

H.T. [T91.782]
MTP LEVEL 3

TEST NUMBER: 9.2.2		PAGE: 1 of 2	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 44 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Broadcast of TFPs — On multiple failures }			
{ PURPOSE: To check the broadcast of TFPs when several point are inaccessible (various reasons) }			
{ PRE-TEST CONDITIONS: Linkset 1 unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:			
SP A		SP B	SP C
			SP •

:Start traffic <div> <div>Link</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>:Deactivate (MML command or failure)</div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> </div>	TRAFFIC 7 — 1 (from A and F) { TFP, PC = B TFP, PC = C TFP, PC = D TFP, PC = E	{ -----> { SP F { { {
:Wait :Stop traffic		
TEST DESCRIPTION		
<div> <div>1.</div> <div>2.</div> <div>Deactivate linkset 2 and check that TFPs concerning B, C, D and E are broadcasted (to F).</div> <div>}</div> <div>3.</div> <div>Check that for each TFP sent a timer T8 is started.</div> <div>}</div> <div>4.</div> <div>Repeat test but with linkset 2 unavailable as pre-test condition and then deactivate linkset 1.</div> <div>}</div> </div>	Start traffic to D and E. { { {	

Tableau [T91.782], p.

**H.T. [T92.782]
MTP LEVEL 3**

{ TEST NUMBER: 9.2.2 Continued }	PAGE: 2 of 2		
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 44 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Broadcast of TFPs — On multiple failures }			
PURPOSE: See page 1			
{ PRE-TEST CONDITIONS: Linksets 1 and 4 unavailable }			
CONFIGURATION: D	TYPE OF TEST: VAT, CPT	TYPE OF SP: STP	
MESSAGE SEQUENCE: SP A	SP C	SP D	SP •

<div> <div>Link</div> <div> :Start traffic <div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> </div> </div> <div> :Wait :Stop traffic </div> </div>	<div> <div>TRAFFIC (from A and F)</div> <div>TFP, PC = D</div> <div>TRAFFIC (from A and F)</div> </div> <div> <div>-----></div> <div>SP E</div> <div><-----</div> <div>{</div> <div>SP F</div> <div>-----></div> <div>SP E</div> </div> <div> <div>Link</div> <div>8 — 1 7 — 1</div> <div>8 — 1 2 — 1</div> <div>7 — 1</div> </div>
TEST DESCRIPTION	
<div> <div>1.</div> <div>2.</div> <div>Deactivate linkset 8 and check that a TFP (PC = D) is sent.</div> <div>Check that TFPs are broadcasted (here to F).</div> <div>}</div> <div>3.</div> <div>Check that a time out T8 started.</div> <div>}</div> <div>4.</div> <div>Stop traffic and check that traffic to E has not been disturbed.</div> <div>}</div> <div>5.</div> <div>Repeat the test with linksets 2 and 4 unavailable as pre-test conditions and then deactivate linkset 5. Repeat the test with linksets 4 and 8 unavailable as pre-test conditions and then deactivate linkset 1.</div> <div>}</div> <div>6.</div> <div>Repeat the test with linksets 4 and 5 unavailable as pre-test conditions and then deactivate linkset 2.</div> <div>}</div> </div>	<div> <div>Start traffic to D and E.</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> </div>

Tableau [T92.782], p.

**H.T. [T93.782]
MTP LEVEL 3**

TEST NUMBER: 9.3		PAGE: 1 of 2	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 44 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Reception of a message for an inaccessible destination }			
{ PURPOSE: To check that a TFP is sent in response to a message received for an inaccessible destination }			
{ PRE-TEST CONDITIONS: Linksets 1, 4 and 8 unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

H.T. [T94.782]
MTP LEVEL 3

TEST NUMBER: 9.3 Continued		PAGE: 2 of 2	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 44 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Reception of a message for an inaccessible destination }			
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 •
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**H.T. [T95.782]
MTP LEVEL 3**

TEST NUMBER: 9.4.1	PAGE: 1 of 1		
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 45 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Sending of a TFA on an alternative route — Recovery of normal linkset }			
{ PURPOSE: To check the sending of a TFA on an alternative route when the normal linkset becomes available }			
{ PRE-TEST CONDITIONS: Linkset 1 unavailable (end of test 9.1.1) }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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<div> <div>Link</div> <div> :Start traffic <div> <div>2 — 1</div> <div>-----></div> <div>}</div> </div> <div> 1 — 1 :Activate (depending of the activation mean previously used) <div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>1 — 1</div> <div>1 — 1</div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div>(from A and F and from 2 — 1)</div> <div> <div>}</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> </div> </div> <div> :Wait :Stop traffic { <i>Note</i> — a changeback procedure is performed after activation of link 1-1 but it is not described in this transfer allowed test. } </div> </div> </div></div>	<div> <div>TRAFFIC</div> <div>8 — 1</div> <div>(from A and F)</div> <div>{</div> <div>TFA, PC = B</div> <div>TFA, PC = D</div> <div>TFP, PC = D</div> <div>TFP, PC = E</div> <div>TRAFFIC</div> <div>{</div> <div>TRAFFIC (from A and F)</div> <div>7 — 1</div> </div>
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Tableau [T95.782], p.

H.T. [T96.782]
MTP LEVEL 3

TEST NUMBER: 9.4.2		PAGE: 1 of 1	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 45 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Sending of a TFA on an alternative route — On reception of a TFA }			
{ PURPOSE: To check that a TFA is sent on the alternative route when the normal route becomes available on reception of a TFA }			
{ PRE-TEST CONDITIONS: Linksets 4 and 5 unavailable (end of test 9.1.2) }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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<div> <div>Link</div> <div> :Start traffic <div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> </div> <div> <div>See note</div> <div>1 — 1</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div>{</div> <div>(from A and F, from 2 — 1 to D)</div> <div>}</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> </div> <div> :Wait :Stop traffic { <i>Note</i> — a controlled rerouting is performed after the activation of linkset 5 it is not described in this transfer allowed test. } </div> </div> </div>	<div> <div>TRAFFIC (from A and F)</div> <div>-----></div> <div>SP E</div> <div>{</div> <div>7 — 1</div> <div>(from A and F)</div> <div>-----></div> <div>TFP, PC = D</div> <div>TFA, PC = D</div> <div><-----</div> <div>1 — 1</div> <div>-----></div> <div>{</div> <div>TRAFFIC</div> <div>-----></div> <div>SP D</div> <div>{</div> <div>6 — 1</div> <div>TRAFFIC (from A and F)</div> <div>7 — 1</div> <div>-----></div> <div>SP E</div> <div>{</div> </div>
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Tableau [T96.782], p.

**H.T. [T97.782]
MTP LEVEL 3**

TEST NUMBER: 9.5.1	PAGE: 1 of 1
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 45 }	
{ TITLE: Signalling route management }	
{ SUB TITLE: Broadcast of TFAs — On one linkset recovery }	
{ PURPOSE: To check the broadcast of TFA when a destination becomes accessible }	
{ PRE-TEST CONDITIONS: Linkset 3 unavailable (end of test 9.2.1) }	
CONFIGURATION: D	TYPE OF TEST: VAT, CPT TYPE OF SP: STP
MESSAGE SEQUENCE:	

SP A	SP B	SP C	SP •
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<p align="center">Link 3 — 1 1 — 1 2 — 1</p> <p align="center">-----></p> <p align="center">}</p> <p>:Start traffic</p> <p align="center">3 — 1</p> <p align="center">-----></p> <p align="center">}</p> <p>:Wait :Stop traffic { <i>Note 1</i> — After activation of the linkset 3, SPs A and F perform a point restart procedure which is not explicitly described in this test. } { <i>Note 2</i> — The propagation of TFAs is not presented to simplify the test description. }</p>	<p>:Activate (see Note 1) TFA, PC = F TFA, PC = F</p> <p>(see Note 2)</p> <p>TRAFFIC (from A and F)</p>	<p align="right">-----> {</p> <p align="right">{ SP F</p>
TEST DESCRIPTION		
<p align="center">1. 2. Check that TFAs concerning F are broadcasted. } 3. Start traffic to F and check that it is routed correctly; stop traffic. }</p>	<p>Activate linkset 3. { }</p>	

Tableau [T97.782], p.

H.T. [T98.782]
MTP LEVEL 3

TEST NUMBER: 9.5.2		PAGE: 1 of 2	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 45 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Broadcast of TFAs — Various reasons }			
{ PURPOSE: To check the broadcast of TFA when several destinations become accessible in various network situations }			
{ PRE-TEST CONDITIONS: Linksets 1 and 2 unavailable (end of test 9.2.2 page 1 of 2) }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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<div> <div>Link</div> <div>2 — 1</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>:Start traffic</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>:Wait</div> <div>:Stop traffic</div> <div>{</div> <div>Note</div> <div>— After activation of the linkset 2, SPs A and C perform the point restart procedure which is not described in this test.</div> <div>}</div> </div>	<div>:Activate</div> <div>TFA, PC = B</div> <div>TFA, PC = C</div> <div>TFA, PC = D</div> <div>TFA, PC = E</div> <div>TFP, PC = B</div> <div>TFP, PC = D</div> <div>TFP, PC = E</div> <div>TRAFFIC</div> <div>7 — 1</div> <div>(from A and F)</div>	<div>{</div> <div>SP F</div> <div>{</div> <div>SP F</div> <div>{</div> <div>SP F</div> <div>{</div> <div>SP F</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> <div>-----></div>	<div>Link</div> <div>8 — 1</div>
TEST DESCRIPTION			
<div>1.</div> <div>2.</div> <div>Check that TFAs concerning B, C, D and E are broadcasted.</div> <div>}</div> <div>3.</div> <div>Start traffic and check that it is routed correctly; stop traffic.</div> <div>}</div> <div>4.</div> <div>Repeat test but activate linkset 1 instead of linkset 2.</div> <div>}</div>	<div>Activate linkset 2.</div> <div>{</div> <div>{</div> <div>{</div>		

Tableau [T98.782], p.

**H.T. [T99.782]
MTP LEVEL 3**

{ TEST NUMBER: 9.5.2 Continued }	PAGE: 2 of 2		
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 45 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Broadcast of TFAs — Various reasons }			
PURPOSE: See page 1 of 2			
{ PRE-TEST CONDITIONS: Linksets 1, 4 and 8 unavailable (end of tests 9.2.2 page 2 of 2) }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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:Start traffic	<div>Link</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div>	TRAFFIC (from A and F)	{
		7 — 1	----->
			{
		2 — 1	TFA, PC = D
		TFP, PC = D	{
		TFA, PC = D	{
		TRAFFIC	SP F
			{
		7 — 1	----->
		(from A and F)	
:Wait			
:Start traffic			
TEST DESCRIPTION			
1.		Start traffic to E.	{
2.			{
Activate linkset 8 and check that a TFA concerning D is sent from C to A. Check that A broadcasts TFAs concerning D.			
}			
3.			{
Check that the traffic to D is restarted.			
}			
4.			{
Repeat test with linksets 2, 4 and 5 unavailable as pre-test conditions and activate linkset 5. Repeat test with linksets 1, 4 and 8 unavailable as pre-test conditions and activate linkset 1. Repeat test with linksets 2, 4 and 5 as pre-test conditions and activate linkset 2.			
}			

Tableau [T99.782], p.

H.T. [T100.782]
MTP LEVEL 3

TEST NUMBER: 9.6	PAGE: 1 of 1		
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 46 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Periodic sending of Signalling-Route-Set-Test messages (SRST) }			
{ PURPOSE: To check the periodic test of a unavailable signalling route is performed correctly }			
{ PRE-TEST CONDITIONS: Linkset 2 unavailable }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

<div>link</div> <div> :Start traffic <div> 1 — 1 <div> 1 — 1 RST, PC = C ST ST ST T10 ST ST } 1 — 1 RST, PC = C ST ST ST T10 ST } 1 — 1 </div> </div> <div> :Wait :Stop traffic </div> </div>	<div>SP A</div> <div> TRAFFIC { <div> <div>-----></div> <div>-----<</div> </div> <div> <div>-----></div> <div>{</div> </div> <div> <div>-----></div> <div>2 — 1 .</div> <div>-----<</div> <div>-----></div> <div>-----<</div> </div> TRAFFIC </div>
TEST DESCRIPTION	
<div> 1. 2. Check that at each expiration of T10, a signalling-Route-Set-Test message concerning C is received from A without response. } 3. Activate linkset 2 and check that a TFA is received and that T10 is stopped. } 4. Check that traffic to C is restarted and stop traffic. } 5. Repeat the test but without sending of TFA after activation of linkset 2 and check that when a RST is received a TFA is sent in response. Check that T10 and signalling-route-set-test procedure are stopped. } 6. Check that the duration of T10 is inside the specified range. } </div>	<div> Start traffic to B. { <div> { <div> { <div> { </div> </div> </div> </div>

H.T. [T101.782]
MTP LEVEL 3

TEST NUMBER: 9.7		PAGE: 1 of 1	
{ REFERENCE: Q.704 § 13 Fig. 29, Fig. 46 }			
{ TITLE: Signalling route management }			
{ SUB TITLE: Reception of a Signalling-Route-Set-Test-Message }			
{ PURPOSE: To check the actions of the system on reception of an SRST }			
{ PRE-TEST CONDITIONS: Linksets 2 and 3 unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

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Link
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3 — 1
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1 — 1
}
{
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:Activate
.
TFA, PC = F
}
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}
{
1 — 1 RST, PC = F
1 — 1 RST
|
1 — 1 RST
|
1 — 1 RST
| T10
1 — 1 RST
|
(ignored |
}
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1 — 1
}
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TFA, PC = F
}
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}
{
1 — 1 RST, PC = F
1 — 1 RST
|
1 — 1 RST
|
1 — 1 RST
| T 10
1 — 1 RST

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<pre> } 3 — 1 -----> } :Wait :Stop traffic </pre>	<p>TRAFFIC (from A, D and E)</p> <p>{</p>
TEST DESCRIPTION	
<pre> 1. Send to A RST message concerning F and check that no response is received. } 2. Activate linkset 3 and check that a TFA is received but ignored in B. } 3. Send a RST message concerning F after activation of linkset 3 and check that a TFA is received in response. } 4. Repeat the test but with linksets 1 and 3 unavailable as pre-test conditions and RST message sent from C. } </pre>	<pre> { { { { </pre>

Tableau [T101.782], p.

**H.T. [T102.782]
MTP LEVEL 3**

TEST NUMBER: 10.1.1		PAGE: 1 of 1	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Recovery of a linkset (SP A has not STP function) — With use of point restart procedure }			
{ PURPOSE: To check that point restart procedure is performed correctly when the recovery of a linkset restores connexity between two adjacent SPs }			
{ PRE-TEST CONDITIONS: Linksets 1, 2, 4 and 6 are unavailable }			
CONFIGURATION: B		TYPE OF TEST: VAT, CPT	TYPE OF SP: SP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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<div> <div> :Start traffic <div> <div> Link <div> <div>3 — 1, 2</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>2 — 1</div> <div>:Activate</div> <div>:</div> <div> </div> <div>:</div> <div> T21</div> <div>:</div> <div> </div> <div>:</div> <div> </div> <div>:</div> <div>—</div> <div>}</div> <div>.</div> <div>.</div> <div><-----</div> <div><-----</div> <div><-----</div> <div>}</div> <div>.</div> <div>.</div> <div>2 — 1 TFP (PC = C)</div> <div>2 — 1 TFP (PC = E)</div> <div>2 — 1 TRA</div> <div>}</div> </div> </div> <div> TIME CONTROLLED DIVERSION IS APPLIED </div> <div> <div> 2 — 1 <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>3 — 1, 2</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> </div> </div> <div> :Wait :Stop traffic { <i>Note</i> — The time controlled diversion procedure is applied in A and a changeback is performed in D. These procedures are not described in this point restart test. } </div> </div> </div></div>	<div> <div> TRAFFIC <div>7 — 1</div> <div>3 — 1, 2</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> <div>TRAFFIC (from 3 — 1, 2)</div> <div>5 — 1</div> <div>TRAFFIC</div> <div>7 — 1</div> <div>3 — 1, 2</div> </div> </div>
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<p> } </p> <p>2.</p> <p> Activate link 2 — 1 and check that the timer T21 is started. Check that TFPs sent from B are received in A. Check that the timer T21 is stopped on reception of the TRA message received from B. </p> <p> } </p> <p>3.</p> <p> Check that the time controlled diversion procedure is performed at the end of T21. Check that the traffic to D is diverted to the link 2 — 1 in accordance with the load sharing rules in A. Check that the traffic to E is not diverted. </p> <p> } </p> <p>4.</p> <p> Stop traffic and check that there were no lost messages, no duplication and no missequencing. </p> <p> } </p> <p>5.</p> <p> Repeat the test (in VAT) without sending of TRA and check that the duration of timer T21 is inside the specified range. </p> <p> } </p>	<p>{</p> <p>{</p> <p>{</p> <p>{</p>
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Tableau [T102.782], p.

**H.T. [T103.782]
MTP LEVEL 3**

TEST NUMBER: 10.1.2		PAGE: 1 of 1	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Recovery of a linkset (SP A has not STP function) — Without use of point restart procedure }			
{ PURPOSE: To check the actions of the system in case of restart of a linkset }			
{ PRE-TEST CONDITIONS: Linksets 1, 2 and 6 unavailable }			
CONFIGURATION: B		TYPE OF TEST: VAT	TYPE OF SP: SP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
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<div> <div>Link</div> <div> :Start traffic <div> <div>3 — 1, 2</div> <div>-----></div> <div>}</div> </div> <div> <-----</div> <div>}</div> <div> <----- </div> <div>}</div> <div> <-----</div> <div>}</div> <div>2 — 1</div> <div>CHANGEBACKS ARE PERFORMED IN A AND B (see note)</div> <div>}</div> <div> <div>2 — 1</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>3 — 1, 2</div> <div>-----></div> <div>}</div> <div> <-----</div> <div>}</div> <div> -----></div> <div>}</div> <div>:Wait</div> <div>:Stop traffic</div> <div>{</div> <div>Note</div> <div>— After activation of link 2 — 1, changebacks are performed in A and B but they are not explicitly described in this point restart test.</div> <div>}</div> </div> </div> </div>	<div> <div>TRAFFIC</div> <div>7 — 1</div> <div>5 — 1</div> <div>3 — 1, 2</div> <div>:Activate</div> <div>{</div> <div>TRAFFIC</div> <div>TRAFFIC</div> <div>TRAFFIC</div> <div>7 — 1</div> <div>5 — 1</div> <div>3 — 1, 2</div> </div>
TEST DESCRIPTION	
<div> <div>1.</div> <div>2.</div> <div>Activate link 2 — 1. Check that the point restart procedure is not applied and that changebacks are performed.</div> <div>}</div> <div>3.</div> <div>Check that the traffic from A is diverted to the link 2 — 1 in accordance with the load sharing rules in A.</div> <div>}</div> <div>4.</div> <div>Check that the signalling route set test procedure is not applied after the activation of the link 2 — 1.</div> <div>}</div> <div>5.</div> <div>Stop traffic and check that there were no lost messages, no duplication and no missequencing.</div> <div>}</div> </div>	<div> <div>Start traffic to E and D.</div> <div>{</div> <div>{</div> <div>{</div> <div>{</div> </div>

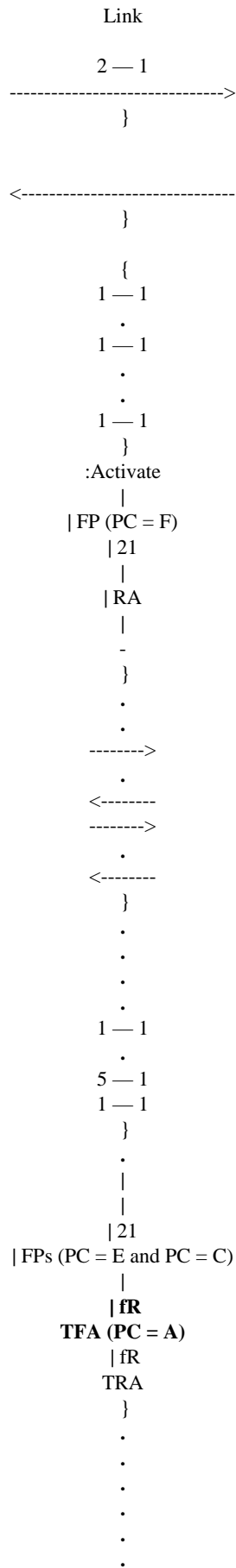
Tableau [T103.782], p.

H.T. [T104.782]
MTP LEVEL 3

TEST NUMBER: 10.2.1	PAGE: 1 of 2
REFERENCE: Q.704 § 9	
{ TITLE: Signalling point restart }	
{ SUB TITLE: Recovery of a linkset (SP A has the STP function) — With use of point restart procedure }	
{ PURPOSE: To check that restart procedure is performed correctly when the recovery of a linkset restores the connectivity between two adjacent SPs }	
{ PRE-TEST CONDITIONS: Linksets 1, 3, 4 and 6 unavailable }	
CONFIGURATION: D	TYPE OF TEST: VAT, CPT TYPE OF SP: STP
MESSAGE SEQUENCE:	

SP A	SP B	SP C	SP •
------	------	------	------

:Start traffic



	<div> <div>SP D</div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>1 — 1</div> </div>
TIME CONTROLLED DIVERSION IS APPLIED	
}	<div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> </div>
<-----	
}	<div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> </div>
:Wait	
:Stop traffic	
TEST DESCRIPTION	
Activate link 1 — 1 and check that the timer T21 is started in A (and B in CPT). Check that TFPs are sent from B to A for E and C, and that a TFP is sent from B to A for D.	<div> <div>1.</div> <div>2.</div> <div>}</div> <div>3.</div> <div>Check that a TRA is sent from A to B and check that, on reception of TRA (sent from B to A), the timer T21 is stopped. Check that a TFA is sent from B to A for D.</div> <div>}</div> <div>4.</div> <div>Check that the time controlled diversion is applied in A. Check that the traffic to D is diverted on link 1 — 1.</div> <div>}</div> <div>5.</div> <div>Stop traffic. Check that there were no lost messages and no missequencing.</div> <div>}</div> <div>6.</div> <div>In VAT, repeat the test without sending TRA from B to A and check that the duration of T21 is inside the specified range.</div> <div>}</div> </div>

Tableau [T104.782], p.

H.T. [T105.782]
MTP LEVEL 3

{ TEST NUMBER: 10.2.1 Continued }	PAGE: 2 of 2		
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Recovery of a linkset (SP A has the STP function) — With use of point restart procedure }			
PURPOSE: See page 1 of 2			
{ PRE-TEST CONDITIONS: Linksets 3, 4 and 6 unavailable (end of page 1) }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
------	------	------	------

<div> <div>Link</div> <div> <div> :Start traffic <div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div><-----</div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>3 — 1</div> <div>3 — 1</div> <div><-----></div> <div>}</div> <div>3 — 1</div> <div>-----></div> <div>}</div> <div>1 — 1</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> </div> </div> <div> :Wait :Stop traffic </div> </div></div>	<div> <div>TRAFFIC</div> <div>5 — 1</div> <div>2 — 1</div> <div>TRAFFIC</div> <div>7 — 1</div> <div>2 — 1</div> <div>:Activate</div> <div>TRAFFIC</div> <div>3 — 1</div> <div>TRA</div> <div>TFA (PC = F)</div> <div>TFA (PC = F)</div> <div>TRAFFIC (from A and F)</div> <div>5 — 1</div> <div>TRAFFIC (from A and F)</div> <div>7 — 1</div> <div>2 — 1</div> </div>
<div>TEST DESCRIPTION</div> <div> <div>1.</div> <div>2.</div> <div>Activate the link 3 — 1 and check that the traffic from/to A to/from F is immediately restarted.</div> <div>}</div> <div>3.</div> <div>Check that a TRA is sent from A to F and check that A broadcasts TFA for F.</div> <div>}</div> <div>4.</div> <div>Stop traffic and check that there were no lost messages, no duplication and no missequencing.</div> <div>}</div> </div>	<div> <div>Start traffic.</div> <div>{</div> <div>{</div> <div>{</div> </div>

Tableau [T105.782], p.

**H.T. [T106.782]
MTP LEVEL 3**

TEST NUMBER: 10.2.2		PAGE: 1 of 1	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Recovery of a linkset (SP A has the STP function) — Without use of point restart procedure }			
{ PURPOSE: To check the actions of the system in case of restart of a linkset }			
{ PRE-TEST CONDITIONS: Linkset 1 unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGES SEQUENCE:			
SP A		SP B	SP C SP ●

<div> <div>Link</div> <div> :Start traffic <div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>1 — 1</div> </div> </div> <div> CHANGEBACKS ARE PERFORMED IN A AND B (see Note 2) </div> <div> <div>1 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> <div>2 — 1</div> <div>-----></div> <div>}</div> <div><-----</div> <div>}</div> </div> <div> :Wait :Stop traffic { <i>Note 1</i> — Depending of the routing rules in D and E, the traffic to A and F may be carried either on linksets 5 or 8, or on linksets 6 or 7. } { <i>Note 2</i> — Changebacks are performed but they are not explicitly described in this point restart test. } </div> </div>	<div> TRAFFIC <div>8 — 1</div> <div>(from A and F)</div> <div>2 — 1</div> <div>:Activate</div> <div>{</div> <div>TRAFFIC</div> <div>(from A and F, from 2 —</div> <div>TRAFFIC</div> <div>7 — 1</div> <div>2 — 1</div> </div>
<div>TEST DESCRIPTION</div> <div> <div>1.</div> <div>2.</div> <div>Activate link 1 — 1. Check that point restart procedure is not applied in this case and that changebacks are performed.</div> <div>}</div> <div>3.</div> <div>Check that the traffic to D and E is diverted on link 1 — 1 in accordance with the load sharing rules in A.</div> <div>}</div> <div>4.</div> <div>Check that the signalling route set test procedure is not used.</div> <div>}</div> <div>5.</div> <div>Stop traffic and check there were no lost messages, no duplication and no missequencing.</div> <div>}</div> </div>	<div> Start traffic to D and E. <div>{</div> <div>{</div> <div>{</div> <div>{</div> </div>

Tableau [T106.782], p.

**H.T. [T107.782]
MTP LEVEL 3**

TEST NUMBER: 10.3	PAGE: 1 of 1
REFERENCE: Q.704 § 9	
{ TITLE: Signalling point restart }	
{ SUB TITLE: An adjacent SP becomes accessible via another SP (SP A has not STP function) }	
{ PURPOSE: To check the actions of the system when an adjacent SP becomes accessible via another SP }	
{ PRE-TEST CONDITIONS: Linksets 1, 3, 4, 5 and 6 are unavailable }	
CONFIGURATION: B	TYPE OF TEST: VAT TYPE OF SP: SP
MESSAGE SEQUENCE:	

SP A	SP B	SP C	SP •
------	------	------	------

Link	
<pre> 4 — 1 . . TFPs 4 — 1 (D and E) . . TRA 4 — 1 } :Activate <----- -----> T21 <----- fR -----> } . . 4 — 1 . . . 4 — 1 } . TFP (A) T21 TRA } TFAs (A,B) -----> TFAs (A,B) -----> } </pre>	<pre> { { { . T21 TRAFFIC </pre>
<pre> 2 — 1, 2 . -----> <----- } . 4 — 1 2 — 1, 2 } . -----> <----- } . 7 — 1 } 2 — 1, 2 </pre>	<pre> { (Broadcasting { SP E SP E TRAFFIC </pre>

:Wait :Stop traffic	
TEST DESCRIPTION	
<div>1.</div> <div>2.</div> <div>Check that on the reception of TFAs the traffic is immediately restarted in A to E and that traffic to D is restarted after expiration of T21.</div> <div>}</div> <div>3.</div> <div>Stop traffic and check that there were no lost messages, no duplication and no missequencing.</div> <div>}</div>	<div>Activate link 4</div> <div>{</div> <div></div> <div>{</div>

Tableau [T107.782], p.

**H.T. [T108.782]
MTP LEVEL 3**

TEST NUMBER: 10.4		PAGE: 1 of 1	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: An adjacent SP becomes accessible via another SP (SP A has STP function) }			
{ PURPOSE: To check the actions of the system when an adjacent SP becomes accessible via another SP on reception of a TFA }			
{ PRE-TEST CONDITIONS: Linksets 1, 3 and 4 are unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGES SEQUENCE:			
SP A	SP B	SP C	SP ●

<div> :Start traffic </div> <div> T21 Point restart T21 procedure is T21 applied in B and C } </div> <div> <----- } </div> <div> :Wait :Stop traffic </div>	<div> <div> Link 2 — 1 -----> } <----- } </div> <div> 2 — 1 -----> } 2 — 1 -----> } <----- } </div> </div>
<div> TEST DESCRIPTION </div> <div> 1. 2. 3. Check that, when the TFA is received for B, SP A is aware of that B is an adjacent point which restarts, and consequently A sends a TFP concerning F on li } 4. Stop traffic and check that it was not disturbed. } </div>	

Tableau [T108.782], p.

H.T. [T109.782]
MTP LEVEL 3

TEST NUMBER: 10.5	PAGE: 1 of 2
REFERENCE: Q.704 § 9	
{ TITLE: Signalling point restart }	
{ SUB TITLE: Restart of an SP having no STP function }	
{ PURPOSE: To check the restart procedure in an SP having no STP function }	
{ PRE-TEST CONDITIONS: SP A unavailable }	
CONFIGURATION: B	TYPE OF TEST: VAT, CPT TYPE OF SP: SP
MESSAGE SEQUENCE:	

SP A	SP B	SP C	SP •
------	------	------	------

<p>Link</p> <p>X — X</p> <p>:</p> <p>Activation (first link activated)</p> <p>}</p> <p>FINAL SITUATION (WHEN ALL LINKS ARE AVAILABLE)</p> <p>}</p> <p>1 — 1, 2</p> <p>-----></p> <p>}</p> <p><-----</p> <p>}</p> <p>2 — 1, 2</p> <p>-----></p> <p>}</p> <p>-----></p> <p>}</p> <p>3 — 1, 2</p> <p>-----></p> <p>}</p> <p><-----</p> <p>}</p> <p>:Wait</p> <p>:Stop traffic</p>	<p>:Activate</p> <p>{</p> <p> × T21 </p> <p>- <-----</p> <p>{</p> <p>TRAFFIC</p> <p>1 — 1, 2</p> <p>TRAFFIC</p> <p>TRAFFIC</p> <p>8 — 1</p> <p>3 — 1, 2</p>	<p>TRA received from B or</p> <p>{</p> <p>SP D</p> <p>{</p> <p>SP D</p> <p>-----></p> <p>SP D</p> <p>SP E</p> <p>{</p> <p>-----></p> <p>{</p> <p><-----</p>
TEST DESCRIPTION		
<p>1.</p> <p>2.</p> <p>Check that when the first link is activated, the timer T21 is started.</p> <p>}</p> <p>3.</p> <p>Check that, on reception of a TRA received from B or C, T21 is stopped.</p> <p>}</p> <p>4.</p> <p>Check that, when all links are activated, the traffic is carried as described above.</p> <p>}</p> <p>5.</p>	<p>Activate SP A.</p> <p>{</p> <p>{</p> <p>{</p> <p>Stop traffic.</p>	

Tableau [T109.782], p.

**H.T. [T110.782]
MTP LEVEL 3**

TEST NUMBER: 10.5 Continued		PAGE: 2 of 2	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Restart of an SP having no STP function }			
{ PURPOSE: To check the restart procedure in an SP having no STP function }			
{ PRE-TEST CONDITIONS: SP A, linksets 6 and 7 unavailable }			
CONFIGURATION: B		TYPE OF TEST: VAT	TYPE OF SP: SP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
------	------	------	------

$$\begin{array}{l} \text{:Active} \\ \{ \\ \{ \end{array}$$

. 1 —
||

. 1 —
||

: Acti
: Acti
TRAI

1 — 1
TRAI

TRAI
8

9

9

Activ
{

{

stopped on reception of the TRA message.

}

4.

Check that the traffic is carried as described above, after the
restart.

}

5.

{

Stop

Tableau [T110.782], p.

H.T. [T111.782]
MTP LEVEL 3

TEST NUMBER: 10.6		PAGE: 1 of 2	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Restart of an SP having the STP function }			
{ PURPOSE: To check the restart procedure in an SP having STP function }			
{ PRE-TEST CONDITIONS: SP A unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT, CPT	TYPE OF SP: STP
MESSAGES SEQUENCE:			
SP A	SP B	SP C	SP •

<p>— If all TRAs are received during T18, T19 is not started.</p> <p>}</p>	
TEST DESCRIPTION	
<p>1.</p> <p>2.</p> <p>Check that the signalling links become available and check that the received TRAs are correctly handled.</p> <p>}</p> <p>3.</p> <p>Check that when all TRAs are received in A, TRAs are broadcasted from A.</p> <p>}</p> <p>4.</p> <p>Check that the traffic is restarted correctly, wait and stop traffic.</p> <p>}</p> <p>5.</p> <p>Repeat the test (in VAT) but send the traffic from F to D and E via A immediately after alignment of link 3 — 1 and check that this traffic is treated normally in A.</p> <p>}</p>	<p>Activate signalling point A.</p> <p>{</p> <p>{</p> <p>{</p> <p>{</p> <p>{</p>

Tableau [T111.782], p.

**H.T. [T112.782]
MTP LEVEL 3**

TEST NUMBER: 10.6 Continued		PAGE: 2 of 2	
REFERENCE: Q.704 § 9			
{ TITLE: Signalling point restart }			
{ SUB TITLE: Restart of an SP having the STP function }			
{ PURPOSE: To check the restart procedure in an SP having STP function }			
{ PRE-TEST CONDITIONS: SP A, linksets 2 and 4 unavailable }			
CONFIGURATION: D		TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:			

SP A	SP B	SP C	SP •
------	------	------	------

<p>Link</p> <p>3 — 1</p> <p>:</p> <p>Activation (traffic from/to F is immediately restarted)</p> <p>}</p> <p>1 — 1</p> <p> Activation (traffic from/to B is immediately restarted)</p> <p>}</p> <p>3 — 1</p> <p>-----></p> <p>}</p> <p>1 — 1</p> <p>1 — 1</p> <p>3 — 1</p> <p>-----></p> <p>}</p> <p>1 — 1</p> <p>-----></p> <p>}</p> <p>-----></p> <p>}</p> <p><-----</p> <p>}</p> <p><-----</p> <p>}</p> <p>:Wait</p> <p>:Stop traffic</p>	<p>:Activate</p> <p>{</p> <p> T18</p> <p>{</p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> T19</p> <p> </p> <p> TFP (PC = C)</p> <p> TFPs</p> <p> (PC = C, D and E)</p> <p>- T20</p> <p> fR TRA</p> <p> fR TRA</p> <p> fR TRAFFIC</p> <p> fR (from A and F)</p> <p>5 — 1</p> <p>6 — 1</p>
--	---

TEST DESCRIPTION	
1.	{
Activate signalling point A beginning by the activation of 3 — 1. After activation of 3 — 1, activate link 1 — 1.	
}	
2.	{
Check that T19 is started after expiration of T18. Check that the duration of T18 is inside the specified range.	
}	
3.	{
Check that T20 is started after expiration of T19. Check that the duration of T19 is inside the specified range.	
}	
4.	{
Check that TFPs are sent during T20.	
}	
5.	{
Check that when T20 expires TRAs are broadcasted and that the traffic is correctly restarted, wait and stop traffic.	
}	
6.	{
Repeat the test with activation of 2 — 1 during T19 and check that this	

event is treated outside the procedure.

}

0

Tableau [T112.782], p.

H.T. [T113.782]
MTP LEVEL 3

TEST NUMBER: 10.7.1	PAGE: 1 of 1
REFERENCE: Q.704 § 9	
{ TITLE: Signalling point restart }	
{ SUB TITLE: Reception of an unexpected TRA — In an SP having no STP function }	
{ PURPOSE: To check the actions of the system in case of reception of an unexpected TRA }	
{ PRE-TEST CONDITIONS: Linkset with one available link }	
CONFIGURATION: A	TYPE OF TEST: VAT TYPE OF SP: SP
MESSAGES SEQUENCE:	

	Link	SP A		Lin
:Start traffic	1 — 1	TRAFFIC	----->	1 —
			<-----	1 —
	1 — 1	TRAFFIC	----->	1 —
			<-----	1 —
:Wait				
:Stop traffic				
TEST DESCRIPTION				
1. Start traffic to B and C on link 1 — 1. }	{			
2. Send a TRA from B to A and check that this message is ignored. }	{			
3. Stop traffic and check that it has not been disturbed. }	{			

Tableau [T113.782], p.

**H.T. [T114.782]
MTP LEVEL 3**

TEST NUMBER: 10.7.2	PAGE: 1 of 1
REFERENCE: Q.704 § 9	
{ TITLE: Signalling point restart }	
{ SUB TITLE: Reception of an unexpected TRA — In an SP having STP function }	
PURPOSE: See test 10.7.1	
{ PRE-TEST CONDITIONS: Linksets 1, 4 and 8 unavailable }	
CONFIGURATION: D	TYPE OF TEST: VAT
MESSAGE SEQUENCE:	
TYPE OF SP: STP	

SP A	SP B	SP C	SP •
------	------	------	------

:Start traffic	Link		
	2 — 1	TRAFFIC (from A and F)	{
	----->	7 — 1	----->
	}		{
	<-----	2 — 1	<-----
	}		{
	<-----	2 — 1	TRA
	}	TFP (PC = B)	{
	2 — 1	TFP (PC = D)	{
	----->	TRAFFIC (from A and F)	{
:Wait :Stop traffic	}	7 — 1	----->
	2 — 1	2 — 1	{
	----->		
	}		
	<-----		
	}		
TEST DESCRIPTION			
1.		Start traffic to E.	{
2.			
Send a TRA from C to A and check that TFPs concerning B and D are received, then, check that a TRAs received from A.			
{			
3.			{
Stop traffic and check that it was not disturbed.			
{			

Tableau [T114.782], p.

H.T. [T115.782]
MTP LEVEL 3

TEST NUMBER: 11	PAGE: 1 of 1	
REFERENCE: Q.706		
TITLE: Traffic test		
SUB TITLE:		
{ PURPOSE: To check the behaviour of an STP in various traffic situations }		
{ PRE-TEST CONDITIONS: All links available }		
CONFIGURATION: C	TYPE OF TEST: VAT	TYPE OF SP: STP
MESSAGE SEQUENCE:		

[illegible]

Tableau [T115.782], p.

H.T. [T116.782]
MTP LEVEL 3

TEST NUMBER: 12.1	PAGE: 1 of 1
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 1 — 2 available }	
CONFIGURATION: A	TYPE OF TEST: VAT, CPT TYPE OF SP: ALL
MESSAGE SEQUENCE:	

	Link
:Start traffic	1 — 2
	1 — 1
	1 — 1
	1 — 1
CHANGEBACK	1 — 1, 2
:Wait	
:Stop 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. 6. In VAT, repeat the test with link 1 — 1 unavailable and inhibited (in this case changeback is not performed). Check that the link 1 — 1 becomes available and that changeback is performed correctly. }

Tableau [T116.782], p.

**H.T. [T117.782]
MTP LEVEL 3**

TEST NUMBER: 12.2	PAGE: 1 of 1
REFERENCE: Q.707	
TITLE: Signalling link test	
{ SUB TITLE: No acknowledgement to first SLTM }	
{ PURPOSE: To check that a second SLTM is sent if the first is not acknowledged }	
{ PRE-TEST CONDITIONS: Signalling link 1 — 2 available }	
CONFIGURATION: A	TYPE OF TEST: VAT TYPE OF SP: ALL
MESSAGE SEQUENCE:	

	Link	SP A	
:Start traffic	1 — 2	T1 TRAFFIC	-----> <-----
	1 — 1	T1 :Activate	
	1 — 1	T1 SLTM	----->
	1 — 1	T1	
	1 — 1	T1 SLTM	-----> <----- <-----
CHANGEBACK	1 — 1	T1 SLTA	----->
	1 — 1, 2	T1 TRAFFIC	-----> <-----
:Wait			
:Stop traffic			
TEST DESCRIPTION			
	1. 2. Activate link 1 — 1 and check that an SLTM is received and not acknowledged. }	Start traffic to B and C. {	
	3. Check that when the time T1 expires a new SLTM is sent. Check that the duration of this time is inside of the specified range. }	{	
	4. Check that the link 1 — 1 becomes available and that the changeback is performed correctly. }	{	
	5. 6. Repeat the test with link 1 — 1 unavailable and inhibited (in this case changeback is not performed). Check that the link becomes available and stays inhibited. }	Stop traffic. {	

Tableau [T117.782], p.

H.T. [T118.782]
MTP LEVEL 3

TEST NUMBER: 12.3	PAGE: 1 of 1
REFERENCE: Q.707	
TITLE: Signalling link test	
{ SUB TITLE: No acknowledgement to second SLTM }	
{ PURPOSE: To check that the link stays unavailable when the second SLTM is not acknowledged }	
{ PRE-TEST CONDITIONS: Signalling link 1 — 2 available }	
CONFIGURATION: A	TYPE OF TEST: VAT TYPE OF SP: ALL
MESSAGE SEQUENCE:	

	Link	SP A
:Start traffic	1 — 2	T1 TRAFFIC
	1 — 1	T1 :Activate
	1 — 1	T1 SLTM
	1 — 1	T1
	1 — 1	T1 SLTM
	1 — 2	T1
		T1 TRAFFIC
:Wait		
:Stop traffic		
TEST DESCRIPTION		
1. 2. Activate link 1 — 1 and check that two SLTMs are received from A. }		Start traffic to B and C. {
3. Check that after the second expiration of T1, link 1 — 1 stays unavailable and that the management system is informed. }		{
4. Repeat the test with link 1 — 1 unavailable and inhibited. }		{

Tableau [T118.782], p.

H.T. [T119.782]
MTP LEVEL 3

TEST NUMBER: 12.4		PAGE: 1 of 1	
REFERENCE: Q.707			
TITLE: Signalling link test			
{ SUB TITLE: Unreasonable field in an SLTA }			
{ PURPOSE: To check the actions of the system on reception of an SLTA with an unreasonable field }			
{ PRE-TEST CONDITIONS: Signalling link 1 — 2 available }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

	Link	SP A	
:Start traffic	1 — 2	T1 TRAFFIC	----- <---
	1 — 1	T1 :Activate	
	1 — 1	T1 SLTM	----- <---
	SLTA (erroneous test SLTA pattern) }		
	1 — 1	T1 SLTM	----- <---
CHANGEBACK			
	1 — 1, 2	T1 TRAFFIC	----- <---
:Wait			
:Stop traffic			
TEST DESCRIPTION			
	1. 2. Activate link 1 — 1 and check that an SLTM is received and acknowledged with an SLTA containing an erroneous test pattern. } 3. Check that a second SLTM is sent from A and correctly acknowledged. } 4. Check that link 1 — 1 becomes available and that changeback is performed correctly. } 5. 6. Repeat the test with a first SLTA containing an erroneous SLC then OPC. } 7. Repeat the test with the first and second erroneous SLTA and check that link 1 — 1 stays unavailable and that management system is informed. }	Start traffic to B and C. { { { Wait and stop traffic. { {	

Tableau [T119.782], p.

H.T. [T120.782]
MTP LEVEL 3

TEST NUMBER: 12.5		PAGE: 1 of 1	
REFERENCE: Q.707			
TITLE: Signalling link test			
{ SUB TITLE: Reception of an SLTM in an attempt state }			
{ PURPOSE: To check the actions of the system when an SLTM is received in an attempt state }			
{ PRE-TEST CONDITIONS: Signalling link 1 — 2 available }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

	Link	SP A	
:Start traffic	1 — 2 1 — 1 1 — 1 1 — 1 T1 SLTM T1 T1 SLTA } -----> <----- -----> } 1 — 1 1 — 1 T1 SLTM T1 T1 SLTA } -----> <----- -----> }	T1 TRAFFIC T1 :Activate { { . 1 — 1 { { . 1 — 1 }	----- <----- . SLTM . SLTM <----- ----- <-----
CHANGEBACK	1 — 1, 2	TRAFFIC	
:Wait			
:Stop traffic			
TEST DESCRIPTION			
	1. 2. Activate link 1 — 1 and check that SLTM is received. Send an SLTM and check that an SLTA is received. } 3. On reception of the second SLTM, send an SLTM and check that an SLTA is received. Send an SLTA to A. } 4. Check that changeback is performed correctly, and stop traffic. }	Start traffic to B and C. { { {	

Tableau [T120.782], p.

**H.T. [T121.782]
MTP LEVEL 3**

TEST NUMBER: 12.6	PAGE: 1 of 1
REFERENCE: Q.707	
TITLE: Signalling link test	
{ SUB TITLE: Additional SLTA and SLTM }	
{ PURPOSE: To check the actions of the system on reception of additional SLTA and SLTM }	
{ PRE-TEST CONDITIONS: Signalling link 1 — 2 available }	
CONFIGURATION: A	TYPE OF TEST: VAT, CPT TYPE OF SP: ALL
MESSAGE SEQUENCE:	

	Link	SP A		Link
:Start traffic	1 — 2	TRAFFIC	-----> <----- <----- <----- ----->	1 — 2 1 — 2 1 — 2
:Wait	1 — 2	SLTA		
:Stop traffic				
TEST DESCRIPTION				
1. Start traffic to B (and C in VAT). }	{			
2. Check that the reception of an SLTA is ignored. }	{			
3. Send an SLTM to A and check that an SLTA is received. }	{			
4. Stop traffic and check that it was not disturbed. }	{			

Tableau [T121.782], p.

H.T. [T122.782]
MTP LEVEL 3

TEST NUMBER: 13.1	PAGE: 1 of 1
REFERENCE: Q.704 Tab. 1	
TITLE: Invalid messages	
{ SUB TITLE: Invalid H0.H1 in a signalling network management message }	
{ PURPOSE: To check the actions of the system when a signalling network management message is received with a non existing H0.H1 }	
{ PRE-TEST CONDITIONS: All links available }	
CONFIGURATION: A	TYPE OF TEST: VAT TYPE OF SP: ALL
MESSAGE SEQUENCE:	

	Link	SP A		
:Start traffic	ALL	TRAFFIC	-----> <----- <-----	A 1
	SIGNALLING NETWORK MANAGEMENT MESSAGE (Invalid H0.H1) }	TRAFFIC	-----> <-----	A
:Wait	ALL			
:Stop traffic				
TEST DESCRIPTION				
	1. Start traffic to B and C on all links. }	{		
	2. Send a signalling network management message with a nonexisting H0.H1. }	{		
	3. Check that this message is discarded without impact on the traffic. }	{		
	4.	Stop traffic.		

Tableau [T122.782], p.

H.T. [T123.782]
MTP LEVEL 3

TEST NUMBER: 13.2		PAGE: 1 of 1	
REFERENCE: Q.704 § 15			
TITLE: Invalid messages			
{ SUB TITLE: Invalid changeover messages }			
{ PURPOSE: To check the actions of the system on reception of changeover messages with an invalid SLC or OPC }			
{ PRE-TEST CONDITIONS: Linkset with two available links }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

	Link	SP A		
:Start traffic				
	1 — 1	TRAFFIC	----->	
			<-----	
	1 — 2	TRAFFIC	----->	
			<-----	
			<-----	
	COO, SLC 1 — X (nonexisting SLC) }			
			<-----	
	COO, SLC 1 — 1 (nonexisting OPC) }			
			<-----	
	ECO, SLC 1 — X (nonexisting SLC) }			
			<-----	
	ECO, SLC 1 — 1 (nonexisting OPC) }			
			<-----	
	COA, SLC 1 — X (nonexisting SLC) }			
			<-----	
	COA, SLC 1 — 1 (nonexisting OPC) }			
			<-----	
	ECA, SLC 1 — X (nonexisting SLC) }			
			<-----	
	ECA, SLC 1 — 1 (nonexisting OPC) }			
	1 — 1	TRAFFIC	----->	
			<-----	
:Wait				
:Stop traffic				
TEST DESCRIPTION				
	1. Start traffic to B and C on all links. }	{		
	2. Send the invalid messages as described above and check that they are ignored. }	{		
	3. Stop traffic and check that it was not disturbed. }	{		

Tableau [T123.782], p.

H.T. [T124.782]
MTP LEVEL 3

TEST NUMBER: 13.3		PAGE: 1 of 1	
REFERENCE: Q.704 § 15			
TITLE: Invalid messages			
{ SUB TITLE: Invalid changeback messages }			
{ PURPOSE: To check the actions of the system on reception of changeback messages with an invalid SLC or OPC }			
{ PRE-TEST CONDITIONS: Linkset with two available links }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

		SP A		
:Start traffic	Link			L
	1 — 1	TRAFFIC	----->	1 -
	1 — 2	TRAFFIC	<-----	1 -
			----->	1 -
	CBD, SLC 1 — X (nonexisting SLC) }		<-----	1 -
	CBD, SLC 1 — 1 (nonexisting OPC) }			
	CBA, SLC 1 — X (nonexisting SLC) }		<-----	1 -
	CBA, SLC 1 — 1 (nonexisting OPC) }		<-----	1 -
	1 — 1, 2	TRAFFIC	----->	1 -
			<-----	1 -
:Wait				
:Stop traffic				
TEST DESCRIPTION				
1. Start traffic to B and C on all links. }		{		
2. Send the invalid messages described above and check that they are ignored. }		{		
3. Stop traffic and check that it was not disturbed. }		{		

Tableau [T124.782], p.

H.T. [T125.782]
MTP LEVEL 3

TEST NUMBER: 13.4		PAGE: 1 of 1	
REFERENCE: Q.704 § 15			
TITLE: Invalid messages			
{ SUB TITLE: Invalid changeback code }			
{ PURPOSE: To check the actions of the system on reception of an invalid changeback code in a changeback message }			
{ PRE-TEST CONDITIONS: Linkset with one link available }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

	Link	SP A
:Start traffic	1 — 2 1 — 1 :Activate (depending of the deactivation mean previously used) } 1 — 2 CBD, SLC 1 — 1 CBD CBD CBD T4 CBD CBD } -----> <----- } . CBA, SLC 1 — 1 (invalid changeback code ≠ CBD) } 1 — 2 CBD, SLC 1 — 1 CBD CBD CBD T5 CBD CBD } 1 — 1 TRAFFIC (from 1 — 2 see note) } 1 — 2	TRAFFIC { { { . 1 — 2 { -----> TRAFFIC (from 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.	{

<p>Activate link 1 — 1, check that a CBD is received and acknowledged by a CBA with an invalid changeback code.</p> <p>}</p> <p>3.</p> <p>Check that a new CBD is received after T4 expires and acknowledged by a correct CBA. Check that changeback is performed.</p> <p>}</p> <p>4.</p> <p>Stop traffic and check that the invalid message has been discarded without impact on the traffic.</p> <p>}</p>	<p>{</p> <p>{</p>
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Tableau [T125.782], p.

H.T. [T126.782]
MTP LEVEL 3

TEST NUMBER: 13.5		PAGE: 1 of 3	
REFERENCE: Q.704 § 15			
TITLE: Invalid messages			
{ SUB TITLE: Invalid inhibition messages }			
{ PURPOSE: To check the actions of the system on reception of an invalid inhibition messages }			
{ PRE-TEST CONDITIONS: Linkset with two available links }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

	Link	SP A		
:Start traffic	1 — 1	TRAFFIC	----->	1
	1 — 2	TRAFFIC	<-----	1
	LIN, SLC 1 — X (nonexisting SLC) }		----->	1
			<-----	1
	LIN, SLC 1 — 2 (nonexisting OPC) }			
	LIA, SLC 1 — X (nonexisting SLC) }		<-----	1
	LIA, SLC 1 — 1 (nonexisting OPC) }			
	LID, SLC 1 — X (nonexisting SLC) }		<-----	1
	LID, SLC 1 — 1 (nonexisting OPC) }			
			<-----	1
TEST DESCRIPTION				
	1.	Start traffic to B and C.		
	2.	{		
Send the invalid messages described above and check that these are ignored.	}			
	3.	{		
Stop traffic and check that it was not disturbed.	}			

Tableau [T126.782], p.

**H.T. [T127.782]
MTP LEVEL 3**

TEST NUMBER: 13.5 Continued		PAGE: 2 of 3	
REFERENCE: Q.704 § 15			
TITLE: Invalid messages			
{ SUB TITLE: Invalid inhibition messages }			
PURPOSE: As page 1			
{ PRE-TEST CONDITIONS: Linkset with two available links }			
CONFIGURATION: A		TYPE OF TEST: VAT	TYPE OF SP: ALL
MESSAGE SEQUENCE:			

Link	SP A		Link 1 — 2	SP B
LUN, SLC 1 — X (nonexisting SLC) }		<-----		{
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) }		<-----	1 — 2	{
TEST DESCRIPTION				
See page 1.				

Tableau [T127.782], p.

H.T. [T128.782]
MTP LEVEL 3

TEST NUMBER: 13.5 Continued	PAGE: 3 of 3
REFERENCE: Q.704 § 15	