

6. GB Tunnel with Sub-pool with Preemption.

H6. Test Results.

Step H4.1.5:																															
<pre>semtec#sh mpls traffic link-management advertisement Flooding Status: ready Configured Areas: 1 IGP Area[1] ID: ospf area 0 System Information: Flooding Protocol: OSPF Header Information: IGP System ID: 10.130.255.3 MPLS TE Router ID: 10.130.255.3 Flooded Links: 1 Link ID: 0 Link IP Address: 10.130.49.1 IGP Neighbor ID: 10.130.255.2, IP 10.130.49.2 Admin. Weight: 1 Physical Bandwidth: 622000 kbits/sec Res. Global BW: 20000 kbits/sec Res. Sub BW: 5000 kbits/sec Downstream: </pre> <table><thead><tr><th></th><th>Global Pool</th><th>Sub Pool</th></tr><tr><th></th><th>-----</th><th>-----</th></tr></thead><tbody><tr><td>Reservable Bandwidth[0]:</td><td>20000</td><td>5000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[1]:</td><td>20000</td><td>5000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[2]:</td><td>20000</td><td>5000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[3]:</td><td>10000</td><td>5000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[4]:</td><td>5000</td><td>5000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[5]:</td><td>2000</td><td>2000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[6]:</td><td>2000</td><td>2000 kbits/sec</td></tr><tr><td>Reservable Bandwidth[7]:</td><td>2000</td><td>2000 kbits/sec</td></tr></tbody></table> <pre>Attribute Flags: 0x00000000</pre>			Global Pool	Sub Pool		-----	-----	Reservable Bandwidth[0]:	20000	5000 kbits/sec	Reservable Bandwidth[1]:	20000	5000 kbits/sec	Reservable Bandwidth[2]:	20000	5000 kbits/sec	Reservable Bandwidth[3]:	10000	5000 kbits/sec	Reservable Bandwidth[4]:	5000	5000 kbits/sec	Reservable Bandwidth[5]:	2000	2000 kbits/sec	Reservable Bandwidth[6]:	2000	2000 kbits/sec	Reservable Bandwidth[7]:	2000	2000 kbits/sec
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Verdict:																															
Pass. The administrative weight for Link 0 is set to the default value (1).																															
Comments:																															
None.																															

Step H4.2.0:	
<pre>semtec#sh mpls traff tun Name: semtec_t1 (Tunnel 1) Destination: 10.130.255.2 Status: Admin: up Oper: up Path: valid Signalling: connected path option 1, type dynamic (Basis for Setup, path weight 1) Config Parameters: Bandwidth: 10000 kbps (Global) Priority: 3 3 Affinity: 0x0/0xFFFF AutoRoute: disabled LockDown: disabled InLabel : - OutLabel : POS3/3, implicit-null RSVP Signalling Info: Src 10.130.255.3, Dst 10.130.255.2, Tun_Id 1, Tun_Instance 374 RSVP Path Info: My Address: 10.130.255.3 Explicit Route: 10.130.49.2 10.130.255.2 Record Route: NONE Tspec: ave rate=10000 kbits, burst=1000 bytes, peak rate=10000 kbits RSVP Resv Info: Record Route: NONE</pre>	

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Fspec: ave rate=10000 kbits, burst=1000 bytes, peak rate=Inf
History:
Current LSP:
  Uptime: 27 minutes, 47 seconds
Prior LSP:
  ID: path option 1 [373]
  Removal Trigger: tunnel shutdown

Name: semtec_t2 (Tunnel 2) Destination: 10.130.255.2
Status:
  Admin: up Oper: up Path: valid Signalling: connected
  path option 1, type dynamic (Basis for Setup, path weight 1)

Config Parameters:
  Bandwidth: 5000 kbps (Global) Priority: 4 4 Affinity: 0x0/0xFFFF
  AutoRoute: disabled LockDown: disabled

InLabel : -
OutLabel : POS3/3, implicit-null
RSVP Signalling Info:
  Src 10.130.255.3, Dst 10.130.255.2, Tun_Id 2, Tun_Instance 231
RSVP Path Info:
  My Address: 10.130.255.3
  Explicit Route: 10.130.49.2 10.130.255.2
  Record Route: NONE
  Tspec: ave rate=5000 kbits, burst=1000 bytes, peak rate=5000 kbits
RSVP Resv Info:
  Record Route: NONE
  Fspec: ave rate=5000 kbits, burst=1000 bytes, peak rate=Inf
History:
Current LSP:
  Uptime: 27 minutes, 40 seconds
Prior LSP:
  ID: path option 1 [230]
  Removal Trigger: tunnel shutdown

Name: semtec_t3 (Tunnel 3) Destination: 10.130.255.2
Status:
  Admin: up Oper: up Path: valid Signalling: connected
  path option 1, type dynamic (Basis for Setup, path weight 1)

Config Parameters:
  Bandwidth: 3000 kbps (Sub) Priority: 5 5 Affinity: 0x0/0xFFFF
  AutoRoute: disabled LockDown: disabled

InLabel : -
OutLabel : POS3/3, implicit-null
RSVP Signalling Info:
  Src 10.130.255.3, Dst 10.130.255.2, Tun_Id 3, Tun_Instance 41
RSVP Path Info:
  My Address: 10.130.255.3
  Explicit Route: 10.130.49.2 10.130.255.2
  Record Route: NONE
  Tspec: ave rate=3000 kbits, burst=1000 bytes, peak rate=3000 kbits
RSVP Resv Info:
  Record Route: NONE
  Fspec: ave rate=3000 kbits, burst=1000 bytes, peak rate=3000 kbits
History:
Current LSP:
  Uptime: 27 minutes, 41 seconds
Prior LSP:
  ID: path option 1 [40]
  Removal Trigger: tunnel shutdown

Name: semtec_t4 (Tunnel 4) Destination: 10.130.255.2
Status:
  Admin: up Oper: down Path: not valid Signalling: Down
  path option 1, type dynamic

Config Parameters:
  Bandwidth: 3000 kbps (Sub) Priority: 6 6 Affinity: 0x0/0xFFFF
  AutoRoute: disabled LockDown: disabled

History:
Prior LSP:
  ID: path option 1 [86]
  Removal Trigger: tunnel shutdown
  Last Error: PCALC.: No path to destination, 10.130.255.2

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Verdict:
Pass. Tunnel 4 was created but is not operational as expected, since the sub-pool bandwidth requested exceeds the available bandwidth on Link L4.
Comments:
None.

Step H4.2.1:						
Name	Frame Size	Load (%)	Sent	Received	Lost	Loss (%)
Total		4	202700	202700	0	0
Tunnel 1	128	4	50675	50675	0	0
Tunnel 2	128	4	50675	50675	0	0
Tunnel 3	128	4	50675	50675	0	0
Tunnel 4	128	4	50675	50675	0	0
Name	Frame Size	Load (%)	Sent	Received	Lost	Loss (%)
Total		20	1013512	1013512	0	0
Tunnel 1	128	20	253378	253378	0	0
Tunnel 2	128	20	253378	253378	0	0
Tunnel 3	128	20	253378	253378	0	0
Tunnel 4	128	20	253378	253378	0	0
Verdict:						
Pass. Traffic is passed through tunnels with no loss.						
Comments:						
None.						

Step H4.3.0:
None.
Observation:
Tunnels worked properly in Step 1.3.
Comments:

None.