Avaya Solution & Interoperability Test Lab

Configuring H.323 Connectivity Between Avaya Communication Manager and the Tandberg Video Communication Server - Issue 0.1

Abstract

These Application Notes describe the procedures for configuring connectivity between Avaya Communication Manager and the Tandberg Video Communication Server (VCS) functioning as a gatekeeper. Employing this configuration enables call origination/termination with video between endpoints registered to Avaya Communication Manager and endpoints registered to the Tandberg VCS.

1. Introduction

These Application Notes describe the procedures for configuring connectivity between Avaya Communication Manager and the Tandberg Video Communication Server (VCS) functioning as a gatekeeper. Employing this configuration enables call origination/termination with video between endpoints registered to Avaya Communication Manager and endpoints registered to the Tandberg VCS.

Figure 1 illustrates the sample configuration utilized for these Application Notes. Avaya Communication Manager is comprised of a pair of Avaya S8710 Servers and an Avaya G650 Media Gateway. Avaya Communication Manager provides enterprise telephony features and media gateway functionality for the H.323 video enabled endpoints present in this sample configuration. Avaya Communication Manager is provisioned for call origination via H.323 signaling to the Tandberg VCS.

The Tandberg VCS provides internal video control and administration for H.323 devices and is provisioned for call origination via H.323 signaling to Avaya Communication Manager. The Tandberg VCS provides:

- H.323 gatekeeper functionality.
- Bandwidth management on both a per-call and a total usage basis, configurable separately for calls within the local subzones and to neighboring systems and zones.
- Automatic negotiation for calls that exceed the available bandwidth.
- Up to 2500 registrations.
- Up to 500 non-traversal calls.
- Up to 100 traversal calls.
- Up to 200 neighboring zones.

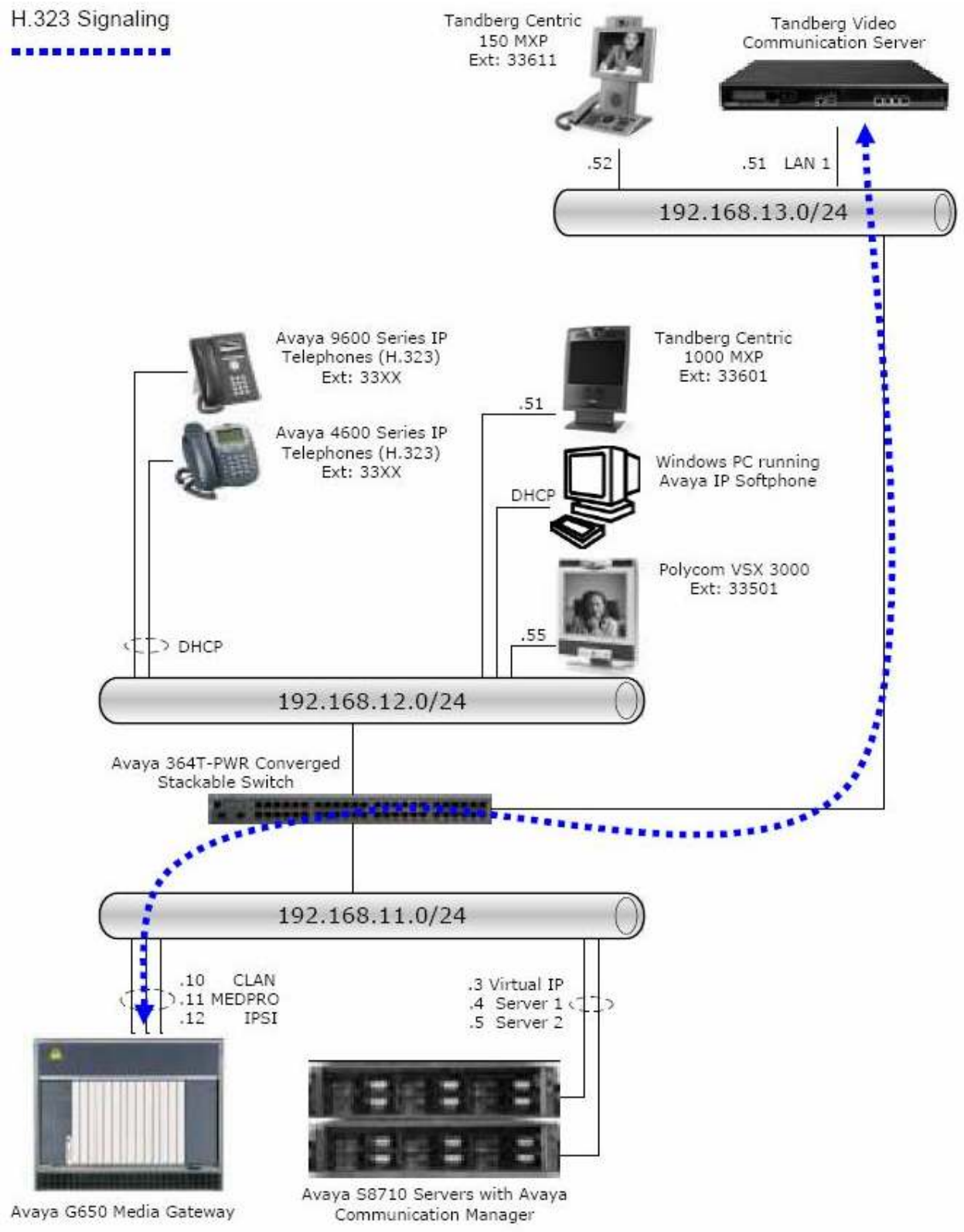


Figure 1: Sample Configuration

2. Equipment and Software Validated

The following equipment and software versions are used for this sample configuration:

Equipment	Software Version
Avaya S8710 Servers	Avaya Communication Manager 5.0 (R015x.00.0.825.4)
Avaya G650 Media Gateway • Avaya TN2312BP (IPSI) • Avaya TN799DP (C-LAN) • Avaya TN2302AP (MEDPRO)	 HW12 FW042 HW01 FW026 HW20 FW117
Avaya 4600 Series IP Telephones	2.8 (H.323)
Avaya 9600 Series IP Telephones	1.5 (H.323)
Avaya IP Softphone	6.0.0.25
Tandberg Video Communication Server	X2.0

Table 1: Equipment and Software Versions

3. Avaya Communication Manager Configuration

This section describes the configuration for enabling Avaya Communication Manager to interoperate with the Tandberg VCS.

Avaya Communication Manager was administered from the System Access Terminal (SAT). In these Application Notes the SAT screens are shown with a gray shaded background. In some instances, the information from the original screen has been edited or annotated for brevity or clarity in presentation. For example, entries and/or fields in the SAT screens that were either modified or were required for these Application Notes are displayed with boldface type. Refer to [**1**] and [**2**] for additional information regarding the administration of Avaya Communication Manager.

3.1. Verify Licensing

The following steps verify licensing on Avaya Communication Manager that is required to support the configuration described in these Application Notes. If a required feature is not enabled or there is insufficient capacity, contact an authorized Avaya account representative to make the appropriate changes.

Step	Description
3.1.1	Issue the command "**display system-parameters customer-options**" and proceed to page 2. Verify that the licensing to support video and H.323 trunking is sufficient.

```
display system-parameters customer-options                    Page   2 of  10

                                OPTIONAL FEATURES

IP PORT CAPACITIES                                              USED
                      Maximum Administered H.323 Trunks: 800    60
           Maximum Concurrently Registered IP Stations: 12000 13
             Maximum Administered Remote Office Trunks: 0     0
Maximum Concurrently Registered Remote Office Stations: 0     0
              Maximum Concurrently Registered IP eCons: 0     0
  Max Concur Registered Unauthenticated H.323 Stations: 100   0
                       Maximum Video Capable Stations: 100   16
                   Maximum Video Capable IP Softphones: 100   7
                      Maximum Administered SIP Trunks: 800   175
  Maximum Administered Ad-hoc Video Conferencing Ports: 100   3
   Maximum Number of DS1 Boards with Echo Cancellation: 0     0
                            Maximum TN2501 VAL Boards: 10    0
                    Maximum Media Gateway VAL Sources: 0     0
           Maximum TN2602 Boards with 80 VoIP Channels: 128   0
          Maximum TN2602 Boards with 320 VoIP Channels: 128   0
   Maximum Number of Expanded Meet-me Conference Ports: 0     0

        (NOTE: You must logoff & login to effect the permission changes.)
```

3.2. Configure Connectivity

This section describes the steps for configuring H.323 connectivity between Avaya Communication Manager and the Tandberg VCS.

Step	Description
3.2.1a	Issue the command "**change ip-codec-set <n>**", where **n** is the number of a codec set. Add entries for audio codecs that are supported on the Tandberg VCS. For this sample configuration, a single entry for **G.711MU** is added as displayed.

```
change ip-codec-set 1                                          Page   1 of   2

                          IP Codec Set

   Codec Set: 1

   Audio         Silence      Frames   Packet
   Codec         Suppression  Per Pkt  Size(ms)
 1: G.711MU           n          2        20
 2:
 3:
 4:
 5:
 6:
 7:
```

Step	Description
3.2.1b	Proceed to Page 2 and enable direct IP multimedia as displayed. The **Maximum Call Rate for Direct-IP Multimedia** field is the combined audio and video transmit/receive rate for a call. This field is utilized to limit the bandwidth used for calls within an IP network region. For these Application Notes, default settings were used for the maximum call rate fields.

```
change ip-codec-set 1                                          Page   2 of   2

                         IP Codec Set

                             Allow Direct-IP Multimedia? y
              Maximum Call Rate for Direct-IP Multimedia:   384:Kbits
     Maximum Call Rate for Priority Direct-IP Multimedia:   384:Kbits

                    Mode                Redundancy
    FAX             relay                0
    Modem           off                  0
    TDD/TTY         US                   3
    Clear-channel   n                    0
```

Step	Description
3.2.2	Issue the command "**change ip-network-region <n>**", where **n** is the number of an IP network region and administer settings as displayed. • Enter a descriptive name for the Ip network region in the **Name** field. • Enter the number of the IP codec set provisioned in **Step 3.2.1** in the **Codec Set** field. • Verify that the **Inter-region IP-IP Direct Audio** field is set to **yes**. This will allow direct IP-to-IP audio connectivity between video enabled endpoints registered to Avaya Communication Manager and the Tandberg VCS. ***Note**: The **Inter-region IP-IP Direct Audio** field should be set to **yes**, otherwise video may not set-up.* • Use default settings for remaining fields.

```
change ip-network-region 1                                    Page   1 of  19

                                IP NETWORK REGION
  Region: 1
Location:         Authoritative Domain: avaya.com
    Name: Avaya
MEDIA PARAMETERS                Intra-region IP-IP Direct Audio: yes
      Codec Set: 1              Inter-region IP-IP Direct Audio: yes
   UDP Port Min: 2048                     IP Audio Hairpinning? n
   UDP Port Max: 3329
DIFFSERV/TOS PARAMETERS                RTCP Reporting Enabled? y
 Call Control PHB Value: 46      RTCP MONITOR SERVER PARAMETERS
        Audio PHB Value: 46       Use Default Server Parameters? y
        Video PHB Value: 26
802.1P/Q PARAMETERS
 Call Control 802.1p Priority: 6
        Audio 802.1p Priority: 6
        Video 802.1p Priority: 5      AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS                                     RSVP Enabled? n
  H.323 Link Bounce Recovery? y
 Idle Traffic Interval (sec): 20
   Keep-Alive Interval (sec): 5
            Keep-Alive Count: 5
```

Step	Description
3.2.3	Issue the command "**change node-names ip**" and add an entry to map the IP address corresponding to the Tandberg VCS to descriptive name. Verify that an entry exists for the Control LAN (CLAN) interface on the Avaya G650 Media Gateway.

```
change node-names ip                                          Page   1 of   2

                                   IP NODE NAMES
    Name                 IP Address
CLAN-1A02              192.168.11.10
MEDPRO-1A03            192.168.11.11
Tandberg-VCS           192.168.13.51
```

Step	Description
3.2.4	Issue the command "**add signaling-group <n>**", where **n** is the number of an unallocated signaling group and administer settings as displayed. • To enable H.323 connectivity, set the **Group Type** field to **h.323**. • To enable video, set the **IP Video** field to **y**. • Enter the node name for the CLAN (see **Step 3.2.3**) in the **Near-end Node Name** field. • Enter the node name of the Tandberg VCS provisioned in **Step 3.2.3** in the **Far-end Node Name** field. • Enter the number of the IP network region provisioned in **Step 3.2.2** in the **Far-end Network Region** field. • Verify that the **Direct IP-IP Audio Connections** field to **y** to enable direct IP-to-IP audio connectivity for video enabled endpoints utilizing this signaling group. ***Note**: The **Direct IP-IP Audio Connections** field should be set to **y**, otherwise video may not set-up.* • Use default settings for remaining fields.

```
add signaling-group 20                                          Page   1 of   1

                                SIGNALING GROUP

 Group Number: 20                 Group Type: h.323
                            Remote Office? n          Max number of NCA TSC: 0
                                      SBS? n           Max number of CA TSC: 0
          IP Video? y       Priority Video? n        Trunk Group for NCA TSC:
       Trunk Group for Channel Selection:
     TSC Supplementary Service Protocol: a
                           T303 Timer(sec): 10

   Near-end Node Name: CLAN-1A02             Far-end Node Name: Tandberg-VCS
 Near-end Listen Port: 1719                Far-end Listen Port: 1719
                                         Far-end Network Region: 1
         LRQ Required? y                  Calls Share IP Signaling Connection? n
         RRQ Required? n                        H245 Control Addr On FACility? n
                                            Bypass If IP Threshold Exceeded? n
                                                     H.235 Annex H Required? n
         DTMF over IP: out-of-band          Direct IP-IP Audio Connections? y
  Link Loss Delay Timer(sec): 90                       IP Audio Hairpinning? n
         Enable Layer 3 Test? n                  Interworking Message: PROGress
 H.323 Outgoing Direct Media? n           DCP/Analog Bearer Capability: 3.1kHz
```

Step	Description

3.2.5	Issue the command "**add trunk-group <n**>", where **n** is the number of an unallocated trunk group and administer settings as displayed.
	• Set the **Group Type** field to **isdn**.
	• Enter a descriptive name for the trunk group in the **Group Name** field.
	• Enter a number in the **TAC** (Trunk Access Code) field that is consistent with the configuration for the dial plan.
	• Set the **Carrier Medium** field to **H.323**.
	• Set the **Service Type** field to **tie**.
	  o Set the **Member Assignment Method**: field to **auto**.
	  o Enter the number of the signaling group provisioned in **Step 3.2.4** in the **Signaling Group** field.
	  o Set the **Number of Members** field to a value that supports the expected call load for this trunk.
	• Use default settings for remaining fields.

```
add trunk-group 20                                          Page   1 of  21

                                TRUNK GROUP

Group Number: 20                    Group Type: isdn           CDR Reports: y
  Group Name: Tandberg VCS                  COR: 1        TN: 1        TAC: 120
   Direction: two-way         Outgoing Display? n         Carrier Medium: H.323
 Dial Access? n               Busy Threshold: 255  Night Service:
Queue Length: 0
Service Type: tie                    Auth Code? n
                                                 Member Assignment Method: auto
                                                   Signaling Group: 20
                                                 Number of Members: 10
```

Step	Description
3.2.6	Issue the command "**change signaling-group <n>**", where **n** is the number of the signaling group provisioned in **Step 3.2.4**. Add the trunk group provisioned in **Step 3.2.5** to this signaling group as displayed.

```
change signaling-group 20                                       Page   1 of   5
                                SIGNALING GROUP

 Group Number: 20             Group Type: h.323
                            Remote Office? n          Max number of NCA TSC: 0
                                      SBS? n           Max number of CA TSC: 0
          IP Video? y     Priority Video? n        Trunk Group for NCA TSC:
       Trunk Group for Channel Selection: 20
     TSC Supplementary Service Protocol: a
                         T303 Timer(sec): 10

   Near-end Node Name: CLAN-1A02             Far-end Node Name: Tandberg-VCS
 Near-end Listen Port: 1719                Far-end Listen Port: 1719
                                         Far-end Network Region: 1
         LRQ Required? y                  Calls Share IP Signaling Connection? n
         RRQ Required? n                        H245 Control Addr On FACility? n
                                            Bypass If IP Threshold Exceeded? n
                                                     H.235 Annex H Required? n
         DTMF over IP: out-of-band             Direct IP-IP Audio Connections? y
  Link Loss Delay Timer(sec): 90                         IP Audio Hairpinning? n
         Enable Layer 3 Test? n                   Interworking Message: PROGress
 H.323 Outgoing Direct Media? n           DCP/Analog Bearer Capability: 3.1kHz
```

3.3. Configure Call Routing

This section describes the steps for configuring call routing from Avaya Communication Manager to the Tandberg VCS. For this sample configuration, Automatic Alternate Routing (AAR) without Feature Access Code (FAC) is utilized to route calls to the Tandberg VCS. Note that other forms of call routing may be utilized.

Step	Description
3.3.1	Issue the command "**change route-pattern <n>**", where **n** is the number of an unallocated route pattern. Administer settings to utilize the trunk group provisioned in **Step 3.2.5** to route calls to the Tandberg VCS. • Enter a descriptive name for the route pattern in the **Pattern Name** field. • Enter the number of the trunk group that was provisioned in **Step 3.2.5** in the **Grp No** field. • To disable restrictions for call routing via this route pattern, set the Facility Restriction Level (**FRL**) field to the lowest setting. • Use default settings for remaining fields.

```
change route-pattern 20                                        Page   1 of   3
                   Pattern Number: 20  Pattern Name: Tandberg VCS
                             SCCAN? n     Secure SIP? n
    Grp FRL NPA Pfx Hop Toll No.  Inserted                          DCS/ IXC
    No          Mrk Lmt List Del  Digits                            QSIG
                             Dgts                                   Intw
 1: 20   0                                                           n   user
 2:                                                                  n   user
 3:                                                                  n   user
 4:                                                                  n   user
 5:                                                                  n   user
 6:                                                                  n   user

     BCC VALUE  TSC CA-TSC    ITC BCIE Service/Feature PARM  No. Numbering LAR
    0 1 2 M 4 W     Request                                 Dgts Format
                                                         Subaddress
 1: y y y y y n  n            rest                                     none
 2: y y y y y n  n            rest                                     none
 3: y y y y y n  n            rest                                     none
 4: y y y y y n  n            rest                                     none
 5: y y y y y n  n            rest                                     none
 6: y y y y y n  n            rest                                     none
```

Step	Description
3.3.2	Issue the command "**change aar analysis x**" and add entries in the table to utilize the route pattern provisioned in **Step 3.3.1**. • Enter a number in the **Dialed String** field to associate with the appropriate route pattern. • Enter the number of the route pattern provisioned in **Step 3.3.1** in the **Route Pattern** field. • Configure additional fields with boldface type as displayed and use default settings for remaining fields.

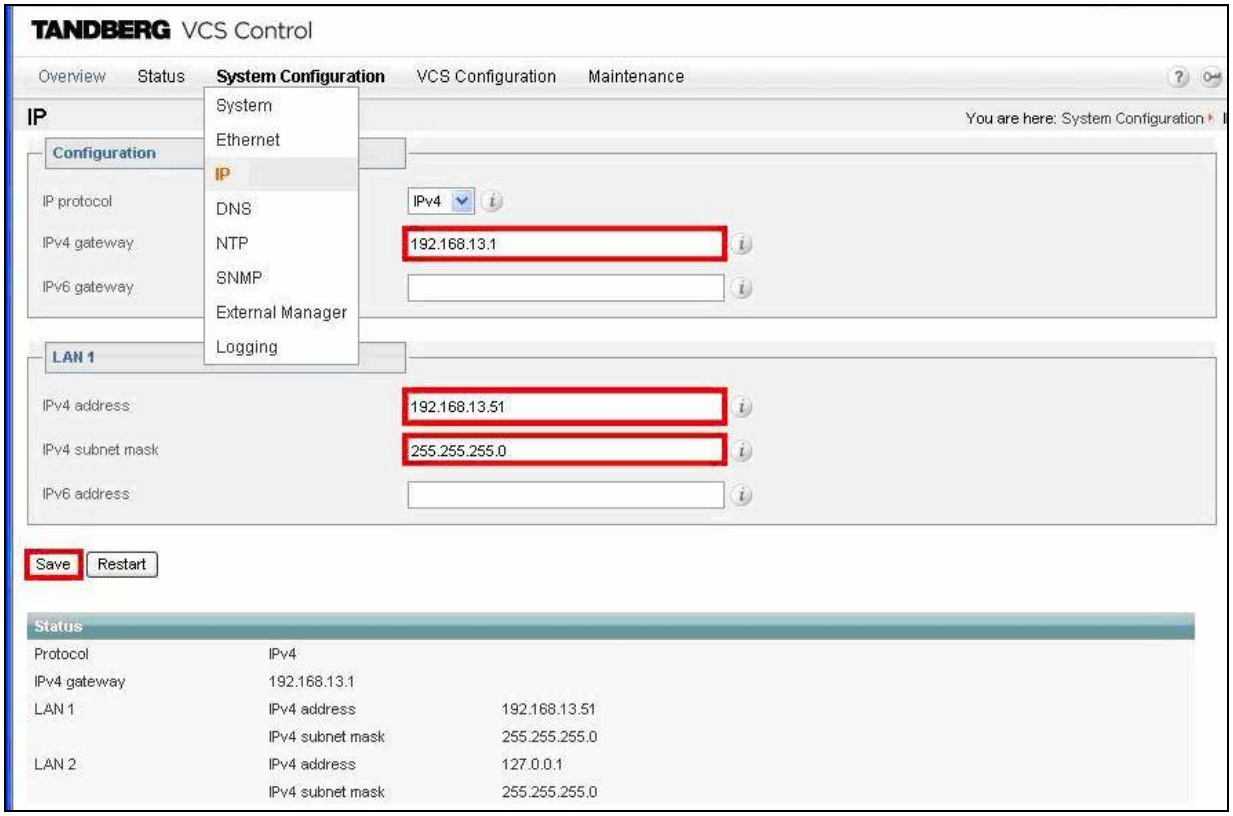
```
change aar analysis 3                                        Page   1 of   2
                            AAR DIGIT ANALYSIS TABLE
                                  Location:  all           Percent Full:    1

          Dialed           Total      Route    Call   Node  ANI
          String          Min  Max  Pattern   Type   Num   Reqd
    33                    5    5     20       aar          n
```

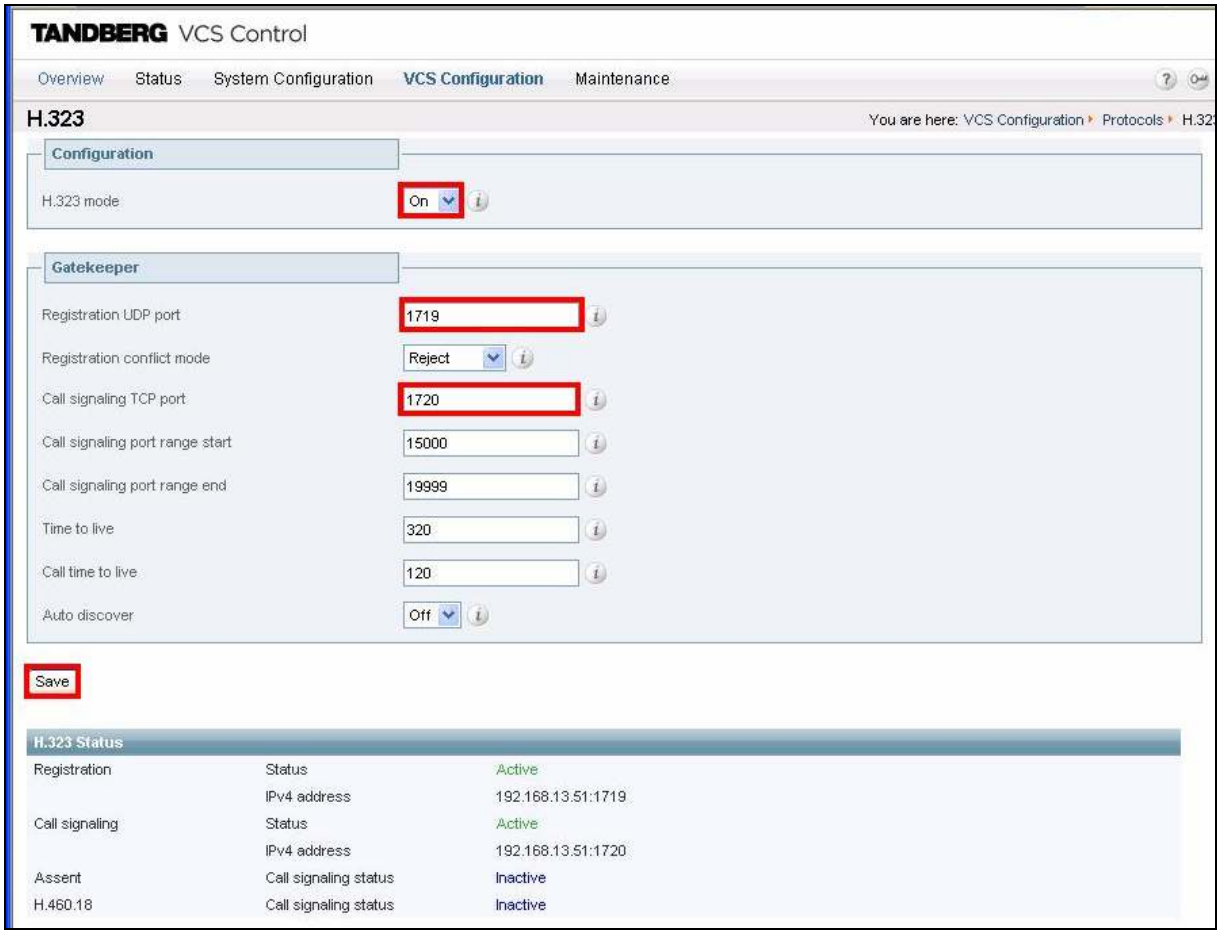
4. Tandberg Video Communication Server Configuration

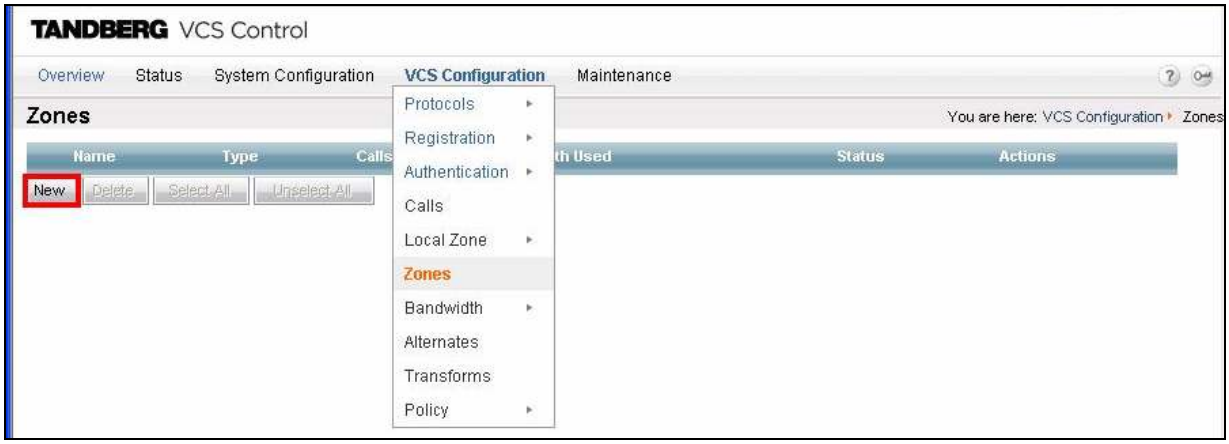
This section describes the configuration for enabling the Tandberg VCS to interoperate with Avaya Communication Manager. The Tandberg VCS is administered and maintained from a web interface over a secure connection using a standard web browser. To access the web interface, enter **https://<Tandberg VCS IP Address or Fully Qualified Domain Name (FQDN)>** into the web browser's Uniform Resource Locator (URL) bar. Refer to [**4**] for additional information regarding the administration of the Tandberg VCS.

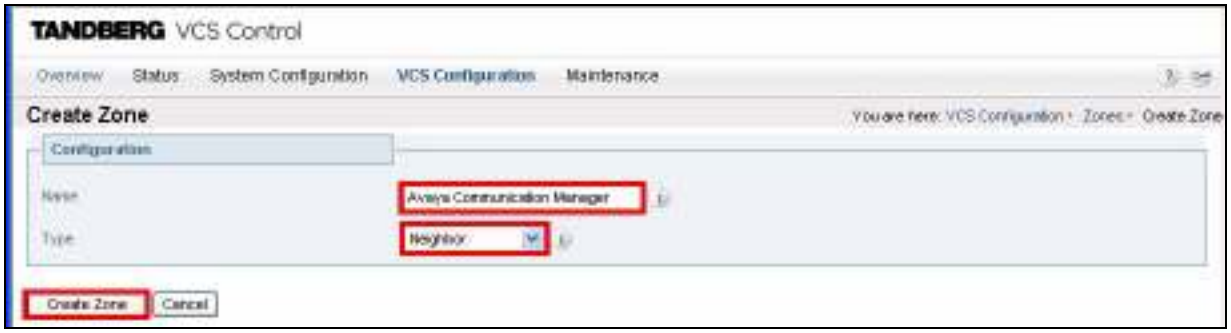
4.1. Configure Connectivity

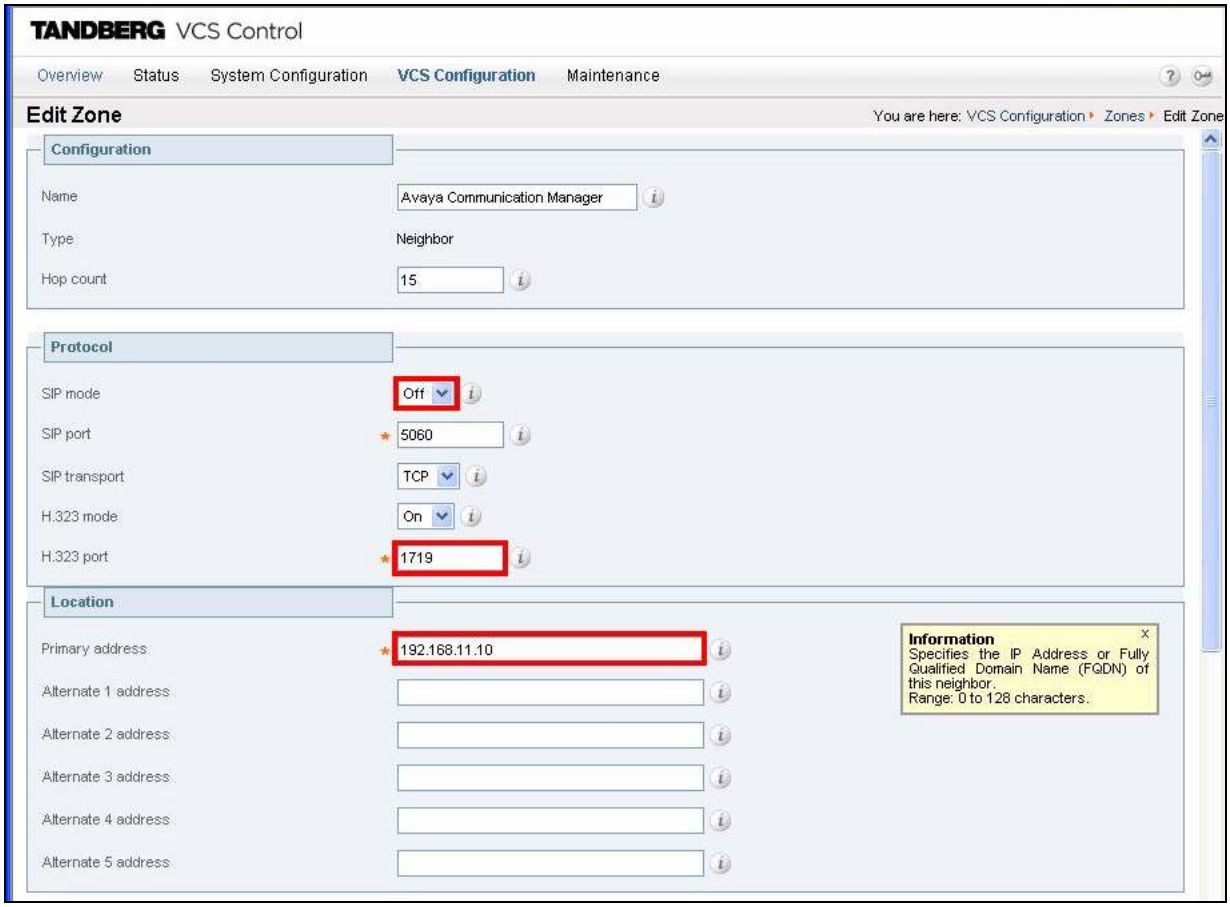
This section describes the steps for configuring connectivity between the Tandberg VCS and Avaya Communication Manager.

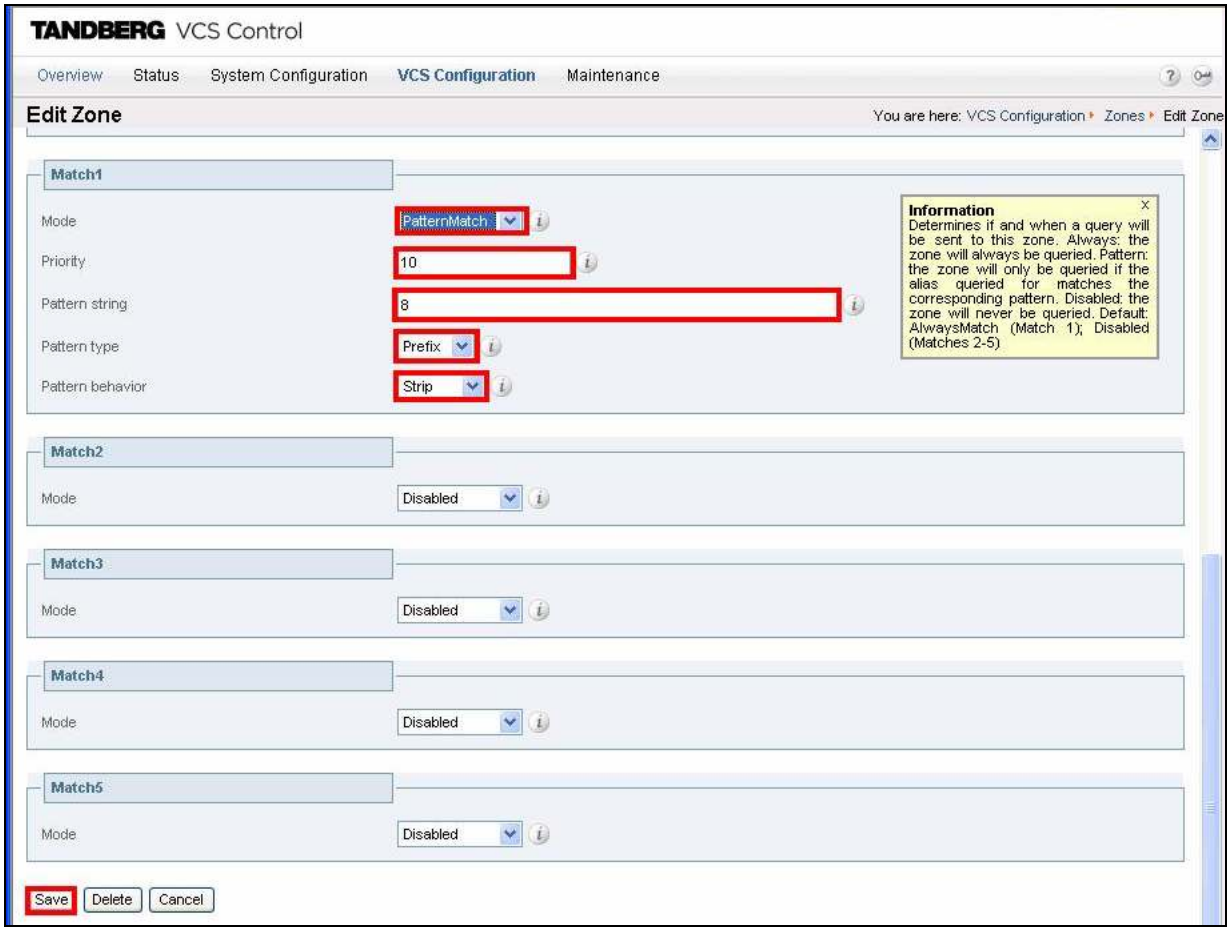
Step	Description
4.1.1	To enable IP connectivity with the network, configure settings as follows: • From the Tandberg VCS web interface, select **System Configuration ➔ IP**. • Provision settings as displayed. • Click **Save**. 

Step	Description
4.1.2	To enable H.323 connectivity with Avaya Communication Manager, configure settings as follows: • From the Tandberg VCS web interface, select **VCS Configuration ➔ Protocols ➔ H.323**. • Provision settings as displayed. • Click **Save**. 

Step	Description
4.1.3	To enable H.323 connectivity with Avaya Communication Manager, add a Zone as follows: • From the Tandberg VCS web interface, select **VCS Configuration ➔ Zones**. • Click **New**. 

Step	Description
4.1.4	To enable H.323 connectivity with Avaya Communication Manager, configure settings as follows: • Enter a descriptive name for the zone in the **Name** field. • Select the **Neighbor** from the drop-down list for the **Type** field. • Click **Create Zone**. 

Step	Description
4.1.5a	To enable H.323 connectivity with Avaya Communication Manager, provision settings as displayed and scroll down. 

Step	Description
4.1.5b	To enable call routing to Avaya Communication Manager, provision settings as displayed and click **Save**. 

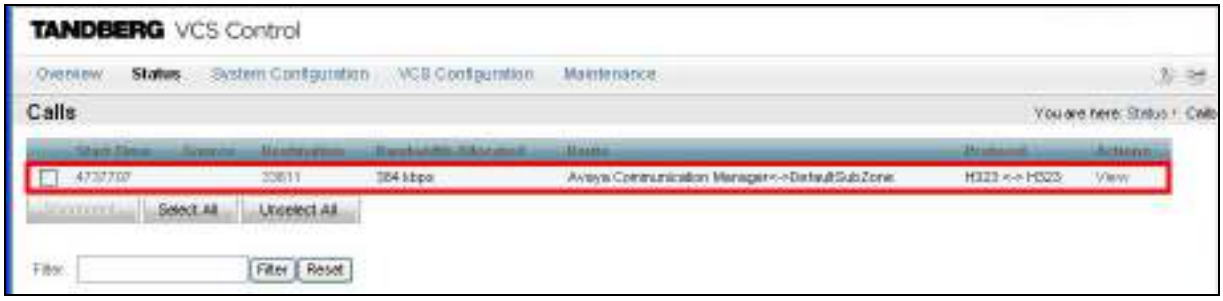
5. Verification Steps

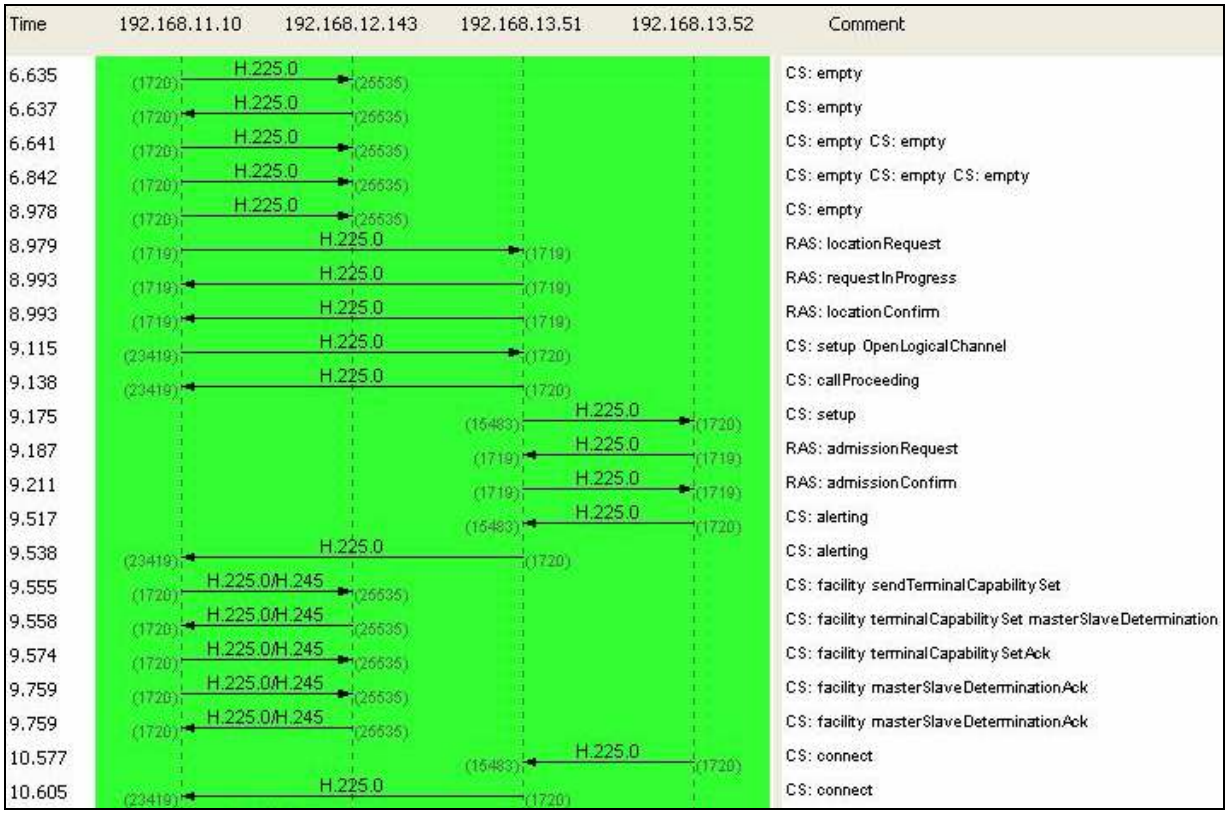
The following steps were used to verify the administrative steps presented in these Application Notes and are applicable for similar configurations in the field.

Step	Description
6.1	Verify H.323 connectivity between Avaya Communication Manager and the Tandberg VCS by retrieving status regarding the trunk group provisioned in **Step 3.2.5**. • From a SAT session, issue the command "**status trunk <n>**", where **n** is the number of the trunk group to verify. • Verify that all members in the trunk group are **in-service/idle**.
6.2	Verify H.323 connectivity between the Tandberg VCS and Avaya Communication Manager by retrieving status regarding the zone provisioned in **Step 4.1.5a**. From the Tandberg VCS web interface, select **Status ➔ Zones** and verify the status of the zone provisioned in **Step 4.1.5a** is **Active**. 

Step	Description
6.3	Validate signaling and media connectivity for call origination from Avaya Communication Manager to the Tandberg VCS. This is accomplished by verifying that the trunk group and zone provisioned in **Step 3.2.5** and **Step 4.1.5a** respectively are utilized when a call from a video enabled endpoint registered to Avaya Communication Manager calls a video enabled endpoint registered to the Tandberg VCS. • From a SAT session, issue the command "**list trace tac <n>**", where **n** is the TAC defined for the trunk group. • From a video enabled endpoint registered to Avaya Communication Manager, dial **833611** to call the video enabled endpoint registered to the Tandberg VCS. ***Note**: The trace below shows that **833611** was dialed and utilized the call routing and trunk group provisioned in **Section 3** to route the call to the Tandberg VCS. Also, note the sequence to enable direct IP-to-IP audio connectivity between the endpoints (**192.168.13.52**, **192.168.12.107**) involved in this call. Initially, the endpoint registered to the Tandberg VCS (**192.168.13.52**) is connected to the Media Processor (MEDPRO, **192.168.11.11**). Due to the provisioning that enabled direct IP-to-IP audio connectivity as well as congruency for the codec and DTMF requirements on the endpoints, Avaya Communication Manager allowed direct IP-to-IP audio connectivity for this call. Also note that video sets-up (using **H.264**) between the video enabled endpoints registered to Avaya Communication Manager (**192.168.12.143**) and the Tandberg VCS (**192.168.13.52**).*

```
list trace tac 120                                                  Page   1

                                LIST TRACE

time            data

10:56:24     dial 833611 route:AAR
10:56:24     route-pattern  20 preference 1  cid 0x1089
10:56:24     seize trunk-group 20 member 7  cid 0x1089
10:56:24     Setup digits 33611
10:56:24     Calling Number & Name NO-CPNumber NO-CPName
10:56:24     Proceed trunk-group 20 member 7  cid 0x1089
10:56:25     Alert trunk-group 20 member 7  cid 0x1089
10:56:26     active trunk-group 20 member 7  cid 0x1089
10:56:26     G711MU ss:off ps:20 rn:1/1 192.168.13.52:2346 192.168.11.11:2412
10:56:26     xoip: fax:Relay modem:off tty:US 192.168.11.11:2412 uid:0x50082
10:56:37     G711MU ss:off ps:20 rn:1/1 192.168.13.52:2346 192.168.12.107:2940
10:56:37     G711MU ss:off ps:20 rn:1/1 192.168.12.107:2940 192.168.13.52:2346
10:56:37     Video: H264 192.168.13.52:2348 192.168.12.143:2690
                      logChl:40 sessId:2 bw:6400 tx/rx:3200
10:56:38     Video: H264 192.168.12.143:2690 192.168.13.52:2348
                      logChl:2 sessId:2 bw:6400 tx/rx:3200
```

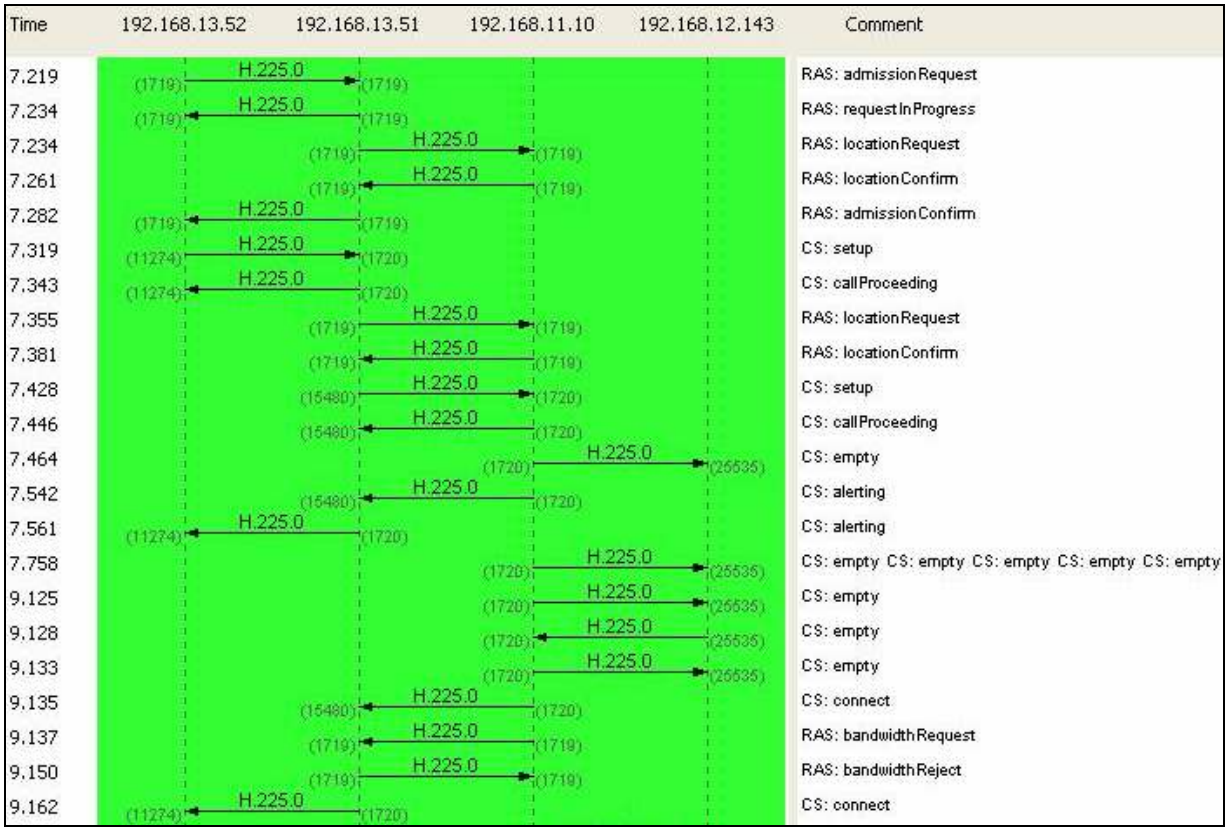
Step	Description
6.4	Verify status for call origination from Avaya Communication Manager to the Tandberg VCS. From the Tandberg VCS web interface, select **Status ➔ Calls** and verify the status of the call imitated in **Step 6.3**. 

Step	Description
6.5	Below is a call flow of the scenario that was initiated in **Step 6.3**. This trace is intended to display the provisioning presented in these Application Notes. 

Step	Description
6.6	Validate signaling and media connectivity for call origination from the Tandberg VCS to Avaya Communication Manager. This is accomplished by verifying that the zone and trunk group provisioned in **Step 4.1.5a** and **Step 3.2.5** respectively are utilized when a call from a video enabled endpoint registered to the Tandberg VCS calls a video enabled endpoint registered to Avaya Communication Manager. • From a SAT session, issue the command "**list trace tac <n>**", where **n** is the TAC defined for the trunk group. • From a video enabled endpoint registered to Tandberg VCS, dial **833001** to call the video enabled endpoint registered to Avaya Communication Manager. ***Note**: The trace below shows that **33001** was called and utilized the call routing and trunk group provisioned in **Section 4** to route the call to Avaya Communication Manager. Also, note the sequence to enable direct IP-to-IP audio connectivity between the endpoints (**192.168.13.52**, **192.168.12.107**) involved in this call. Initially, both endpoints are connected to the Media Processor (MEDPRO, **192.168.11.11**). Due to the provisioning that enabled direct IP-to-IP audio connectivity as well as congruency for the codec and DTMF requirements on the endpoints, Avaya Communication Manager allowed direct IP-to-IP audio connectivity for this call. Also note that video sets-up (using **H.264**) between the video enabled endpoints registered to Avaya Communication Manager (**192.168.12.143**) and the Tandberg VCS (**192.168.13.52**).*

```
list trace tac 120                                                  Page   1

                                LIST TRACE

time            data

10:54:15     Calling party trunk-group 20 member 1  cid 0x1087
10:54:15     Calling Number & Name 33611 T150
10:54:15     active trunk-group 20 member 1  cid 0x1087
10:54:15     dial 33001
10:54:15     ring station    33001 cid 0x1087
10:54:15     G711MU ss:off ps:20 rn:1/1 192.168.12.107:2940 192.168.11.11:2392
10:54:15     xoip: fax:Relay modem:off tty:US 192.168.11.11:2392 uid:0x8ca0
10:54:20     active station    33001 cid 0x1087
10:54:20     G711MU ss:off ps:20 rn:1/1 192.168.13.52:2330 192.168.11.11:2388
10:54:20     xoip: fax:Relay modem:off tty:US 192.168.11.11:2388 uid:0x5007c
10:54:21     G711MU ss:off ps:20 rn:1/1 192.168.13.52:2330 192.168.12.107:2940
10:54:21     G711MU ss:off ps:20 rn:1/1 192.168.12.107:2940 192.168.13.52:2330
10:54:21     Video: H264 192.168.13.52:2332 192.168.12.143:2690
                      logChl:40 sessId:2 bw:6400 tx/rx:3200
10:54:22     Video: H264 192.168.12.143:2690 192.168.13.52:2332
                      logChl:2 sessId:2 bw:6400 tx/rx:3840
```

Step	Description
6.7	Verify status for call origination from the Tandberg VCS to Avaya Communication Manager. From the Tandberg VCS web interface, select **Status ➔ Calls** and verify the status of the call imitated in **Step 6.6**. 

Step	Description
6.8	Below is a call flow of the scenario that was initiated in **Step 6.6**. This trace is intended to display the provisioning presented in these Application Notes. 

6. Conclusion

These Application Notes present a sample configuration comprised of Avaya Communication Manager and the Tandberg Video Communication Server (VCS) functioning as a gatekeeper. Employing this configuration enables call origination/termination with video between endpoints registered to Avaya Communication Manager and endpoints registered to the Tandberg VCS.

7. Additional References

Avaya references are available at http://support.avaya.com.

[1] Administrator Guide for Avaya Communication Manager, Issue 3.1, Doc ID: 03-300509, February 2007.
[2] Administration for Network Connectivity for Avaya Communication Manager, Issue 12, Doc ID: 555-233-504, February 2007.
[3] IP Softphone Release 6.0 User Reference, Issue 1, Doc ID: N/A, May 2007

Tandberg references are available at: http://www.tandberg.com/.

[4] Tandberg Video Communication Serer Administrator Guide, Doc ID: D14049.02, March 2008.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya Solution & Interoperability Test Lab at interoplabnotes@list.avaya.com