5i’

H.T. [T40.782]
MTP LEVEL 3

TEST NUMBER: 3.20		PAGE: 1 of 1

{
REFERENCE: Q.704
§ 5,
Fig. 28, Fig. 29, Fig. 30
}		

TITLE: Changeover		

{
SUB TITLE: Changeover as compatibility test
}		

{
PURPOSE:
To check the changeover procedure as compatibility
test
}		

{
PRE-TEST CONDITIONS:
Linkset with two available links
}		

CONFIGURATION: A	TYPE OF TEST: CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					

	1 — 1	TRAFFIC	---------->			
			<----------	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
{
Note
— In a compatibility test it is impossible to describe precisely the exchanges of changeover messages because the description depends of the type of deactivation of the link and of the time 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 performed. }	{
3. Check that the sequence of changeover messages conforms to one of the descriptions 3.1 to 3.12. Stop traffic. }	{
4. Repeat the test by invoking the different reasons listed in the note in test 3.19. }	{

Tableau [T40.782], p.

H.T. [T41.782]
MTP LEVEL 3

TEST NUMBER: 3.21		PAGE: 1 of 1

{
REFERENCE: Q.704
§ 5,
Fig. 28, Fig. 29, Fig. 30
}		

TITLE: Changeover		

{
SUB TITLE: Reception of a changeover order on an available link
}		

{
PURPOSE:
To check the changeover procedure on reception of a COO or
ECO for a link in service
}		

{
PRE-TEST CONDITIONS:
Linkset with two available links
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	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 traffic					
TEST DESCRIPTION					

1. Start traffic to B and C on all the links. }	{
2. Send a COO from B to A for 1 — 1 on link 1 — 2 and check that the COA is received. }	{
3. Check that the link 1 — 1 becomes unavailable. }	{
4. Stop traffic and check that the changeover procedure has been performed. }	{
5. Check that there was no loss of messages, no duplication and no missequencing. }	{
6. Repeat the test but send an ECO (instead of a COO) and check that an ECA is received (instead of a COA). Some messages may be lost. }	{

H.T. [T42.782]
MTP LEVEL 3

TEST NUMBER: 4.1	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Changeback within a linkset
}	

{
PURPOSE:
To check that the changeback procedure is correctly performed on restoration of a link in a linkset
}	

{
PRE-TEST CONDITIONS:
Linkset with one available link (end of test 3.1)
}	

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A			SP B
	Link			Link	
:Start 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
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. 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 state. }	{
3. Check that a CBD for SLC 1 — 1 is received and that traffic for link 1 — 1 is switched back after a CBA is sent. }	{
4. Stop traffic and check that it has been received correctly, no lost messages, no duplication and no missequencing. }	{
5. Continue the test by activating the link 1 — 3, then 1 — 4. }	{
6. As a compatibility test, repeat the test for several reasons chosen among those listed in test 4.10. }	{

Tableau [T42.782], p.

H.T. [T43.782]
MTP LEVEL 3

TEST NUMBER: 4.2	PAGE: 1 of 1
{ REFERENCE: Q.704 § 6, Fig. 28, Fig. 29, Fig. 31 }	
TITLE: Changeback	
SUB TITLE: Additional CBA	
{ PURPOSE: To check the actions of the system on reception of an additional CBA }	
{ PRE-TEST CONDITIONS: Linkset with all links available }	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	ALL	TRAFFIC	---------->		
			<----------	ALL	TRAFFIC
			<----------	1 — X	CBA, SLC 1 — X
	ALL	TRAFFIC	---------->		
			<----------	ALL	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on all links.	{ }
2. Send an unexpected CBA to A and check that this message is discarded without action on the traffic.	{ }
3.	Stop traffic.

Tableau [T43.782], p.

H.T. [T44.782]
MTP LEVEL 3

TEST NUMBER: 4.3	PAGE: 1 of 1
{ REFERENCE: Q.704 § 6, Fig. 28, Fig. 29, Fig. 31 }	
TITLE: Changeback	
SUB TITLE: Additional CBD	
{ PURPOSE: To check the action of the system on reception of an additional CBD }	
{ PRE-TEST CONDITIONS: Linkset with all links available }	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	ALL	TRAFFIC	---------->		
			<----------	ALL	TRAFFIC
			<----------	1 — X	CBD, SLC 1 — X
	1 — X	CBA, SLC 1 — X	---------->		
	ALL	TRAFFIC	---------->		
			<----------	ALL	TRAFFIC
:Wait					
:Stop traffic					
TEST DESCRIPTION					
1. Start traffic to B and C on all links. }	{				
2. Send an unexpected CBD to A and check that a CBA is send back in response without impact on the traffic. }	{				
3. Stop traffic and check that it has been received correctly. }	{				

Tableau [T44.782], p.

H.T. [T45.782]
MTP LEVEL 3

TEST NUMBER: : 4.4	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: No acknowledgement to first CBD
}	

{
PURPOSE:
To check that a second CBD is sent if the first is not acknowledged
}	

{
PRE-TEST CONDITIONS:
Linkset with one available link
}	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 1	:Activate			
	1 — 2	CBD, SLC 1 — 1	---------->		
		||| T4 ||			
	1 — 2	CBD, SLC 1 — 1	---------->		
			<----------	1 — X	CBA, SLC 1 — 1
	1 — 1	TRAFFIC (from 1 — 2)	---------->		
			<----------	1 — 1	{
TRAFFIC (from 1 — 2, see note) }					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					
:Stop traffic { *Note* — B may perform a changeback or not. }					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Activate link 1 — 1 and check that a CBD is received (no CBA in response). }	{
3. Check that after T4 a second CBD is received and CBA is sent in response before T5 expires. }	{
4. Check that the traffic is changed back on link 1 — 1. }	{
5. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{
6. Check that the duration of T4 is inside the specified range. }	{

Tableau [T45.782], p.

H.T. [T46.782]
MTP LEVEL 3

TEST NUMBER: 4.5	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: No acknowledgement of repeat changeback declaration
}	

{
PURPOSE:
To check that traffic is changed back after a
repeat changeback declaration is not acknowledged
}	

{
PRE-TEST CONDITIONS:
Linkset 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	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 1	:Activate			
	1 — 2	CBD, SLC 1 — 1 || T4 |	---------->		
	1 — 2	CBD, SLC 1 — 1 || T5 |	---------->		
	1 — 1	TRAFFIC (from 1 — 2)	---------->		
			<----------	1 — 1	{
TRAFFIC (from 1 — 2, see note) }					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					

:Stop traffic
{
Note
— B may perform a changeback or not.
}					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Check that a CBD is received and not acknowledged. }	{
3. Check that after T4, a CBD is repeated and not acknowledged by a CBA. }	{
4. Check that after T5, the traffic is changed back on link 1 — 1. }	{
5. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{
6. Check that an indication was given by the system (§ 6.2.3, Q. 704). }	{
7. Check that the duration of T5 is inside the specified range. }	{

Tableau [T46.782], p.

H.T. [T47.782]
MTP LEVEL 3

TEST NUMBER: 4.6	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Simultaneous changeback
}	

{
PURPOSE:
To check simultaneous changebacks of traffic onto two
links
}	

{
PRE-TEST CONDITIONS:
Linkset with one available link (end of
test 3.14)
}	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A			SP B
	Link			Link	
:Start traffic					
	1 — 3	TRAFFIC	---------->		
			<----------	1 — 3	TRAFFIC
	1 — 1	{			
:Activate (depending of the deactivation mean }					
	1 — 2	:Activate previously used)			
	1 — 3	CBD, SLC 1 — 1	---------->		
	1 — 3	CBD, SLC 1 — 2	---------->		
			<----------	1 — X	CBA, SLC 1 — 1
			<----------	1 — X	CBA, SLC 1 — 2
	1 — 1	TRAFFIC (from 1 — 3)	---------->		
			<----------	1 — 1	{
TRAFFIC (from 1 — 3, see note) }					
	1 — 2	TRAFFIC (from 1 — 3)	---------->		
			<----------	1 — 2	{
TRAFFIC (from 1 — 3, see note) }					
	1 — 3	TRAFFIC	---------->		
			<----------	1 — 3	TRAFFIC

:Wait
:Stop traffic
{
Note 1
— B may perform changebacks or not.
}
{
Note 2
— Changeback procedures may be performed in sequence. The traffic sequence presented here, after the changebacks, is the final situation.
}					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 3. }	{
2. Simultaneously activate links 1 — 1 and 1 — 2. }	{
3. Check that CBDs are received and CBAs are sent (within T4) for 1 — 1 and 1 — 2 and that the traffic is changed back on links 1 — 1 and 1 — 2. }	{
4. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{

H.T. [T48.782]
MTP LEVEL 3

TEST NUMBER: 4.7	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Changeback from several alternative links within a linkset
}	

{
PURPOSE:
To check the changeback procedure when it is performed to
several links in a same linkset
}	

{
PRE-TEST CONDITIONS:
Linkset with one unavailable link (end of
test 3.15)
}	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2, 3, 4	TRAFFIC	---------->		
			<----------	1 — 2, 3, 4	TRAFFIC
	1 — 1	{			
:Activate (depending of the deactivation mean previously used) }					
	1 — 2	CBD, SLC 1 — 1	---------->		
	1 — 3	CBD, SLC 1 — 1	---------->		
	1 — 4	CBD, SLC 1 — 1	---------->		
			<----------	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 perform changebacks or not.
}					

TEST DESCRIPTION	
1. Start traffic to B and C on links 1 — 2, 1 — 3 and 1 — 4. }	{
2. Activate link 1 — 1 and check that a CBD is sent on links 1 — 2, 1 — 3 and 1 — 4. Check that each CBD contains a different changeback code. }	{
3. Check that the traffic is changed back on link 1 — 1. }	{
4. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{

H.T. [T49.782]
MTP LEVEL 3

TEST NUMBER: 4.8	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Changeback from another linkset
}	

{
PURPOSE:
To check the changeback procedure when it is performed
from another linkset
}	

{
PRE-TEST CONDITIONS:
Linksets 1 and 3 unavailable (end of test 3.16)
}	

CONFIGURATION: B	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	SP A Link	SP B Link	SP C Link	SP • Link
:Start traffic				
	2 — 1, 2	TRAFFIC	---------->	{
5 — 1 | ---------->				
}		SP D		
				{
6 — 1 | ---------->				
}		SP E		
			<----------	{
2 — 1, 2 <----------				
}	5 — 1	SP D		
			<----------	{
2 — 1, 2 <----------				
}	6 — 1	SP E		
	3 — 2	{		
:Activate				
(depending of the deactivation mean previously used)				
}				
	2 — 1	CBD, SLC 3 — 2	---------->	4 — 1 ---------->
	2 — 2	CBD, SLC 3 — 2	---------->	4 — 1 ---------->
	{			
<----------				
}	3 — 2	CBA, SLC 3 — 2		
	{			
<----------				
}	3 — 2	CBA, SLC 3 — 2		
	CHANGEBACK			
	2 — 1, 2	TRAFFIC	---------->	{
5 — 1 | ---------->				
}		SP D		
				{
6 — 1 | ---------->				
}		SP E		
	<----------	{		
2 — 1, 2 <----------				
}	5 — 1	SP D		
	3 — 2	TRAFFIC	{	
---------->				
}	8 — 1 --------->		SP D	
		(from 2 — X)		7 — 1 --------->

:Wait	
:Stop traffic	
{	
Note	
— After activation of link 3 — 2, CBDs are sent from C to A via B and acknowledged by A. These messages are not presented to simplify the test description.	
}	

TEST DESCRIPTION

1. Start traffic to E (and D in VAT). }	{
2. Activate link 3 — 2 and check that CBDs are received and that CBAs are sent before T4 expires in A. }	{
3. Check that the traffic is changed back on linkset 3 in accordance with the load sharing rules in A. }	{
4. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{

Tableau [T49.782], p.

H.T. [T50.782]
MTP LEVEL 3

TEST NUMBER: 4.9	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Changeback from two linksets
}	

{
PURPOSE:
To check the changeback procedure when it is performed
from two linksets
}	

{
PRE-TEST CONDITIONS:
Linkset 1 unavailable (end of test 3.18)
}	

CONFIGURATION: B	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	SP A Link	SP B Link	SP C Link	SP D Link
:Start traffic				
	2 — 1	TRAFFIC	---------->	{
5 — 1 ---------->				
}				
			<----------	{
2 — 1 <----------				
}	5 — 1	TRAFFIC		
	2 — 2	TRAFFIC	---------->	{
5 — 1 ---------->				
}				
			<----------	{
2 — 2 <----------				
}	5 — 1	TRAFFIC		
	3 — 1	TRAFFIC	{	
---------->				
}	8 — 1 ---------->			
	3 — 2	TRAFFIC	{	
---------->				
}	8 — 1 ---------->			
	1 — 2	{		
:Activate				
(depending of the deactivation mean previously used)				
}				
	2 — 1	CBD, SLC 1 — 2	---------->	{
5 — 1 ---------->				
}				
	2 — 2	CBD, SLC 1 — 2	---------->	{
5 — 1 ---------->				
}				
	3 — 1	CBD, SLC 1 — 2	{	
---------->				
}	8 — 1 ---------->			
	3 — 2	CBD, SLC 1 — 2	{	
---------->				
}	8 — 1 ---------->		CBAs	
			<----------	{
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	{		
TRAFFIC (from linksets 5, see note)				
}				
	2 — 1, 2	TRAFFIC	---------->	{
5 — 1 ---------->				

}
 	
---------->
}
:Wait
:Stop traffic
{
Note
— D may perform changebacks or not.
}
	3 — 1, 2 TRAFFIC {
	
	8 — 1 ----------> |				

TEST DESCRIPTION					
1. Start traffic on linksets 2 and 3 to D. } 2. Activate the link 1 — 2 and check that CBDs are received and that CBAs are sent before T4 expires in A. Check that each CBD has a different changeback code. } 3. Check that the traffic is changed back to link 1 — 2 in accordance with the load sharing rules in A. } 4. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{ { { {				

Tableau [T50.782], p.

H.T. [T51.782]
MTP LEVEL 3

TEST NUMBER: 4.10	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Changeback due to various reasons
}	

{
PURPOSE:
To check the interface L2-L3
}	

{
PRE-TEST CONDITIONS:
Linkset with one available link
(end of 3.19)
}	

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A
:Start traffic		
	1 — 2	TRAFFIC
	1 — 1	{
:Activation due to various reasons (see Note)		
}		
	1 — 2	CBD, SLC 1 — 1
	1 — 1	TRAFFIC (from 1 — 2
	1 — X	CBA, SLC 1 — 1
	1 — 2	TRAFFIC

:Wait
:Stop traffic
{
Note
— The object of this test is to check the interface L2-L3 by provoking a changeback by different means listed in § 3 (Q.704). These reasons are: initial alignment procedure completed with success, processor outage condition has ceased at the remote signalling terminal and management request.
}

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Provoke the activation of the link 1 — 1 (see Note above). }	{
3. Check that the traffic is changed back to 1 — 1. }	{
4. Stop traffic and check that it has been received correctly. }	{
5. Repeat the test for each reason. }	{

H.T. [T52.782]
MTP LEVEL 3

TEST NUMBER: 4.11	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 6.4,
Fig. 28, Fig. 29, Fig. 31
}	

TITLE: Changeback	

{
SUB TITLE: Time controlled diversion procedure
}	

{
PURPOSE:
To check the correct operation of the time controlled
diversion procedure
}	

{
PRE-TEST CONDITIONS:
Linksets 1, 2 and 4 unavailable
}	

CONFIGURATION: B	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A	Link	SP B	Link	SP C
:Start traffic						
---------->	3 — 1	TRAFFIC (to D and E)	{			
}						
			{			
<----------						
}	3 — 1	TRAFFIC (from D and E)				
	3 — 2	TRAFFIC (to D and E)	{			
---------->						
}						
			{			
<----------						
}	3 — 2	TRAFFIC (from D and E)				
	2 — 1	{				
| fR						
:Activate (depending of the deactivation mean previously used)						
}						
			| | T21 |			
			| -	<------ 2 — 1	TRA (see note 1)		
	3 — 1, 2	{				
| fR						
TRAFFIC STOPPED						
|						
| T3						
|						
}						
	2 — 1	TRAFFIC (from 3 — 1, 2)	--------->			
			<------ 2 — 1	{		
TRAFFIC (from D, see note 2)						
}						
---------->	3 — 1, 2	TRAFFIC	{			
}						
			{			
<----------						
}	3 — 1, 2	TRAFFIC (from E)				
:Wait						
:Stop traffic						
{						
Note 1						
— If SP A is an STP, a TRA message is also sent from A to B after activation of link 2 — 1.						
}						
{						
Note 2						
— B performs the point restart procedure and D on reception of a TFA for A reroutes its traffic to A. These procedures are not presented to simplify the test description.						
}						

TEST DESCRIPTION	
1.	{
Start traffic to E (and D in VAT) on linkset 3.	
}	
2.	Activate link 2 — 1.
3.	{
Check that T21 is started in A, and is stopped on reception of TRA from SP B (see notes).	
}	
4.	{
Check that traffic on linkset 3 ceased in A and that after expiration T3	

traffic diverts to link 2 — 1 in accordance with the load sharing rules in A. }	
5. Stop traffic and check that there were no lost messages, no duplication and no missequencing. }	{
6. Check that the duration of T3 is inside the specified range. }	{
7. Repeat the test (in VAT) without sending TRA from B to A and check that the time controlled diversion is performed when T21 expires. }	{

Tableau [T52.782], p.

H.T. [T53.782]
MTP LEVEL 3

TEST NUMBER: 5	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 7,
Fig. 29, Fig. 32
}	

TITLE: Forced rerouting	
SUB TITLE:	

{
PURPOSE:
To check that the system can perform forced rerouting
}	

{
PRE-TEST CONDITIONS:
Linksets 1 and 4 unavailable
}	

CONFIGURATION: B	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A	Link	SP B	Link	SP C
:Start traffic						
	2 — 1, 2	TRAFFIC	-----> to D and E			
			<----- 2 — 1, 2	TRAFFIC (from D)		
	3 — 1, 2	TRAFFIC	{			
---------->						
}	to | | nd |					
			{			
<----------						
}	3 — 1, 2	TRAFFIC (from E)				
			<----- 6 — 1	:Deactivate		
			<----- 2 — X	TFP, PC = E		
	3 — 1, 2	TRAFFIC	{			
---------->						
}						
	{					
(to D and from 2 — 1, 2 to E)						
}						
			{			
<----------						
}	3 — 1, 2	TRAFFIC (from E)				
	2 — 1, 2	TRAFFIC	-----> to D			
			<----- 2 — 1, 2	TRAFFIC (from D)		
:Wait						
:Stop traffic						

TEST DESCRIPTION	
1. Start traffic on linksets 2 and 3 to E (and D in VAT). }	{
2. Deactivate the linkset 6 and check the sending of a TFP concerning E from B to A. }	{
3. Stop traffic and check that the forced rerouting has been performed correctly, messages may have been lost but not missequenced or duplicated. }	{
4. Check that the traffic to D carried by the linksets 2 and 3 has not been disturbed (no lost messages, no duplication and no missequencing). }	{
5. Check that an indication was given by the system. }	{

Tableau [T53.782], p.

H.T. [T54.782]
MTP LEVEL 3

TEST NUMBER: 6	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 8,
Fig. 29, Fig. 33
}	

TITLE: Controlled rerouting	
SUB TITLE:	

{
PURPOSE:
To check that the system can perform controlled rerouting
}	

{
PRE-TEST CONDITIONS:
Linksets 1, 4 and 6 unavailable (end of test 5)
}	

CONFIGURATION: B	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A		SP B		SP C
	Link		Link		Link	
:Start traffic						

---------->	3 — 1, 2	| fR TRAFFIC	{		
}	to D and E				
			{		
<----------					
}	3 — 1, 2	TRAFFIC (from E)			
	2 — 1, 2	| fR TRAFFIC	-----> to D		
			<----- 2 — 1, 2	TRAFFIC (from D)	
			<----- 6 — 1	:Activate	
			<----- 2 — X	TFA, PC = E	
		||| T6 ||			
	2 — 1, 2	TRAFFIC	----->		
	{				
(to D and from 3 — 1, 2 to E)					
}					
			<----- 3 — 1, 2	TRAFFIC (from D)	
	3 — 1, 2	TRAFFIC	{		
---------->					
}					
			{		
<----------					
}	3 — 1, 2	TRAFFIC (from E)			
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to E (and D in VAT). }	{
2. Activate the linkset 6 and check the sending of a TFA concerning E from B to A. }	{
3. Stop traffic and check that the controlled rerouting has been performed correctly (for all traffic flows, no lost messages, no duplication and no missequencing). }	{
4. Check that the duration of T6 is inside the specified range. }	{

Tableau [T54.782], p.

H.T. [T55.782]
MTP LEVEL 3

TEST NUMBER: 7.1.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibition of a link — available link
}		

{
PURPOSE:
To check for the correct response when link inhibition is requested for an available link
}		

{
PRE-TEST CONDITIONS:
Linkset with two available links
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A	
:Start traffic			
	1 — 1	TRAFFIC	----------
			<--------
	1 — 2	TRAFFIC	----------
			<--------
	1 — 1	:Request inhibition	
	1 — X	LIN, SLC 1 — 1	----------
			<--------
	{		
TIME—CONTROLLED CHANGEOVER (see note)			
}			
	1 — 2	TRAFFIC (from 1 — 1)	----------
			<--------
:Wait			
:Stop traffic			
{			
Note			
— A changeover is performed after the inhibition of link 1 — 1 but it is not described in this test which checks only the inhibition procedure.			
}			

TEST 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 an LIA is received in A within T14.	{
}	
3. Check that the traffic normally 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 direction.	{
}	

H.T. [T56.782]
MTP LEVEL 3

TEST NUMBER: 7.1.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibition of a link - unavailable link
}		

{
PURPOSE:
To check for the correct response when link inhibition is requested for an unavailable link
}		

{
PRE-TEST CONDITIONS:
Linkset with one available link
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
	1 — 2	:Request inhibition			
	1 — 1	LIN, SLC 1 — 2	---------->		
			<----------	1 — 1	LIA, SLC 1 — 2
	1 — 2	{			
:Activate (depending of the deactivation mean previously used) }					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST 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 was performed. }	{
4. Activate link 1 — 2 and check that it stays in inhibited state. }	{
5. Stop traffic and check that it was not disturbed. }	{
6. Repeat test in reverse direction. }	{

Tableau [T56.782], p.

H.T. [T57.782]
MTP LEVEL 3

TEST NUMBER: 7.2.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibition not permitted — local reject on available link
}		

{
PURPOSE:
To check the inhibition procedure in case of local reject
on an available link
}		

{
PRE-TEST CONDITIONS:
Linkset with one available link
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
	1 — 1	:Request inhibition			
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST 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 permitted. }	{
3. Stop traffic and check that it has not been disturbed. }	{
4. Repeat the test but modify pre-test conditions as follows: link 1 — 1 available and link 1 — 2 inhibited by B. }	{

Tableau [T57.782], p.

H.T. [T58.782]
MTP LEVEL 3

TEST NUMBER: 7.2.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: 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 unavailable link
}		

{
PRE-TEST CONDITIONS:
All links unavailable
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link 1 — 1	SP A :Request inhibition		Link	SP B
TEST DESCRIPTION					
1. Request inhibition of link 1 — 1 and check that it is rejected. }	{				

Tableau [T58.782], p.

H.T. [T59.782]
MTP LEVEL 3

TEST NUMBER: 7.2.3	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 10,
Fig. 28
}	

TITLE: Management inhibiting	

{
SUB TITLE: Inhibition not permitted — sending of
LID
}	

{
PURPOSE:
To check the reject of an inhibition asked on reception of an
LIN
}	

{
PRE-TEST CONDITIONS:
Linkset with one available link
}	

CONFIGURATION: A	TYPE OF TEST: VAT / TYPE OF SP: ALL

		SP A			SP B
	Link			Link	
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
			<----------	1 — 1	LIN, SLC 1 — 1
	1 — 1	LID, SLC 1 — 1	---------->		
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on 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 it has not been disturbed. }	{

H.T. [T60.782]
MTP LEVEL 3

TEST NUMBER: 7.2.4	PAGE: 1 of 1	
{ REFERENCE: Q.704 § 10, Fig. 28 }		
TITLE: Management inhibiting		
{ SUB TITLE: Inhibition not permitted — reception of LID }		
{ PURPOSE: To check the reject of an inhibition asked on sending of an LIN }		
{ PRE-TEST CONDITIONS: Linkset with two available links }		
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
	1 — 1	:Request inhibition			
	1 — X	LIN, SLC 1 — 1	---------->		
			<----------	1 — X	LID, SLC 1 — 1
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on links 1 — 1 and 1 — 2.	{ }
2. Request the inhibition of link 1 — 1 and check the reception of LIN and response with an LID before T14 expires in A.	{ }
3. Check that the inhibition is not performed.	{ }
4. Stop traffic and check that it was not disturbed.	{ }

H.T. [T61.782]
MTP LEVEL 3

TEST NUMBER: 7.3.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Expiration of T14 — available link
}		

{
PURPOSE:
To check that the inhibition procedure asked for an
available link is restarted when T14 expires
}		

{
PRE-TEST CONDITIONS:
Linkset with two available links
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAF
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAF
	1 — 1	:Request inhibition			
	1 — X	LIN, SLC 1 — 1	---------->		
		{			
|					
|					
| T14					
|					
|					
}					
	1 — X	LIN, SLC 1 — 1	---------->		
			<----------	1 — 1	LIA,
		{			
TIME—CONTROLLED CHANGEOVER (see note)					
}					
	1 — 2	TRAFFIC (from 1 — 1)	---------->		
			<----------	1 — 2	TRAF
:Wait					
:Stop traffic					
{					
Note					
— A changeover is performed after the inhibition of link 1 — 1 but it is not described in this inhibition test.					
}					

TEST DESCRIPTION	
1. Start traffic to B and C on links 1 — 1 and 1 — 2. }	{
2. Request the inhibition of link 1 — 1, check that an LIN is received without response. Check that a new LIN is received after T14 expires and that an LIA is sent in response. }	{
3. Check that the inhibition is performed. Stop traffic and check that it was not disturbed. }	{
4. Repeat the test but without sending of an LIA. Check that after the second expiration of T14 the procedure is stopped. }	{
5. Check that the duration of T14 is inside the specified range. }	{

H.T. [T62.782]
MTP LEVEL 3

TEST NUMBER: 7.3.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Expiration of T14 — unavailable link
}		

{
PURPOSE:
To check that the inhibition procedure asked for an unavailable link is restarted when T14 expires
}		

{
PRE-TEST CONDITIONS:
Linkset with one available link
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
	1 — 2	:Request inhibition			
	1 — 1	LIN, SLC 1 — 2	---------->		
		{			
|					
|					
| T14					
|					
|					
}					
	1 — 1	LIN, SLC 1 — 2	---------->		
			<----------	1 — 1	LIA, SLC 1 — 2
	1 — 2	:Activate			
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1. }	{
2. Request inhibition of link 1 — 2, check that an LIN is received without response. Check that a new LIN is received after T14 expires and that an LIA is sent in response. }	{
3. Check that the inhibition is performed. }	{
4. Activate link 1 — 2 and check that it stays unavailable. }	{
5. Stop traffic and check that it was not disturbed. }	{
6. Repeat the test but without sending of an LIA. Check that after the second expiration of T14 the procedure is stopped. }	{

Tableau [T62.782], p.

H.T. [T63.782]
MTP LEVEL 3

TEST NUMBER: 7.4	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Additionnal inhibition messages (LIA, LID, LIN)
}		

{
PURPOSE:
To check the action of the system on reception of an
additionnal LIA, LID or LIN
}		

{
PRE-TEST CONDITIONS:
End of test 7.1.1
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
			<----------	1 — 2	LIA, SLC 1 — 1
			<----------	1 — 2	LID, SLC 1 — 1
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
			<----------	1 — 2	LIN, SLC 1 — 1
	1 — 1	LIA, SLC 1 — 1	---------->		
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Send an additionnal LIA and LID on link 1 — 2. }	{
3. Check that these messages are ignored without impact on the traffic. }	{
4. Send an additionnal LIN on link 1 — 2. }	{
5. Check that an LIA is received in response without impact on the traffic and that the link 1 — 1 enters in the ‘‘Local and remote inhibiting’’ state. }	{
6.	Stop traffic.

H.T. [T64.782]
MTP LEVEL 3

TEST NUMBER: 7.5	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibition asked by the both ends of a link
}		

{
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
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
	1 — 1	:Request inhibition			
	1 — X	LIN, SLC 1 — 1	---------->		
			<----------	1 — X	LIN, SLC 1 — 1
	1 — 1	LIA, SLC 1 — 1	---------->		
			<----------	1 — X	LIA, SLC 1 — 1
	{				
TIME-CONTROLLED CHANGEOVER (see note)					
}					
	1 — 2	TRAFFIC (from 1 — 1)	---------->		
			<----------	1 — 2	TRAFFIC (from 1 — 1)
:Wait					
{					
:Stop traffic					
Note					
— A changeover procedure is performed but not described in this inhibition test.					
}					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1 and 1 — 2. }	{
2. Request inhibition of link 1 — 1. Check the reception of LIN and response with an LIN. }	{
3. Check the reception of an LIA and send an LIA. }	{
4. Check that the inhibition is correctly performed and that the link enters in the <<Local and remote inhibiting>> state. }	{
5. Stop traffic and check that it was not disturbed. }	{

H.T. [T65.782]
MTP LEVEL 3

TEST NUMBER: 7.6.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Manual uninhibition of a link — with changeback
}		

{
PURPOSE:
To check for correct restoration when link uninhibition is
requested by an operator
}		

{
PRE-TEST CONDITIONS:
End of test 7.1.1
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A	
:Start traffic			
	1 — 2	TRAFFIC	---------- <----------
	1 — 1	:Request uninhibition	
	1 — 2	LUN, SLC 1—1	---------- <----------
CHANGEBACK (See note)	CHANGEBACK (See note)		
	1 — 1	TRAFFIC (from 1 — 2)	---------- <----------
	1 — 2	TRAFFIC	---------- <----------

:Wait
{
:Stop traffic
Note
— A changeback procedure is performed after uninhibition of link 1 — 1 but it is not described in this test which checks only uninhibition procedure.
}

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Request uninhibition of link 1 — 1, check the reception of an LUN and response with an LUA inside T12. }	{
3. Check that the uninhibition is performed and stop traffic. }	{
4. Check that the traffic was shared on links 1 — 1 and 1 — 2 according to the load sharing rules. }	{
5. Check that an uninhibition indication was given by the system. }	{
6. When B has initiated inhibition (point 5, test 7.1.1), repeat test in reverse direction. Check that uninhibition is not possible when it is requested by an operation in A. }	{

H.T. [T66.782]
MTP LEVEL 3

TEST NUMBER: 7.6.2	PAGE: 1 of 1	
{ REFERENCE: Q.704 § 10, Fig. 28 }		
TITLE: Management inhibiting		
{ SUB TITLE: Manual uninhibition of a link — without changeback }		
{ PURPOSE: To check manual uninhibition procedure when the uninhibited link stays unavailable }		
{ PRE-TEST CONDITIONS: End of test 7.1.2 without activation of link 1 — 2 (link 1 — 2 deactivated and inhibited) }		
CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A			SP B
	Link			Link	
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
	1 — 2	:Request uninhibition			
	1 — 1	LUN, SLC 1 — 2	---------->		
			<----------	1 — 1	LUA, SLC 1 — 2
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic B (and C in VAT) 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 inside T12.	{ }
3. Check that uninhibition is performed correctly and that link 1 — 2 stays unavailable.	{ }
4. Stop traffic and check that it was not disturbed.	{ }
5. When B has initiated inhibition (point 6, test 7.1.2), repeat test in reverse direction. Check that uninhibition is not possible when it is requested by an operator in A.	{ }

H.T. [T67.782]
MTP LEVEL 3

TEST NUMBER: 7.7	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		
SUB TITLE: Expiration of T12		

{
PURPOSE:
To check uninhibition procedure on expiration of time T12
}		

{
PRE-TEST CONDITIONS:
End of test 7.1.1
(1 — 1 inhibited by A)
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 1	:Request uninhibition			
	1 — 2	LUN, SLC 1 — 1	---------->		
		{			
|					
|					
| T12					
|					
|					
}					
	1 — 2	LUN, SLC 1 — 1	---------->		
			<----------	1 — 2	LUA, SLC 1 — 1
CHANGEBACK (See note)	CHANGEBACK (See note)				
	1 — 1	TRAFFIC (from 1 — 2)	---------->		
			<----------	1 — 1	TRAFFIC (from 1 — 2)
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					
{					
:Stop traffic					
Note					
— A changeback procedure is performed but not described in this uninhibition test.					
}					

TEST DESCRIPTION	
1. Start traffic B and C on link 1 — 2.	{ }
2. Request uninhibition of link 1 — 1 and check that an LUN is received.	{ }
3. Check that after expiration of T12, a new LUN is received and acknowledged by an LUA.	{ }
4. Check that uninhibition is performed correctly.	{ }
5. Stop traffic and check it was shared on links 1 — 1 and 1 — 2 according with the load sharing rules and that it was not disturbed.	{ }
6. Repeat the test but without sending of an LUA. Check that after the second expiration of T12 the procedure is stopped and an indication is given to the management.	{ }
7. Check that the duration of T12 is inside the specified range.	{ }

Tableau [T67.782], p.

H.T. [T68.782]
MTP LEVEL 3

TEST NUMBER: 7.8	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Not possible uninhibition
}		

{
PURPOSE:
To check the actions of the system when the uninhibition is
not possible
}		

{
PRE-TEST CONDITIONS:
Link 1 — 2 unavailable and inhibited and
link 1 — 1 available
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A		Link	SP B
	Link 1 — 1 1 — X	:Deactivate :Request uninhibition			
TEST DESCRIPTION					
1. 2. Check that uninhibition is not performed. }	Deactivate link 1 — 1. {				

Tableau [T68.782], p.

H.T. [T69.782]
MTP LEVEL 3

TEST NUMBER: 7.9	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Automatic uninhibition of a link
}		

{
PURPOSE:
To check that the system performs uninhibition procedure
when a point becomes unaccessible
}		

{
PRE-TEST CONDITIONS:
End of test
7.1.1
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 2	:Deactivate (failure)			
	1 — 1	LUN, SLC 1 — 1	---------->		
			<----------	1 — 1	LUA, SLC 1 — 1
	{				
POINT RESTART PROCEDURE IS APPLIED IN A AND B (see note)					
}					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
{					
:Stop traffic					
Note — When link 1-1 becomes available, point restart procedure is applied in A and B but it is not described in this inhibition test to simplify the test description.					
}					

TEST 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 performed and that the traffic is restarted 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 the second expiration of T12 the procedure is stopped, an indication is given to the OMAP and the link 1 — 1 does not carry traffic.	{
}	

H.T. [T70.782]
MTP LEVEL 3

TEST NUMBER: 7.10.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Forced uninhibition of a link — sending of an LFU
}		

{
PURPOSE:
To check forced uninhibition procedure when a point becomes unaccessible
}		

{
PRE-TEST CONDITIONS:
Link 1 — 1 available, link 1 — 2 inhibited by B
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A	
	Link		
:Start traffic			
	1 — 1	TRAFFIC	---------->
			<----------
	1 — 1	:Deactivate (failure)	
	1 — 2	LFU, SLC 1 — 2	---------->
			<----------
	1 — 2	LUA, SLC 1 — 2	---------->
	{		
POINT RESTART PROCEDURE IS APPLIED IN A AND B (see note)			
}			
	1 — 2	TRAFFIC	---------->
			<----------
:Wait			
{			
:Stop traffic			
Note			
— When link 1 — 2 becomes available, point restart procedure is applied in A and B but it is not described in this inhibition test to simplify the test description.			
}			

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1. }	{
2. Deactivate link 1 — 1 and check the reception of an LFU on link 1 — 2. Response by an LUN. Check that T13 is stopped and that an LUA is received. }	{
3. Check that uninhibition is performed and that the traffic is restarted on link 1 — 2 (see note). }	{
4. Stop traffic, some messages have been lost. }	{

H.T. [T71.782]
MTP LEVEL 3

TEST NUMBER: 7.10.2	PAGE: 1 of 1	
{ REFERENCE: Q.704 § 10, Fig. 28 }		
TITLE: Management inhibiting		
{ SUB TITLE: Forced uninhibition of a link — reception of an LFU }		
{ PURPOSE: To check uninhibition procedure on reception of an LFU }		
{ PRE-TEST CONDITIONS: Link 1 — 1 available, link 1 — 2 inhibited by A }		
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE::		

	Link	SP A		Link	SP B
:Start traffic					
	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	---------->		
			<----------	1 — 2	TRAFFIC
:Wait { :Stop traffic *Note* — A changeback is performed but not described in this uninhibition test. }					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1. }	{
2. Send an LFU to A on link 1 — 2 and check that an LUN is received within T13 and acknowledged by an LUA inside T12. }	{
3. Check that the uninhibition is performed. }	{
4. Stop traffic and check that it was carried on 1 — 1 and 1 — 2. }	{

H.T. [T72.782]
MTP LEVEL 3

TEST NUMBER: 7.11	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		
SUB TITLE: Expiration of T13		

{
PURPOSE:
To check uninhibition procedure when T13 expires
}		

{
PRE-TEST CONDITIONS:
Link 1 — 1 available and link 1 — 2 inhibited by
B
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
	1 — 1	:Deactivate (failure)			
	1 — 2	LFU, SLC 1 — 2	---------->		
		{			
|					
|					
| T13					
|					
|					
}					
	1 — 2	LFU, SLC 1 — 2	---------->		
			<----------	1 — 2	LUN, SLC 1 — 2
	1 — 2	LUA, SLC 1 — 2	---------->		
		{			
POINT RESTART PROCEDURE IS APPLIED IN A AND B (see note in 7.9)					
}					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1. }	{
2. Deactivate link 1 — 1 and check the reception of an LFU. After T13 expires, check the reception of a second LFU and send an LUN. Check the reception of an LUA. }	{
3. Check that uninhibition is performed correctly. }	{
4. Stop traffic and check that it has been restarted on link 1 — 2. Some messages have been lost. }	{
5. Repeat the test but without sending an LUN. Check that after the second expiration of T13 the procedure is stopped, that an indication is given to the OMAP and that the link 1 — 2 carries traffic normally from A. }	{
6. Check that the duration of T13 is inside the specified range. }	{

Tableau [T72.782], p.

H.T. [T73.782]
MTP LEVEL 3

TEST NUMBER: 7.12	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Additionnal uninhibition messages (LUA,
LUN, LFU)
}		

{
PURPOSE:
To check the actions of the system on reception of an
additionnal LUA, LUN or LFU
}		

{
PRE-TEST CONDITIONS:
Linkset with two available
links
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		PS A			PS B
	Link			Link	
:Start traffic					
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
			<----------	1 — 2	LUA, SLC 1 — 1
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
			<----------	1 — 2	LUN, SLC 1 — 1
	1 — X	LUA, SLC 1 — 1	---------->		
	1 — 1, 2	TRAFFIC	---------->		
			<----------	1 — 1, 2	TRAFFIC
			<----------	1 — 2	LFU, SLC 1 — 1
	1 — X	LUN, SLC 1 — 1	---------->		
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 1 and 1 — 2. }	{
2. Send an LUA (SLC 1 — 1) on link 1 — 2. }	{
3. Check that this message has been ignored without impact on the traffic. }	{
4. Send an LUN (SLC 1 — 1) on link 1 — 2. }	{
5. Check that an LUA is received in response without impact on the traffic. }	{
6. Send an LUA (SLC 1 — 1) on link 1 — 2. }	{
7. Check that an LUN is received in response without impact on the trafic. }	{
8.	Stop traffic.

H.T. [T74.782]
MTP LEVEL 3

TEST NUMBER: 7.13	PAGE: 1 of 1	
{ REFERENCE: Q.704 § 10, Fig. 28 }		
TITLE: Management inhibiting		
{ SUB TITLE: Uninhibition at one side after test 7.5 }		
{ PURPOSE: To check uninhibition procedure when the inhibition has been asked by the two ends of a link }		
{ PRE-TEST CONDITIONS: End of test 7.5 }		
CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

		SP A			SP B
	Link			Link	
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 1	:Request uninhibition			
	1 — 2	LUN, SLC 1 — 1	---------->		
			<----------	1 — 2	LUA, SLC 1 — 1
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2.	{ }
2. Request uninhibition of link 1 — 1. Check that an LUN is received and response with an LUA within T12.	{ }
3. Check that the link stays inhibited (by B).	{ }
4. Stop traffic and check that it was not disturbed.	{ }
5. Repeat test in reverse direction.	{ }

H.T. [T75.782]
MTP LEVEL 3

TEST NUMBER: 7.14	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Automatic uninhibition after
test 7.5
}		

{
PURPOSE:
To check automatic uninhibition of a link
when the inhibition has been initiated
by the both ends
}		

{
PRE-TEST CONDITIONS:
End of test
7.5
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
	1 — 2	:Deactivate (failure)			
	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 AND B (see note in 7.9)					
}					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic to B and C on link 1 — 2. }	{
2. Deactivate link 1 — 2 and check that forced uninhibition is requested by the both ends which send LFU. }	{
3. Check that LUNs are sent by both ends in response and that LUAs are sent for acknowledgement. }	{
4. Check that the traffic is restarted on link 1 — 1 and stop traffic. }	{

Tableau [T75.782], p.

H.T. [T76.782]
MTP LEVEL 3

TEST NUMBER: 7.15	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Automatic uninhibition with two links inhibited
}		

{
PURPOSE:
To check the actions of the system when two links are inhibited and when the third (and last) link is deactivated
}		

{
PRE-TEST CONDITIONS:
Links 1 — 1 and 1 — 2 inhibited (by A) and link 1 — 3 available
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 3	TRAFFIC	---------->		
			<----------	1 — 3	TRAFFIC
	1 — 3	:Deactivate (failure)			
	1 — X	LUN, SLC 1 — 1	---------->		
	and/or	LUN, SLC 1 — 2	---------->		
	{				
(implementation dependent: at least one link must be uninhibited)					
}					
			<----------	1 — X	LUA, SLC 1 — 1, and/or
			<----------	1 — X	LUA, SLC 1 — 2
	{				
POINT RESTART PROCEDURE IS APPLIED IN A AND B (see note in 7.9)					
}					
	1 — 1	TRAFFIC	---------->		
	and/or		<----------	1 — 1	TRAFFIC
	1 — 2	TRAFFIC	---------->	and/or	
			<----------	1 — 2	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1.	Deactivate link 1 — 3.
2. Check that at least one LUN is received and acknowledged with an LUA.	{
}	
3. Check that the traffic is restarted on linkset 1. Some messages have been lost.	{
}	
4.	Stop traffic.

H.T. [T77.782]
MTP LEVEL 3

TEST NUMBER: 7.16	PAGE: 1 of 1

{
REFERENCE: Q.704
§ 10,
Fig. 28
}	

TITLE: Management inhibiting	

{
SUB TITLE: Reception of traffic on an
inhibited link
}	

{
PURPOSE:
To check the actions of the system
on reception of traffic on an inhibited link
}	

{
PRE-TEST CONDITIONS:
Link 1 — 1 inhibited by A,
link 1 — 2 available
}	

CONFIGURATION: A	TYPE OF TEST: VAT | TYPE OF SP: ALL
MESSAGE SEQUENCE:	

		SP A			SP B
	Link			Link	
:Start traffic					
	1 — 2	TRAFFIC	---------->		
			<----------	1 — 2	TRAFFIC
			<----------	1 — 1	TRAFFIC
:Wait					
:Stop traffic					

TEST DESCRIPTION	
1. Start traffic on link 1 — 1.	{ }
2. Send traffic from B to A on the inhibited link 1 — 2. Check that the messages received in A are normally treated.	{ }
3.	Stop traffic.

Tableau [T77.782], p.

H.T. [T78.782]
MTP LEVEL 3

TEST NUMBER: 7.17.1	PAGE: 1 of 3	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Management
inhibiting test — Normal procedure
}		

{
PURPOSE:
To check that the system performs
correctly the management inhibiting test
}		

{
PRE-TEST CONDITIONS:
Link 1-1 inhibited by A,
other links are available
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link 1 — X	SP A {		Link	SP B
| fR LLT, SLC 1 — 1 | | | T22 | | | - }	----------> <----------	. 1 — X	{		
| fR LRT, SLC 1 — 1 | | | T23 | | | - }					
	1 — X	**{**			
| fR LLT, SLC 1 — 1 | | | | }	----------> <----------	. 1 — X	{		
. **| fR LRT, SLC 1 — 1 | | | }**	----------> <----------	. 1 — X	{		
TEST DESCRIPTION					
1. Check that an LLT is periodically sent by A and check (in VAT) that the duration of timer T22 is inside the specified range. }	**{**				
2. Check that on the reception of an LRT, no action is taken in A. }	**{**				
3. As compatibility test, check that an LRT is periodically sent from B to A. }	**{**				

H.T. [T79.782]
MTP LEVEL 3

{
TEST NUMBER: 7.17.1 Continued
}
	PAGE: 2 of 3	

{
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 B,
other links are available
}		

CONFIGURATION: A	TYPE OF TEST: VAT, CPT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link 1 — X	SP A {		Link	SP B
| fR LRT, SLC 1 — 1 | | | T23 | | | - }	----------> <----------	. 1 — X	{		
. **| fR** **LLT, SLC 1 — 1** **|** **|** **| T22** **|** **|** **| -** **}**	**1 — X**	**{**			
| fR LRT, SLC 1 — 1 | | | | }	----------> <----------	. 1 — X	{		
. **| fR** **LLT, SLC 1 — 1** **|** **|** **|** **}**	----------> <----------	. 1 — X	{		
TEST DESCRIPTION					
1. **Check that an LRT is periodically sent by A and, in VAT, check that the duration of the timer T23 is inside the specified range.** **}**	**{**				
2. **Check that, on the reception of an LLT, no action is taken in A.** **}**	**{**				
3. **As compatibility test, check that an LLT is periodically sent from B to A.** **}**	**{**				

H.T. [T80.782]
MTP LEVEL 3

{
TEST NUMBER: 7.17.1 Continued
}
	PAGE: 3 of 3	

{
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
1 — X
1 — X
1 — X
} {
.
| fR
LRT,
|
|
| 23
|
| -
| fR
LRT,
|
|
| 23
|
} {
| fR
LLT, SLC 1 — 1
|
| LC 1 — 1
|
| 22
| -
| fR
LLT, SLC 1 — 1
|
| LC 1 — 1
|
| 22
} {
---------->
<----------
---------->
<----------
---------->
<----------
---------->
<----------
} {
.
1 — X
1 — X
1 — X
1 — X
} {
.
| fR
LRT, SLC 1 — 1
|
|
|
| 23
| -
| fR
LRT,
|
|

| | 23 }	{					
. **| fR** **LLT, SLC 1 — 1** **|** **|** **| 22** **| LC 1 — 1** **| -** | fR LLT, SLC 1 — 1 | | | 22 | }						
TEST DESCRIPTION						
1. Check that the LLT and LRT messages are periodically sent from A to B and from B to A. }	{					

Tableau [T80.782], p.

H.T. [T81.782]
MTP LEVEL 3

TEST NUMBER: 7.17.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibit test procedure — Reception of an LLT or LRT on an uninhibited link
}		

{
PURPOSE:
To check the actions of the system on
reception of an LLT or LRT on an uninhibited link
}		

{
PRE-TEST CONDITIONS:
Link 1 — 1 available
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link 1 — 1	SP A {	<----------	Link 1 — 1	SP B LLT, SLC 1 — 1
| fR LFU, SLC 1 — 1 | | | T13 | | | - } ----------> <---------- }	{ . 1 — 1 1 — 1 ----------> **1 — 1**	**. LUN, SLC 1 — 1** { **{**			
| fR LUA, SLC 1 — 1 } | fR LUN, SLC 1 — 1 | | | T12 | | | - } ----------> <---------- }	{ . 1 — 1	**. LUA, SLC 1 — 1**	<----------	**1 — 1**	**LRT, SLC 1 — 1**
TEST DESCRIPTION					
1. Send an LLT from B to A and check that an LFU is received. Then, send an LUN and check that an LUA is received. } 2. Send an LRT from B to A and check that an LUN is received. Answer with an LUA. }	{ {				

Tableau [T81.782], p.

H.T. [T82.782]
MTP LEVEL 3

TEST NUMBER: 7.17.3	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 10,
Fig. 28
}		

TITLE: Management inhibiting		

{
SUB TITLE: Inhibit test procedure — Reception of an LLT on a link locally inhibited
}		

{
PURPOSE:
To check the actions of the system on reception of an LLT on a link locally (not remotely) inhibited
}		

{
PRE-TEST CONDITIONS:
Link 1 — 1 inhibited in A,
other links are available
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:		

	Link 1 — X	SP A {	<----------	Link 1 — X	SP B LLT, SLC 1 — 1
| fR **LFU, SLC 1 — 1** **|** **|** **| T13** **|** **|** **| -** **}** ----------> <---------- **}**	**{** **.** 1 — X 1 — X	**.** LUN, SLC 1 — 1 LUA, SLC 1 — 1	<----------		
TEST DESCRIPTION					
1. Send an LLT from B to A and check that an LFU is received as described above. }	{				

Tableau [T82.782], p.

H.T. [T83.782]
MTP LEVEL 3

TEST NUMBER: 7.17.4	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 remotely 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:		

	Link 1 — X	SP A {	<---------- 	Link 1 — X	SP B LRT, SLC 1 — 1
| fR **LUN, SLC 1 — 1** **|** **|** **| T12** **|** **|** **| -** **}**	----------> <----------	**.** 1 — X	**.** LUA, SLC 1 — 1		
TEST DESCRIPTION					
1. Send an LRT from B to A and check that an LUN is received as described above. }	{				

H.T. [T84.782]
MTP LEVEL 3

TEST NUMBER: 8.1				PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 11, 12.6,
Fig. 46A
}					

{
TITLE: Signalling traffic flow control
}					

{
SUB TITLE: Reception of a TFC
}					

{
PURPOSE:
To check the actions of the system on reception
of a TFC
}					

{
PRE-TEST CONDITIONS:
One or more link
available
}					

CONFIGURATION: A		TYPE OF TEST: VAT		TYPE OF SP: ALL	
MESSAGE SEQUENCE:					
	SP A			SP B	
	Link			Link	
:Start traffic					
	1 — 1	TRAFFIC	---------->		
			<----------	1 — 1	TRAFFIC
			<----------	1 — 1	TFC, DPC = C
:Wait					

:Stop traffic
{
Note
— This test requires further study.
}					

TEST DESCRIPTION					
1. 2. Send a TFC concerning C and check that this message is received correctly. }	Start traffic to B and C. {				

Tableau [T84.782], p.

H.T. [T85.782]
MTP LEVEL 3

TEST NUMBER: 8.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 11, 12.6,
Fig. 46A
}		

{
TITLE: Signalling traffic flow control
}		

SUB TITLE: Sending of TFCs		

{
PURPOSE:
To check the detection of a level 3
congestion
}		

{
PRE-TEST CONDITIONS:
All links
available
}		

CONFIGURATION: C	TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:		

	Link	SP B	Link	SP A	Link	SP C	
:Start traffic							
	1 — 1	TRAFFIC	(>n/2 E) ------->	2 — 1	----- (n E) ------->		
			<----------	1 — 1	<----------	2 — 1	TRAFFIC (<n E)
	1 — 2	TRAFFIC	(>n/2 E) ------->	2 — 1	----- (n E) ------->		
			<----------	1 — 2	<----------	2 — 1	TRAFFIC (<n E)
:Wait							
	<----------	1 — X	TFC, DPC = C				
			{				
.							
.							
.							
One TFC each 8 messages sent to C							
.							
}							
	<----------	1 — X	TFC, DPC = C				
			. .				
	1 — 1	TRAFFIC	(<n E) ---------->	2 — 1	---------->		
			<----------	1 — 1	<----------	2 — 1	TRAFFIC (<n E)
	1 — 2	TRAFFIC	(<n E) ---------->	2 — 1	---------->		
			<----------	1 — 2	<----------	2 — 1	TRAFFIC (<n E)
:Wait							
:Stop traffic							
{							
Note							
— n is the maximum load capacity of linkset 2. The traffic model used in this test is described in Table 2/Q.706.							
}							

TEST DESCRIPTION	
1. Start traffic to C with a load exceeding n/2 erlang on links 1 — 1 and 1 — 2 (n is the maximum load that the link 2 may carry without congestion). }	{
2. Check that the signalling traffic flow control procedure is started in A. Check that a TFC message concerning C is received for each 8 messages received in B during the congestion. }	{
3. Reduce the load to 0.1 erlang or less on links 1 — 1 and 1 — 2. }	{
4. Check that the congestion disappears and that no TFC is received. }	{
5.	Stop traffic.
6. Check that the traffic from C to B has not been disturbed. }	{

Tableau [T85.782], p.

H.T. [T86.782]
MTP LEVEL 3

TEST NUMBER: 8.3	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 11.2.7
}		

{
TITLE: Signalling traffic flow control
}		

{
SUB TITLE: Reception of a UPU
}		

{
PURPOSE:
To check the actions of the system on reception of
a UPU
}		

{
PRE-TEST CONDITIONS:
One link available
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: see note
MESSAGE SEQUENCE:		

		SP A		
	Link			L
:Star traffic				
	1 — 1	TRAFFIC (DPC=B, SI=X)	---------->	
	1 — 1	TRAFFIC (DPC=C, SI=X)	---------->	
			<----------	1
			<----------	1
	1 — 1	TRAFFIC (DPC=C, SI=X)	---------->	
			<----------	1
:Wait				
:Stop traffic				

{
Note
— The impact of the reception of a UPU on the traffic from A to B requires further study. The SPs having user part(s) are concerned.
}				

TEST DESCRIPTION	
1. Start traffic to B and C with SI=X. }	{
2. Send a UPU from B to C with SI=X. }	{
3. Check that the UPU message is received correctly without impact on the traffic from to A to C. }	{
4.	Wait and stop traffic.

Tableau [T86.782], p.

H.T. [T87.782]
MTP LEVEL 3

TEST NUMBER: 8.4	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 11.2.7
}		

{
TITLE: Signalling traffic flow control
}		

SUB TITLE: Sending of a UPU		

{
PURPOSE:
To check the detection of an unavailability of a user part
}		

{
PRE-TEST CONDITIONS:
One link available
}		

CONFIGURATION: A	TYPE OF TEST: VAT	TYPE OF SP: See note
MESSAGE SEQUENCE:		

	Link	SP A		Link	SP B
:Start traffic					
	1 — 1	{			
TRAFFIC (to B and C, SI=X) }					
	---------->				
			<----------	1 — 1	{
TRAFFIC (from B and C, SI=X) }					
		{			
:Deactivate user part X (see note) }					
			<----------	1 — 1	{
MESSAGE (from B to A, SI=X) }					
	1 — 1	UPU (DPC = B, SI=X)	---------->		
			<----------	1 — 1	{
MESSAGE (from C to A, SI=X) }					
	1 — 1	UPU (DPC = C, SI=X)	---------->		
			<----------	1 — 1	{
MESSAGE (from B to A, SI=X) }					
	1 — 1	UPU (DPC = B, SI=X)	---------->		
		:Reactivate user part X			
			<----------	1 — 1	{
TRAFFIC (from B and C to A, SI=X) }					
	1 — 1	{			
TRAFFIC (to B and C, SI=X) }					
:Wait	---------->				

:Stop traffic
{
Note
— The notion of unavailability of a user part is specific to the implementation, consequently, the ability to deactivate a user part is implementation dependent. The SPs having user part(s) are concerned.
}					

TEST DESCRIPTION	
1. Start traffic to B and C with SI = X.	{ }
2.	Deactivate the user part X.
3. Send a message from B to the user part X in A and check that this message is discarded and that a UPU is sent back.	{ }
4. Send a message from C to the user part X in A and check that this message is discarded and that a UPU is sent back.	{ }
5.	{

Repeat point 3 and reactivate the user part. } 6. Check that the messages sent from B and C are received correctly and that no UPU is sent back. Wait and stop traffic. }	{

Tableau [T87.782], p.

H.T. [T88.782]
MTP LEVEL 3

TEST NUMBER: 9.1.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 13,
Fig. 29, Fig. 44
}		

{
TITLE: Signalling route management
}		

{
SUB TITLE: Sending of a TFP on an alternative route — failure
of normal linkset
}		

{
PURPOSE:
To check the sending of a TFP on the alternative route
when the normal linkset becomes unavailable
}		

{
PRE-TEST CONDITIONS:
All linksets
available
}		

CONFIGURATION: D	TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:		

	SP A Link	SP B Link	SP C Link	SP • Link			
:Start traffic							
5 — 1 | ---------->	1 — 1	TRAFFIC	---------->	{			
}		SP D					
6 — 1 | ---------->		(from | | nd |)		{			
}		SP E					
---------->	2 — 1	TRAFFIC (from | | nd |)	{				
}	7 — 1 -------->		SP E				
	1 — 1	{					
:Deactivate (MML command or failure)							
}							
---------->	2 — 1	TFP, PC = B	{				
}							
---------->	2 — 1	TFP, PC = D	{				
}							
---------->	2 — 1	TRAFFIC	{				
}	7 — 1 -------->		SP E				
		(from 1 — 1)		8 — 1 -------->			SP D

:Wait
:Stop traffic
{
Note
— A changeover procedure is performed after deactivation of link 1 — 1 but it is not described in this transfer prohibited test.
}							

TEST DESCRIPTION	
1. Start traffic to D and E on linkset 1 and 2. }	{
2. Deactivate link 1 — 1 and check that TFPs concerning B and D are sent from A to C (alternative route to reach B and D). Check that no TFP concerning E is sent from A to C (load sharing between linksets 1 and 2 in A to reach E). }	{
3. Check that time out T8 is started for each TFP sent. }	{
4. Check that the traffic to D and E is diverted to C. }	{
5. Stop traffic and check that it was not disturbed. }	{

H.T. [T89.782]
MTP LEVEL 3

TEST NUMBER: 9.1.2	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 13,
Fig. 29, Fig. 44
}		

{
TITLE: Signalling route management
}		

{
SUB TITLE: Sending of a TFP on an alternative route — on reception of a TFP
}		

{
PURPOSE:
To check the sending of a TFP on the alternative route when the normal route becomes unavailable on reception of a TFP
}		

{
PRE-TEST CONDITIONS:
Linkset 4
unavailable
}		

CONFIGURATION: D	TYPE PF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:		

	SP A Link	SP B Link	SP C Link	SP ● Link
:Start traffic				

5 — 1 | ----------> }
 	
6 — 1 | ----------> }
 	
----------> }
 	
----------> }
 	
6 — 1 | ----------> }
 	
----------> }
 	
(from A and F, and from 1 — 1 to D) }
:Wait
:Stop traffic
{
Note
— A forced rerouting is performed after the reception of TFP for D in A but it is not described in this transfer prohibited test.
}
	1 — 1
	
	2 — 1
	
	7 — 1 --------->
	5 — 1
	See note
	2 — 1
	
	1 — 1
	
	2 — 1
	
	8 — 1 --------->
	
	7 — 1 --------->
		TRAFFIC
		
		SP D
		(from | | nd |)
		
		SP E
		TRAFFIC (from | | nd |)
		
		:Deactivate
		<-----------
		TFP, PC = D
		
		TRAFFIC (from | | nd |)
		
		SP E
		TRAFFIC
		
		{
			---------->
			
			{
			
			SP E
			
			1 — 1
			{
			
			---------->
			
			{
			
			SP D
			
			SP E
				{
				
				{
				
				TFP, PC = D
				
				{
				
				{

TEST DESCRIPTION				
1. 2. Deactivate link 5 — 1 and check that a TFP concerning D is sent to A. } 3. Check that a TFP concerning D is received from A and that traffic to D is diverted via C. } 4. Check that a time out T8 is started. } 5. Stop traffic and check that traffic to E has not been disturbed. Some messages to D may have been lost. }	Start traffic to D and E. { { { {			

H.T. [T90.782]
MTP LEVEL 3

TEST NUMBER: 9.2.1	PAGE: 1 of 1	

{
REFERENCE: Q.704
§ 13,
Fig. 29, Fig. 44
}		

{
TITLE: Signalling route management
}		

{
SUB TITLE: Broadcast of TFPs — on one linkset failure
}		

{
PURPOSE:
To check the broadcast of TFPs when one point is inaccessible
}		

{
PRE-TEST CONDITIONS:
All linksets available
}		

CONFIGURATION: D	TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:		

	SP A Link	SP B Link	SP C Link	SP F Link

:Start traffic
 	
TRAFFIC | ---------->
(from A, D and E)
}
 	
:Deactivate
(MML command or failure)
}
 	
TFP, PC = F | ---------->}
 	
TFP, PC = F | ---------->}
:Wait
:Stop traffic
{
Note
— The propagation of TFPs is not presented to simplify the test description.
}
	3 — 1
	
	3 — 1
	
	1 — 1
	
	2 — 1
		{
		
		{
		
		{
		
		{		

TEST DESCRIPTION				
1. 2. Deactivate link 1 — 1 and check that TFPs concerning F are broadcasted. } 3. Check that a timer T8 is started. } 4.	Start traffic to F. { { Stop traffic.			

Tableau [T90.782], p.