links	· ·
CONF	IGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESS	AGE SEQUENCE:		
	SP A		SP B
	Link		Link
:Start t	raffic		
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
	I – Z IRAFFIC	> < <b></b> ->	1 - 2 TRAFFIC
	1 – 1 :Request inhibit	ion	
	1 – X LIN, SLC 1 –	1>	
		<	1 – X LIA, SLC 1 – 1
	TIME - CONT	ROLLED CHANGEOVER (see note)	
	1 – 2 TRAFFIC (from	n 1 – 1)>	
		<	1 - 2 TRAFFIC (from $1 - 1$ )
:Wait			
:Stop tr	raffic		
Note -	- A changeover is performe	d after the inhibition of light to the test	to can be an
the inhi	ibition procedure.	a after the inhibition of link 1 – 1 but it	is not described in this test which checks only
TEST I	DESCRIPTION		
1.	Start traffic to B (and C	in VAT) on links $1 - 1$ and $1 - 2$ .	
2.	Initiate inhibition of link	1 - 1 and check that LIN is received and	d an LIA is received in A within T14.
3.	Check that the traffic no	rmally carried by link 1 – 1 is transferred	to link $1 - 2$ .
4.	Check that the link $1 -$	1 enters in the "Local inhibiting" state.	
5.	Repeat test in the reverse	e direction.	

тест м			PACE: 1 of 1
			PAGE: 1 0I 1
REFER	ENCE: Q.704 § 10, Fig.	28	
TITLE:	Management inhibiting		
SUB TI	TLE: Inhibition of a link - u	navailable link	
PURPO	SE: To check for the correct	response when link inhibition is requested	for an unavailable link
PRE-TE	ST CONDITIONS: Linkset	with one available link	
CONFIG	GURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:	J	
	SP A	· · ·	SP B
	Link		Link
:Start tra	affic		
	1 – 1 TRAFFIC	>	
		<	1 1 TRAFFIC
	1 – 2 :Request inhibition	1	
	1 – 1 LIN, SLC 1 – 2	>	
		<	1 - 1 LIA, SLC $1 - 2$
	1 – 2 :Activate (dependi	ng of the deactivation mean previously used	)
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
:Wait			
:Stop tra	affic		
TEST D	DESCRIPTION		
1.	Start traffic to B (and C in	VAT) on link 1 – 1.	
2.	Request inhibition of link	1 - 2, check the reception of LIN at B and	send LIA in response within T14.
3.	Check that the inhibition w	as performed.	
4.	Activate link $1 - 2$ and ch	eck that it stays in inhibited state.	
5.	Stop traffic and check that	it was not disturbed.	
6.	Repeat test in reverse direc	tion.	

TEST 1	NUMBER: 7.2.1		PAGE: 1 of 1
REFER	RENCE: Q.704 § 10, Fig.	28	·····
TITLE	Management inhibiting		
SUB T	ITLE: Inhibition not permitte	d – local reject on available link	
PURPO	OSE: To check the inhibition	procedure in case of local reject on an a	wailable link
PRE-TI	EST CONDITIONS: Linkset	with one available link	
CONFI	GURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:		
	SP A		SP B
	Link		Link
:Start tr	raffic		
	1 – 1 TRAFFIC	>	
1		<	1 – 1 TRAFFIC
	1 - 1 :Request inhibition		
	1 – 1 TRAFFIC	> <>	1 – 1 TRAFFIC
:Wait			
:Stop tr	affic		
4			
TEST E	DESCRIPTION		
1.	Start traffic to B (and C in )	VAT) on link 1 - 1.	
2.	Request inhibition of link 1	- 1 and check that this request is not n	permitted.
3.	Stop traffic and check that i	t has not been disturbed.	
4.	Repeat the test but modify p	pre-test conditions as follows: link 1 – 1	available and link $1 - 2$ inhibited by B.

REFERENCE: Q.704 § 10, Fig. 28	
ITLE: Management inhibiting	
SUB TITLE: Inhibition not permitted – local reject on unavailable link	
PURPOSE: To check the inhibition procedure in case of local reject on an unavai	lable link
RE-TEST CONDITIONS: All links unavailable	
CONFIGURATION: A TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:	
SP A	SP B
Link	Link
1 – 1 :Request inhibition	
TEST DESCRIPTION	
1. Request inhibition of link $1 - 1$ and check that it is rejected.	
1	

TEST NUMBER: 7.2.3 PAGE: 1 of 1			PAGE: 1 of 1
REFER	RENCE: Q.704 § 10, Fi	g. 28	
TITLE:	: Management inhibiting		
SUB TI	ITLE: Inhibition not permit	ted – sending of LID	
PURPC	DSE: To check the reject of	an inhibition asked on reception of an	LIN
PRE-TI	EST CONDITIONS: Links	et with one available link	
CONFI	IGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSA	AGE SEQUENCE:		,,,,,,,,
	SP A		SP B
	Link		Link
:Start ti	raffic		
	1 – 1 TRAFFIC	<b></b>	>
		<	1 – 1 TRAFFIC
	1 – 1 LID. SLC 1 – 1	<	1 – 1 LIN, SLC 1 – 1
	,		-
	1 – 1 TRAFFIC		> 1 1 TRAFFIC
:Wait			
:Stop tr	raffic		
TEST I	DESCRIPTION		
1.	Start traffic to B and C or	n link 1_ – 1	
2.	Send an LIN, SLC $1 - 1$	from B to A and check the reception	of an LID.
3.	Check that the inhibition	is not performed.	
4.	Stop traffic and check that	t it has not been disturbed.	

	NUMBER:	/.2.4		PAGE	: 1 of 1
REFEF	RENCE: Q.7	'04 § 10, Fig	. 28		
TITLE	: Manageme	nt inhibiting	• ••• • <u>•</u> •••••••••••••••••••••••••••••		
SUB T	ITLE: Inhib	ition not permitt	ed reception of LID		
PURPO	OSE: To che	ck the reject of a	n inhibition asked on sending of an LIN		
PRE-T	EST CONDI	FIONS: Linkset	with two available links		
CONF	IGURATION	: A	TYPE OF TEST: VAT	TYPE OF	SP: ALL
MESSA	AGE SEQUE	NCE:		<u>I</u> ,	······································
		SP A			SP B
	Link			Link	
:Start ti	raffic				
	1 - 1, 2	TRAFFIC	>		
			<	1 - 1, 2	TRAFFIC
	1 – 1	:Request inhibi	ition		
	1 – X	LIN, SLC 1 –	1>		
			<	1 – X	LID, SLC 1 – 1
	1 – 1, 2	TRAFFIC	>		
			<	1 - 1, 2	TRAFFIC
:Wait					
:Stop tr	raffic				
TEST I	DESCRIPTIC	)N			
1.	Start traffi	c to B and C on	links $1 - 1$ and $1 - 2$ .		
2.	Request th expires in	e inhibition of li A.	nk 1 - 1 and check the reception of LIN	and response w	ith an LID before T14
3.	Check tha	t the inhibition is	not performed.		
4.	Stop traffi	c and check that	it was not disturbed.		

	EK: 7.3.1		PAGE: 1 of 1
REFERENCI	3: Q.704 § 10, Fi	g. 28	
TITLE: Mar	agement inhibiting		
SUB TITLE:	Expiration of T14 –	available link	
PURPOSE:	To check that the inhib	pition procedure asked for an available	link is restarted when T14 expires
PRE-TEST CO	ONDITIONS: Linkse	et with two available links	
CONFIGURA	TION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SI	EQUENCE:		
	SP A		SP B
Link			Link
Start traffic:			
1 - :	TRAFFIC		
		</td <td>- 1 – 1 TRAFFIC</td>	- 1 – 1 TRAFFIC
1 – 2	2 TRAFFIC	>	·
		< <b></b>	- 1 – 2 TRAFFIC
1 - 1	:Request inhibitio	n	
1 2	K LIN, SLC $1 - 1$	>	
	T14		
1 - 2	K  LIN, SLC  1 - 1	>	
		<	- 1 - 1 LIA, SLC 1 1
	TIME – CONTRO	OLLED CHANGEOVER (see note)	
1 - 2	TRAFFIC (from	1 – 1) –>	
		<	- 1 - 2  TRAFFIC (from  1 - 1)
Wait			
Stop traffic			
Note – A cha	ngeover is performed	after the inhibition of link $1 - 1$ but it	is not described in this inhibition test.
FST DESCP			
- TESCK		· ···· · · · · · · · · · · · · · · · ·	
1. Start	traffic to B and C on	links $1 - 1$ and $1 - 2$ .	· · · · · · · · · · · · · · · ·
2. Requ recei	test the inhibition of lived after T14 expires a	nk $1 - 1$ , check that an LIN is receive and that an LIA is sent in response	d without response. Check that a new LIN is
3. Chec	k that the inhibition is	s performed. Stop traffic and check that	it was not disturbed.
4. Repe stop	at the test but without bed.	sending of an LIA. Check that after th	e second expiration of T14 the procedure is
5 Chec	k that the duration of	T14 is inside the specified range	

TEST N	NUMBER: 7.3.2	PAGE: 1 of 1	
REFER	ENCE: Q.704 § 10, Fi	g. 28	
TITLE:	Management inhibiting		
SUB TI	TLE: Expiration of T14 –	unavailable link	
PURPO	OSE: To check that the inhibit	ition procedure asked for an unavailabl	le link is restarted when T14 expires
PRE-TI	EST CONDITIONS: Links	t with one available link	·
CONFI	IGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:	<u></u>	
	SP A		SP B
	Link		Link
:Start ti	raffic		
	1 – 1 TRAFFIC	> <- <b></b>	- 1 – 1 TRAFFIC
	1-2 :Request inhibitio	n	
	T = T EIN, SECT = 2		
	1 - 1 LIN, SLC $1 - 2$	>	-1 - 1 LIA SLC 1 - 2
	1 – 2 :Activate		
	1 – 1 TRAFFIC	> <>	- 1 – 1 TRAFFIC
:Wait			
:Stop ti	raffic		
TEST I	DESCRIPTION		
1.	Start traffic to B and C o	n link 1 – 1.	
2.	Request inhibition of link received after T14 expires	1 - 2, check that an LIN is received w and that an LIA is sent in response.	ithout response. Check that a new LIN is
3.	Check that the inhibition	is performed.	
4. 5	Activate link $1 - 2$ and $c$	check that it stays unavailable.	
5. 6.	Repeat the test but without stopped.	a n was not disturbed. at sending of an LIA. Check that after th	ne second expiration of T14 the procedure is

TEST N	UMBER: 7.4		PAGE: 1 of 1	
REFERI	ENCE: Q.704 § 10,	Fig. 28	, I,	
TITLE:	Management inhibiting			
SUB TIT	LE: Additionnal inhibit	ion messages (LIA, LID, LIN)		
PURPOS	SE: To check the action	of the system on reception of an additionn	al LIA, LID or LIN	
PRE-TES	ST CONDITIONS: End	of test 7.1.1		
CONFIC	GURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL	
MESSAC	GE SEQUENCE:			
	SP A		SP B	
	Link		Link	
Start tra	ffic			
	1 – 2 TRAFFIC	>		
			1 - 2 IRAFFIC	
		-	1 - 2 LIA, SEC $1 - 1$	
	1 - 2 TRAFFIC		1 = 2 EID, SEC $1 = 1$	
	- 2 1.01110	<>	1 – 2 TRAFFIC	
	1 – 1 LIA. SLC 1 –	<>	1 - 2 LIN, SLC $1 - 1$	
:	1 – 2 TRAFFIC	>		
		<	1 - 2 TRAFFIC	
Wait				
Stop traf	ffic			
<u>-</u>				
EST DE	ESCRIPTION			
1.	Start traffic to P and C	on link 1 2		
2.	Send an additionnal LIA	and LID on link $1 - 2$ .		
3.	Check that these message	es are ignored without impact on the traffic	2.	
4.	Send an additionnal LIN	S on link $1 - 2$ .		
5.	Check that an LIA is rec "Local and remote inhib.	wived in response without impact on the traiting" state.	affic and that the link $1 - 1$ enters in the	
6.	Stop traffic.			
TEST NUM	BER: 7.5			PAGE: 1 of 1
----------------	-----------------------------------	--------------------------------------	-----------------	-----------------------------------
REFERENC	CE: Q.704 § 10, Fig	. 28		L , eenseuer a r
TITLE: M	anagement inhibiting			A 1/100 A 1 1 1
SUB TITLE	: Inhibition asked by th	e both ends of a link	<u>.</u>	
PURPOSE:	To check the action of	the system on reception of an LIN	after sending	of an LIN
PRE-TEST	CONDITIONS: Linkset	with two available links		
CONFIGUI	RATION: A	TYPE OF TEST: VAT	T	YPE OF SP: ALL
MESSAGE	SEQUENCE.			
MESSAGE	SP A			SP B
Link	UL IL		Ľ	ink
:Start traffic	2		2	
1 - 1,	, 2 TRAFFIC	 <	> 1 ·	– 1, 2 TRAFFIC
11	Request-inhibitio:	n		
1 – X	LIN, SLC $1 - 1$		>	
1 - 1	<b>LIA, SLC</b> 1 – 1	<	> 1 ·	- X LIN, SLC 1 $- 1$
		<	1 -	-X LIA, SLC 1 $-1$
	TIME-CONTROI	LLED CHANGEOVER (see note)		
1 – 2	TRAFFIC (from	1 1) <	> 1 ·	2 TRAFFIC (from 1 - 1)
:Wait				
:Stop traffic	2			
Note – A	changeover procedure is	performed but not described in this	inhibition test	t.
TEST DES	CRIPTION			
1. S	tart traffic to B and C on	$1 \ln k = 1$ and $1 = 2$ .		with an UN
2. K 3. C	Check the recention of an	LIA and send an LIA.	and response	with all Lin.
4. C	Check that the inhibition i tate.	s correctly performed and that the l	ink enters in t	the «Local and remote inhibiting»
5. S	top traffic and check that	t it was not disturbed.		

1251 110	JMBER: 7.6.1		PAGE: 1 of 1
REFERE	NCE: Q.704 § 10, Fig.	28	
TITLE:	Management inhibiting		
SUB TIT	LE: Manual uninhibition o	f a link – with changeback	
PURPOS	E: To check for correct res	toration when link uninhibition is reques	ted by an operator
PRE-TES	T CONDITIONS: End of	test 7.1.1	
CONFIG	URATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAG	E SEQUENCE:	al-sure and the sure of the su	<u></u>
	SP A		SP B
	Link		Link
:Start traf	fic		
1	– 2 TRAFFIC	>	
		<	1 – 2 TRAFFIC
1	— 1 :Request uninhibiti	on	
1	- 2 LUN, SLC 1-1	~~~~~>	
		<	1 - 2 LUA, SLC $1 - 1$
CHANGE	BACK (See note)	CHANGEBAC	CK (See note)
1	- 1 TRAFFIC (from 1	– 2)>	
-	•	<	1 - 1 TRAFFIC (from $1 - 2$ )
1	– 2 TRAFFIC	>	
		<	1 - 2 TRAFFIC
:Wait			
:Stop traff	ĩc		
Note – A checks onl	A changeback procedure is p y uninhibition procedure.	erformed after uninhibition of link $1 - 1$	but it is not described in this test which
TEST DE	SCRIPTION		
1	Start traffic to D and C and		
2.	Request uninhibition of link	UNK 1 ~ 2.	and response with on LUA inside T10
3.	Check that the uninhibition	is performed and stop traffic.	the response with an LUA inside 112.
4.	Check that the traffic was sh	nared on links $1 - 1$ and $1 - 2$ accordin	g to the load sharing rules.
5.	Check that an uninhibition i	indication was given by the system.	- <b>U</b>
1			

TEST 1	NUMBER: 7.6.2	PAGE: 1 of 1	
REFER	RENCE: Q.704 § 10, Fig.	28	<b>t</b>
TITLE	: Management inhibiting		
SUB T	ITLE: Manual uninhibition of	f a link – without changeback	
PURPO	DSE: To check manual uninhi	bition procedure when the uninhibited link	stays unavailable
PRE-T	EST CONDITIONS: End of	test 7.1.2 without activation of link $1 - 2$	(link 1 – 2 deactivated and inhibited)
CONFI	IGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSA	AGE SEQUENCE:	· · · · · · · · · · · · · · · · · · ·	
	SP A		SP B
	Link		Link
:Start ti	raffic		
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
	1 – 2 :Request uninhibiti	on	
	1 - 1 LUN, SLC $1 - 2$	>	
		<	1 - 1 LUA, SLC $1 - 2$
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
:Wait			
:Stop tr	raffic		
TEST I	DESCRIPTION		
1.	Start traffic B (and C in VA	T) on link $1 - 1$	
2.	Request uninhibition of link	1 - 2 and check that an LUN is received	and that an LUA is sent in response
3.	Check that uninhibition is p	erformed correctly and that link $1 - 2$ star	ys unavailable.
4.	Stop traffic and check that i	t was not disturbed.	,
5.	When B has initiated inhibit possible when it is requested	tion (point 6, test 7.1.2), repeat test in rever I by an operator in A.	se direction. Check that uninhibition is not

TEST NUMBER: 7.7		PAGE: 1 of 1
REFERENCE: Q.704 § 10, Fig. 2	8	
TITLE: Management inhibiting		
UB TITLE: Expiration of T12		<u> </u>
PURPOSE: To check uninhibition pro	cedure on expiration of time T12	
PRE-TEST CONDITIONS: End of te	st 7.1.1 (1 – 1 inhibited by A)	
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
IESSAGE SEQUENCE:	·····	
SP A		SP B
Link		Link
Start traffic		
1 – 2 TRAFFIC		>
	<	1 - 2 TRAFFIC
1 - 1 :Request uninhibition	1	-
1 - 2 LUN, SLC 1 - 1		·>
T12		
1 - 2 LUN, SLC 1 - 1		>
HANGEBACK (See note)	CHANCE	1 - 2 LUA, SLC 1 - 1
1 - 1 TRAFFIC (from 1 -	2)	SACK (See note)
1 - 2 TRAFFIC	<	1 – 1 TRAFFIC (from 1 – 2)
	<	1 – 2 TRAFFIC
Wait		
Stop traffic		
lote – A changeback procedure is per	formed but not described in this u	ninhibition test.
EST DESCRIPTION		
1	· · · · · · · · · · · · · · · · · · ·	
<ol> <li>Start trattic B and C on link 1</li> <li>Request uninhibition of link 1</li> </ol>	1 - 2. - 1 and check that an LUN is re-	ceived.
3. Check that after expiration of	T12, a new LUN is received and	acknowledged by an LUA.
<ol> <li>Check that uninhibition is per</li> <li>Stop traffic and check it was a</li> </ol>	formed correctly. shared on links $1 - 1$ and $1 - 2$ a	according with the load sharing rules and that it
<ul> <li>6. Repeat the test but without set stopped and an indication in a</li> </ul>	nding of an LUA. Check that after	the second expiration of T12 the procedure is
supped and an indication is g	given to the management.	

TEST N	NUMBER: 7.8		PAGE: 1 of 1
REFER	ENCE: Q.704 § 10, Fig.	28	
TITLE:	Management inhibiting	· · · ·	
SUB TI	TLE: Not possible uninhibiti	on	
PURPO	OSE: To check the actions of	the system when the uninhibition is not	possible
PRE-TE	EST CONDITIONS: Link 1	- 2 unavailable and inhibited and link	1 – 1 available
CONFI	GURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:	• • • • • • • • • • • • • • • • • • •	
	SP A		SP B
	Link		Link
	1 – 1 :Deactivate		
	1 – X :Request uninhibiti	on	
TEST E	DESCRIPTION		
1.	Deactivate link 1 – 1.		
2.	Check that uninhibition is r	not performed.	
_			

TEST	NUMBER: 7.9		PAGE: 1 of 1
REFE	RENCE: Q.704 § 10, Fig	28	
TITLE	: Management inhibiting		·
SUB T	ITLE: Automatic uninhibition	n of a link	
PURPO	DSE: To check that the system	n performs uninhibition procedure wh	en a point becomes unaccessible
PRE-T	EST CONDITIONS: End of	test 7.1.1	
CONF	IGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESS	AGE SEQUENCE:	J	L
	SP A		SP B
	Link		Link
:Start t	raffic		
	1 – 2 TRAFFIC	>	<b>,</b>
		<	- <u>1 – 2</u> TRAFFIC
	1 – 2 :Deactivate (failure	;)	
	1 - 1 LUN, SLC $1 - 1$	>	•
		<	- 1 – 1 LUA, SLC 1 – 1
	POINT RESTART	PROCEDURE IS APPLIED IN A A	ND B (see note)
	1 – 1 TRAFFIC	>	<b>,</b>
		<	- 1 - 1 TRAFFIC
:Wait			
:Stop ti	raffic		
<i>Note –</i> inhibiti	When link 1-1 becomes avai on test to simplify the test desc	lable, point restart procedure is applied cription.	d in A and B but it is not described in this
TEST I	DESCRIPTION		
-1.	Start traffic to B and C on	link 1 – 2.	· · · · · · ·
2.	Deactivate link $1 - 2$ and	check that an LUN is received on link	1 - 1 and response with an LUA within T12.
3.	Check that uninhibition is p	performed and that the traffic is restart	ted on link $1 - 1$ (see note).
4.	Stop traffic, some messages	have been lost.	
5.	Repeat the test but without	sending of an LUA. Check that after t	he second expiration of T12 the procedure is

TEST N	UMBER: 7.10.1			PAGE: 1 of 1
REFER	ENCE: Q.704 § 10, F	7ig. 28	, <u>,,,,,,,,,,,</u> ,,,,,,,,,,,,,,,,,,,,,,,,	
TITLE:	Management inhibiting	······································		
SUB TI	TLE: Forced uninhibition	of a link sending of an LFU		-
PURPC	SE: To check forced unin	hibition procedure when a point becom	es unaccessi	ible
PRE-TH	EST CONDITIONS: Link	1 – 1 available, link 1 – 2 inhibited l	by B	
CONFI	GURATION: A	TYPE OF TEST: VAT	T	YPE OF SP: ALL
MESSA	GE SEQUENCE:			
	SP A			SP B
	Link		Li	nk
:Start tr	affic			
	1 – 1 TRAFFIC		>	
	1 – 1 :Deactivate (fail	ure)		
	1 – 2 LFU, SLC 1 –	2	>	
		<	1 -	- 2 LUN, SLC 1 – 2
	1 – 2 LUA, SLC 1 –	2	>	
	POINT RESTA	RT PROCEDURE IS APPLIED IN A	AND B (see	e note)
	1 – 2 TRAFFIC		> 1-	- 2 TRAFFIC
:Wait				
:Stop tra	affic			
<i>Note –</i> inhibitic	When link $1 - 2$ becomes on test to simplify the test d	s available, point restart procedure is ap escription.	plied in A a	nd B but it is not described in this
TEST D	DESCRIPTION		, " <u>-</u> .	
i.	Start traffic to B and C of	on link 1 – 1.		· · · · · · · · · · · · · · · · · · ·
2.	Deactivate link $1 - 1$ an stopped and that an LUA	d check the reception of an LFU on lin A is received.	k 1 – 2. Re	sponse by an LUN. Check that T13 is
3.	Check that uninhibition i	s performed and that the traffic is restar	rted on link	1 - 2 (see note).
	Stop traffic some messar	as have been lost		

TEST N	NUMBER: 7.10.2		PAGE: 1 of 1
REFER	RENCE: Q.704 § 10, Fig.	28	
TITLE:	Management inhibiting		
SUB TI	TLE: Forced uninhibition of	a link – reception of an LFU	
PURPC	DSE: To check uninhibition pr	rocedure on reception of an LFU	
PRE-TI	EST CONDITIONS: Link 1	– 1 available, link 1 – 2 inhibited by A	
CONFI	GURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSA	AGE SEQUENCE::	, <u> </u>	1
	SP A		SP B
	Link		Link
:Start ti	raffic		
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
		<	1 - 2 LFU, SLC $1 - 2$
	1 = 1 LUN, SLC $1 = 2$	> <>	1 – 1 LUA, SLC 1 – 2
	CHANGEBACK (	see note)	
	1 – 1 TRAFFIC	>	
		<	1 – 1 TRAFFIC
	1 – 1 TRAFFIC	>	
Wait		<	1 - 2 TRAFFIC
Stop tr	affic		
Note –	- A changeback is performed b	out not described in this uninhibition test	
	··· •nangobaok is portormed e		
,			
TEST I	DESCRIPTION		
1.	Start traffic to B and C on	link 1 – 1.	· · · · · ·
2.	Send an LFU to A on link inside T12.	1 - 2 and check that an LUN is received w	rithin T13 and acknowledged by an LUA
3.	Check that the uninhibition	is performed.	
4.	Stop traffic and check that i	it was carried on $1 - 1$ and $1 - 2$ .	

TEST NUMBER: 7	.11		PAGE: 1 of 1
REFERENCE: Q.70	)4 § 10, Fig.	28	1
TITLE: Managemen	t inhibiting		
SUB TITLE: Expira	tion of T13		
PURPOSE: To chec	k uninhibition p	cocedure when T13 expires	
PRE-TEST CONDIT	IONS: Link 1	– 1 available and link 1 – 2 inhibite	ed by B
CONFIGURATION:	A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUEN	ICE:	1	
S	ΡA		SP B
Link			Link
:Start traffic			
1 – 1 TF	RAFFIC		>
<i>.</i>		<	-1 - 1 <b>TRAFFIC</b>
<u> </u>	eactivate (failure		
	T13		
1 – 2 LF	TU, SLC 1 – 2		>
		< <b></b>	- $1 - 2$ LUN, SLC $1 - 2$
1 - 2 LU	JA, SLC 1 – 2	>	>
PC	INT RESTART	PROCEDURE IS APPLIED IN A A	AND B (see note in 7.9)
1 – 2 TF	AFFIC	<>	- 1 $-$ 2 TRAFFIC
:Wait		· · · · · · · · · · · · · · · · · · ·	1 - 2 IRATIC
:Stop traffic			
TEST DESCRIPTIO	N		
1.     Start traffic       2.     Deactivate	to B and C on I link 1 - 1 and c	ink $1 - 1$ .	T12 ownings shark the recention of a constant of the
and send an	1 LUN. Check th	e reception of an LUA.	The expires, eneck the reception of a second LFU
3. Check that 4. Stop traffic	uninhibition is p	erformed correctly.	
5. Repeat the	test but without s	e has been restarted on link 1 – 2. So sending an LUN. Check that after the	ome messages have been lost. e second expiration of T13 the procedure is
stopped, the	at an indication i	s given to the OMAP and that the lin	k = 1 - 2 carries traffic normally from A.

TEST NUMBER: 7.12		PAGE: 1 of 1
REFERENCE: Q.704 § 10, Fig.	28	
TITLE: Management inhibiting		
SUB TITLE: Additionnal uninhibiti	on messages (LUA, LUN, LFU)	
PURPOSE: To check the actions of	the system on reception of an additic	onnal LUA, LUN or LFU
PRE-TEST CONDITIONS: Linkset	with two available links	
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:	<u> </u>	
PS A		PS B
Link		Link
Start traffic		
1 – 1, 2 TRAFFIC		>
	<	-1 - 1, 2 TRAFFIC
	< <b></b>	$1 - 2$ LUA, SLC 1 - 1
1 – 1, 2 TRAFFIC		>
	<	-1 - 1, 2 TRAFFIC
	< <u>-</u>	- $1 - 2$ LUN, SLC 1 - 1
1 - X LUA, SLC $1 -$	1;	>
1 - 1, 2 TRAFFIC		>
	<	-1,2 TRAFFIC
	<	-1-2 LFU, SLC 1 - 1
I ~ X LUN, SLC I –	I>	>
Wait		
Stop traffic		
EST DESCRIPTION		
1 Start traffic to D and C and		
2. Send an LUA (SLC $1 - 1$ )	on link $1 - 2$ .	······································
3. Check that this message has	been ignored without impact on the t	raffic.
4. Send an LUN (SLC $1 - 1$ )	on link 1 – 2.	
5. Check that an LUA is receiv	ed in response without impact on the	traffic.
6. Send an LUA (SLC $1 - 1$ )	on link $1 - 2$ .	
7. Check that an LUN is receiv	red in response without impact on the	e trafic.

IESI N	UMBER: 7.13		PAGE: 1 OI I
REFER	ENCE: Q.704 § 10, Fig.	28	
TITLE:	Management inhibiting		
SUB TI	TLE: Uninhibition at one sid	e after test 7.5	
PURPO	SE: To check uninhibition p	rocedure when the inhibition has been as	ted by the two ends of a link
PRE-TE	ST CONDITIONS: End of	test 7.5	,
CONFI	GURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:		
	SP A		SP B
	Link		Link
:Start tr	affic		
	1 - 2 TRAFFIC	>	
		<	1 – 2 TRAFFIC
	1 – 1 :Request uninhibiti	on	
	1 - 2 LON, SLC $1 - 1$		
		<	1 - 2 LUA, SLC $1 - 1$
	1 - 2 TRAFFIC	>	
		<	1 - 2 IRAFFIC
:Wait			
:Stop tr	affic		
		······································	
TEST D	DESCRIPTION		
1.	- Start traffic to B and C on	link 1 – 2	· · · · · · · · · · · · · · · · · · ·
2.	Request uninhibition of lini	k 1 - 1. Check that an LUN is received a	nd response with an LUA within T12.
3.	Check that the link stays in	hibited (by B).	
4.	Stop traffic and check that	it was not disturbed.	
5	Repeat test in reverse direct	tion.	

		0.704			
KEFER	CENCE:	Q.704 § 10, Fig	. 28		
TITLE:	: Manag	ement inhibiting			
SUB TI	ITLE: A	utomatic uninhibitio	n after test 7.5		
PURPC	OSE: To	check automatic uni	nhibition of a link when the inhibition	has been initiated by the both ends	
PRE-TH	EST CON	DITIONS: End of	test 7.5		
CONFI	GURATI	ON: A	TYPE OF TEST: VAT	TYPE OF SP: ALL	
MESSA	GE SEQ	UENCE:			
		SP A		SP B	
	Link			Link	
Start tr:	affic				
	1 – 2	TRAFFIC	> <>	1 – 2 TRAFFIC	
	12	-:Deactivate (failure	3)		
	1 - 1	LFU, SLC 1 – 1	>		
			<	1 – 1 LFU, SLC 1 – 1	
			<	1 – 1 LUN, SLC 1 – 1	
	1 - 1	LUN, SLC 1 – 1	>		
	1 - 1	LUA, SLC 1 - 1	>		
			<	1 - 1 LUA, SLC $1 - 1$	
		POINT RESTART	PROCEDURE IS APPLIED IN A AN	ND B (see note in 7.9)	
	1 – 1	TRAFFIC	>		
Wait			<	1 - 1 TRAFFIC	
ri alt					
stop tra	affic				
EST D	ESCRIP				
			· · · · · · ·		
1.	Start tra	affic to B and C on a	link $1 - 2$ .		
∠. 3.	Deactiv	ate link $1 - 2$ and c	check that forced uninhibition is request	ed by the both ends which send LFU.	
4	Cheek t	hat LOINS are sent b	y boin ends in response and that LUAs	are sent for acknowledgement.	

TEST NUMBEI	R: 7.15		PA	AGE: 1 of 1
REFERENCE:	Q.704 § 10, Fig.	28		
TITLE: Manaj	gement inhibiting			
SUB TITLE: A	Automatic uninhibitior	with two links inhibited		
PURPOSE: To de	o check the actions of activated	the system when two links are inhibi	ited and when the	ne third (and last) link is
PRE-TEST CO	NDITIONS: Links 1	- 1 and 1 - 2 inhibited (by A) an	d link 1 – 3 av	ailable
CONFIGURAT	TION: A	TYPE OF TEST: VAT	TYPE	OF SP: ALL
MESSAGE SEC	QUENCE:	····	· · ·	
·	SP A			SP B
Link			Link	
Start traffic				
1 - 3	TRAFFIC		-> 1 - 3	TRAFFIC
1 - 3	:Deactivate (failure	))		
1 – X and/or	LUN, SLC 1 – 1 LUN, SLC 1 – 2		-> ->	
	(implementation de	ependent: at least one link must be u	ininhibited)	
		<	1 - X 1 - X	LUA, SLC $1 - 1$ , and/or LUA, SLC $1 - 2$
	POINT RESTART	PROCEDURE IS APPLIED IN A	AND B (see no	te in 7.9)
1 - 1 and/or 1 - 2	TRAFFIC TRAFFIC		-> 1 1 -> and/or	TRAFFIC
Wait			1 2	Thun The
Stop traffic				
TEST DESCRI	PTION			· · · · ·
1. Deac	tivate link 1 – 3.			······
2. Chec	k that at least one LU	N is received and acknowledged with	h an LUA.	
3. Chec	k that the traffic is res	tarted on linkset 1. Some messages h	ave been lost.	
4. Stop	traffic.			

TEST	NUMBER: 7.16		PAGE: 1 of 1
REFE	RENCE: Q.704 § 10,	Fig. 28	······································
TITLE	: Management inhibiting		
SUB T	TTLE: Reception of traffic	c on an inhibited link	
PURP	OSE: To check the actions	s of the system on reception of traffic on a	an inhibited link
PRE-T	EST CONDITIONS: Lin	k 1 – 1 inhibited by A, link 1 – 2 availa	able
CONF	IGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESS	AGE SEQUENCE:		
	SP A		SP B
	Link		Link
:Start t	raffic		
	1 – 2 TRAFFIC	>	>
		<	- 1 – 2 TRAFFIC
		<	- $1 - 1$ TRAFFIC
:Wait			
:Stop ti	raffic		
fest i	DESCRIPTION		· · · · · · · · · · ·
1.	Start traffic on link 1 -	1.	
2.	Send traffic from B to A	on the inhibited link $1 - 2$ . Check that t	the messages received in A are normally treated.
3.	Stop traffic.		- · · · · · · · · · · · · · · · · · · ·
	, ,		

TEST N	UMBER: 7.17.1				PAGE: 1 of 3
REFER	ENCE: Q.704 § 10,	Fig. 28			
TITLE:	Management inhibitir	ıg			
SUB TI	TLE: Management inl	nibiting test – Normal pr	ocedure		
PURPO	SE: To check that the	system performs correctly	y the management i	nhibiting t	est
PRE-TE	ST CONDITIONS: I	ink 1-1 inhibited by A, o	ther links are availa	ıble	
CONFIG	GURATION: A	TYPE OF TEST	: VAT, СРТ	T	YPE OF SP: ALL
MESSA	GE SEQUENCE:			I	
	SP	А			SP B
	Link			Link	
	_1~XLL	T <del>. SLC 1 1</del>	>		
	T	<- 22		1 – X	LRT, SLC 1 $-$ 1 T23
	1 – X LL	T, SLC 1 – 1 – <-	·>	1 – X	LRT, SLC 1 – 1
TEST D	PESCRIPTION				
1.	Check that an LLT i specified range.	s periodically sent by A a	nd check (in VAT)	that the du	ration of timer T22 is inside the
2.	Check that on the re	ception of an LRT, no ac	tion is taken in A.		
,	As compatibility test	check that an LRT is ne	riadiaally cant from	<b>n</b>	

REFE	RENCE: Q.704	\$ 10, Fig.	28	. <u> </u>	, <b>d</b>	
TITLE	: Management	inhibiting		·······		
SUB T	ITLE: Inhibit	test procedure	- Normal procedure	·		
PURP	OSE: See page	1				
PRE-T	EST CONDITIO	ONS: Link 1	- 1 inhibited by B, other link	s are availabl	le	
CONF	IGURATION:	A	TYPE OF TEST: VAT, C	PT	TYPE OF :	SP: ALL
MESS	AGE SEQUENC	CE:	P		I	
		SP A			S	РВ
	Link			Lin	k	
	1 – <b>V</b>	IDT SI	74 4			
	1 - A		<pre></pre>	-> 1	x	LLT SLC $1 - 1$
		T23		-		
						T22
		Ţ				
					_	L
	1 – X	LRT, SLO	C1 – 1	·>		
			<	1 -	x	LLT, SLC 1 – 1
		ł			l	
TEST I	DESCRIPTION					
1.	Check that an specified ran	n LRT is period	dically sent by A and, in VAT	check that th	ne duration of t	the timer T23 is inside the
2.	Check that, o	on the reception	of an LLT, no action is taken	in A.		
3.	As compatibi	lity test, check	that an LLT is periodically set	nt from <b>B</b> to A	A.	

REFERENCE: Q.704 § 10, Fig.	28	
TITLE: Management inhibiting		
SUB TITLE: Inhibit test procedure	- Normal procedure	
PURPOSE: See page 1		- , , ,
PRE-TEST CONDITIONS: Link 1	- 1 inhibited by A and B. The other links	are available
CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link	Link	
$1 - X \qquad LLT, SLC 1$ $1 - X \qquad LRT, \qquad SLC 1 - 1$ $T23 \qquad LLT, SLC 1$ $1 - X \qquad LRT, \qquad SLC 1 - 1$ $1 - X \qquad LRT, \qquad SLC 1 - 1$ $T22$ $T23$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	LRT, SLC 1 – 1 $\begin{bmatrix} T23 \\ LRT, \\ T23 \\ LRT, \\ T22 \\ LRT, \\ LLT, SLC 1 – 1 \\ LLT, SLC 1 + 1 \\ LLT, SLC 1 + 1 \\ LLT, SLC 1 + 1 $
TEST DESCRIPTION	RT messages are periodically sent from A to	B and from B to A.

BEEBENCE OF THE		
REFERENCE: Q.704 § 10,	Fig. 28	
TITLE: Management inhibiting		
SUB TITLE: Inhibit test procedu	ure – Reception of an LLT or LRT on	an uninhibited link
PURPOSE: To check the actions	s of the system on reception of an LLT of	or LRT on an uninhibited link
PRE-TEST CONDITIONS: Lin	k 1 – 1 available	
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link		Link
	<	1 – 1 LLT. SLC 1 – 1
1 - 1 LFU, SLC 1	- 1	->
T13		
	<	$1 - 1$ LUN, SLC $1 - 1$
1 – 1 LUA, SLC 1	- 1	>
	<	1 – 1 LRT, SLC 1 – 1
1 - 1 LUN, SLC 1	- 1	>
T12		
	<	1 – 1 LUA, SLC 1 – 1
EST DESCRIPTION		
1. Send an LLT from B to	A and check that an LFU is received. T	hen, send an LUN and check that an LUA is
2. Send an LRT from B to	A and check that an LUN is received. A	Answer with an LUA.
	· · · · · · · · · · · · · · · · · · ·	

TTLE: Management inhibiting		
SUB TITLE: Inhibit test procedure	e Reception of an LLT on a link locally	inhibited
PURPOSE: To check the actions of	f the system on reception of an LLT on a l	link locally (not remotely) inhibited
PRE-TEST CONDITIONS: Link	1 – 1 inhibited in A, other links are availa	ble
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		
SP A		SP B
Link		Link
	<	1 – X LLT, SLC 1 – 1
1 – X LFU, SLC 1 –	1>	
113	,	
Ţ	<	1 - x LON, SLC $1 - 1$
1 - X LUA, SLC $1 - 1$	1 <	
EST DESCRIPTION		
1. Send an LLT from B to A	A and check that an LFU is received as desc	ribed above.

		PAGE: 1 of 1
REFERENCE: Q.704 § 10, Fig	. 28	
TITLE: Management inhibiting		
SUB TITLE: Inhibit test procedure	- Reception of an LRT on a link r	emotely inhibited
PURPOSE: To check the actions of	the system on reception of an LRT	on a link remotely inhibited
PRE-TEST CONDITIONS: Link 1	- 1 inhibited by B, other links are	available
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:	·	
SP A		SP B
Link		Link
1 - X LUN, SLC 1 -	1> <	1 – X LUA, SLC 1 – 1
TEST DESCRIPTION		

	· · · · · · · · · · · · · · · · · · ·		
REFERENCE: Q.704 § 11, 12	2.6, Fig. 46A		
TITLE: Signalling traffic flow c	control		
SUB TITLE: Reception of a TF	<sup>2</sup> C		
PURPOSE: To check the action	s of the system on reception of a TFC		
PRE-TEST CONDITIONS: On	e or more link available		
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL	
MESSAGE SEQUENCE:		I	
SP A		SP B	
Link		Link	
Start traffic			
1 – 1 TRAFFIC	>		
	< <b></b>	1 – 1 TRAFFIC	
	<	1 - 1 TFC, DPC = C	
Wait			
Stop traffic			
Note – This test requires further	r study.		
TEST DESCRIPTION			
1. Start traffic to B and C		······································	
2. Send a TFC concerning	g C and check that this message is receive	ed correctly.	

		PAGE: 1 of 1
l, 12.6, Fig. 46A		
w control		
Cs		
tection of a level 3 conge	estion	
All links available		
TYPE OF TE	ST: VAT	TYPE OF SP: STP
··	<u> </u>	· · ·
	SP A	SP C
Link		Link
(>n/2 E)>	2 – 1 – (n E) –	>
<> (>n/2 E)>	1 - 1 < (n E) (n E) (n E) (n E) (n E)	2 – 1 TRAFFIC ( <n< td=""></n<>
<	1 - 2 <	2 – 1 TRAFFIC ( <n< td=""></n<>
<	1 - X TFC. DPC =	с
	•	-
	. One TFC	each 8 messages sent to C
		- -
<	I = X IFC, DPC =	C
( <n e)=""></n>	2 - 1	>
( <n e)=""></n>	2 - 1	> <b>IRAFFIC</b> ( <n< td=""></n<>
<	1 – 2 <	2 – 1 TRAFFIC ( <n< td=""></n<>
ad capacity of linkset 2.	The traffic model used in t	his test is described in Table 2/Q.706.
th a load exceeding $n/2 \epsilon$	rlang on links 1 - 1 and	1 - 2 (n is the maximum load that the
thout congestion).	procedure is started in A	Charle that a TEO maximum load that the
messages received in B du	ring the congestion.	Check that a TFC message concerning (
0.1 erlang or less on links	1 - 1 and $1 - 2$ .	
estion disappears and that	IL HO IFC IS received.	
	l, 12.6, Fig. 46A w control Cs tection of a level 3 conget All links available TYPE OF TES Link (>n/2 E)> <	l, 12.6, Fig. 46A w control Cs tection of a level 3 congestion All links available TYPE OF TEST: VAT SP A Link (> n/2 E)> 2 - 1 (n E) $< 1 - 1 < (n E) < 1 - 1 <$

REFERENCE: Q.704 § 11.2.7			
TITLE: Signalling traffic flow control			
UB TITLE: Reception of a UPU			
PURPOSE: To check the actions of th	e system on reception of a UPU		
PRE-TEST CONDITIONS: One link	available		
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF S	P: see note
MESSAGE SEQUENCE:		<b>T</b>	
SP A			SP B
Link		Link	
Star traffic			
1 - 1 TRAFFIC (DPC=B, SI=X	)		
$\frac{1-1}{(DPC=C, SI=X)}$	>		
	<	1 – 1	(OPC = C, SI = X)
	< <b></b>	1 – 1	$UPU \\ (OPC = B, SI = X)$
1 - 1 TRAFFIC (DPC=C, SI=X)	>		
	<	1 – 1	$TRAFFIC \\ (OPC = C, SI = X)$
:Wait			
Stop traffic			
<i>Note</i> – The impact of the reception of part(s) are concerned.	f a UPU on the traffic from A to	B requires further study	. The SPs having user
TEST DESCRIPTION			
1. Start traffic to B and C with	SI=X.		
2. Send a UPU from B to C wi	th $SI = X$ .		
3. Check that the UPU message	is received correctly without imp	pact on the traffic from t	o A to C.
4. Wait and stop traffic.			

TEST N	NUMBER: 8.4		PAGE: 1 of 1	
REFER	RENCE: Q.704 § 11.2.7			
TITLE:	Signalling traffic flow cont	rol		
SUB TI	TLE: Sending of a UPU	····		
PURPC	OSE: To check the detection	of an unavailability of a user part		
PRE-TI	EST CONDITIONS: One li	nk available		
CONFI	GURATION: A	TYPE OF TEST: VAT	TYPE OF SP: See note	
MESSA	GE SEQUENCE:			
	SP A		SP B	
	Link		Link	
:Start tr	raffic			
	1 – 1 TRAFFIC (to B and C, S		>	
	:Deactivate user	<	1 - 1 TRAFFIC (from B and C, SI = 1	X)
	1 – 1 UPU	<	1 - 1  MESSAGE (from B to A, SI = $\lambda$	٢)
	(DrC = B, S	<	1 - 1 MESSAGE (from C to A, SI = X	٢)
	$1 - 1 \qquad \text{UPU} \\ (\text{DPC} = \text{C}, \text{S})$	(=X) <	> 1 - 1 MESSAGE	
	1 – 1 UPU (DPC = B, S) :Reactivate user p	=X) part X	(from B to A, SI = X)	()
	1 – 1 TRAFFIC	<	1 – 1 TRAFFIC (from B and C to A, SI	=X)
·W/ai+	(to B and C, S	I = X)		
:wait :Ston tr	affic			
Note – a user p	The notion of unavailabilit part is implementation depen-	y of a user part is specific to the imple dent. The SPs having user part(s) are c	mentation, consequently, the ability to deaction concerned.	ivate
TEST I	DESCRIPTION	<u></u>	·	
1.	Start traffic to B and C w	ith $SI = X$ .		
2. 3.	Send a message from B to back.	. the user part X in A and check that the	is message is discarded and that a UPU is so	ent
4.	Send a message from C to back	the user part X in A and check that the	is message is discarded and that a UPU is so	ent
5. 6.	Repeat point 3 and reactive Check that the messages so traffic.	vate the user part. ent from B and C are received correctly	and that no UPU is sent back. Wait and st	ор

TEST N	UMBER:	9.1.1						PAGE	E: 1 of 1			
REFER	ENCE: Q.	704 § 13, Fig.	29, Fig. 44									
TITLE:	Signalling	route management									· · ·	
SUB TI	TLE: Send	ling of a TFP on a	alternative rou	te – failu	ire of n	ormal	linkset					
PURPO	SE: To ch	eck the sending of	a TFP on the al	ternative r	oute wl	nen the	e norma	l linkset	becomes	unavailable	e	
PRE-TH	EST CONDI	TIONS: All links	ets available		,							
CONFI	GURATION	N: D	TYPE OF TES	ST: VAT,	, СРТ		Т	YPE OF	SP: ST	<b>P</b>		
MESSA	GE SEQUE	NCE:					4		<b></b>			
		SP A			SP	в		SP	С		SP	•
	Link			Link			Link			Link		
:Start tr	affic											
	1 - 1	TRAFFIC	>	5 - 1			<b></b>		>		SP	r
		(from A and F)		6 - 1					>		SP	E
	2 - 1	TRAFFIC (from A and F)				>	7 — 1		>		SP	E
	1 – 1	:Deactivate (M	IML command	or failure)								
	2 - 1	TFP, $PC = B$				>						
	2 - 1	TFP $PC = D$				>						
	2 1											-
	2 - 1	(from  1 - 1)				>	/ — 1 9 1		~>		SP	E
		$(10m 1 \rightarrow 1)$					0 - 1		>		SP	L
:Wait												
:Stop tr	affic											
Note	A changeo	ver procedure is pe	rformed after de	eactivation	of link	<b>:1</b> – :	1 but it	is not de	escribed in	n this trans	fer	
prohibit	ted test.											
		<u>-</u>										
test e	DESCRIPTIO	ON										
1	Start traff											
2.	Deactivet	$\frac{1}{2} \log 1 - 2 \log 1 = 1 \text{ and } \log 1$	heck that TEP.	concerning	Rand	D are	cont f		C (altane	otivo	ta	L D
	and D). ( reach E).	Check that no TFP	concerning E is	sent from	A to C	(load	sent iro sharing	between	linksets	a and 2 in	A to	пВ
	Chook the	at time out T8 is sta	rted for each T	FP sent.								
3.	Check un											
3. 4.	Check the	at the traffic to D a	nd E is diverted	to C.								

	TOMBER:	7.1.2					PAGE:	1 of 1			
REFE	RENCE: C	2.704 § 13, Fig.	29, Fig. 44								
TITLE	: Signallin	g route management	i.								
SUB T	TTLE: Sen	ding of a TFP on a	n alternative route	- on re	ception of	a TFP				<u></u>	
PURP	OSE: To cl recep	heck the sending of ption of a TFP	a TFP on the alte	rnative ro	ute when the	he norma	l route be	comes un	available	on	
PRE-T	EST COND	DITIONS: Linkset	4 unavailable	<u></u>							
CONF	IGURATIO	N: D	TYPE PF TEST	: VAT, (	СРТ	т	YPE OF	SP: STP			-
MESS	AGE SEQU	ENCE:	<u></u>								
		SP A			SP B		SP	с		SP	•
	Link			Link		Link			Link		
:Start t	raffic										
	1 - 1	TRAFFIC		5 1						GD	
		(from A and F)		5 – 1 6 1				~~~>		SP	1
	2 - 1	TRAFFIC (from A and F)			>	> 7 - 1		>		SP SP	ł
				5 — 1	:Deacti	vate					
Se	ee note		<	1 – 1	TFP, P	C = D					
	2 - 1	TFP, $PC = D$			>						
	1 - 1	TRAFFIC (from A and F)	>	6 — 1				>		SP	E
	2 - 1	TRAFFIC		<b></b>	>	8 - 1		>		SP	Г
		(from A and F, a	and from $1 - 1$ to	5 D)		7 - 1		>		SP	E
:Wait :Stop tr <i>Note</i> – prohibi	raffic - A forced i ited test.	rerouting is perform	ed after the recept	ion of TF	P for D in	A but it	is not des	cribed in	this transf	èr	
TEST I	DESCRIPTI	ON		<u></u>							
							· ·				
ו. ז	Start traf	fic to D and E.									
2. 2	Deactivat	te link $5 - 1$ and ch	neck that a TFP co	oncerning	D is sent to	o A.					
э. 4	Check th	at a TFP concerning	, D is received fro	m A and	that traffic	to D is d	liverted vi	a C.			
ч.		at a time out 18 is s	larteo.								
5	Ston tent	fic and cheels shot so	officiente Eliminaria	L					-		

TEST	NUMBER:	9.2.1	·			PAGE:	1 of 1		
REFER	RENCE: Q.	704 § 13, Fig.	29, Fig. 44			I			
TITLE:	Signalling	route managemen	t						
SUB TI	ITLE: Broa	dcast of TFPs – c	on one linkset failure						
PURPO	DSE: To che	eck the broadcast of	of TFPs when one po	int is inacce	ssible				
PRE-TI	EST CONDI	TIONS: All links	sets available						
CONFI	IGURATION	1: D	TYPE OF TEST:	VAT, CPT		TYPE OF S	P: STP		
MESSA	AGE SEQUE	NCE:							
		SP A		SP	В	SP	с	SP	F
	Link		Li	nk	L	ink	Link		
:Start ti	raffic								
	3 - 1	TRAFFIC (from A, D and	Е)				->		
	3 - 1	:Deactivate (N	MML command or fa	ulure)					
a.	1 - 1	TFP, $PC = F$	>						
	2 - 1	TFP, $PC = F$			>				
:Wait									
(Stan to									
:stop ti	rame								
Note -	- The propa	gation of TFPs is a	not presented to simp	olify the test	description	l <b>.</b>			
	DESCRIPTI	ON							
TEST I									
TEST I 1.	Start traff	fic to F.							
TEST I 1. 2.	Start traff Deactivat	fic to F. e link $1 - 1$ and $c$	check that TFPs conc	erning F are	broadcast	ed.			
1. 2. 3.	Start traff Deactivat Check the	fic to F. e link 1 – 1 and d at a timer T8 is sta	check that TFPs conc	erning F are	broadcast	ed.			

TEST NUMBER: 9.2.2			PAGE: 1 of 2	
REFERENCE: Q.704 § 13 Fig. 29,	Fig. 44			
TITLE: Signalling route manageme	ent			
SUB TITLE: Broadcast of TFPs -	On multiple failures	· · · · · · · · · · · · · · · · · · ·		
PURPOSE: To check the broadcas	t of TFPs when several	point are inaccessible (vario	us reasons)	<u></u>
PRE-TEST CONDITIONS: Links	et 1 unavailable			
CONFIGURATION: D	TYPE OF T	EST: VAT, CPT	TYPE OF SF	: STP
MESSAGE SEQUENCE:				
SP A	SP B	SP C	SP	•
Link	Link	Link	Link	
Start traffic				
2 – 1 TRAFFIC		> 7 1	>	SP E
(from A and F)		8 - 1	>	SP D
2 - 1 :Deactivate (MML comm	and or failure)			
3 - 1 TFP, PC = D 3 - 1 TFP, PC = E Wait Stop traffic			>	
TEST DESCRIPTION				
1. Start traffic to D and E.				
2. Deactivate linkset 2 and cl	neck that TFPs concerning	ng B, C, D and E are broad	casted (to F).	
3. Check that for each TFP s	ent a timer T8 is started	•	• /	
4. Repeat test but with linkse	t 2 unavailable as pre-te	st condition and then deacti	vate linkset 1.	

TEST NUMBER: 9.2.2 Continued			PAGE: 2 of 2	
REFERENCE: Q.704 § 13 Fig. 29, F	rig. 44			
TITLE: Signalling route managemen	t	·····	, <u>, , , , , , , , , , , , , , , , , , </u>	
SUB TITLE: Broadcast of TFPs - (	On multiple failures			
PURPOSE: See page 1	· · · · · · · · · · · · · · · · · · ·	<u></u> 01 0		
PRE-TEST CONDITIONS: Linksets	s 1 and 4 unavailable	1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119 (1119		
CONFIGURATION: D	TYPE OF TES	ST: VAT, CPT	TYPE OF SP:	STP
MESSAGE SEQUENCE:	I			<b>.</b>
SP A	SP C	SP D	SP	•
Link	Link	Link	Link	
:Start traffic				
2 – 1 TRAFFIC	> 8 - 1	>		
(from A and F)	7 – 1 –––––		>	SP E
	8 – 1 :Deactiv	vate		
(from A and F) :Wait :Stop traffic	> / - 1 <b></b> -		>	SP E
st.				
TEST DESCRIPTION	, <u> </u>			
1. Start traffic to D and E.				
2. Deactivate linkset 8 and che	eck that a TFP (PC = $E$	) is sent. Check that TFF	s are broadcasted (here )	to F).
3. Check that a time out T8 st	arted.		(	
4. Stop traffic and check that	traffic to E has not been	disturbed.		
<ol> <li>Stop traffic and check that</li> <li>Repeat the test with linksets test with linksets 4 and 8 ur</li> </ol>	traffic to E has not been 2 and 4 unavailable as navailable as pre-test cor	disturbed. pre-test conditions and the deactive of the deactiv	nen deactivate linkset 5. 3 ate linkset 1.	Repeat the

TEST NUMBER: 9.3		PAGE: 1 of 2	
REFERENCE: Q.704 § 13 Fig. 29, I	ïig. 44	L	
TITLE: Signalling route managemen			
SUB TITLE: Reception of a message	for an unaccessible destination		
PURPOSE: To check that a TFP is s	ent in response to a message received for an un	accessible destination	
PRE-TEST CONDITIONS: Linksets	1, 4 and 8 unavailable		
CONFIGURATION: D	TYPE OF TEST: VAT	TYPE OF SP:	STP
MESSAGE SEQUENCE:			
SP A Link	Link	SP	F
3 - 1 TFP, PC = D	<> 3 - 1	:Sent a message to D MESSAGE TO D	
TEST DESCRIPTION         1.       Send from F a message with         2.       Check that a TFP PC = D i         3.       During T8, send a new message	< 3 – 1 OPC = D to A. sesent in response. Check that a time out T8 is st age with OPC = D to A and check that no TFP	MESSAGE TO D	

REFERENCE:       Q.704 § 15 Fig. 29, Fig. 44         TTTLE:       Signalling route management         SUB TITLE:       Keeption of a message for an unaccessible destination         PURPOSE:       Sce page 1         PRE-TEST CONDITIONS:       Linksets 1 and 8 unavailable         CONFIGURATION:       D         TYPE OF TEST:       VAT         TYPE OF SP:       STP         MESSAGE SEQUENCE:       SP         SI TTAFFIC       Link         (from A, D and B)       SP         3 - 1       TEAFFIC (from A, D and B)         (from A, D and B)       SP         3 - 1       TEAFFIC (from A, D and B)         (from A, D and B)       SP         2 - 1       TFP, PC = F         13          TTS       2 - 1         TFP, PC = F       4 - 1         (a)          TEST DESCRIPTION       4 - 1         1       Start traffic to F.         2.       Deastivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.			· · · · · · · · · · · · · · · · · · ·		······	
TITLE:       Signalling route management         SUB TITLE:       Reception of a message for an unaccessible destination         PURPOSE:       Sce page 1         PRE-TEST CONDITIONS:       Linksets 1 and 8 unavailable         CONFIGURATION:       D         YPE OF TEST:       VAT         TYPE OF SP:       SP         MESSAGE SEQUENCE:       SP         SP       A         SP A       SP         B       SP C         SP A       SP         Start traffic       3 - 1         :       Descrivate (MML command or failure)         2 - 1       TEP, PC = F         4 - 1       T8	REFERENCE	Q.704 § 13 Fig. 29	), Fig. 44			
SUB TITLE:       Reception of a message for an unaccessible destination         PURPOSE:       See page 1         PRE-TEST CONDITIONS:       Linksets 1 and 8 unavailable         CONFIGURATION:       D         YPE OF TEST:       VAT         TYPE OF SP:       SP         MESSAGE SEQUENCE:       SP         SP       A       SP         Start traffic       3 - 1         3 - 1       :Deactivate (MML command or failure)         2 - 1       TEP, PC - F         T8          Z - 1       MESSAGE TO F	TITLE: Signa	lling route managen	nent			
PURPOSE:       See page 1         PRE-TEST CONDITIONS:       Linksets 1 and 8 unavailable         CONFIGURATION:       D       TYPE OF TEST:       VAT       TYPE OF SP:       STP         MESSAGE SEQUENCE:       SP       A       SP       B       SP       C       SP       •         Link       Link       Link       Link       Link       Start traffice       3 - 1       :Deactivate (MML command or failure)         2 - 1       TFP, PC = F	SUB TITLE:	Reception of a mess	age for an unaccessible de	stination		
PRE-TEST CONDITIONS: Linksets 1 and 8 unavailable         CONFIGURATION: D       TYPE OF TEST: VAT       TYPE OF SP: STP         MESSAGE SEQUENCE:         SP A       SP B       SP C       SP ●         Link         3 - 1       Deactivate (MML command or failure)       2       1       MESSAGE TO F       TEST DESCRIPTION         1.       Start traffic to F.       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <td col<="" td=""><td>PURPOSE: S</td><td>ee page 1</td><td></td><td></td><td></td></td>	<td>PURPOSE: S</td> <td>ee page 1</td> <td></td> <td></td> <td></td>	PURPOSE: S	ee page 1			
CONFIGURATION: D     TYPE OF TEST: VAT     TYPE OF SP: STP       MESSAGE SEQUENCE:     SP     A     SP     B     SP     C     SP     •       Link     Link     Link     Link     Link     Link     SP     •     •       3 - 1     TRAFFIC (from A, D and E)     -     -     ·     ·     ·     SP     F       2 - 1     TFP, PC = F	PRE-TEST CO	NDITIONS: Link	sets 1 and 8 unavailable			
MESSAGE SEQUENCE:         SP       A       SP       B       SP       C       SP $\bullet$ Link       Link       Link       Link       Link       Start traffic         3 - 1       TRAFFIC (from A, D and E)	CONFIC	URATION: D	TYPE OF 7	TEST: VAT	TYPE OF SP: STP	
SP A       SP B       SP C       SP $\bullet$ Link       Link       Link       Link         Start traffic	MESSAGE SE	QUENCE:		<b>I</b>		
Link       Link       Link       Link       Link $3-1$ TRAFFIC (from A, D and E)       SP F $3-1$ :Deactivate (MML command or failure) $4-1$ $2-1$ TFP, PC = F $4-1$ $78$ $2-1$ MESSAGE TO F         TEST DESCRIPTION         1       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.	SP	Α	SP B	SP C	SP •	
Start traffic $3 - 1$ TRAFFIC (from A, D and E) $3 - 1$ :Deactivate (MML command or failure) $2 - 1$ TFP, PC = F $7 = 1$ TB $7 = 1$ MESSAGE TO F $1 = 1$ Start traffic to F. $2 = 1$ Deactivate linkset 3 and check that TFPs are broadcasted. $3 = 1$ Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.	Link		Link	Link	Link	
$3 - 1  \text{TRAFFIC} \qquad \qquad$	Start traffic:					
3 - 1       :Deactivate (MML command or failure)         2 - 1       TFP, PC = F         T8       <>         4 - 1         Commentation       2 - 1         MESSAGE TO F         Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.	3 – 1 TR (fro E)	AFFIC om A, D and			> SP F	
2 - 1       TFP, PC = F         T8	3 - 1 :De	eactivate (MML com	mand or failure)			
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.	2 – 1 TF	P, PC = F		>		
Image: Construction of the second state of the second s		 T8		4 – 1		
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.		<		2 - 1	MESSAGE TO F	
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
TEST DESCRIPTION         1.       Start traffic to F.         2.       Deactivate linkset 3 and check that TFPs are broadcasted.         3.       Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.						
<ol> <li>Start traffic to F.</li> <li>Deactivate linkset 3 and check that TFPs are broadcasted.</li> <li>Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.</li> </ol>	TEST DESCR	IPTION	·····			
<ol> <li>Deactivate linkset 3 and check that TFPs are broadcasted.</li> <li>Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.</li> </ol>	1 Star	t traffic to F				
3. Within T8, send one message with DPC = F from C to A and check that no TFP is sent in response.	2. Dea	ctivate linkset 3 and	check that TFPs are broad	lcasted.		
	3. Wit	hin T8, send one me	essage with DPC = F from	C to A and check that no T	FP is sent in response.	

	NUMBER: 9.4.1		P	AGE: 1 of 1
REFEI	RENCE: Q.704 § 13 Fig. 2	9, Fig. 45		
TITLE	: Signalling route managen	nent		
SUB T	ITLE: Sending of a TFA c	n an alternative route –	Recovery of normal linkset	
PURPO	OSE: To check the sending	of a TFA on an alternat	ive route when the normal lin	kset becomes available
PRE-T	EST CONDITIONS: Link	set 1 unavailable (end of	test 9.1.1)	
С	CONFIGURATION: D	TYPE OF T	EST: VAT, CPT	TYPE OF SP: STP
MESSA	AGE SEQUENCE:	Name of Contract o		
	SP A	SP B	SP C	SP •
Link		Link	Link	Link
Start to	raffic			
2 - 1	TRAFFIC		> 8 - 1	> SP D
	(from A and F)		7 – 1 –––––	> SP E
2 - 1 2 - 1 1 - 1 1 - 1	TFA, PC = B          TFA, PC = D          TFP, PC = D          TFP, PC = E	> >	> >	
1 - 1	TRAFFIC	> 5 - 1 <b>-</b>		> SP D
	(from A and F and from $2 - 1$ )	6 - 1		> SP E
2 – 1	TRAFFIC (from A and F)		> 7 - 1	> SP E
Wait				
Stop tr	affic			
Note —	a changeback procedure is	nerformed after activatio	n of link 1.1 but it is not dra	
			n of mik 1-1 out it is not desi	critica in this transfer allowed te:
			<u>.</u>	
est e	DESCRIPTION	, <u>, , , , , , , , , , , , , , , , , , </u>		· · · · · · · · · · · · · · · · ·
	Start to 00 to 17			
1.	Start traffic to D and E.			
1. 2.	Activate linkset 1 and che from A to C. Check that	eck that traffic to D and I no TFA is sent concernin	E is diverted on linkset 1 and a g E (load sharing in A betwee	that a TFA concerning D is sent n linksets 1 and 2).

1EST NUMBER: 9.4.2		Pz	AGE: 1 of 1	
REFERENCE: Q.704 § 13 F	ig. 29, Fig. 45			
TITLE: Signalling route mar	lagement			
SUB TITLE: Sending of a T	FA on an alternative route –	On reception of a TFA		
PURPOSE: To check that a a TFA	TFA is sent on the alternative	e route when the normal route	becomes available on reception	on o
PRE-TEST CONDITIONS:	Linksets 4 and 5 unavailable	(end of test 9.1.2)		
CONFIGURATION:	D TYPE OF 1	EST: VAT, CPT	TYPE OF SP: STP	
MESSAGE SEQUENCE:				
SP A	SP B	SP C	SP ●	
Link	Link	Link	Link	
Start traffic				
1 – 1 TRAFFIC - (from A and F)	> 6 - 1		> SP	E
2 – 1 TRAFFIC –		> 7 - 1	> SP	Е
(from A and F)		8 - 1	> SP	D
	5 - 1 :Activ	vate		
See note	< 1 – 1 TFA,	PC = D		
1 - 1 TFP, PC = D - 2 - 1 TFA, PC = D -	>	>		
1 – 1 TRAFFIC -	> 5 - 1		> SP	D
(from A and F, from $2 - 1$	to D) 6 - 1		> SP	Ε
2 – 1 TRAFFIC – (from A and F)		> 7 - 1	> SP	E
:Wait				
Stop traffic				
Note – a controlled reroutir	ig is performed after the activ	ation of linkset 5 it is not desc	ribed in this transfer allowed	test.
TEST DESCRIPTION				·
TEST DESCRIPTION           1.         Start traffic to D a	nd E.			
TEST DESCRIPTION         1.       Start traffic to D a         2.       Activate link 5 – 1	nd E.	erning D is sent to A.		
TEST DESCRIPTION         1.       Start traffic to D a         2.       Activate link 5 - 1         3.       Check that the traffic to D a	nd E. I and check that a TFA conce fic to D is diverted via B and	erning D is sent to A. check that a TFA concerning	D is sent from A to C.	

REFEF				
_	RENCE: Q.704 § 13 Fig. 29,	Fig. 45		
TITLE:	: Signalling route manageme	ent		- <u>,</u>
SUB TI	ITLE: Broadcast of TFAs -	- On one linkset recovery	ý	
PURPC	DSE: To check the broadcast	t of TFA when a destinat	tion becomes accessible	101 (1) 1 (1
PRE-TI	EST CONDITIONS: Linkse	et 3 unavailable (end of t	est 9.2.1)	
С	CONFIGURATION: D	TYPE OF TE	ST: VAT, CPT	TYPE OF SP: STP
MESSA	AGE SEQUENCE:	- I		
	SP A	SP B	SP C	SP •
Link		Link	Link	Link
3 - 1	:Activate (see Note 1)			
1 - 1	TFA, $PC = F$	-> (see Note 2)		
2 - 1	TFA, PC = F		>(see Note 2)	
Start ti	raffic			
3 - 1	TRAFFIC			> SP F
337_14	(from A and F)			
wait	<i>0.</i> 04			
Stop tr	rainc			
N <i>ote 1</i> n this f	<ul> <li>After activation of the lin test</li> </ul>	kset 3, SPs A and F perf	orm a point restart procedure	which is not explicitly described
Note 2	- The propagation of TFAs	is not presented to simp	lify the test description.	
			<u></u> ;	
rest i	DESCRIPTION			
	Activate linkset 3.			
1.	Check that TEAs concerning	ng F are broadcasted.		
1. 2.	Check that TFAS concernit			
1. 2. 3.	Start traffic to F and check	k that it is routed correct	ly; stop traffic.	
1. 2. 3.	Start traffic to F and check	k that it is routed correct	ly; stop traffic.	
1. 2. 3.	Start traffic to F and check	k that it is routed correct	ly; stop traffic.	

TEST N	UMBER: 9.5.2			PAGE: 1 of 2
REFER	ENCE: Q.704 § 13 Fig. 29, F	ig. 45		
TITLE:	Signalling route managemen			
SUB TI	TLE: Broadcast of TFAs –	Various reasons		
PURPO	SE: To check the broadcast of	of TFA when several de	stinations become accessi	ble in various network situations
PRE-TE	ST CONDITIONS: Linksets	1 and 2 unavailable (er	nd of test 9.2.2 page 1 of	2)
СС	ONFIGURATION: D	TYPE OF TES	ST: VAT, CPT	TYPE OF SP: STP
MESSA	GE SEQUENCE:			
	SP A	SP B	SP C	SP •
Link		Link	Link	Link
2 - 1	:Activate			
3 - 1	TFA, $PC = B$			> SP F
3 ~ 1	TFA, $PC = C$			> SP F
3 - 1	TFA, PC = D			> SP F
	-TFA, PC = B		• • • • • • • • • • • • • • • • • • •	> SP F
2 - 1	TFP, $PC = B$		>	
2 - 1	TFP, PC = D		>	
·Start tr	111, 10 = 2			
.5tart (1.				
2 - 1	(from A and F)		> 7 - 1 8 - 1	> SP E
·Wait			0 - 1	> 31 D
Ston fre				
.stop in	4111C			
Note – test.	After activation of the linkse	2, SPs A and C perfor	m the point restart procee	dure which is not described in this
TEET D	ECONDICI		·····	
		-		
1.	Activate linkset 2.			
2.	Check that TFAs concerning	g B, C, D and E are bro	badcasted.	
3.	Start traffic and check that	it is routed correctly; sto	op traffic.	
4.	Repeat test but activate link	set 1 instead of linkset 2	2.	

REFERENCE: Q.704 § 13 F	ig. 29, Fig. 45			
TITLE: Signalling route mar	agement	<u> </u>		
SUB TITLE: Broadcast of T	FAs – Various reasons			
PURPOSE: See page 1 of 2				
PRE-TEST CONDITIONS:	Linksets 1, 4 and 8 unavailabl	le (end of tests 9.2.2 page 2	e of 2)	
CONFIGURATION: I	D TYPE OF T	EST: VAT, CPT	TYPE OF SP: STP	
MESSAGE SEQUENCE:				
SP A	SP B	SP C	SP •	
Link	Link	Link	Link	
Start traffic				
2 - 1 TRAFFIC (from A and F)		> 7 - 1	> SP E	
		8 – 1 :Activat	e	
<		2 – 1 TFA, P	C = D	
2 - 1 TFP, PC = D		>		
3 - 1 TFA, PC = D			> SP F	
2 – 1 TRAFFIC		> 7 - 1	> SP E	
(from A and F)		8 - 1	> SP C	
Wait				
Start traffic				
	<u></u>			
TEST DESCRIPTION				
1. Start traffic_to E.				
2. Activate linkset 8 an concerning D.	d check that a TFA concernin	g D is sent from C to A. C	heck that A broadcasts TFAs	
3. Check that the traffic	c to D is restarted.			
4. Repeat test with link	sets 2, 4 and 5 unavailable as	pre-test conditions and acti	vate linkset 5. Repeat test with	
TEST N	—— UMBER: 9.6			PAGE: 1 of 1
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REFERI	ENCE: Q.704 § 13 Fig. 29, Fig	<u>3</u> . 46		<u> </u>
TITLE:	Signalling route management			
SUB TI	LE: Periodic sending of Sign	alling-Route-Set-Test messages	(SRST)	
PURPOS	SE: To check the periodic test	of a unavailable signalling rou	te is performed	correctly
PRE-TE	ST CONDITIONS: Linkset 2	unavailable		
СС	ONFIGURATION: A	TYPE OF TEST: N	/AT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:		4	
	SP A			SP B
J	link		link	
:Start tra	affic			
1	– 1 TRAFFIC	> <>	1 - 1	TRAFFIC
1	$\sim 1$ RST, PC = C	>		
	T10			
1	-1 RST, PC = C	>		
	<b>T</b> 10		2 - 1	:Activate
	Ţ	<	1 - 1	TFA, $PC = C$
1	– 1 TRAFFIC	> <>	1 – 1	TRAFFIC
:Wait				
:Stop tra	affic			
TEST D	ESCRIPTION			
1.	Start traffic to B.			
2.	Check that at each expiration without response.	of T10, a signalling-Route-Set	-Test message co	ncerning C is received from A
3.	Activate linkset 2 and check	that a TFA is received and that	T10 is stopped.	
4.	Check that traffic to C is rest	arted and stop traffic.		
5.	Repeat the test but without so TFA is sent in response. Che	ending of TFA after activation ck that T10 and signalling-route	of linkset 2 and e-set-test procedu	check that when a RST is received a ure are stopped.
6.	Check that the duration of T	10 is inside the specified range.		

	. 9.1		PAGE: 1 of 1
REFERENCE:	Q.704 § 13 Fig. 29, Fig. 4	46	
FITLE: Signalli	ng route management		
SUB TITLE: Re	eception of a Signalling-I	Route-Set-Test-Message	
PURPOSE: To	check the actions of the	system on reception of an SRST	
PRE-TEST CON	DITIONS: Linksets 2 a	and 3 unavailable	na an in state in a state of a st
CONFIGU	RATION: D	TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQU	JENCE:	·	
-	SP A	SP B	SP F
Link		Link	Link
		< 1 – 1 RST, PC	C = F
3 - 1	:Activate	Т1	0
1 - 1	TFA, $PC = F$	> (ignored)	
		< 1 – 1 RST, PC	C = F
1 - 1	TFA, $PC = F$	> T	10
3 - 1	TRAFFIC (from A D and E)	يد مەسىمەمەمەمەمەمەمەمەمەمەمەمەمەمەمەمەمەمە	>
Wait	(		
Stop traffic			
EST DESCRIP	FION		
		· · · · · · · · · · · · · · · · · · ·	
1. Send to	A RST message concern	ning F and check that no response is receive	ed.
2. Activat	e linkset 3 and check tha	at a TFA is received but ignored in B.	
3. Send a	RST message concerning	g F after activation of linkset 3 and check th	hat a TFA is received in response.
. 1 –			

REFERE	NCE: Q.704 § 9						
TITLE:	Signalling point re	estart			*		
SUB TIT	LE: Recovery of	a linkset (SP	A has not STP function	) – With use of point	nt restart procedure		
PURPOS	E: To check that between two a	point restart j djacent SPs	procedure is performed	correctly when the re	covery of a linkset restore	es conn	exit
PRE-TES	T CONDITIONS:	Linksets 1,	2, 4 and 6 are unavailal	ole			
CO	NFIGURATION:	В	TYPE OF TEST:	VAT, CPT	TYPE OF SP:	SP	
MESSAG	E SEQUENCE:	, <b></b>		. nau	J		
S	SP A		SP B	SP C	SP	•	
Link			Link	Link	Link		
:Start traf	fic						
3 - 1, 2	TRAFFIC		>	7 - 1	>	SP	Е
				8 - 1	>	SP	D
		<		3 - 1, 2 <	7 - 1	SP	Е
				<	8 - 1	SP	D
	T21	< <	2 - 1 TFP (PC = C) 2 - 1 TFP (PC = E) 2 - 1 TFP (PC = E)	I			
	L TIME CONTRO	LLED DIVE	2 - I IKA RSION IS APPLIED				
2 - 1	TRAFFIC (from $3 - 1, 2$ )	>	5 1		>	SP	D
	(, -, -, -, -, -, -, -, -, -, -,	<	2 – 1 <		5 - 1	SP	D
3 - 1, 2	TRAFFIC		>	7 – 1 –––––	>	SP	Е
				8 - 1	>	SP	D
Walt		<		3 - 1, 2 <	7 - 1	SP	E
swall Stop traf	fic						
Note – 7 not descri	The time controlled bed in this point r	d diversion pr estart test.	ocedure is applied in A	and a changeback is	performed in D. These pr	ocedur	es a
TEST DE	SCRIPTION						
1.	Start traffic to E 4	and D in VA		<u> </u>	·		
2.	Activate link $2 -$ that the timer T21	1 and check is stopped of	that the timer T21 is stand reception of the TRA	rted. Check that TFP: message received from	s sent from B are received n B.	in A.	Che
3.	Check that the tin diverted to the lin diverted.	ne controlled k 2 – 1 in ac	diversion procedure is p cordance with the load	erformed at the end of sharing rules in A. C	of T21. Check that the transfer that the transfer to $\mathbf{E}$ is	ffic to i is not	D is
4	Stop traffic and a	h					

TEST N	NUMBER: 10.1.2				PAGE: 1 of 1		
REFER	RENCE: Q.704 § 9				<u> </u>		
TITLE:	Signalling point r	estart					
SUB TI	TLE: Recovery of	a linkset (SF	A has not STP fu	nction) – Without use of p	oint restart procedure		
PURPC	OSE: To check the	actions of the	e system in case of	restart of a linkset			
PRE-TI	EST CONDITIONS	: Linksets 1	, 2 and 6 unavailab	le			
С	ONFIGURATION:	В	TYPE OI	F TEST: VAT	TYPE OF SP	: SP	
MESSA	GE SEQUENCE:	I					
	SP A		SP B	SP C	SP	•	
Link			Link	Link	Link		
:Start tr	affic						
3 — 1,	2 TRAFFIC		·	> 7 - 1	>	SP	F
				8 - 1	>	SP	D
		<	[ <sup>4</sup> - 1 <	> 3 - 1, 2	5 1	SP	D
2 ~ 1	:Activate	<		3 - 1, 2 <	7 - 1	SP	E
	CHANGEBACK	SARE PER	FORMED IN A A	ND B (see note)			
2 _ 1	TRAFFIC						_
$\frac{2}{2} - 1$	TRAFFIC	>	4 = 1 =====	> / - 1	<b></b> >	SP	E
3 — 1,	2 TRAFFIC			> 7 - 1	>	SP	D E
				8 - 1	>	SP	D
		>	2 - 1 <		5 - 1	SP	D
				> 3 - 1, 2	> 7 - 1	SP	Е
Wait							
Stop tr	affic						
Note –	After activation of	link 2 – 1,	changebacks are pe	rformed in A and B but the	y are not explicitly desc	ribed in	this
FEST D	DESCRIPTION					,	
1.	Start traffic to E a	and D.		, <u>and</u> , <u>and</u>	,		
2.	Activate link 2 -	1. Check that	at the point restart a	procedure is not applied and	that changebacks are r	erforme	:d.
3.	Check that the tra	iffic from A i	is diverted to the lir	1 k 2 - 1 in accordance with	the load sharing rules	in A.	
4.	Check that the sig	nalling route	set test procedure	is not applied after the activ	vation of the link $2 - 1$ .		
	Store to SC 1	hoole that the	no wono no last mo-				

REFERE	NCE: Q.704 § 9							
TITLE:	Signalling point r	estart						
SUB TIT	LE: Recovery of	a linkset (S	P A has the	STP function	) – With use of p	oint restart p	rocedure	
PURPOS	E: To check that between two a	restart proc idjacent SPs	edure is peri	formed correc	tly when the recov	ery of a links	et restores the	e connectivi
PRE-TES	T CONDITIONS	: Linksets 1	, 3, 4 and 6	unavailable				
CO	NFIGURATION:	D	TYP	E OF TEST:	VAT, CPT		TYPE OF SP:	STP
MESSAC	E SEQUENCE:					1		
5	SP A		SP B		SP	С	SP	•
Link			Link		Link		Link	
:Start tra	ffic							
2 - 1	TRAFFIC (from A)	<		>	7 - 1	> >	7 - 1	SP E SP D SP E
1 - 1	:Activate				<-		8-1	SPD
1 — 1	$\begin{array}{rcl} TFP (PC = F) \\ T21 \end{array}$	>	1 – 1	T21 TFPs (PC	$\Rightarrow$ E and PC $=$ C	\		
1 – 1	TRA	>	5 – 1	TFA (PC)	= 2 and $1 = 0$	)		5P D
2 1		< <b></b>	1 – 1	TRA	,			51 D
2 - 1 1 - 1	TFA (PC = B) $TFP (PC = D)$	>		>	•			
	TIME CONTRO	OLLED DIV	ERSION IS	APPLIED				
1 – 1	TRAFFIC	>	5 – 1			>		SP D
		<	1 – 1	< <b></b>			5 - 1	SP D
2 - 1	TRAFFIC			>	- 2 - 1 <	>	8 1	SP D SP E
Wait		<			- 2 - 1 <-		7 - 1	SP E
:Stop trai	ffic							
TEST DI	ESCRIPTION		•				<u>, , , , , , , , , , , , , , , , , ,</u>	
1.	Start traffic to D	and E.		-	÷.			
2.	Activate link 1 – to A for E and C	1 and chec , and that a	k that the ti TFP is sent	mer T21 is sta from A to B	rted in A (and B i for F.	n CPT). Chec	k that TFPs a	re sent from
3.	Check that a TRA stopped. Check the	A is sent from that a TFA is	n A to B an sent from A	d check that, A to C for B.	on reception of T	RA (sent from	B to A), the	timer T21 i
4.	Check that the tin	ne controlle	diversion i	is applied in A	A. Check that the t	raffic to D is	diverted on li	nk 1 — 1.
5.	Stop traffic. Chec	k that there	were no los	t messages an	d no missequencin	g.		

REFERENCE: Q.704 § 9		·····	<u></u>
Signalling point restart			
SUB TITLE: Recovery of a linkset	(SP A has the STP func	ction) – With use of point re-	start procedure
PURPOSE: See page 1 of 2	. <u> </u>		
PRE-TEST CONDITIONS: Linkse	ts 3, 4 and 6 unavailable	e (end of page 1)	
CONFIGURATION: D	TYPE OF	TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:	· I		
SP A	SP B	SP C	SP •
Link	Link	Link	Link
Start traffic			
1 – 1 TRAFFIC	-> 5 - 1		> ٩٩ ח
<	1 - 1 <		5 - 1 SP D
<		2 - 1 <	8 – 1 SP D
2 – 1 TRAFFIC		> 7 - 1	> SP E
< <b></b>		2 - 1 <	7 – 1 SP E
3 - 1 :Activate			
3 – 1 TRAFFIC <			> 3 - 1 SP F
			T21
3 – 1 TRA			> <u> </u>
1 - 1 TFA (PC = F)	->		
2 - 1 TFA (PC = F)		>	
1 – 1 TRAFFIC	-> 5 - 1		> SP D
(from A and F)			
2 1 TD APPro	1 - 1 <		5 – 1 SP D
(from A and F)		> 7 - 1	> SP E
<		2 - 1 <	7_1 SP F
Wait		\	- , - i or E
stop trattic			
EST DESCRIPTION	2		
1. Start traffic.			<u> </u>
2. Activate the link $3 = 1$ and	l check that the traffic f-	om/to A to/from E is income	liatoly, postanta-1
	a shoek mat the traine H	om/ to A to/ from F is immed	nately restarted.
2 Charlet a market			

TEST N	UMBER: 10.2.2		P.	AGE: 1 of 1	
REFER	ENCE: Q.704 § 9				
TITLE:	Signalling point restart				
SUB TI	TLE: Recovery of a linkset (S	SP A has the STP fun	ction) – Without use of poin	t restart procedure	
PURPO	DSE: To check the actions of the	he system in case of r	restart of a linkset		
PRE-TE	EST CONDITIONS: Linkset 1	unavailable			
C	ONFIGURATION: D	TYPE OF	TEST: VAT	TYPE OF SP:	STP
MESSA	GES SEQUENCE:		I		
	SP A	SP B	SP C	SP	•
Link		Link	Link	Link	
:Start tr	raffic				
2 – 1	TRAFFIC		> 8 - 1	>	SP D
	(from A and F)		7 - 1	>	SP E
	<		2 - 1 <	7 - 1	SP E
			<	8 - 1	SP D
1 — 1	:Activate		(see Note	1)	
	CHANGEBACKS ARE PI	ERFORMED IN A A	ND B (see Note 2)		
1 – 1	TRAFFIC	> 5 - 1		>	SP D
	(from A and F, from $2 - 2$	1) 6 - 1 <			SP E
2 - 1	TRAFFIC		> 7 - 1	>	SP E
	<		2 - 1 <	7 - 1	SP E
			<	8 – 1	SP D
:Wait			(see indie	<b>1</b> <i>j</i>	
:Stop tr	affic				
Note 1	Dananding of the court's	also in Diorral E al.	unffin to A and Tomore to		<b>5</b> 9
linksets	6 or 7.	nes in D and E, the t	danie to A and F may be carr	ied enner on linksets	5 01 8, 01 0r
Note 2	- Changebacks are performed	I but they are not exp	licitly described in this point	restart test.	
TEST I	DESCRIPTION			<u> </u>	
1.	Start traffic to D and E.			· · · · · · · · · · · · · · · · · · ·	
2.	Activate link 1 – 1. Check performed.	that point restart proc	cedure is not applied in this ca	se and that changeba	acks are
3.	Check that the traffic to D a	ind E is diverted on l	ink $1 - 1$ in accordance with	the load sharing rule	s in A.
4.	Check that the signalling rou	ite set test procedure	is not used.	-	
5	Ston traffic and shash the	ware no lost most	a no dunlicotica		
	1 stop trainic and check there	were no iost message	s, no auplication and no misse	equencing.	

REFE	ENCE: 0.704	8.0			
	Q.704	89			
TITLE	Signalling poi	nt restart			
SUB T	ITLE: An adja	cent SP becomes	accessible via anoth	ner SP (SP A has not STP	function)
PURPO	OSE: To check	the actions of th	e system when an ac	ljacent SP becomes accessi	ble via another SP
PRE-TI	EST CONDITIC	NS: Linksets 1	, 3, 4, 5 and 6 are u	navailable	
С	ONFIGURATIO	DN: B	TYPE OF	TEST: VAT	TYPE OF SP: SP
MESSA	GE SEQUENC	E:			· · · · · · · · · · · · · · · · · · ·
	SP A		SP B	SP C	SP •
Link			Link	Link	Link
			4 – 1:Activa	ate	
			TFPs 4 - 1 (D and E) T21	> 4 - 1 TF > T2	P (A)
			$\frac{1}{1} <$	$4 - 1 \perp TR$	A
2 – 1	T21	< (for D and C)	2 - X TFAx (PCs = and E)	7 - 1 TFA = C, D $8 - 1$ TFA	s (A,B)> SP E s (A,B)> SP D T21 in D for A
,	TRAFFIC	<b>-</b> > < <b>-</b>	$4 - 1 \mod 2$ 2 - 1, 2 <	casting 7 - 1 4 - 1 <	> SP E 7 - 1 SP E
2 - 1, 2	2 TRAFFIC	>	4 - 1	> 8 - 1	> SP D
		< <b></b>	2 - 1, 2 <	4 1 <	8 1 SP D
Wait Stop tra	affic				
TEST D	ESCRIPTION	<u> </u>		<u> </u>	
1.	Activate link 4	4 — 1.			<u> </u>
2.	Check that on after expiration	the reception of n of T21.	TFAs the traffic is	immediately restarted in A	to E and that traffic to D is restarte
3.	Stop traffic an	d check that the	re were no lost mess	ages, no duplication and no	o missequencing.

REFER	ENCE: Q.704 § 9					
TITLE:	Signalling point re	estart				
SUB TI	TLE: An adjacent	SP becomes accessi	ble via another SP (	SP A has STP functio	n)	
PURPO	SE: To check the a TFA	actions of the systen	n when an adjacent	SP becomes accessible	via another SP on re-	ception of a
PRE-TE	ST CONDITIONS:	Linksets 1, 3 and	4 are unavailable			
C	ONFIGURATION:	D	TYPE OF TEST	: VAT	TYPE OF SP:	STP
MESSA	GES SEQUENCE:					
	SP A	SP	В	SP C	SP	•
Link		Liı	nk	Link	Link	
:Start tr	affic					
2 – 1	TRAFFIC		>	7 - 1	>	SP E
	(from A)			8 - 1	>	SP D
		<		2 - 1 <	7 1	SP E
		4 -	- 1 :Activate	<	8 - 1	SP D
			Point re T21 procedu applied	estart ure is T21 in B and C		
		4 1	$\downarrow_{<}$	$4 - 1 \perp TRA$		
		<		2 – 1 TFA (PC	= B)	
2 — 1	TFP (PC = F)		>	4 – 1 <sub>7</sub>		
2 - 1	TRAFFIC	<	>	7 – 1 –	>	SP E
-			-	8 - 1 <	-	SP D
		<		2 - 1 <	7 1	SP E
				<	8 - 1	SP D
:Wait						
:Stop tr	affic					
_TEST-E	DESCRIPTION				 	
1.	Start traffic.					
2.	Activate link 4 -	- 1.				
3.	Check that, when consequently A s	the TFA is received ends a TFP concern	d for B, SP A is awa ing F on link 2 – 1	are of that B is an adja to B.	cent point which resta	arts, and
	64		-			

	· · · · · · · · · · · · · · · · · · ·			PAGE: 1 of 2	
REFE	RENCE: Q.704 § 9		<u> </u>		
TITLE	E: Signalling point restart				
SUB T	TITLE: Restart of an SP hav	ing no STP function			
PURP	OSE: To check the restart pr	ocedure in an SP having	no STP function	<u>_</u>	_
PRE-T	TEST CONDITIONS: SP A	unavailable			<u>_,</u>
(	CONFIGURATION: B	TYPE OF TE	EST: VAT, CPT	TYPE OF SP:	SP
MESS	AGE SEQUENCE:	_L		<u> </u>	<u></u>
	SP A	SP B	SP C	SP	•
Link		Link	Link	Link	
<b>X</b> – 2	:Activate X Activation (first link acti	vated)			
	: T21				
	⊥ <	TRA	received from B or C		
	FINAL SITUATION (W	HEN ALL LINKS ARE	AVAILABLE)		
				>	
1 – 1,	, 2 TRAFFIC				SP D
1 - 1, 2 - 1	2 TRAFFIC	~ 5 1		1 - 1, 2	SP D SP D
1 - 1, 2 - 1,	2 TRAFFIC	-> 5 - 1 6 - 1		1 – 1, 2 >	SP D SP D SP D
1 - 1, 2 - 1, 3 - 1,	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1	> > >	SP D SP D SP D SP E SP E
1 - 1, 2 - 1, 3 - 1,	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1	> > >	SP D SP D SP D SP E SP D SP E
1 - 1, 2 - 1, 3 - 1,	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1 3 - 1, 2 <	> > > > > 7 - 1	SP D SP D SP D SP E SP D SP E SP E
1 – 1, 2 – 1, 3 – 1, :Wait	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1 3 - 1, 2 <	> > > > 7 - 1	SP D SP D SP D SP E SP D SP E SP E
1 - 1, 2 - 1, 3 - 1, Wait Stop tr	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1 3 - 1, 2 <	1 - 1, 2 > > > > 7 - 1	SP D SP D SP D SP E SP D SP E SP E
1 – 1, 2 – 1, 3 – 1, Wait Stop tr 	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1 3 - 1, 2 <	1 - 1, 2 > > > > 7 - 1	SP D SP D SP D SP E SP D SP E SP E
1 – 1, 2 – 1, 3 – 1, Wait Stop tr FEST I	2 TRAFFIC	-> 5 - 1 6 - 1	> 8 - 1 7 - 1 3 - 1, 2 <	> > > > > 7 - 1	SP D SP D SP E SP D SP E SP E
1 – 1, 2 – 1, 3 – 1, Wait Stop tr FEST I 1. 2.	2 TRAFFIC	-> 5 - 1 6 - 1 ink is activated, the time	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started.	> > > > > 7 1	SP D SP D SP E SP D SP E SP E
1 – 1, 2 – 1, 3 – 1, Wait Stop tr TEST I 1. 2. 3.	2 TRAFFIC 2 TRAFFIC 2 TRAFFIC 2 TRAFFIC comparison of the second secon	-> 5 - 1 6 - 1 ink is activated, the time f a TRA received from E	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started.	> > > > > >	SP D SP D SP E SP D SP E SP E
1 - 1, 2 - 1, 3 - 1, :Wait :Stop tr  TEST I 1. 2. 3. 4.	2 TRAFFIC	-> 5 - 1 6 - 1 ink is activated, the time f a TRA received from E are activated, the traffic	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started. 3 or C, T21 is stopped. is carried as described abo	> > > > > > > >	SP D SP D SP E SP D SP E SP E

				PAGE: 1 of 2	
REFEI	RENCE: Q.704 § 9				
TITLE	: Signalling point restart				
SUB T	TTLE: Restart of an SP hav	ing no STP function			
PURP	OSE: To check the restart pr	ocedure in an SP having	no STP function		
PRE-T	EST CONDITIONS: SP A	unavailable			<u> </u>
C	CONFIGURATION: B	TYPE OF TE	ST: VAT, CPT	TYPE OF SP	SP
MESS/	AGE SEQUENCE:		· · · · · · · · · · · · · · · · · · ·	······	. <u>.</u> .
	SP A	SP B	SP C	SP	•
Link		Link	Link	Link	
X – 3	:Activate X Activation (first link act	ivated)			
	: T21				
	L <	TRA	received from B or C		
	FINAL SITUATION (W	HEN ALL LINKS ARE	AVAILABLE)		
1 — 1,	2 TRAFFIC			>	SP E
2 – 1	2 TRAFFIC			1 - 1, 2	SP D
,		6 – 1 – – – – – – – – – – – – – – – – –		>	SP E
				>	51 12
3 — 1,	2 TRAFFIC		> 8 - 1	·>	SP D
3 — 1,	2 TRAFFIC		> 8 - 1 7 - 1	>	SP E SP E
3 — 1,	2 TRAFFIC		> 8 - 1 7 - 1 3 - 1, 2 <	> > 7 1	SP E SP E SP E
3 — 1, Wait	2 TRAFFIC		> 8 - 17 - 1 3 - 1, 2 <	> > 7 1	SP E SP E SP E
3 — 1, Wait Stop tr	2 TRAFFIC <		> 8 - 1 7 - 1 3 - 1, 2 <	> > 7 1	SP E SP E SP E
3 – 1, Wait Stop tr	2 TRAFFIC affic DESCRIPTION		> 8 - 1 7 - 1 3 - 1, 2 <	> > 7 1	SP E SP E SP E
3 – 1, Wait Stop tr TEST E	2 TRAFFIC affic DESCRIPTION Activate SP A.		> 8 - 1 7 - 1 3 - 1, 2 <	> > 7 1	SP E SP E SP E
Wait Stop tr TEST E	2 TRAFFIC affic DESCRIPTION Activate SP A. Check that when the first J	ink is activated, the time	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started.	> > 7 1	SP E SP E SP E
<ul> <li>3 – 1,</li> <li>Wait</li> <li>Stop tr</li> <li>TEST D</li> <li>1.</li> <li>2.</li> <li>3.</li> </ul>	2 TRAFFIC affic DESCRIPTION Activate SP A. Check that when the first I Check that, on reception o	ink is activated, the time f a TRA received from E	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started.	> > >	SP E SP E SP E
<ul> <li>3 – 1,</li> <li>Wait</li> <li>Stop tr</li> <li>TEST E</li> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> </ul>	2 TRAFFIC affic            affic           DESCRIPTION           Activate SP A.           Check that when the first J           Check that, on reception o           Check that, when all links	ink is activated, the time f a TRA received from E are activated, the traffic	> 8 - 1 7 - 1 3 - 1, 2 < r T21 is started. For C, T21 is stopped. is carried as described abo	> > 7 1	SP E SP E SP E

TEST N	UMBER: 10.6			PAGE: 1 of 2	
REFER	ENCE: Q.704 § 9			- l <u></u>	
TITLE:	Signalling point restart				<u></u>
SUB TI	TLE: Restart of an SP havin	ng the STP function			<u></u>
PURPO	SE: To check the restart pro	cedure in an SP havin	g STP function		
PRE-TE	ST CONDITIONS: SP A u	navailable			
СС	DNFIGURATION: D	TYPE OF T	EST: VAT, CPT	TYPE OF SP	STP
MESSA	GES SEQUENCE:	I	<u> </u>		
	SP A	SP B	SP C	C SP	•
Link		Link	Link	Link	-
1 - 1 2 - 1 1 - 1 2 - 1 3 - 1 1 - 1	<pre>&lt; TRA ma T18 all links are aligned </pre> T19 (see note) TFPs (for D and E)> TFPs (for D and E)> TFPs (for D and E) T20 TRA TRA TRA TRA TRA (from A and F) <	y be received from B T21 ay be received from B > 	or C T21 or C (A) are sent TFA or C to A and F	s (A) are sent	T21 SP F SP D SP D SP D SP E
2 - 1	TRAFFIC	·	> 7 1	>	SP E
Wait Stop trai V <i>ote –</i>	(from A and F) < ffic If all TRAs are received duri	- Via B ng T18, T19 is not star	or C to A and F	> 6 – 1 or 7 – 1	SP E
EST DI	ESCRIPTION	· _ · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	- · ·
1. 2. 3.	Activate signalling point A. Check that the signalling lin Check that when all TRAs a	ks become available an	nd check that the received s are broadcasted from A	TRAs are correctly hand	lled.
4.	Check that the traffic is rest	arted correctly, wait ar	id stop traffic.		
c .	Repeat the test (in VAT) but	send the traffic from	E to D and E via A imm	adiatalu aftar alizzar aut a	615-1 0 4

REFEREN	NCE: 0.704 8 9	₩			w
				. <u></u>	
TITLE: S	Signalling point restart			_	
SUB TITL	E: Restart of an SP ha	ving the STP function			
PURPOSE	E: To check the restart p	rocedure in an SP having	STP function		
PRE-TEST	Γ CONDITIONS: SP A	, linksets 2 and 4 unavail	able		
CON	FIGURATION: D	TYPE OF	TEST: VAT	TYPE OF SP:	STP
MESSAG	E SEQUENCE:				
S	P A	SP B	SP C	SP	•
Link		Link	Link	Link	
3 - 1 1 - 1 3 - 1 1 - 1 1 - 1 3 - 1 1 - 1 	Activation (traffic from T18 Activation (traffic from < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < <	/to F is immediately rest $rac{1}{-1}$ TFP $rac{1}{-1}$ TRA T21 T21 T21 T21 T21 T21 T21 T21	arted) (arted) (PC = C)	> > > > > > > 6 - 1	T21 SP F SP D SP E SP D SP D SP E
Stop trafi TEST DE	fic SCRIPTION				
1. 2. 3. 4.	Activate signalling point Check that T19 is started Check that T20 is started Check that TFPs are sen	A beginning by the activation of T18. ( after expiration of T18. ( after expiration of T19. ( t during T20.	ation of $3 - 1$ . After activation of The duration of The dur	on of 3 – 1, activate 18 is inside the specifi 19 is inside the specifi	link 1 – 1. ed range. led range.

TEST NUMI	BER: 10.7.1			PAGE: 1 of 1
REFERENC	E: Q.704 § 9			
TITLE: Sig	nalling point restart			
SUB TITLE:	Reception of an unexpec	ted TRA – In an SP having no	STP function	
PURPOSE:	To check the actions of the	e system in case of reception of a	an unexpected 7	TRA
PRE-TEST C	CONDITIONS: Linkset wi	th one available link		
CONFI	GURATION: A	TYPE OF TEST: VA	T	TYPE OF SP: SP
MESSAGES	SEQUENCE:			
	SP A			SP B
Link Start traffic:			Link	
1 – 1	TRAFFIC	>		
		<	1 - 1	TRAFFIC
1 - 1	TRAFFIC	<>	1-1	TRA
	-	<	1 - 1	TRAFFIC
:Wait				
Stop traffic				
TEST DESCH				
1 0.		······		
1. Star	t trattic to B and C on link	(1 - 1)	1	
2. Sen 3. Stor	u a IKA from B to A and	cneck that this message is ignore	:d.	
5. [ 510]	P GALLIC and check that it h	as not been disturbed.		
		· · · · · · · · · · · · · · · · · · ·		

REFERI TITLE:	ENCE: Q.704 § 9					
TITLE:						
	Signalling point re	estart	· · · · · · · · · · · · · · · · · · ·			
SUB TIT	LE: Reception of	f an unexpe	cted TRA – In an S	P having STP function		
PURPOS	SE: See test 10.7.1					
PRE-TE	ST CONDITIONS	Linksets	1, 4 and 8 unavailabl	e		
CC	NFIGURATION:	D	TYPE OF	TEST: VAT	TYPE OF SP:	STP
MESSA	GE SEQUENCE:	I				
	SP A		SP B	SP C	SP SP	•
Link			Link	Link	Link	
:Start tra	affic					
2 - 1	TRAFFIC (from A and F)			> 7 - 1	>	SP E
		<		2 - 1 < 2 - 1 TRA	7 - 1	SP E
2 ~ 1	TFP (PC = B) TFP (PC $=$ D)			>		
2 - 1 2 - 1	TRAFFIC			> 7 - 1	>	SP E
	(from A and F)	<		2 - 1 <	7 1	SP E
:Wait						
:Stop tra	affic					
	<u>.                                    </u>					
TEST D	ESCRIPTION					
1, -	Start traffic to E.	· · ·				
2.	Send a TRA from received from A.	n C to A an	d check that TFPs co	oncerning B and D are rea	ceived, then, check that a	TRAs
3.	Stop traffic and	check that it	was not disturbed.			

TEST 1	NUMBER: 11		PAGE: 1 of 1
REFER	RENCE: Q.706		
TITLE	: Traffic test		<b>.</b>
SUB T	ITLE:		<u></u>
PURPO	DSE: To check the behaviour of	an STP in various traffic situations	
PRE-T	EST CONDITIONS: All links a	vailable	
С	CONFIGURATION: C	TYPE OF TEST: VAT	TYPE OF SP: STP
MESSA	AGE SEQUENCE:		
	SP B	SP A	SP C
	Link	Link	Link
:Start ti	raffic		2
1	1 - 1 TRAFFIC 1 - 2 TRAFFIC	> 2 - 1	>
		> 2 - 1	> 
		< 1 – 2	
:Wait			
stop tr			
TEST I	DESCRIPTION		
1.	Start traffic between B and C i Recommendation Q.706.	n both directions via A using the traffic mod	els presented in
2.	Check that the time to cross th	e STP is better than 20 milliseconds.	
3.	Stop traffic and check that it w	vas not disturbed.	
4.	Repeat test but with a traffic m	nodel including 5% of messages with an SIF	= 272 octets.

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REFERENCE: Q.707         TITLE: Signalling link test         SUB TITLE: After activation of a link         PURPOSE: To check the signalling link test procedure after activation of a signalling link         PRE-TEST CONDITIONS: Signalling link test procedure after activation of a signalling link         PRE-TEST CONDITIONS: Signalling link 1 - 2 available         CONFIGURATION: A       TYPE OF TEST: VAT, CPT         TYPE OF SP: AI         MESSAGE SEQUENCE:         SP       A         Link       Link         Start traffic       1 - 2         1 - 1       SLTA         1 - 1       SLTA         CHANGEBACK       1 - 1, 2         1 - 1, 2       TRAFFIC         TRAFFIC	.707         g link test         er activation of a link         teck the signalling link test procedure after activation of a signalling link         ITIONS: Signalling link 1 - 2 available         ATION: A       TYPE OF TEST: VAT, CPT         TRAFFIC         SP       A         SP       A         SP       A         SP       A         SP       A         SP       A         SP       B         Link       TRAFFIC         SLTM	TEST NUMBER	R: 12.1	]	PAGE: 1 of 1	<u> </u>	
TITLE:       Signalling link test         SUB TITLE:       After activation of a link         PURPOSE:       To check the signalling link test procedure after activation of a signalling link         PRE-TEST CONDITIONS:       Signalling link 1 - 2 available         CONFIGURATION:       A         TYPE OF TEST:       VAT, CPT         MESSAGE SEQUENCE:       SP         Start traffic       1 - 2         1 - 2       TRAFFIC          1 - 2         1 - 1       SLTM          1 - 1         SLTA           1 - 1         SLTA	g link test r activation of a link reck the signalling link test procedure after activation of a signalling link TITONS: Signalling link 1 – 2 available ATTON: A TYPE OF TEST: VAT, CPT TYPE OF SP: ALL INCE: SP A SP B Link TRAFFIC	REFERENCE:	Q.707				
SUB TITLE:       After activation of a link         PURPOSE:       To check the signalling link test procedure after activation of a signalling link         PRE-TEST CONDITIONS:       Signalling link 1 - 2 available         CONFIGURATION:       A         TYPE OF TEST:       VAT, CPT         MESSAGE SEQUENCE:       SP         SINK       Link         Link       Link         Start traffic       1 - 2         1 - 1       SLTM	er activation of a link eek the signalling link test procedure after activation of a signalling link TITIONS: Signalling link 1 - 2 available ATION: A TYPE OF TEST: VAT, CPT TYPE OF SP: ALL ENCE: SP A SP B Link TRAFFIC	FITLE: Signal	ling link test				
PURPOSE: To check the signalling link test procedure after activation of a signalling link         PRE-TEST CONDITIONS: Signalling link 1 - 2 available       TYPE OF TEST: VAT, CPT         CONFIGURATION: A       TYPE OF TEST: VAT, CPT       TYPE OF SP: AI         MESSAGE SEQUENCE:       SP A       SP B         Link       Link       Link       SP B         Start traffic       1 - 2       TRAFFIC	teck the signalling link test procedure after activation of a signalling link         TITONS: Signalling link 1 – 2 available         ATTON: A         TYPE OF TEST: VAT, CPT         TYPE OF SP: ALL         SP A         SP B         Link         TRAFFIC	SUB TITLE: A	After activation of a link				
PRE-TEST CONDITIONS:       Signalling link 1 - 2 available         CONFIGURATION:       A       TYPE OF TEST:       VAT, CPT       TYPE OF SP:       AI         MESSAGE SEQUENCE:       SP       A       Link       SP       B         Link       Link       Link       SP       B         1 - 2       TRAFFIC	TTIONS: Signalling link 1 – 2 available         ATION: A       TYPE OF TEST: VAT, CPT       TYPE OF SP: ALL         ENCE:       SP A       SP B         Link       Link         TRAFFIC	PURPOSE: To	check the signalling lin	k test procedure after activation	n of a signalling l	ink	
CONFIGURATION: A       TYPE OF TEST: VAT, CPT       TYPE OF SP: AI         MESSAGE SEQUENCE:       SP A       SP B         Link       Link       Link         Start traffic       1 - 2       TRAFFIC	ATION: A       TYPE OF TEST: VAT, CPT       TYPE OF SP: ALL         ENCE:       SP A       SP B         Link       Ink       Ink         TRAFFIC       Ink       Ink         SUTM       Ink       Ink         SLTM       Ink       Ink         SLTM       Ink       Ink         SLTM       Ink       Ink         SLTA       Ink       Ink         ON       Ink       Ink         Ink       Ink       Ink         Ink       Ink       Ink         Ink       Ink       Ink	RE-TEST CON	NDITIONS: Signalling	link 1 2 available			
AESSAGE SEQUENCE:         SP A       SP B         Link       Link         Start traffic $1 - 2$ TRAFFIC $1 - 2$ TRAFFIC $$ $1 - 2$ TRAFFIC $$ $1 - 1$ SLTM $$ $1 - 1$ SLTA $$ $1 - 1$ SLTA $$ $1 - 1$ SLTA $$	SP A       SP B         Link       Link         TRAFFIC      >         <	CONFIGU	JRATION: A	TYPE OF TEST: VAT	, CPT	TYPE OF SP:	ALL
SP A       Link         Link       Link         Start traffic       1 - 2       TRAFFIC         1 - 1       SLTM       1 - 2       TRAFFIC         1 - 1       SLTM	SP A       SP B         Ink       Ink         TRAFFIC	IESSAGE SEC	UENCE:		I	, <u></u> ,,,,,,,,,,,,,,	
Link       Link         Start traffic       1 - 2       TRAFFIC	Link         TRAFFIC		SP A			SP	В
1 - 2       TRAFFIC	TRAFFIC      >       1 - 2       TRAFFIC         :Activate $1 - 1$ SLTA         SLTM      >       1 - 1       SLTA         SLTA      >       1 - 1       SLTM         SLTA      >       1 - 1       SLTM         TRAFFIC      >       1 - 1       SLTM         TRAFFIC      >       1 - 1, 2       TRAFFIC         TRAFFIC      >       1 - 1, 2       TRAFFIC         ON      >       1 - 1, 2       TRAFFIC         Ink 11 and check that an SLTM is received from A.       SLTM to A and check that an SLTA is received.         at the link 1 - 1 becomes available and that changeback is performed correctly.       fic.         repeat the test with link 1 - 1 unavailable and inhibited (in this case changeback is not performed).       at the link 1 - 1 becomes available and stays inhibited.	Link			Link		
< 1 - 2 TRAFFIC $1 - 1 :Activate$ $1 - 1 SLTM$ $< 1 - 1 SLTA$ $< 1 - 1 SLTM$ $1 - 1 SLTA$ $= -1 + 2 TRAFFIC$ $= 1 - 1 + 2 TRAFFIC$ $= 1 - 1 + 2 TRAFFIC$ Wait Stop traffic $= 1 - 1 + 2 TRAFFIC$ $=$	$< 1 - 2 TRAFFIC$ $:Activate$ $SLTM \qquad 1 - 1 SLTA$ $< 1 - 1 SLTA$ $< 1 - 1 SLTM$ $SLTA \qquad > TRAFFIC \qquad$	1 2	TRAFFIC	>			
1-1       :Activate $1-1$ SLTM $1-1$ SLTA $1-1$ SLTA $1-1$ SLTA $1-1$ SLTA         CHANGEBACK $1-1$ $1-1, 2$ TRAFFIC         TRAFFIC $>$ TRAFFIC $1-1, 2$ TRAFFIC $>$ TRAFFIC $1-1, 2$ TRAFFIC $>$ TRAFFIC $1-1, 2$ TRAFFIC $>$ <td>:Activate          SLTM      &gt;         I = 1       SLTA         &lt;&gt;       1 = 1       SLTA         SLTA      &gt;       TRAFFIC         TRAFFIC      &gt;       TRAFFIC         TRAFFIC      &gt;       1 = 1, 2         ON       &gt;         fic to B (and C in VAT).       Iink 1 = -1 and check that an SLTM is received from A.         SLTM to A and check that an SLTM is received.      </td> <td>- 2</td> <td></td> <td>&lt;</td> <td>1 - 2</td> <td>TRAFFIC</td> <td></td>	:Activate          SLTM      >         I = 1       SLTA         <>       1 = 1       SLTA         SLTA      >       TRAFFIC         TRAFFIC      >       TRAFFIC         TRAFFIC      >       1 = 1, 2         ON       >         fic to B (and C in VAT).       Iink 1 = -1 and check that an SLTM is received from A.         SLTM to A and check that an SLTM is received.	- 2		<	1 - 2	TRAFFIC	
1-1       SLTM      > $<>$ $1-1$ SLTA $1-1$ SLTA      > $1-1$ SLTA      >         CHANGEBACK $1-1$ , 2       TRAFFIC $1-1$ , 2       TRAFFIC      >         TRAFFIC      > $1-1$ , 2       TRAFFIC         Wait       Stop traffic $1-1$ , 2       TRAFFIC         Start traffic to B (and C in VAT). $1-1$ , 2       TRAFFIC         1.       Start traffic to B (and C in VAT).           2.       -Activate link 11-and check that an SLTM is received from A.	SLTM      > $\langle$ >       1 - 1       SLTA $\langle$ >       1 - 1       SLTM         SLTA      >       TRAFFIC         TRAFFIC      >       1 - 1, 2       TRAFFIC         TRAFFIC      >       1 - 1, 2       TRAFFIC         ON      >       1 - 1, 2       TRAFFIC         ON      >       1 - 1, 2       TRAFFIC         ON      >      >       1 - 1, 2       TRAFFIC         ON      >      >      >      >         GI	1 — 1	:Activate				
< 1 - 1 SLTA $< 1 - 1 SLTA$ $< 3 SLTM$ $1 - 1 SLTM$ $1 - 1 SLTM$ $1 - 1 SLTM$ $= 1 - 1 - 1 SLTM$ $= 1 - 1 - 1 SLTM$ $= 1 - 1 - 1 - 1 SLTM$ $= 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1$	< 1 - 1 SLTA $< 1 - 1 SLTM$ SLTA $ 1 - 1 SLTM$ TRAFFIC $ 1 - 1, 2 TRAFFIC$ $ON$ $Irc to B (and C in VAT).$ Ink 1 1 - 1, 2 TRAFFIC $ON$ If to A and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 - 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 - 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 - 1 becomes available and stays inhibited.	1 - 1	SLTM	>			
< 1 - 1 SLTM $1 - 1 SLTM$ $1 - 1 SLTM$ $1 - 1 SLTM$ $1 - 1, 2 TRAFFIC$	<pre></pre>			<	1 – 1	SLTA	
1 - 1       SLTA      >         CHANGEBACK       1 - 1, 2       TRAFFIC      >         TRAFFIC       <>       1 - 1, 2       TRAFFIC         Wait       Stop traffic       Stop traffic       I - 1, 2       TRAFFIC         EST DESCRIPTION       I       Start traffic to B (and C in VAT).       I.       Start traffic to B (and C in VAT).         1.       Start traffic to B (and C in VAT).       I.       Activate link 11- and check that an SLTM is received from A.         3.       Send an SLTM to A and check that an SLTA is received.       I.       Check that the link 1 - 1 becomes available and that changeback is performed correctly.         5.       Stop traffic	SLTA      >         TRAFFIC      >         TRAFFIC       <>         1 - 1, 2       TRAFFIC         ON          fic to B (and C in VAT).         link 11-and check that an SLTM is received from A.         SLTM to A and check that an SLTA is received.         at the link 1 1 becomes available and that changeback is performed correctly.         fic.         repeat the test with link 1 1 unavailable and inhibited (in this case changeback is not performed).         at the link 1 1 becomes available and stays inhibited.			<	1 - 1	SLTM	
HANGEBACK         1 - 1, 2       TRAFFIC         TRAFFIC      >         TRAFFIC       1 - 1, 2         Wait       Stop traffic         EST DESCRIPTION	TRAFFIC      >         TRAFFIC       <>         1 - 1, 2       TRAFFIC    ON          On	1 – 1	SLTA	>			
1 - 1, 2       TRAFFIC      >         TRAFFIC       <>       1 - 1, 2       TRAFFIC         Wait       Stop traffic        1 - 1, 2       TRAFFIC         ************************************	TRAFFIC> TRAFFIC> TRAFFIC> TRAFFIC> ON 	HANGEBACI	< c				
TRAFFIC       <	ON fic to B (and C in VAT). link 1 1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 1 becomes available and stays inhibited.	1 - 1, 2	TRAFFIC	>			
Stop traffic         TEST DESCRIPTION         1.       Start traffic to B (and C in VAT).         2.       -Activate link 11-and check that an SLTM is received from A.         3.       Send an SLTM to A and check that an SLTA is received.         4.       Check that the link 1 - 1 becomes available and that changeback is performed correctly.         5.       Stop traffic	ON fic to B (and C in VAT). link 1 – -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 – 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 – 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 – 1 becomes available and stays inhibited.	Wait	TRAFFIC	<	1 - 1, 2	TRAFFIC	
TEST DESCRIPTION         1.       Start traffic to B (and C in VAT).         2.       -Activate link 1 1- and check that an SLTM is received from A.         3.       Send an SLTM to A and check that an SLTA is received.         4.       Check that the link 1 1 becomes available and that changeback is performed correctly.         5.       Ston traffic	ON Fic to B (and C in VAT). link 11-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 - 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 - 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 - 1 becomes available and stays inhibited.	walt					
<ol> <li>EST DESCRIPTION</li> <li>Start traffic to B (and C in VAT).</li> <li>-Activate link 1 1- and check that an SLTM is received from A.</li> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 1 becomes available and that changeback is performed correctly.</li> <li>Ston traffic</li> </ol>	ON fic to B (and C in VAT). link 11-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 - 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 - 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 - 1 becomes available and stays inhibited.	stop traffic					
EST DESCRIPTION         1.       Start traffic to B (and C in VAT).         2.       -Activate link 11- and check that an SLTM is received from A.         3.       Send an SLTM to A and check that an SLTA is received.         4.       Check that the link 1 1 becomes available and that changeback is performed correctly.         5.       Ston traffic	ON fic to B (and C in VAT). link 1 – -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 – 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 – 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 – 1 becomes available and stays inhibited.						
<ol> <li>Start traffic to B (and C in VAT).</li> <li>Activate link 11-and check that an SLTM is received from A.</li> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>Ston traffic</li> </ol>	ON fic to B (and C in VAT). link 1 — -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 — 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 — 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 — 1 becomes available and stays inhibited.						
<ol> <li>TEST DESCRIPTION</li> <li>Start traffic to B (and C in VAT).</li> <li>-Activate link 11-and check that an SLTM is received from A.</li> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>Ston traffic</li> </ol>	ON fic to B (and C in VAT). link 1 — -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 — 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 — 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 — 1 becomes available and stays inhibited.						
<ol> <li>Start traffic to B (and C in VAT).</li> <li>-Activate link 11-and check that an SLTM is received from A.</li> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>Ston traffic</li> </ol>	fic to B (and C in VAT). link 1 – -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 – 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 – 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 – 1 becomes available and stays inhibited.	EST DESCRII	PTION				
<ol> <li>Activate link 1 - 1-and check that an SLTM is received from A.</li> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>Ston traffic</li> </ol>	link 1 – -1-and check that an SLTM is received from A. SLTM to A and check that an SLTA is received. at the link 1 – 1 becomes available and that changeback is performed correctly. fic. repeat the test with link 1 – 1 unavailable and inhibited (in this case changeback is not performed). at the link 1 – 1 becomes available and stays inhibited.	1. Start 1	traffic to B (and C in V)	AT).	, , <u>,</u>		<u></u>
<ol> <li>Send an SLTM to A and check that an SLTA is received.</li> <li>Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>Stop traffic</li> </ol>	SLTM to A and check that an SLTA is received. at the link $1 - 1$ becomes available and that changeback is performed correctly. fic. repeat the test with link $1 - 1$ unavailable and inhibited (in this case changeback is not performed). at the link $1 - 1$ becomes available and stays inhibited.	2Activa	ate-link 11-and check	that an SLTM is received from	n A.		
<ul> <li>4. Check that the link 1 - 1 becomes available and that changeback is performed correctly.</li> <li>5. Stop traffic</li> </ul>	at the link $1 - 1$ becomes available and that changeback is performed correctly. fic. repeat the test with link $1 - 1$ unavailable and inhibited (in this case changeback is not performed). at the link $1 - 1$ becomes available and stays inhibited.	3. Send	an SLTM to A and chec	k that an SLTA is received.			
5. Stop traffic	fic. repeat the test with link $1 - 1$ unavailable and inhibited (in this case changeback is not performed). at the link $1 - 1$ becomes available and stays inhibited.	4. Check	that the link $1 - 1$ bec	omes available and that change	back is performed	1 correctly.	
- sop mino.	repeat the test with link $1 - 1$ unavailable and inhibited (in this case changeback is not performed). at the link $1 - 1$ becomes available and stays inhibited.	5. Stop t	raffic.	8-	<u>.</u>	······································	
6. In VAT, repeat the test with link $1 - 1$ unavailable and inhibited (in this case changeback is not perform Check that the link $1 - 1$ becomes available and stays inhibited.		6. In VA Check	T, repeat the test with list that the link $1 - 1$ bec	nk 1 – 1 unavailable and inhil omes available and stays inhibi	bited (in this case ted.	changeback is not peri	formed).

TEST	NUMBER: 12	2.2			PAGE: 1 of 1	
REFE	RENCE: Q.70	7				
TITLE	: Signalling li	nk test				
SUB T	ITLE: No acl	knowledgement to first	st SLTM		·	
PURPO	OSE: To checl	k that a second SLTM	1 is sent if the first is not	acknowledged		
PRE-T	EST CONDITI	ONS: Signalling lin	k 1 – 2 available			
С	ONFIGURAT	ION: A	TYPE OF TEST:	VAT	TYPE OF SP	: ALL
MESSA	AGE SEQUEN	CE:	· · · · · · · · · · · · · · · · · · ·		<u></u>	
		SP A			SP	В
	Link			Link		
:Start ti	raffic					
:	1 - 2	TRAFFIC	>			
	1 1		<	1 – 2	TRAFFIC	
•	1 – 1 1 – 1	Adivate				
1	-	SI TM				
	1 - 1	SETM	> <>	1 - 1	SLTA	
			< <b></b>	1 – 1	SLTM	
1	l – 1	SLTA	>			
CHAN	GEBACK					
1	- 1, 2	IRAFFIC	> <>	1 - 1.2	TRAFFIC	
:Wait				, -		
:Stop tr	affic					
TEST E	DESCRIPTION				<u> </u>	<u></u>
1.	Start traffic	to B and C			<u>.</u>	
2.	Activate link	1 - 1 and check the	at an SLTM is received an	nd not acknowledge	zed.	
3.	Check that y specified ran	when the time T1 exp	ires a new SLTM is sent.	Check that the du	ration of this time is ins	ide of the
4.	Check that t	he link 1 – 1 become	es available and that the c	hangeback is perf	ormed correctly.	
5.	Stop traffic.					
6.	Repeat the to the link becc	est with link 1 – 1 u omes available and sta	navailable and inhibited ( ays inhibited.	in this case change	eback is not performed)	. Check that

REFER				<u></u>
TITLE:	Signalling link test			
SUB TIT	ILE: No acknowledgement to	second SLTM		
PURPOS	SE: To check that the link sta	ys unavailable when the secon	d SLTM is not ack	nowledged
RE-TE	ST CONDITIONS: Signalling	g link 1 – 2 available		
СС	ONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAG	GE SEQUENCE:		········	
	SP A			SP B
I	link		Link	
Start tra	ıffic			
1	- 2 TRAFFIC	>		
1	- 1 · · Activata	<	1 – 2	TRAFFIC
1	- 1			
1				
1	T1	>		
1	- 2 TRAFFIC	>		
		<	1 - 2	TRAFFIC
wait	p			
Stop tra	IIIIC			
EST D	ESCRIPTION	·		
1.	Start traffic to B and C.			
2.	Activate link 1 – 1 and chec	k that two SLTMs are receive	i from A.	
3.	Check that after the second e informed.	xpiration of T1, link 1 – 1 st	ays unavailable and	I that the management system is
4	Repeat the test with link 1 –	1 unavailable and inhibited		

TEST N	UMBER: 1	2.4	F	PAGE: 1 of 1	
REFERI	ENCE: Q.70	)7		· .	
TITLE:	Signalling l	ink test			
SUB TIT	LE: Unrea	sonable field in an Si	LTA		
PURPOS	SE: To chec	k the actions of the s	ystem on reception of an SL	TA with an unreas	sonable field
PRE-TE	ST CONDIT	IONS: Signalling lin	nk 1 – 2 available		e e successo de
СС	)NFIGURAT	TION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSA	GE SEQUEN	ICE:			
		SP A			SP B
I	link			Link	
:Start tra	uffic				
1	- 2	TRAFFIC	> <	1 – 2	TRAFFIC
1	- 1	:Activate	-		initio
1	- 1	SLTM	>	-	
			<	1 - 1	SLTA (erroneous test pattern)
1	- 1	SLTM	>		
CULANC			< <b></b>	1 – 1	SLTA
	EBACK				
1 *	- 1, 2	IKAFFIC	> <- <b></b>	1 - 1, 2	TRAFFIC
:Wait				- , -	
:Stop tra	ffic				
1					
TEST D	ESCRIPTIO	N			
1.	Start traffic	to B and C.			
.2.	Activate_lir erroneous f	the $1 - 1$ and check the transformed states the set of the set o	nat an SLTM is received and	acknowledged with	th an SLTA containing an
3.	Check that	a second SLTM is se	nt from A and correctly ackn	iowledged.	
4.	Check that	link 1 – 1 becomes	available and that changeback	k is performed con	rrectly.
5.	Wait and s	top traffic.			
6.	Repeat the	test with a first SLTA	containing an erroneous SL	C then OPC.	
7.	Repeat the management	test with the first and at system is informed.	second erroneous SLTA and	l check that link 1	- 1 stays unavailable and that

TEST N	UMBER:	12.5		]	PAGE: 1 of 1	
REFER	ENCE: Q	.707				
TITLE:	Signalling	g link test				
SUB TI	TLE: Rec	eption of an SLTM in	an attempt state	~		
PURPO	SE: To ch	eck the actions of the s	system when an SLTM is re	eceived in an attemp	ot state	
PRE-TE	ST COND	ITIONS: Signalling li	nk 1 – 2 available	• · · •		
CC	DNFIGUR	ATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL	~ ~
MESSA	GE SEQUI	ENCE:				
		SP A			SP B	
]	Link			Link		
:Start tra	affic					
1	- 2	TRAFFIC	>	1 0		
1	<b>→</b> 1	:Activate	< <b></b>	1 - 2	TRAFFIC	
1	-1	SLTM	>			
1	- 1	TI SLTA	<>	1 – 1	SLTM	
1	- 1	SLTM	>			
1	- 1	T1 SLTA	<>	1 – 1	SLTM	
		,	<	1 1	STLA	
CHANC	<b>BEBACK</b>					
1 -	- 1, 2	TRAFFIC	>	1 1 2		
:Wait			<	1 – 1, 2	IRAFFIC	
:Stop tra	affic					
	——————————————————————————————————————					
- TEST Đ	ESCRIPTI	ON			en an an en esta a	
1.	Start traf	fic to B and C.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2.	Activate	link 1 – 1 and check t	hat SLTM is received. Send	an SLTM and chec	k that an SLTA is received.	
3.	On recep	tion of the second SLT	M, send an SLTM and che	ck that an SLTA is	received. Send an SLTA to	A.
4.	Check th	at changeback is perfor	med correctly, and stop tra	ffic.		

		. 12.0			PAGE: 1 of 1	
REFE	RENCE:	Q.707				
TITLI	E: Signallir	ng link test				
SUB	TITLE: Ac	dditional SLTA and SI	LTM	<u></u>		<u>,</u>
PURF	POSE: To a	check the actions of th	e system on reception of additio	nal SLTA and S		
PRE-1	FEST CONI	DITIONS: Signalling	link 1 — 2 available			
(	CONFIGUE	RATION: A	TYPE OF TEST: VAT,	, CPT	TYPE OF SP:	ALL
MESS	AGE SEQU	JENCE:		l	<u> </u>	<u> </u>
		SP A			SP	В
:Start	Link traffic			Link .		
	1 - 2	TRAFFIC	>			
			<	1 - 2	TRAFFIC	
			<	1 - 2	SLTA	
	1 0		<	1 - 2	SLTM	
337.24	1 2	SLTA	>			
Stop 1	troffic					
Stop I	rame					
EST I	DESCRIPT	ION				
1	Start tra	ffic to B (and C in VA	T).			
••	1	at the recontion of an	SLTA is ignored.			
2.	Check th	at the reception of an				
2. 3.	Check th Send an	SLTM to A and check	that an SLTA is received.			

SUB TIT	LE: Inv	alid H0.H1 in a signal	ling network management 1	nessage	
PURPOS	E: To ch	neck the actions of the	system when a signalling n	etwork managemen	nt message is received with a
	none	xisting H0.H1			
PRE-TES	ST COND	OITIONS: All links a	vailable		
со	NFIGUR	ATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAC	GE SEQU	ENCE:			
		SP A			SP B
L	ink			Link	
:Start tra	ffic				
А	LL	TRAFFIC	>	A T T	
			<	1 – X	SIGNALLING NETWORK
			· · · · · · · · · · · · · · · · · · ·		MANAGEMENT MESSAG (Invalid H0.H1)
A	ALL .	TRAFFIC	>		(,
			<	ALL	TRAFFIC
:Wait					
:Stop tra	ffic				
TEST D	ESCRIPT	ION			
	Start tra	affic to B and C on all	links.		
1.			nagement message with a no	onexisting H0.H1.	
1. 2.	Send a	signalling network ma	hagement message with a no		

IESI NUMBER	: 13.2			PAGE: 1 of 1
REFERENCE:	Q.704 § 15			
TITLE: Invalid	messages			· · · · · · · · · · · · · · · · · · ·
SUB TITLE: In	valid changeover mes	sages		
PURPOSE: To	check the actions of the	he system on reception of char	igeover messages	with an invalid SLC or OPC
PRE-TEST CON	DITIONS: Linkset v	vith two available links		·····
CONFIGUI	RATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAGE SEQU	JENCE:			
	SP A			SP B
Link			Link	
.start traffic 1 - 1	TRAFFIC	>		
1 - 2	TRAFFIC	<>	1 1	TRAFFIC
		<	1 - 2	TRAFFIC
		<	1 – 2	COO, SLC 1 – X (nonexisting SLC)
		<	1 - 2	COO, SLC $1 - 1$ (nonexisting OPC)
		< <u></u>	1 - 2	ECO, SLC 1 – X (nonexisting SLC)
		<- <del></del>	1 - 2	ECO, SLC $1 - 1$ (nonexisting OPC)
		< <b></b>	1 - 2	COA, SLC $1 - X$ (nonexisting SLC)
		<	1 – 2	COA, SLC $1 - 1$ (nonexisting OPC)
		<	1 – 2	ECA, SLC $1 - X$ (nonexisting SLC)
4		< <u></u>	1 - 2	ECA, SLC 1 – 1 (nonexisting OPC)
1 – 1	TRAFFIC	>	<b>.</b>	<b></b>
Wait		<	1 - 1, 2	TRAFFIC
Stop traffic		<u> </u>		
TEST DESCRIPT	ION			<u> </u>
1. Start tra	ffic to B and C on al	l links.		
2. Send the	e invalid messages as	described above and check that	t they are ignored.	
2	or i i i i i i		t mey are ignored.	

			r	
TEST NUMBE	R: 13.3			PAGE: 1 of 1
REFERENCE:	Q.704 § 15			
TITLE: Invali	d messages			
SUB TITLE:	Invalid changeback messag	ges		
PURPOSE: To	o check the actions of the	system on reception of char	ngeback messages	with an invalid SLC or OPC
PRE-TEST CO	NDITIONS: Linkset with	h two available links	<u></u>	
CONFIG	URATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAGE SEG	QUENCE:			
	SP A			SP B
Link			Link	
.start trame	TRAFFIC	>		
1 - 2	TRAFFIC	<>	1 – 1	IKAFFIC
		<	1 - 2	TRAFFIC
		<	1 - 2	CBD, SLC $1 - X$ (nonexisting SLC)
		<	1 - 2	CBD, SLC $1 - 1$ (nonexisting OPC)
		<	1 – 2	CBA, SLC $1 - X$ (nonexisting SLC)
		<	1 - 2	CBA, SLC $1 - 1$ (nonexisting OPC)
1 - 1, 2	TRAFFIC	>		
		<	1 - 1, 2	TRAFFIC
:Wait				
:Stop traffic				
TEST DESCRI	PTION	<b>.</b> . <b>.</b>		
1. Start	traffic to B and C on all I	links.		
2. Send	the invalid messages descri	ribed above and check that	they are ignored.	

REFERENCE:	Q.704 § 15			
TITLE: Invalid	messages			
SUB TITLE: Ir	valid changeback code	······································		
PURPOSE: To	check the actions of the	system on reception of an i	nvalid changeback	code in a changeback message
PRE-TEST CON	DITIONS: Linkset wit	h one link available		
CONFIGU	RATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSAGE SEQU	JENCE:			····
	SP A			SP B
Link			Link	
Start traffic				
1 - 2	TRAFFIC	>		
		< <b></b>	1 - 2	TRAFFIC
1 1	:Activate (depend	ling of the deactivation mean	n previously used)	
1 - 2	CBD, SLC $1 - 1$	>		
	T4			
		< <b></b>	1 - 2	CBA, SLC 1 – 1 (invalid changeback
1 - 2	CBD, SLC $1 - 1$	>		code $\neq$ CBD)
	ĺ	-		
	T5			
1 – 1		,		
	(from 1 - 2)	>		
		< <b></b>	1 - 1	TRAFFIC $(from 1 - 2 see note)$
1 - 2	TRAFFIC	>		(10m 1 - 2 see note)
		. <	1 - 2	TRAFFIC
Wait				
stop traffic	• • • •			
ore – B may p	ertorm a changeback or	not.		· · · ·
EST DESCRIPT	TION			
1. Start tra	ffic to B and C on link	1 - 2.		
2. Activate	link $1 - 1$ , check that	a CBD is received and ackn	owledged by a CBA	with an invalid changeback code.
3. Check the perform	hat a new CBD is receiv ed.	ed after T4 expires and ack	nowledged by a corr	rect CBA. Check that changeback is
4 Stop tra	ffic and check that the :	nuclid manage has been di-	and a state of the	

	valid massage			
In	vanu messages			
SUB TITLE	: Invalid inhibition messag	ges		
PURPOSE:	To check the actions of th	e system on reception of an inva	lid inhibition me	essages
PRE-TEST	CONDITIONS: Linkset w	ith two available links		
		TVDE OF TEST. VA		
	IGURATION. A		× · · · · · · · · · · · · · · · · · · ·	THE OF SF. ALL
MESSAGE	SEQUENCE:			
	SP A			SP B
Link	ς.		Link	
Start traffic				
1 —	1 TRAFFIC	> < <b></b> >	1 – 1	TRAFFIC
· 1 –	2 TRAFFIC	>		
		<	1 – 2	TRAFFIC
		<	1 - 2	LIN, SLC $1 - X$ (nonexisting SLC)
		<	1 – 2	LIN, SLC 1 – 2 (nonexisting OPC)
		<	1 – 2	LIA, SLC 1 – X (nonexisting SLC)
		<	1 – 2	LIA, SLC 1 – 1 (nonexisting OPC)
		<	1 - 2	LID, SLC 1 – X (nonexisting SLC)
		<	1 – 2	LID, SLC $1 - 1$ (nonexisting OPC)
		<u>.                                    </u>		
TEST DES	CRIPTION			** d (by
1. S	tart traffic to B and C.	<i></i>		
2. S	end the invalid messages de	scribed above and check that the	se are ignored.	

			· · · · · · · · · · · · · · · · · · ·
KEFERENCE: Q.704 § 15			
IITLE: Invalid messages			
SUB TITLE: Invalid inhibition messa	ges		
PURPOSE: As page 1			······
PRE-TEST CONDITIONS: Linkset w	vith two available links		
CONFIGURATION: A	TYPE OF TEST: VA	т	TYPE OF SP: ALL
MESSAGE SEQUENCE:		I	
SP A			SP B
Link		Link	
	<	1 - 2	LUN, SLC 1 – X (nonexisting SLC)
	<- <b></b> -	1 – 2	LUN, SLC 1 – 1 (nonexisting OPC)
	<	1 - 2	LUA, SLC 1 – X (nonexisting SLC)
	<	1 - 2	LUA, SLC 1 – 1 (nonexisting OPC)
	<	1 - 2	LFU, SLC 1 – X (nonexisting SLC)
	<	1 – 2	LFU, SLC 1 – 1 (nonexisting OPC)
EST DESCRIPTION			
See page 1.			

DEEEDENIOS O SCI S		· · · · · · · · · · · · · · · · · · ·	1	
REFERENCE: Q.704 §				
TITLE: Invalid messages	3			
SUB TITLE: Invalid inf	nibition message	s		
PURPOSE: As page 1				
PRE-TEST CONDITION	S: Linkset with	n two available links		
CONFIGURATION	I: A	TYPE OF TEST: VA	т	TYPE OF SP: ALL
MESSAGE SEQUENCE:	<b>_</b>		I	
	SP A			SP B
Link			Link	
		<	1 - 2	LLT, SLC 1 – X (nonexisting SLC)
		<	1 – 2	LLT, SLC 1 – 1 (nonexisting OPC)
		<	1 - 2	LRT, SLC 1 – X (nonexisting SLC)
		<	1 - 2	LRT, SLC 1 – 1 (non existing OPC)
ALL TR	AFFIC	>		
Wait		< <u></u>	ALL	TRAFFIC
:Stop traffic				
•				
TEST DESCRIPTION				· · · · · · · · · · · · · · · · · · ·
See page 1.				

		,		PAGE: 1 of 1
REFEF	RENCE: Q.704 § 15			
TITLE	: Invalid messages		<u>,</u> , <u>-</u>	
SUB T	ITLE: Invalid transfer control n	iessages		
PURPO	OSE: To check that there is no p	roblem on reception of a TI	C with spare field	or SLC not coded 00
PRE-T	EST CONDITIONS: Link 1 –	1 available		
c	ONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESSA	GE SEQUENCE:			
	SP A			SP B
	Link		Link	
:Start ti	raffic			
1	l – 1 TRAFFIC	>		
		<	1 – 1	TRAFFIC
		< =	1 – 1	$\frac{\text{TFC, PC} = C}{(\text{spare field } \neq 0)}$
		<- <b></b>	1 - 1	TFC, PC = C (SLC $\neq$ 0000)
		<	1 1	TFC, $PC = X$ (nonexisting PC)
1	– 1 TRAFFIC	>		
1		<	1 – 1	TRAFFIC
:wait				
.stop u				
- TEST E	DESCRIPTION	· · · · · · · · · · · · · · · · · · ·		
1.	Start traffic to B and C.			
2.	Send a TFC with invalid spare	field to A, then a TFC with	an invalid SLC th	en a TFC with a nonexisting PC.
3.	Check that these messages are	correctly received without di	sturbances due to t	hese incorrect values.
4	Stop traffic	-		

TEST N	UMBER: 13.7		1	PAGE: 1 of 1
REFERJ	ENCE: Q.704 § 15			
TITLE:	Invalid messages			
SUB TIT	ILE: Invalid signalling route m	anagement messages		
PURPOS	SE: To check the actions of the	system on reception of invalid	TFA or TFP	
RE-TE	ST CONDITIONS: Link 1 – 1	1 available		
СС	ONFIGURATION: A	TYPE OF TEST: V	AT	TYPE OF SP: ALL
MESSA	GES SEQUENCE:			
	SP A			SP B
I Start tra	Link		Link	
1	- 1 TRAFFIC			
1	i institu	<	1 – 1	TRAFFIC
		<	1 - 1	TFP, $PC = X$ (nonexisting PC)
		<	1 - 1	TFA, PC = X (nonexisting PC)
		<	1 – 1	TFP, $PC = C$ (nonexisting OPC)
		<	1 - 1	TFP, PC = C (spare bits $\neq$ 00)
		<	1 - 1	TFP, PC = C (SLC $\neq$ 0000)
			2 - 1	:Deactivate
		<	1 - 1	TFP, $PC = C$
		<	1 – 1	(nonexisting OPC) $($
		<	1 – 1	TFA, PC = C (spare bits $\neq$ 00)
		<	1 – 1	TFA, PC = C (SLC $\neq$ 0000)
1	– 1 TRAFFIC	>		
Wait		<	1 – 1	TRAFFIC
Stop tra				
EST D	ESCRIPTION			· · · · ·
1.	Start traffic to B and C.			
2.	Send TFPs and TFAs with inva without impact on the traffic.	alid values to A (as described a	bove). Check that	these messages are discarded
3.	Deactivate linkset 2 and check	that B becomes inaccessible.		
4.	Send TFAs concerning C with discarded without impact on the	invalid values to A (as describe he traffic.	d above) and che	ck that these messages are
5	Check the indications are given	h by the system (except for SLC	and spare bits <i>≠</i>	⊧ 0).

TEST	NUMBER: 13.8		]	PAGE: 1 of 1
REFE	RENCE: Q.704 § 15			-
TITLE	: Invalid messages			
SUB T	ITLE: Invalid Signalling-Route-S	et-Test messages	-	
PURPO	DSE: To check the actions of the	system on reception of invalid	SRST messages	
PRE-T	EST CONDITIONS: Link 1 – 1	available		
c	CONFIGURATION: A	TYPE OF TEST: VA	AT	TYPE OF SP: STP
MESSA	AGES SEQUENCE:	· · · · · · · · ·	<u></u>	
	SP A			SP B
	Link		Link	
:Start t	raffic			
	I – I TRAFFIC	> <	1 - 1	TRAFFIC
		<	1 – 1	RST. $PC = X$
	·			(nonexisting PC)
		<	1 – 1	RST, PC = C (nonexisting OPC)
		<	1 — 1	RST, PC = C (compare bits $\neq 00$ )
		<	1 - 1	(spare ons $\neq$ 00) RST, PC = C
:	1 – 1 TRAFFIC	>		$(SLC \neq 0000)$
		<	1 - 1	TRAFFIC
:Wait				
:Stop ti	raffic			
TEST I	DESCRIPTION	· · · · · · · · ·		
1.	Start traffic to B and C.	· · ·		<u> </u>
2.	Send to A the invalid messages the traffic.	described above and check tha	t these messages	are discarded without impact or
3.	Stop traffic.			

TEST NUMBER: 13.9       PAGE: 1 of 1         REFERENCE: Q.704 § 15       TTTLE: Invalid messages         SUB TITLE: Invalid messages       SUB TITLE: Invalid message         PURPOSE: To check the actions of the system on reception of an invalid traffic restart allowed message       PRE-TEST CONDITIONS: Linkset with two available links         CONFIGURATION: A       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP       A         Link       Link       Siart traffic         1 - 1, 2       TRAFFIC       1 - 1, 2         Varit       Stop traffic       1 - 1, 2         TEST DESCRIPTION       I       Start traffic to B and C.         2       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic doek that it was not disturbed.	TEST NUMBER: 13.9       PAGE: 1 of 1         REFERENCE: Q.704 § 15       TITLE: Invalid messages         SUB TITLE: Invalid reaffic restart allowed message       PURPOSE: To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS: Linkset with two available links       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Link       Sart traffic       1 - 1, 2       TRAFFIC         1       1, 2       TRAFFIC       1 - 1, 2       TRAFFIC         :wait       :soop traffic       1 - 1, 2       TRAFFIC         :Wait       :Soop traffic					
REFERENCE:       Q.704 § 15         TITLE:       Invalid messages         SUB TITLE:       Invalid traffic restart allowed message         PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:       VAT         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Link       Siart traffic       1 - 1, 2       TRAFFIC         1       -1, 2       TRAFFIC	REFERENCE:	TEST NUMBER: 13.9			PAGE: 1 of 1	- 10
TITLE:       Invalid messages         SUB TITLE:       Invalid traffic restart allowed message         PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:       VAT         MESSAGE SEQUENCE:       SP       A       Link         Start traffic       I       -1, 2       TRAFFIC         I = 1, 2       TRAFFIC       I       -1         Variation       TEST DESCRIPTION       I       -1, 2       TRAFFIC         TEST DESCRIPTION       I       Start traffic to B and C.       Send the invalid message described above and check that this message is ignored.         Stop traffic and check that it was not disturbed.       Stop traffic and check that it was not disturbed.	TITLE:       Invalid messages         SUB TITLE:       Invalid traffic restart allowed message         PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:         VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A         Link       Link       Link         'Start traffic       1 - 1, 2       TRAFFIC	REFERENCE: Q.704 § 15				
SUB TITLE:       Invalid traffic restart allowed message         PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:       VAT         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Link       Start traffic       1       -1, 2       TRAFFIC         1       -1, 2       TRAFFIC      >       1       -1, 2       TRAFFIC	SUB TITLE:       Invalid traffic restart allowed message         PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:       VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP       A       SP       B         Link       Link       Link       Sitert traffic       1 - 1, 2       TRAFFIC	TITLE: Invalid messages				
PURPOSE: To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS: Linkset with two available links         Image: Construction of an invalid traffic restart allowed message         PRE-TEST CONDITIONS: Linkset with two available links         Image: Construction of an invalid traffic restart allowed message         PRE-TEST CONDITIONS: Linkset with two available links         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of an invalid traffic restart allowed message         Image: Construction of a message in invalid traffic restart allowed message         Image: Construction of a message in invalid traffic restart allowed message         Image: Construction of a message described above and check that this message is ignored.	PURPOSE:       To check the actions of the system on reception of an invalid traffic restart allowed message         PRE-TEST CONDITIONS:       Linkset with two available links         CONFIGURATION:       A       TYPE OF TEST:       VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       Link       SP       B         Link       Link       Link       SP       B       CONFIGURATION:       A       TYPE OF TEST:       VAT       TYPE OF SP:       ALL         MESSAGE SEQUENCE:       SP       A       SP       B       Link       SP       B         1 - 1, 2       TRAFFIC       TRAFFIC       1 - 1, 2       TRAFFIC       TRAFFIC       Start fraffic       Start fraffic       Start fraffic       Start fraffic       Start traffic to B and C.       Start traffic to B and C.       Start fraffic and check that it was not disturbed.       Startraffic and check that it was not disturbed.       Startraffic and check that it was not disturbed.	SUB TITLE: Invalid traffic restart a	llowed message		· · · · · · · · · · · · · · · · · · ·	
PRE-TEST CONDITIONS: Linkset with two available links           CONFIGURATION: A         TYPE OF TEST: VAT         TYPE OF SP: ALL           MESSAGE SEQUENCE:         SP A         SP B           Link         Link         SP B           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC	PRE-TEST CONDITIONS: Linkset with two available links         CONFIGURATION: A       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP A       SP B         link       Link       Sint traffic         1 - 1, 2       TRAFFIC       1 - 1, 2 $1 - 1, 2$ TRAFFIC       1 - 1, 2 $1 - 1, 2$ TRAFFIC       1 - 1, 2 $1 - 1, 2$ TRAFFIC       1 - 1, 2 $1 - 1, 2$ TRAFFIC       1 - 1, 2 $2$	PURPOSE: To check the actions of t	he system on reception of an	invalid traffic resta	art allowed message	
CONFIGURATION: A       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP A       SP B         Link       Link       SP B         Start traffic	CONFIGURATION: A       TYPE OF TEST: VAT       TYPE OF SP: ALL         MESSAGE SEQUENCE:       SP A       SP B         Link       Link       SP B         Start traffic $$	PRE-TEST CONDITIONS: Linkset	with two available links		<b>.</b>	
MESSAGE SEQUENCE:         SP B           Link         Link           Start traffic         Link           1 - 1, 2         TRAFFIC	MESSAGE SEQUENCE:         SP A       SP B         Link       Link         Start traffic       1 - 1, 2       TRAFFIC         1 - 1, 2       TRAFFIC       1 - 1         2	CONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL	
SP A         Link           Link         Link           Start traffic         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC	SP A         SP B           Link         Link           Start traffic         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC           1 - 1, 2         TRAFFIC         1 - 1, 2         TRAFFIC	MESSAGE SEQUENCE:	u	I		
Link         Link           .Start traffic         1 - 1, 2         TRAFFIC            1 - 1, 2         TRAFFIC            1 - 1, 2         TRAFFIC            1 - 1, 2         TRAFFIC            1 - 1, 2         TRAFFIC            1 - 1, 2         TRAFFIC           :Wait          1 - 1, 2	Link       Link         :Start traffic	SP A			SP B	
Start traffic       1 - 1, 2       TRAFFIC           1 - 1, 2       TRAFFIC           1 - 1       TRAFFIC           1 - 1, 2       TRAFFIC           1 - 1, 2       TRAFFIC            1 - 1, 2       TRAFFIC         Wait             Stop traffic             1       Start traffic to B and C.            2.       Send the invalid message described above and check that this message is ignored.           3.       Stop traffic and check that it was not disturbed.	Start traffic         1 - 1, 2       TRAFFIC         <>         1 - 1, 2       TRAFFIC         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>         <>               TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	Link		Link		
1 - 1, 2       TRAFFIC      >         <>       1 - 1, 2       TRAFFIC         <>       1 - 1       TRAFFIC         <>       1 - 1, 2       TRAFFIC         <>       1 - 1, 2       TRAFFIC         <>       1 - 1, 2       TRAFFIC         :Wait       :Stop traffic      >         1.       Start traffic to B and C.	1 - 1, 2       TRAFFIC         <>       1 - 1, 2       TRAFFIC         <>       1 - 1       TRA (unknown OPC)         1 - 1, 2       TRAFFIC      >         <	:Start traffic				
<ul> <li>1 - 1, 2 TRAFFIC</li></ul>	<ul> <li>1 - 1, 2 TRAFFIC</li></ul>	1 - 1, 2 TRAFFIC	> < <b></b> >	1 - 1, 2	TRAFFIC	
1 - 1, 2       TRAFFIC          ()          1 - 1, 2       TRAFFIC         :Wait       :Stop traffic       :Stop traffic         TEST DESCRIPTION	1 - 1, 2       TRAFFIC         <>       1 - 1, 2       TRAFFIC         :Wait       :Stop traffic         TEST DESCRIPTION		<	1 – 1	TRA (unknown OPC)	
Image: Non-state index in the state index	Image: Stop traffic         TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	1 – 1, 2 TRAFFIC	>			
Wait         :Stop traffic         TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	Wait         Stop traffic         TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.		<	1 - 1, 2	TRAFFIC	
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	Stop traffic         TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	:Wait				
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	Stop traffic				
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.	TEST DESCRIPTION         1.       Start traffic to B and C.         2.       Send the invalid message described above and check that this message is ignored.         3.       Stop traffic and check that it was not disturbed.					
<ol> <li>Start traffic to B and C.</li> <li>Send the invalid message described above and check that this message is ignored.</li> <li>Stop traffic and check that it was not disturbed.</li> </ol>	<ol> <li>Start traffic to B and C.</li> <li>Send the invalid message described above and check that this message is ignored.</li> <li>Stop traffic and check that it was not disturbed.</li> </ol>	TEST DESCRIPTION	· · · · · · ·			
<ol> <li>Send the invalid message described above and check that this message is ignored.</li> <li>Stop traffic and check that it was not disturbed.</li> </ol>	<ol> <li>Send the invalid message described above and check that this message is ignored.</li> <li>Stop traffic and check that it was not disturbed.</li> </ol>	1. Start traffic to B and C.				
3. Stop traffic and check that it was not disturbed.	3. Stop traffic and check that it was not disturbed.	2. Send the invalid message de	scribed above and check that t	his message is igno	ored.	
		3. Stop traffic and check that i	t was not disturbed.			

				PAGE: 1011
REFE:	RENCE: Q.707			
TITLE	: Invalid messages			
SUB T	ITLE: Invalid H0-H1 in a sig	nalling network testing and ma	intenance messag	e
PURP	OSE: To check the actions of t	he system on reception of this	invalid message	
PRE-T	EST CONDITIONS: Link 1 -	- 1 available		
(	CONFIGURATION: A	TYPE OF TEST:	VAT	TYPE OF SP: ALL
MESS	AGE SEQUENCE:			<u></u>
	SP A			SP B
	Link		Link	
:Start t	raffic			
	1 – 1 TRAFFIC	>		
		<	1 — 1	TRAFFIC
		<	1 - 1	SIGNALLING NETWORK
				MAINTENANCE MESSAG
				(Invalid H0-H1)
	I – I IKAFFIC	>		
Wait		<	I = I	TRAFFIC
	6°			
stop u	rame			
TEST I	DESCRIPTION		· ··· ·	
	Start traffic to B and C.			
1.				~ H0 H1
1. 2.	Send a signalling network tes	sting and maintenance message	with a nonexistin	g 110-111.
1. 2. 3.	Send a signalling network tes Check that this message is di	sting and maintenance message scarded without impact on the	with a nonexistin	g 110-111.

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	NUMBER:	13.11			PAGE: 1 of 1	
REFER	ENCE: 0	Q.707				
TITLE:	Invalid	messages			• • • • •	
SUB TI	TLE: In	valid signalling link t	est messages			
PURPO	SE: To o	check the actions of the	he system on reception of an in	valid signalling lir	ık test message	
PRE-TI	EST CONI	DITIONS: Link 1 -	- 1 available		····	
C	ONFIGUI	RATION: A	TYPE OF TEST: N	VAT	TYPE OF SP:	ALL
MESSA	GE SEQU	JENCE:		ł		
		SP A			SP	В
Start tr	Link			Link		•
1	l 1	TRAFFIC	> <>	1 – 1	TRAFFIC	
			<	1 – 1	SLTM (invalid SLC	C)
			<	1 - 1	SLTA (invalid SLC	;)
1	l ~ 1	TRAFFIC	> <>	1 – 1	TRAFFIC	
Wait Stop tr	raffic					
TEST I	DESCRIP	TION		- ··.		
1.	Start tr	affic to B and C.				
2.	Send th traffic.	he invalid SLTM and	SLTA described above and chee	ck that they are di	scarded without impact of	on the

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		.12		F	AGE: 1 of 1
REFERE	NCE: Q.70	4 § 15			
TITLE:	Invalid mess	ages	<u></u>		
SUB TIT	LE: Invalid	l user part unavai	lable messages		
PURPOS	E: To check	the actions of th	e system on reception of an inval	id user part una	vailable message
PRE-TES	T CONDITI	ONS: Link 1 -	1 available		
- CO	NFIGURAT	ION: A	TYPE OF TEST: VA	т	TYPE OF SP: ALL
MESSAG	E SEQUEN	CE:		I	
		SP A			SP B
Li Start traf:	nk fic			Link	
1 -	- 1	TRAFFIC	>		
			<	1 - 1	TRAFFIC
			<	1 — 1	UPU (nonexisting OPC)
			<	1 - 1	UPU (nonexisting SI)
1 -	- 1	TRAFFIC	>		
			<	1 – 1	TRAFFIC
. Walt	fic				
stop traf	fic				
TEST DE	SCRIPTION				
TEST DE	SCRIPTION	to B and C.			
<b>FEST DE</b> 1. 2.	SCRIPTION Start traffic Send the inv	to B and C. valid UPUs describ	bed above and check that these m	essages are janos	
## **ITU-T RECOMMENDATIONS SERIES** Series A Organization of the work of the ITU-T Series B Means of expression: definitions, symbols, classification Series C General telecommunication statistics Series D General tariff principles Series E Overall network operation, telephone service, service operation and human factors Series F Non-telephone telecommunication services Series G Transmission systems and media, digital systems and networks Series H Audiovisual and multimedia systems Series I Integrated services digital network Series J Transmission of television, sound programme and other multimedia signals Series K Protection against interference Series L Construction, installation and protection of cables and other elements of outside plant Series M TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits Series N Maintenance: international sound programme and television transmission circuits Series O Specifications of measuring equipment Series P Telephone transmission quality, telephone installations, local line networks Series Q Switching and signalling Series R Telegraph transmission Series S Telegraph services terminal equipment Series T Terminals for telematic services Series U Telegraph switching Series V Data communication over the telephone network Series X Data networks and open system communications Series Y Global information infrastructure and Internet protocol aspects Series Z Languages and general software aspects for telecommunication systems