

H.323 Trunk Configuration in AVAYA PBX.

1. The first thing to check is to see if you have the following:
 - a) On system-parameters, customer-options, in the second page you must have enough Maximum Administered H.323 Trunks to use.
 - b) A CLAN to use.
 - c) A MEDPRO to use.
2. Set up the names of the Avaya CLAN and the service provider server on node-names ip. (**NOTE:** in the image below `lmntel01` is the service provider ip address)

```
change node-names ip lmntel01 Page 1 of 1
IP NODE NAMES
Name IP Address Name IP Address
lmntel01 192.168.58.227
procr
( 5 of 75 administered node-names were displayed )
Use 'list node-names' command to see all the administered node-names
Use 'change node-names ip xxx' to change a node-name 'xxx' or add a node-name
```

3. Below are the details of the CLAN, note the network region defined. In this case 6.

```
list ip-interface clan Page 1
IP INTERFACES
ON Slot Code Sfx Node Name/ Subnet Mask Gateway Address Num Skts Net
IP-Address Warn Rgn VLAN
-----
y 02A08 TN799 D clan 255.255.254.0 192.168.59.254 400 6 58
192.168.58.216
press CANCEL to quit -- press NEXT PAGE to continue
```

4. The configuration of the CLAN is shown below:
5. The network region 6 has the following configuration:

```

display ip-network-region 6                                     Page 1 of 19
IP NETWORK REGION
Region: 6
Location: Authoritative Domain:
Name: IP Trunks
MEDIA PARAMETERS
Codec Set: 6
Intra-region IP-IP Direct Audio: no
LDP Port Min: 2048
Inter-region IP-IP Direct Audio: no
LDP Port Max: 3029
IP Audio Hairpinning? n
DIFFSERV/TOS PARAMETERS
Call Control PHB Value: 34
RTCP Reporting Enabled? y
Audio PHB Value: 46
RTCP MONITOR SERVER PARAMETERS
Video PHB Value: 26
Use Default Server Parameters? y
802.1P/Q PARAMETERS
Call Control 802.1p Priority: 7
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
    
```

```

display ip-network-region 6                                     Page 2 of 19
IP NETWORK REGION
INTER-GATEWAY ALTERNATE ROUTING
Incoming LDN Extension:
Conversion To Full Public Number - Delete: Insert:
Maximum Number of Trunks to Use:
BACKUP SERVERS IN PRIORITY ORDER
1
2
3
4
5
6
7
8
9
SECURITY PROCEDURES
1 challenge
2
3
4
    
```

6. The network region 6 has defined ip-codec 6 that has the following codecs: *(NOTE: use only G.711A and*

G.711MU)

```

display ip-codec-set 6                                         Page 1 of 3
IP Codec Set
Codec Set: 6
Audio          Silence   Frames   Packet
Codec          Suppression Per Pkt  Size(ms)
1: G.729       n         2        20
2: G.711A     n         2        20
3: G.711MU    n         2        20
4:
5:
6:
7:
Media Encryption
1: none
2:
3:
    
```

```

display ip-network-region 6                                     Page 3 of 19
Inter Network Region Connection Management
src dst codec direct Total Video Dyn
rgn rgn set WAN  WAN-BW-limits WAN-BW-limits Intervening-regions CAC IGAR
6 1 6 y :NoLimit :NoLimit
6 2
6 3
6 4 6 y :NoLimit :NoLimit
6 5
6 6 6
6 7
6 8
6 9
6 10
6 11
6 12
6 13
6 14
6 15
    
```

7. Now you have to define the IP Trunk and IP Signaling group. You have to create both on sync, below just the final output.

```

display trunk-group 66                                     Page 1 of 21
TRUNK GROUP
Group Number: 66          Group Type: isdn          CDR Reports: y
Group Name: asterisk     COR: 62              TN: 1          TAC: 
Direction: two-way      Outgoing Display? y   Carrier Medium: H.323
Dial Access? y          Busy Threshold: 255   Night Service:
Queue Length: 0
Service Type: tie        Auth Code? n
                          Member Assignment Method: manual
  
```

8. Note that the Supplementary Service Protocol needs to be set to "a" to allow the passing of call info (extension number, name, etc) from and to the two systems.

```

display trunk-group 66                                     Page 2 of 21
Group Type: isdn
TRUNK PARAMETERS
Codeset to Send Display: 0      Codeset to Send National IEs: 6
Charge Advice: none            Digit Handling (in/out): enbloc/enbloc
Supplementary Service Protocol: a
QSIG Value-Added? n
Digital Loss Group: 18
Format:
Incoming Calling Number - Delete: Insert:
Disconnect Supervision - In? y Out? y
Answer Supervision Timeout: 0
  
```

```

display trunk-group 66                                     Page 3 of 21
TRUNK FEATURES
ACA Assignment? n              Measured: none
Internal Alert? n             Maintenance Tests? y
Data Restriction? n           NCA-TSC Trunk Member:
Send Name: y                  Send Calling Number: y
Used for DCS? n               Send EMU Visitor CPN? n
  
```

```

display trunk-group 66                                     Page 5 of 21
TRUNK GROUP
Administered Members (min/max): 1/2
Total Administered Members: 2
GROUP MEMBER ASSIGNMENTS
Port      Name      Night      Sig Grp
1: T00800 ast1      66
2: T00801 ast2      66
3:
4:
5:
6:
7:
8:
9:
10:
11:
12:
13:
14:
15:
  
```

9. At this stage you should have the H323 IP trunk up and running between the two systems. You might require a busyout of signalig group/trunk to bring it up.

```

status trunk 66
TRUNK GROUP STATUS
Member  Port  Service State  Mtce Connected Ports
                Busy
0066/001 T00800  in-service/idle  no
0066/002 T00801  in-service/idle  no

Command successfully completed

status signaling-group 66
STATUS SIGNALING GROUP
Group ID: 66                Active NCA-TSC Count: 0
Group Type: h.323          Active CA-TSC Count: 0
Signaling Type: facility associated signaling
Group State: in-service
  
```

10. The next step is to define the routing off calls from the Avaya to the service provider using the new trunk created. In the image below we set up on the uniform-dial-plan that all extensions beginning with 893xx and 5 digits should use the ARS table.

```

display uniform-dialplan 8
UNIFORM DIAL PLAN TABLE
Percent Full: 0
Matching  Len Del  Insert  Net  Conv  Node  Matching  Len Del  Insert  Net  Conv  Node
Pattern   Len Del  Digits  Net  Conv  Num   Pattern   Len Del  Digits  Net  Conv  Num
893       5  0                ars   n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
          n                n
  
```

- Then on the ARS analysis table define that the matching pattern range should use the route pattern to service provider. In the image below we defined that the 893xx range should use the route pattern 66.

```
display ars analysis 8
```

ARS DIGIT ANALYSIS TABLE									
Location: all									
Percent Full: 2									
Dialed String	Total Min	Total Max	Route Pattern	Call Type	Node Num	ANI Reqd			
893	5	5	66	nat1		n	n	n	n

- Finally, the route-pattern n to service provider is defined using the trunk previously created and that would be all the configuration needed. In the image below the route-pattern 66 is defined using the trunk 66.

```
display route-pattern 66
```

Pattern Number: 66									
Pattern Name: To Asterisk									
SCCAN? n									
Secure SIP? n									
Grp No	FRL	NPA	Pfx	Hop	Toll	No. Del	Inserted Digits		
1:	66	0							
2:									
3:									
4:									
5:									
6:									

BCC	VALUE	TSC	CA-TSC	ITC	BCIE	Service/Feature	PARM	No. Dgts	Numbering Format	LAR
0	1	2	3	4						
1:	y	y	y	y	n	y	as-needed	bothept	nat1-pub	rehu
2:	y	y	y	y	n	n		rest		none
3:	y	y	y	y	n	n		rest		none
4:	y	y	y	y	n	n		rest		none
5:	y	y	y	y	n	n		rest		none
6:	y	y	y	y	n	n		rest		none

13. Additionally, complete the public-unknown-numbering table.

```

display public-unknown-numbering 5
NUMBERING - PUBLIC/UNKNOWN FORMAT
Total
Ext Ext Trk CPN CPN Ext Ext Trk CPN Total
Len Code Grp(s) Prefix Len Len Code Grp(s) Prefix Len
5 83 66 8 5
  
```