

**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 •

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

**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 •

<pre> :Start traffic       Link       2 — 1       -----&gt;       {       3 — 1       -----&gt;       {       2 — 1       -----&gt;       { :Wait :Stop traffic </pre>	<pre> TRAFFIC (from A and F)  TFP, PC = D  TRAFFIC (from A and F) </pre>	<pre> -----&gt; SPE &lt;----- { SP F -----&gt; SPE </pre>	<pre> Link 8 — 1 7 — 1  8 — 1 2 — 1  7 — 1 </pre>
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**TEST DESCRIPTION**

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

<pre> Link :Sent a message : to D }  3 — 1 TFP, PC = D <b>TFP</b>   <b>TFP</b>  T8 <b>TFP</b>   <b>TFP</b>   } -----&gt; . . . &lt;----- } </pre>	<p style="text-align: right;">SP A</p> <pre> {  }  3 — 1 </pre>	<pre> &lt;----- MESSAGE TO </pre>
<p><b>TEST DESCRIPTION</b></p>		
<pre> 1. Send from F a message with OPC = D to A. } 2. Check that a TFP PC = D is sent in response. Check that a time out T8 is started. } 3. During T8, send a new message with OPC = D to A and check that no TFP is sent. } </pre>	<pre> {  }  {  } </pre>	

Tableau [T93.782], p.

**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 •
------	------	------	------



**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
MESSAGE SEQUENCE:	
TYPE OF SP: STP	

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

<pre> :Start traffic       Link       2 — 1       -----&gt;       }       1 — 1 :Activate (depending of the activation mean previously used)       }       2 — 1       -----&gt;       }       2 — 1       -----&gt;       }       1 — 1       1 — 1       1 — 1       -----&gt;       }       (from A and F and from 2 — 1)       }       -----&gt;       }       2 — 1       -----&gt;       }  :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. } </pre>	<pre> TRAFFIC 8 — 1 (from A and F) { TFA, PC = B TFA, PC = D TFP, PC = D TFP, PC = E TRAFFIC { SP D 6 — 1 SP E { 7 — 1 -----&gt; </pre>	<pre> { -----&gt; { { -----&gt; -----&gt; -----&gt; SP D 6 — 1 SP E { -----&gt; </pre>
<b>TEST DESCRIPTION</b>		
<pre> 1. 2. Activate linkset 1 and check that traffic to D and E is diverted on linkset 1 and that a TFA concerning D is sent from A to C. Check that no TFA is sent concerning E (load sharing in A between linksets 1 and 2). } 3. Stop traffic and check that is was rerouted correctly without loss of messages, duplication and missequencing. } </pre>	<pre> Start traffic to D and E. { { </pre>	

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 •
------	------	------	------

<pre> Link :Start traffic     1 — 1     -----&gt;     }     2 — 1     -----&gt;     }      See note     1 — 1     2 — 1     -----&gt;     }     1 — 1     -----&gt;     }     {     (from A and F, from 2 — 1 to D)     }     -----&gt;     }     2 — 1     -----&gt;     }  :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. } </pre>	<pre> TRAFFIC (from A and F) -----&gt;  TRAFFIC {  7 — 1 (from A and F) -----&gt;  TFP, PC = D TFA, PC = D &lt;-----  TRAFFIC -----&gt;  6 — 1  TRAFFIC (from A and F) -----&gt;  7 — 1 -----&gt; </pre>	<pre> -----&gt; SP E { -----&gt; 1 — 1 -----&gt; { -----&gt; SP D { SP E { -----&gt; </pre>
<b>TEST DESCRIPTION</b>		
<pre> 1. 2. Activate link 5 — 1 and check that a TFA concerning D is sent to A. } 3. Check that the traffic to D is diverted via B and check that a TFA concerning D is sent from A to C. } 4. Stop traffic and check that traffic was not disturbed. } </pre>	<pre> Start traffic to D and E. {  {  { </pre>	

Tableau [T96.782], p.

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

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

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

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

**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 •
------	------	------	------

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

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 •
------	------	------	------

<pre> :Start traffic       Link       2 — 1       -----&gt;       }        &lt;-----       }       2 — 1       -----&gt;       }       3 — 1       -----&gt;       }       2 — 1       -----&gt;       }  :Wait :Start traffic </pre>	<pre> TRAFFIC (from A and F)  7 — 1 -----&gt;  {  TFA, PC = D {  TFA, PC = D  TRAFFIC  7 — 1 (from A and F) </pre>	<pre> { -----&gt; { TFA, PC = D { { SP F { -----&gt; </pre>
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<b>TEST DESCRIPTION</b>	
<pre> 1. 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. } </pre>	<pre> Start traffic to E. {  {  { </pre>

**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:	

<pre> link :Start traffic 1 — 1 1 — 1 RST, PC = C ST   ST   ST   T10 ST   ST   } 1 — 1 RST, PC = C ST   ST   ST   T10 ST   } 1 — 1 :Wait :Stop traffic </pre>	<p style="text-align: right;">SP A</p> <pre> TRAFFIC { } } TRAFFIC </pre>	<pre> -----&gt; &lt;----- } 2 — 1 . &lt;----- -----&gt; &lt;----- </pre>
<p><b>TEST DESCRIPTION</b></p>		
<pre> 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. } </pre>	<pre> Start traffic to B. { } { } { } { } </pre>	

**Tableau [T100.782], p.**

**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:		

```

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

```

<pre>                         }         3—1        -----&gt;         } :Wait :Stop traffic </pre>	<p>TRAFFIC (from A, D and E)</p> <p>}</p>
<p>TEST DESCRIPTION</p> <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>	<p>{</p> <p>{</p> <p>{</p> <p>{</p>

**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 •
------	------	------	------

<pre> :Start traffic     Link     3 — 1, 2     -----&gt;     }     &lt;-----     }     2 — 1     :Activate     :           :       T21     :           :     —     }     .     .     &lt;-----     &lt;-----     &lt;-----     }     .     .     2 — 1 TFP (PC = C)     2 — 1 TFP (PC = E)     2 — 1 TRA     } TIME CONTROLLED DIVERSION IS APPLIED }     2 — 1     -----&gt;     }     &lt;-----     }     3 — 1, 2     -----&gt;     }     &lt;-----     }  :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. } </pre>	<pre> Link 3 — 1, 2 -----&gt; } &lt;----- } 2 — 1 :Activate :   :   T21 :   : — } . . &lt;----- &lt;----- &lt;----- } . . 2 — 1 TFP (PC = C) 2 — 1 TFP (PC = E) 2 — 1 TRA } TIME CONTROLLED DIVERSION IS APPLIED } 2 — 1 -----&gt; } &lt;----- } 3 — 1, 2 -----&gt; } &lt;----- }  :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. } </pre>	<pre> TRAFFIC 7 — 1 3 — 1, 2 { { { { TRAFFIC (from 3 — 1, 2) 5 — 1 TRAFFIC 7 — 1 3 — 1, 2 </pre>	<pre> { -----&gt; { &lt;----- { { -----&gt; SP D &lt;----- SP D { -----&gt; { &lt;----- </pre>
<b>TEST DESCRIPTION</b>		<pre> 1. { </pre>	<pre> { </pre>
<pre> 1. Start traffic to E (and D in VAT). </pre>		<pre> { </pre>	<pre> { </pre>

}	
2.	{
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.	
}	
3.	{
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.	
}	
4.	{
Stop traffic and check that there were no lost messages, no duplication and no missequencing.	
}	
5.	{
Repeat the test (in VAT) without sending of TRA and check that the duration of timer T21 is inside the specified range.	
}	

**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 •
------	------	------	------

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

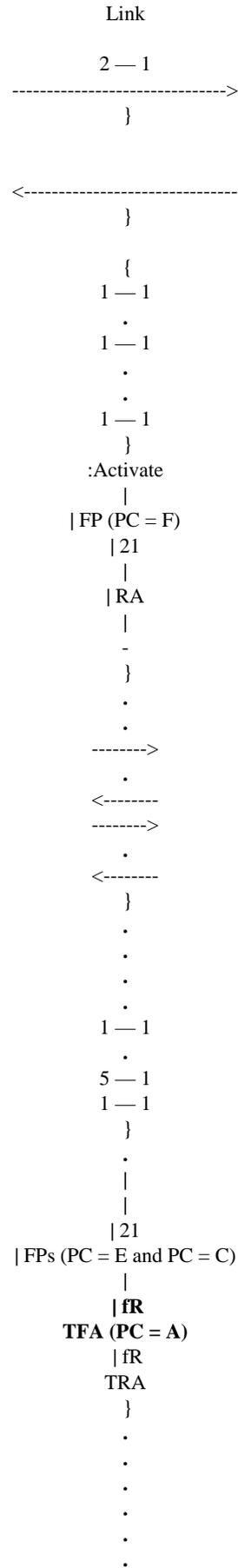
Tableau [T103.782], p.

**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



```

TIME CONTROLLED DIVERSION IS APPLIED
}

```

```

SP D
}
2 — 1
----->
}
1 — 1

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1 — 1
----->
}
<-----
}

```

```

<-----
}

```

```

2 — 1
----->
}
<-----
}

```

```

:Wait
:Stop traffic

```

**TEST DESCRIPTION**

```

1.
2.
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 f
}
3.
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
}
4.
Check that the time controlled diversion is applied in A. Check that the traffic to D is diverted on link 1 — 1.
}
5.
Stop traffic. Check that there were no lost messages and no
missequencing.
}
6.
In VAT, repeat the test without sending TRA from B to A and check that the duration of T21 is inside the specified range.
}

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**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				
MESSAGE SEQUENCE:					
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 25%;">SP A</td> <td style="width: 25%;">SP B</td> <td style="width: 25%;">SP C</td> <td style="width: 25%;">SP •</td> </tr> </table>		SP A	SP B	SP C	SP •
SP A	SP B	SP C	SP •		

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

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
MESSAGES SEQUENCE:	TYPE OF SP: STP
SP A	SP B   SP C   SP ●

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

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

```

4 — 1
.
.
TFPs 4 — 1
(D and E)
.
.
TRA 4 — 1
}
:Activate
|
|<-----
|----->
|T21
|
|<-----
|IR
----->
}
.
.
4 — 1
.
.
.
4 — 1
}
.
|
|TFP (A)
|
|T21
|
|TRA
|
}

TFAs (A,B) ----->
TFAs (A,B) ----->
}

```

```

2 — 1, 2
.
----->
<-----
}
.
4 — 1
2 — 1, 2
}
.
----->
<-----
}
.
.
7 — 1
}
2 — 1, 2

```

{

{

{

.|

| T21  
|| TRAFFIC

{

(Broadcasting

{

|| SP E | SP E  
TRAFFIC

:Wait :Stop traffic	
TEST DESCRIPTION	
<p style="text-align: center;">1. 2. }</p> <p>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.</p> <p style="text-align: center;">3. }</p> <p style="text-align: center;">Stop traffic and check that there were no lost messages, no duplication and no missequencing. }</p>	<p>Activate link 4 {  {</p>

**Tableau [T107.782], p.**

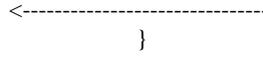
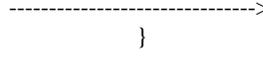
**H.T. [T108.782]  
MTP LEVEL 3**

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 •

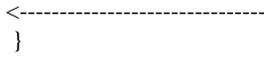
:Start traffic

Link

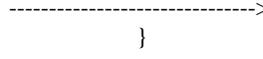
2 — 1



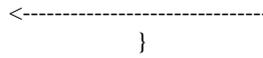
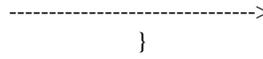
|  
 | **T21**  
 Point restart  
 | T21 procedure is  
 | **T21**  
 applied in B and C  
 |  
 }



2 — 1



2 — 1



:Wait

:Stop traffic

TEST DESCRIPTION

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 link

- 1.
- 2.
- 3.

- 4.

Stop traffic and check that it was not disturbed.

}

**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 •
------	------	------	------

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

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 •
------	------	------	------

```

Link
1 — 1
{
1 — 1
1 — 2
1 — 2
2 — 1
}
| TRAFFIC
|
| Activate
| TRAFFIC
|
| T21
|
| Activate
|
}

```

```

----->
<-----
      (changeback is performed)
----->
<-----
      (traffic from/to B is immediately restarted)
}

```

```

2 — 1 TFP (PC = E)
2 — 1 TRA
5 — 1 TFA (PC = A)
|----->
4 — 1 TFA (PC = A)
|----->
}

```

```

2 — 2
3 — 1, 2
1 — 1, 2
----->
}
<-----
}
2 — 1, 2
----->
}
3 — 1, 2
----->
}

```

```

:Wait
:Stop traffic
{
Note
— Changebacks are performed, but they are not described in this
point restart test.
}

```

TEST DESCRIPTION

- 1.
  - 2.
- Check that after activation on link 1 — 1, the traffic between A and D is immediately restarted and check that T21 is started in A. Activate 1 — 2.
- 3.
- Activate link 2 — 1 and send a TFP for E from B to A. Check that T21 is

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>TEST DESCRIPTION</p>	
<p>1. 2. Check that the signalling links become available and check that the received TRAs are correctly handled. } 3. Check that when all TRAs are received in A, TRAs are broadcasted from A. } 4. Check that the traffic is restarted correctly, wait and stop traffic. } 5. 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>Activate signalling point A. {  {  {  {</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 style="text-align: center;">:</p> <p>Activation (traffic from/to F is immediately restarted)</p> <p style="text-align: center;">}</p> <p>1 — 1</p> <p>  Activation (traffic from/to B is immediately restarted)</p> <p style="text-align: center;">}</p> <p>3 — 1</p> <p>-----&gt;</p> <p style="text-align: center;">}</p> <p>1 — 1</p> <p>1 — 1</p> <p><b>3 — 1</b></p> <p>-----&gt;</p> <p style="text-align: center;">}</p> <p>1 — 1</p> <p>-----&gt;</p> <p style="text-align: center;">}</p> <p>-----&lt;</p> <p style="text-align: center;">}</p> <p>-----&lt;</p> <p style="text-align: center;">}</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>  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**

<p>1.</p> <p>Activate signalling point A beginning by the activation of 3 — 1. After activation of 3 — 1, activate link 1 — 1.</p> <p style="text-align: center;">}</p>	<p>{</p>
<p>2.</p> <p>Check that T19 is started after expiration of T18. Check that the duration of T18 is inside the specified range.</p> <p style="text-align: center;">}</p>	<p>{</p>
<p>3.</p> <p>Check that T20 is started after expiration of T19. Check that the duration of T19 is inside the specified range.</p> <p style="text-align: center;">}</p>	<p>{</p>
<p>4.</p> <p>Check that TFPs are sent during T20.</p> <p style="text-align: center;">}</p>	<p>{</p>
<p>5.</p> <p>Check that when T20 expires TRAs are broadcasted and that the traffic is correctly restarted, wait and stop traffic.</p> <p style="text-align: center;">}</p>	<p>{</p>
<p>6.</p> <p>Repeat the test with activation of 2 — 1 during T19 and check that this</p>	<p>{</p>

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:	

	SP A		
:Start traffic	Link 1 — 1	TRAFFIC	-----> <----- <----- -----> <-----
	1 — 1	TRAFFIC	-----> <----- <----- -----> <-----
:Wait			
:Stop traffic			
<b>TEST DESCRIPTION</b>			
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
TYPE OF SP: STP	
MESSAGE SEQUENCE:	

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

:Start traffic	Link 2 — 1 -----> } <----- } <----- } 2 — 1 -----> } 2 — 1 -----> } 2 — 1 -----> } <----- }	TRAFFIC (from A and F) 7 — 1 -----> { 2 — 1 <----- { 2 — 1 TFP (PC = B) { TFP (PC = D) { TRAFFIC (from A and F) 7 — 1 -----> { 2 — 1 <-----	{ -----> { <----- { TRA { { -----> { <-----
:Wait :Stop traffic			

TEST DESCRIPTION 1. 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. }	Start traffic to E. { {
---	-------------------------------

**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:		

	Link	SP B
:Start traffic	1 — 1 1 — 2	TRAFFIC TRAFFIC
:Wait		
:Stop traffic		
<b>TEST DESCRIPTION</b>		
1. Start traffic between B and C in both directions via A using the traffic models presented in Recommendation Q.706. } 2. Check that the time to cross the STP is better than 20 milliseconds. } 3. Stop traffic and check that it was not disturbed. } 4. Repeat test but with a traffic model including 5% of messages with an SIF = 272 octets. }	{  {  {  {	

**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:	

:Start traffic          CHANGEBACK   :Wait :Stop traffic	Link  1 — 2  1 — 1 1 — 1  1 — 1  1 — 1, 2
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 }	

**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			
<b>TEST DESCRIPTION</b>			
	1.	Start traffic to B and C.	
	2.	{	
Activate link 1 — 1 and check that an SLTM is received and not acknowledged.	}		
	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.	Stop traffic.	
	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.	}		

**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
		T1
	1 — 1	T1 SLTM
		T1
	1 — 2	T1 TRAFFIC
:Wait		
:Stop traffic		
<b>TEST DESCRIPTION</b>		
	1.	Start traffic to B and C.
	2.	{
Activate link 1 — 1 and check that two SLTMs are received from A.	}	
	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:		

		SP A	
:Start traffic	Link		
	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	
<ol style="list-style-type: none"> <li>1.</li> <li>2. Activate link 1 — 1 and check that an SLTM is received and acknowledged with an SLTA containing an erroneous test pattern. }</li> <li>3. Check that a second SLTM is sent from A and correctly acknowledged. }</li> <li>4. Check that link 1 — 1 becomes available and that changeback is performed correctly. }</li> <li>5.</li> <li>6. Repeat the test with a first SLTA containing an erroneous SLC then OPC. }</li> <li>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. }</li> </ol>	<pre> Start traffic to B and C. { } { } { } Wait and stop traffic. { } { } </pre>

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:	

		SP A	
:Start traffic	<pre> Link 1 — 2 1 — 1 1 — 1 1 — 1   T1 SLTM     T1   T1 SLTA   } -----&gt; &lt;----- -----&gt; } 1 — 1 1 — 1   T1 SLTM     T1   T1 SLTA   } -----&gt; &lt;----- -----&gt; } </pre>	<pre>   T1 TRAFFIC   T1 :Activate { } . 1 — 1 { } . 1 — 1 } </pre>	<pre> ----- &lt;----- . SLTM . SLTM &lt;----- </pre>
CHANGEBACK	<pre> 1 — 1, 2 </pre>	<pre> TRAFFIC </pre>	<pre> &lt;----- &lt;----- </pre>
:Wait			
:Stop traffic			

TEST DESCRIPTION	
<pre> 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. } </pre>	<pre> Start traffic to B and C. { } { } { } </pre>

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				
<b>TEST DESCRIPTION</b>				
	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:	

	SP A		
:Start traffic	Link		
	ALL	TRAFFIC	-----> <----- <-----
	SIGNALLING NETWORK MANAGEMENT MESSAGE (Invalid H0.H1) }		
	ALL	TRAFFIC	-----> <-----
:Wait			
: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:	

		SP A	
:Start traffic	Link		
	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			
<b>TEST DESCRIPTION</b>			
	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:	

	Link	SP A		
:Start traffic	1 — 1	TRAFFIC	----->	1 -
	1 — 2	TRAFFIC	<-----	1 -
	CBD, SLC 1 — X (nonexisting SLC) }		----->	1 -
	CBD, SLC 1 — 1 (nonexisting OPC) }		<-----	1 -
	CBA, SLC 1 — X (nonexisting SLC) }		<-----	1 -
	CBA, SLC 1 — 1 (nonexisting OPC) }		<-----	1 -
	1 — 1, 2	TRAFFIC	----->	1 -
:Wait			<-----	1 -
:Stop traffic				
<b>TEST DESCRIPTION</b>				
	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:	

<pre> :Start traffic     Link     1 — 2     1 — 1 :Activate (depending of the deactivation mean previously used)     }     1 — 2 CBD, SLC 1 — 1 <b>CBD</b>       <b>CBD</b>       <b>CBD</b>       T4 <b>CBD</b>       <b>CBD</b>           }     -----&gt;     &lt;-----     }     . CBA, SLC 1 — 1 (invalid changeback code ≠ CBD)     }     1 — 2 CBD, SLC 1 — 1 <b>CBD</b>       <b>CBD</b>       <b>CBD</b>       T5 <b>CBD</b>       <b>CBD</b>           }     1 — 1  TRAFFIC (from 1 — 2 see note)     }     1 — 2 </pre>	<pre> TRAFFIC { { { . 1 — 2 { -----&gt; TRAFFIC (from 1 — 2) TRAFFIC </pre>
<pre> :Wait { :Stop traffic Note — B may perform a changeback or not. } </pre>	
<p>TEST DESCRIPTION</p>	
<pre> 1. Start traffic to B and C on link 1 — 2. } 2. </pre>	<pre> { { </pre>

<p>Activate link 1 — 1, check that a CBD is received and acknowledged by a CBA with an invalid changeback code.</p> <p style="text-align: center;">}</p> <p style="text-align: center;">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 style="text-align: center;">}</p> <p style="text-align: center;">4.</p> <p>Stop traffic and check that the invalid message has been discarded without impact on the traffic.</p> <p style="text-align: center;">}</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:	

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

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	SP B
LUN, SLC 1 — X (nonexisting SLC) }		<-----	1 — 2	{
LUN, SLC 1 — 1 (nonexisting OPC) }		<-----	1 — 2	{
LUA, SLC 1 — X (nonexisting SLC) }		<-----	1 — 2	{
LUA, SLC 1 — 1 (nonexisting OPC) }		<-----	1 — 2	{
LFU, SLC 1 — X (nonexisting SLC) }		<-----	1 — 2	{
LFU, SLC 1 — 1 (nonexisting OPC) }		<-----	1 — 2	{
<b>TEST DESCRIPTION</b>				
See page 1.				

**Tableau [T127.782], p.**

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

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TEST NUMBER: 13.5 Continued

PAGE: 3 of 3

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REFERENCE: Q.704 § 15

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