



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Netcall QueueBuster with Avaya Communication Manager 5.0 using E1 Trunks - Issue 1.0

Abstract

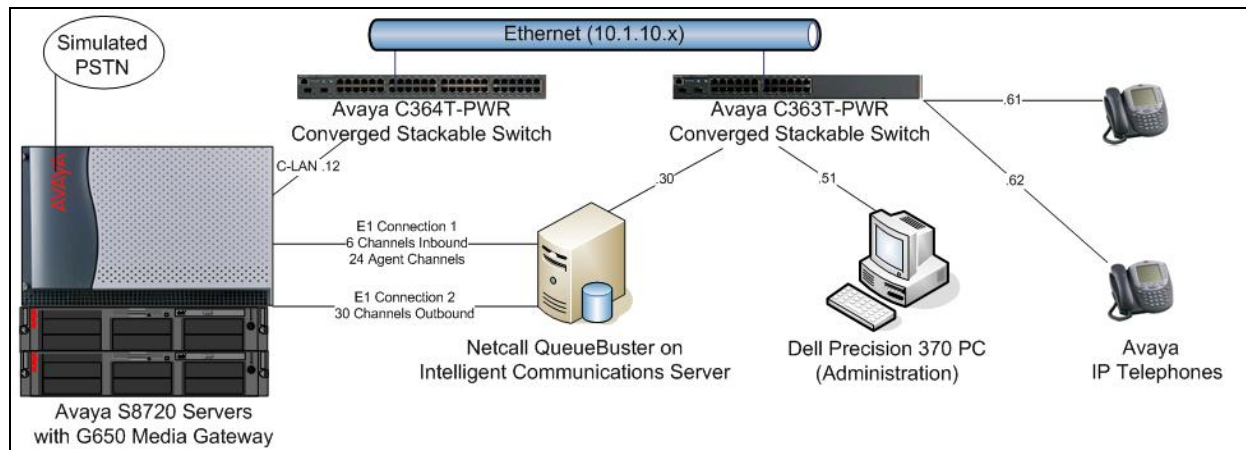
These Application Notes describe the configuration steps required for Netcall QueueBuster to successfully interoperate with Avaya Communication Manager.

The objective of the test was to evaluate interoperability of the products in a contact center, offering automated call-backs to inbound callers.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1 Introduction

These Application Notes describe the configuration steps required for the Netcall QueueBuster product to successfully interoperate with Avaya Communication Manager.



Netcall QueueBuster runs on the Netcall Intelligent Communications Platform™ (ICP), which is a server supporting the range of Netcall call-back and productivity solutions.

The Netcall ICP running QueueBuster uses Intel Dialogic boards to connect to Avaya Communication Manager using E1 or T1 connections. One board is used for calls inbound from Avaya Communication Manager to QueueBuster and also for calls outbound from QueueBuster to Avaya Communication Manager agents. The other board is used solely for call-back calls to customers and can either route through Avaya Communication Manager or connect straight into the Public Switched Telephone Network (PSTN).

Integration is achieved using Integrated Services Digital Network (ISDN) messaging over the D-Channel. E1 trunk groups were used for the compliance testing and the E1 connection for callback calls to customers was routed through Avaya Communication Manager.

Netcall QueueBuster gives customers an alternative to queuing. When a caller is in a queue they can opt to use QueueBuster to call them back when an agent becomes available. The call will be routed into QueueBuster for the caller to record their name and choose whether to be called back on the number presented as ANI or enter a different number. QueueBuster then calls an Avaya Communication Manager VDN/vector and queues for an available agent. When an agent answers the call, QueueBuster announces the name of the person being called back, commences dialing the customer and connects the agent to the outbound trunk. If the call to the customer is unsuccessful, QueueBuster will announce the reason to the agent and give them the option to reschedule the call.

2 Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment	Software
Avaya S8720 Servers	Avaya Communication Manager 5.0 R015.00.1.825.4
Avaya G650 Media Gateway: <ul style="list-style-type: none">• TN2464BP UDS1 Circuit Pack• TN2464CP UDS1 Circuit Pack	HW05/FW019 HW02/FW019
Avaya 4620SW IP Telephones (H.323)	2.8
Avaya 9620SW IP Telephones (H.323)	1.5
Netcall QueueBuster running on Netcall Intelligent Communications Platform	3.0.00 3.0
Intel Dialogic Board	Windows 2000 5.00.2195 SP4 6.0 Build 61

3 Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager. The procedures include the following areas.

- Verify Avaya Communication Manager license.
- Administer DS-1 boards and trunk groups.
- Administer call routing.
- Administer VDNs and vectors.

The detailed administration of some contact center devices, such as ACD/Skill groups and logical agents are assumed to be in place and are not covered in these Application Notes. For administration of contact center devices, refer to the appropriate documentation in **Section 9**.

For the compliance testing, agents with physical station extensions of “10001, 10002, 10003” and logical agent identifiers of “15001, 15002, 15003” were used. All the agents were assigned two skills; hunt group 1 was used as the main skill for incoming calls, hunt group 401 was used as the skill for calls from QueueBuster.

3.1 Verify Avaya Communication Manager License

Use the “display system-parameters customer-options” command to verify that the **ISDN-PRI** customer option is set to “y” on **Page 4**.

```
change system-parameters customer-options                               Page 4 of 11
                                OPTIONAL FEATURES

Emergency Access to Attendant? y                                     IP Stations? y
  Enable 'dadmin' Login? y
  Enhanced Conferencing? y                                           ISDN Feature Plus? n
    Enhanced EC500? y                                               ISDN Network Call Redirection? n
Enterprise Survivable Server? n                                       ISDN-BRI Trunks? n
  Enterprise Wide Licensing? n                                       ISDN-PRI? y
    ESS Administration? n                                           Local Survivable Processor? n
      Extended Cvg/Fwd Admin? y                                     Malicious Call Trace? y
      External Device Alarm Admin? n                               Media Encryption Over IP? y
Five Port Networks Max Per MCC? n   Mode Code for Centralized Voice Mail? n
  Flexible Billing? n
Forced Entry of Account Codes? n                                     Multifrequency Signaling? y
  Global Call Classification? y                                     Multimedia Call Handling (Basic)? n
    Hospitality (Basic)? y                                         Multimedia Call Handling (Enhanced)? n
Hospitality (G3V3 Enhancements)? n                                   Multimedia IP SIP Trunking? n
  IP Trunks? y

IP Attendant Consoles? y
(NOTE: You must logoff & login to effect the permission changes.)
```

Verify that the **Lookahead Interflow (LAI)** and **Vectoring (Basic)** customer options are both set to “y” on **Page 6**. LAI is not required for QueueBuster but is recommended as it allows the Avaya Communication Manager vector to route the call to the next vector step when QueueBuster is busy or unavailable.

```
change system-parameters customer-options                               Page 6 of 11
                                CALL CENTER OPTIONAL FEATURES

                                Call Center Release: 5.0

                                ACD? y                                Reason Codes? n
                                BCMS (Basic)? y                      Service Level Maximizer? n
                                BSR Local Treatment for IP & ISDN? n  Service Observing (Basic)? y
                                Business Advocate? n                Service Observing (Remote/By FAC)? y
                                Call Work Codes? n                  Service Observing (VDNs)? y
                                DTMF Feedback Signals For VRU? n      Timed ACW? n
                                Dynamic Advocate? n                  Vectoring (Basic)? y
                                Expert Agent Selection (EAS)? y        Vectoring (Prompting)? n
                                EAS-PHD? y                          Vectoring (G3V4 Enhanced)? n
                                Forced ACD Calls? n                  Vectoring (3.0 Enhanced)? n
                                Least Occupied Agent? n              Vectoring (ANI/II-Digits Routing)? n
                                Lookahead Interflow (LAI)? y          Vectoring (G3V4 Advanced Routing)? n
                                Multiple Call Handling (On Request)? n Vectoring (CINFO)? n
                                Multiple Call Handling (Forced)? n    Vectoring (Best Service Routing)? n
                                PASTE (Display PBX Data on Phone)? y  Vectoring (Holidays)? n
                                (NOTE: You must logoff & login to effect the permission changes.) Vectoring (Variables)? n
```

If any of the abovementioned customer options are not set, contact the Avaya sales team or business partner for a new license.

3.2 Administer DS-1 Boards and Trunk Groups

Two DS-1 boards are used.

- The first DS-1 is used for Avaya Communication Manager to route incoming calls into QueueBuster and for QueueBuster to route calls to Avaya Communication Manager agents. For the purposes of these Application Notes, this DS-1 shall be referred to as the internal DS-1.
- The second DS-1 is used for QueueBuster to route outgoing calls to Avaya Communication Manager for onward routing to customers. For the purposes of these Application Notes, this DS-1 shall be referred to as the external DS-1.

Both DS-1s are configured in the same way. Use the “add ds1 x” command, where “x” is the slot number where the DS-1 board is inserted. Configure the fields as follows.

- **Name:** Enter a descriptive name.
- **Bit Rate:** “2.048”.
- **Line Coding:** “hdb3”.
- **Signaling Mode:** “isdn-pri”.
- **Connect:** “pbx”.
- **Interface:** “network”.
- **Country Protocol:** “etsi”.
- **Interface Companding:** “alaw”.

```
add ds1 01a05                                     Page 1 of 1
                                         DS1 CIRCUIT PACK

      Location: 01A05                               Name: Netcall
      Bit Rate: 2.048                               Line Coding: hdb3

      Signaling Mode: isdn-pri
      Connect: pbx                                   Interface: network
      TN-C7 Long Timers? n                           Country Protocol: etsi
      Interworking Message: PROGRESS
      Interface Companding: alaw                     CRC? y
      Idle Code: 11111111
      DCP/Analog Bearer Capability: 3.1kHz

      T303 Timer(sec): 4
      Disable Restarts? n

      Slip Detection? n                             Near-end CSU Type: other
```

Three trunk groups are used.

- The first trunk group routes calls from Avaya Communication Manager into QueueBuster and consists of the first 6 ports of the internal DS-1. For the purposes of these Application Notes, this trunk group will be referred to as the inbound trunk group.
- The second trunk group routes calls from QueueBuster to Avaya Communication Manager agents and consists of the last 24 ports of the internal DS-1. For the purposes of these Application Notes, this trunk group will be referred to as the agent trunk group.
- The third trunk group routes calls from QueueBuster to Avaya Communication Manager for onward routing to customer numbers and consists of all 30 ports of the external DS-1. For the purposes of these Application Notes, this trunk group will be referred to as the outbound trunk group.

The number of ports in each trunk group may vary; the values used in the compliance testing are consistent with a large proportion of the installed base.

All three trunk groups are configured in the same way. Use the “add trunk-group x” command, where “x” is an available trunk group number. Configure the fields on **Page 1** as follows.

- **Group Type:** “isdn”.
- **Group Name:** Enter a descriptive name.
- **TAC:** Enter a valid trunk access code.

add trunk-group 16		Page 1 of 21
TRUNK GROUP		
Group Number: 16	Group Type: isdn	CDR Reports: y
Group Name: Netcall Inbound	COR: 1	TN: 1 TAC: 716
Direction: two-way	Outgoing Display? n	Carrier Medium: PRI/BRI
Dial Access? y	Busy Threshold: 255	Night Service:
Queue Length: 0		
Service Type: public-ntwrk	Auth Code? n	TestCall ITC: rest
	Far End Test Line No:	
TestCall BCC: 4		

Configure the fields on **Page 2** as follows.

- **Supplementary Service Protocol:** Enter “c” to use the ETSI protocol.
- **Disconnect Supervision:** Enter “y” in both **In** and **Out** fields.

add trunk-group 16		Page 2 of 21
Group Type: isdn		
TRUNK PARAMETERS		
Codeset to Send Display: 6	Codeset to Send National IEs: 6	
Max Message Size to Send: 260	Charge Advice: none	
Supplementary Service Protocol: c	Digit Handling (in/out): enbloc/enbloc	
Trunk Hunt: ascend		
	Digital Loss Group: 13	
Incoming Calling Number - Delete:	Insert:	Format:
Bit Rate: 1200	Synchronization: async	Duplex: full
Disconnect Supervision - In? y Out? y		
Answer Supervision Timeout: 0		
Administer Timers? n		

Two signaling groups are used (one for each DS-1 board). Both are configured in the same way. Use the “add signaling-group x” command, where “x” is an available signaling group number. Configure the fields on **Page 1** as follows.

- **Group Type:** Enter “isdn-pri”.
- **Primary D-Channel:** Enter “x16”, where “x” is the slot number of the DS-1 board.
- **Trunk Group for Channel Selection:** Enter one of the trunk groups that will be configured on the DS-1 this signaling group serves.
- **Supplementary Service Protocol:** Enter “c”.

SIGNALING GROUP	
Group Number: 16	Group Type: isdn-pri
Associated Signaling? y	Max number of NCA TSC: 0
Primary D-Channel: 01A0516	Max number of CA TSC: 0
	Trunk Group for NCA TSC:
Trunk Group for Channel Selection: 16	X-Mobility/Wireless Type: NONE
Supplementary Service Protocol: c	

The final step is to assign the DS-1 ports to the trunk groups. Use the “change trunk-group x” command, where “x” is the number of the trunk group to be configured. On **Page 5** assign ports as follows:

- **Inbound Trunk Group:** Assign ports 1 – 6 of the internal DS-1 to ports 1-6 on the inbound trunk group form. Enter the signaling group of the internal DS-1 in the **Sig Grp** field for each trunk.
- **Agent Trunk Group:** Assign ports 7 – 31 (omitting 16) of the internal DS-1 to ports 1-24 on the agent trunk group form. Enter the signaling group of the internal DS-1 in the **Sig Grp** field for each trunk.
- **Outbound Trunk Group:** Assign ports 1 – 31 (omitting 16) of the external DS-1 to ports 1-30 on the outbound trunk group form. Enter the signaling group of the external DS-1 in the **Sig Grp** field for each trunk.

add trunk-group 16					Page 5 of 21
TRUNK GROUP					
Administered Members (min/max):					1/6
GROUP MEMBER ASSIGNMENTS					Total Administered Members: 6
	Port	Code Sfx	Name	Night	Sig Grp
1:	01A0501	TN2464	B		16
2:	01A0502	TN2464	B		16
3:	01A0503	TN2464	B		16
4:	01A0504	TN2464	B		16
5:	01A0505	TN2464	B		16
6:	01A0506	TN2464	B		16

The trunk groups used for the compliance testing are summarized in the following table.

Type	Group No.	DS-1 Board	Channels	Signaling Group
Inbound	16	Internal	1-6	16
Agent	17	Internal	7-15, 17-31	16
Outbound	18	External	1-15, 17-31	18

3.3 Administer Call Routing

During the compliance testing, Automatic Alternate Routing (AAR) was used to route calls from the Avaya Communication Manager vector over the QueueBuster inbound trunk. To achieve this, firstly use the “change uniform dial-plan 0” command to add an entry as follows.

- **Matching Pattern:** Enter the complete string used to route to QueueBuster in the inbound vector in **Section 3.4** .
- **Len:** Enter the total number of digits used to dial QueueBuster.
- **Net:** “aar”

change uniform-dialplan 0				Page 1 of 2		
UNIFORM DIAL PLAN TABLE				Percent Full: 0		
Matching			Insert	Node		
Pattern	Len	Del	Digits	Net	Conv	Num
2	5	0		aar	n	
3	5	0		aar	n	
5	5	0		aar	n	
6	5	0		aar	n	
880000	6	0		aar	n	

Next, use the “change aar analysis 0” command to add an entry as follows.

- **Dialed String:** Enter the complete string used to dial QueueBuster.
- **Total:** Enter the total number of digits used to dial QueueBuster in both **Min** and **Max** fields.
- **Route Pattern:** Enter an available route-pattern number.
- **Call Type:** “aar”

change aar analysis 0						Page 1 of 2	
AAR DIGIT ANALYSIS TABLE							
						Percent Full: 0	
	Dialed String	Total		Route	Call	Node	ANI
		Min	Max	Pattern	Type	Num	Reqd
2		5	5	2	aar		n
3		5	5	3	aar		n
4		5	5	4	aar		n
5		5	5	5	aar		n
50099		5	5	1	lev0		n
50100		5	5	1	lev0		n
600		5	5	600	aar		n
601		5	5	601	aar		n
7		5	5	3	aar		n
82		6	6	82	aar		n
83		6	6	83	aar		n
86		6	6	86	aar		n
880000		6	6	88	aar		n

Next, use the “change route-pattern x” command, where “x” is the route pattern entered in the previous step. Configure the fields on **Page 1** as follows.

- **Pattern Name:** Enter any descriptive name.
- **Grp No:** Enter the number of the inbound trunk-group.
- **FRL:** “0”.

change route-pattern 88													Page 1 of 3		
Pattern Number: 88 Pattern Name: QB Inbound															
SCCAN? n Secure SIP? n															
Grp	FRL	NPA	Pfx	Hop	Toll	No.	Inserted	DCS/ IXC							
No			Mrk	Lmt	List	Del	Digits	QSIG							
								Intw							
1:	16	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 3 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			

QueueBuster needs to be able to dial out via Avaya Communication Manager using the Automatic Route Selection (ARS) feature access code. Use the “change feature-access-codes” command, enter a value in the **Automatic Route Selection (ARS) – Access Code 1** field on **Page 1**. Note that this value may vary. For the compliance testing “9” was used for the ARS feature access code.

change feature-access-codes															Page 1 of 5	
FEATURE ACCESS CODE (FAC)																
Abbreviated Dialing List1 Access Code: *01																
Abbreviated Dialing List2 Access Code: *02																
Abbreviated Dialing List3 Access Code: *03																
Abbreviated Dial - Prgm Group List Access Code: *04																
Announcement Access Code: *05																
Answer Back Access Code: *06																
Attendant Access Code:																
Auto Alternate Routing (AAR) Access Code: 888																
Auto Route Selection (ARS) - Access Code 1: 9															Access Code 2:	
Automatic Callback Activation: *10															Deactivation: #10	
Call Forwarding Activation Busy/DA: *11 All: *12															Deactivation: #12	
Call Park Access Code: *13																
Call Pickup Access Code: *14																
CAS Remote Hold/Answer Hold-Unhold Access Code: *15																
CDR Account Code Access Code: *16																
Change COR Access Code:																
Change Coverage Access Code: *18																
Contact Closure Open Code: *19															Close Code: #19	

3.4 Administer VDNs and Vectors

Two VDN/vector combinations are used.

- The first VDN/vector combination queues to an agent skill and gives the caller an option to be routed to QueueBuster. For the purposes of these Application Notes, this VDN/vector combination will be referred to as the inbound VDN/vector.
- The second VDN/vector combination receives calls from QueueBuster and queues them for an available agent. For the purposes of these Application Notes, this VDN/vector combination will be referred to as the agent VDN/vector.

The inbound vector requires an **announcement** step as this sends a D-Channel “connected” event, which is required by QueueBuster. The vector queues the call to a skill and then uses a **collect** step which asks the caller to dial 1 for QueueBuster. A **route-to** step is used to route the calls into QueueBuster (if the caller had dialed 1). There follows an example inbound vector which may be modified for different call treatments.

```
change vector 400                                     Page 1 of 3
                                     CALL VECTOR
Number: 400      Name: ACM>QB
Basic? y    EAS? y    G3V4 Enhanced? n    Meet-me Conf? n    Lock? n
Prompting? n    LAI? y    G3V4 Adv Route? n    ANI/II-Digits? n    ASAI Routing? y
Variables? n    3.0 Enhanced? n    CINFO? n    BSR? n    Holidays? n
01 wait-time    2    secs hearing ringback
02 announcement 18010
03 queue-to     skill 1    pri m
04 collect      1    digits after announcement 18011
05 route-to     number 880000    with cov n if digit    = 1
06 announcement 18012
07 stop
```

The agent vector requires an **announcement** step as this sends a D-Channel “connected” event, which is required by QueueBuster. Use a **queue-to** step to route the calls initiated by QueueBuster to agents. There follows an example agent vector which may be modified for different call treatments.

```
change vector 401                                     Page 1 of 3
                                     CALL VECTOR
Number: 401      Name: QB Agent
Basic? y    EAS? y    G3V4 Enhanced? n    Meet-me Conf? n    Lock? n
Prompting? n    LAI? y    G3V4 Adv Route? n    ANI/II-Digits? n    ASAI Routing? y
Variables? n    3.0 Enhanced? n    CINFO? n    BSR? n    Holidays? n
01 wait-time    2    secs hearing ringback
02 announcement 18010
03 queue-to     skill 401    pri m
04 stop
```

Both VDNs are configured in the same way. Use the “add vdn x” command, where “x” is an available VDN number. Configure the fields on **Page 1** as follows.

- **Name:** Enter a descriptive name.
- **Vector Number:** Enter the number of the vector to be associated with this VDN.

add vdn 17400	Page 1 of 2
VECTOR DIRECTORY NUMBER	
Extension: 17400	
Name*: ACM>QB	
Vector Number: 400	
Meet-me Conferencing? n	
Allow VDN Override? n	
COR: 1	
TN*: 1	
Measured: none	
1st Skill*:	
2nd Skill*:	
3rd Skill*:	
* Follows VDN Override Rules	

The following table summarizes the VDNs and vectors used in the compliance testing.

Type	VDN	Vector	Skill
Inbound	17400	400	1
Agent	17401	401	401

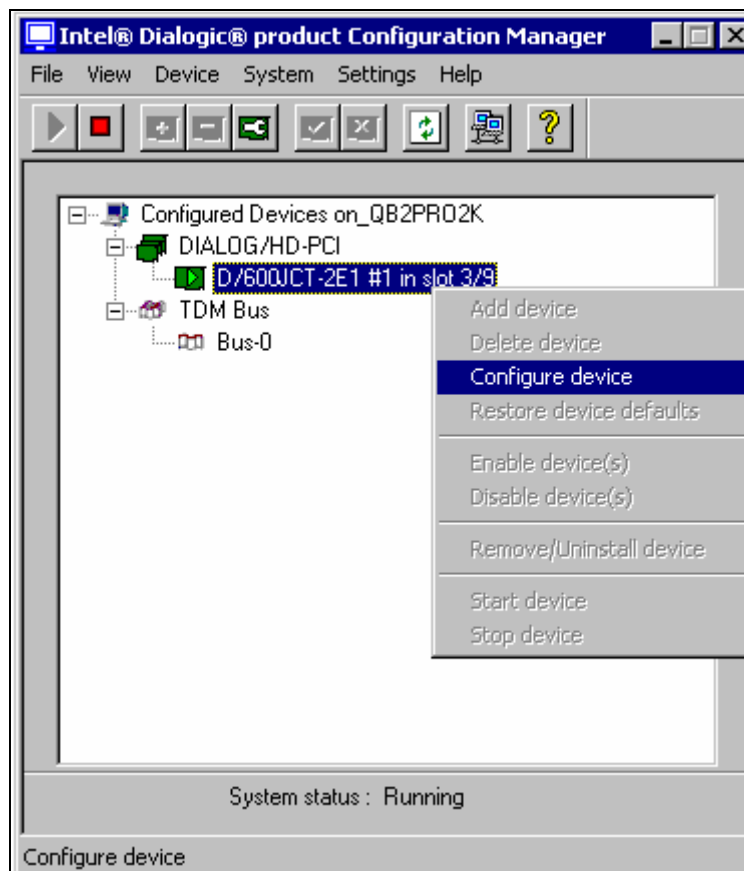
4 Configure QueueBuster

This section provides the procedures for configuring Netcall QueueBuster. The procedures include the following areas:

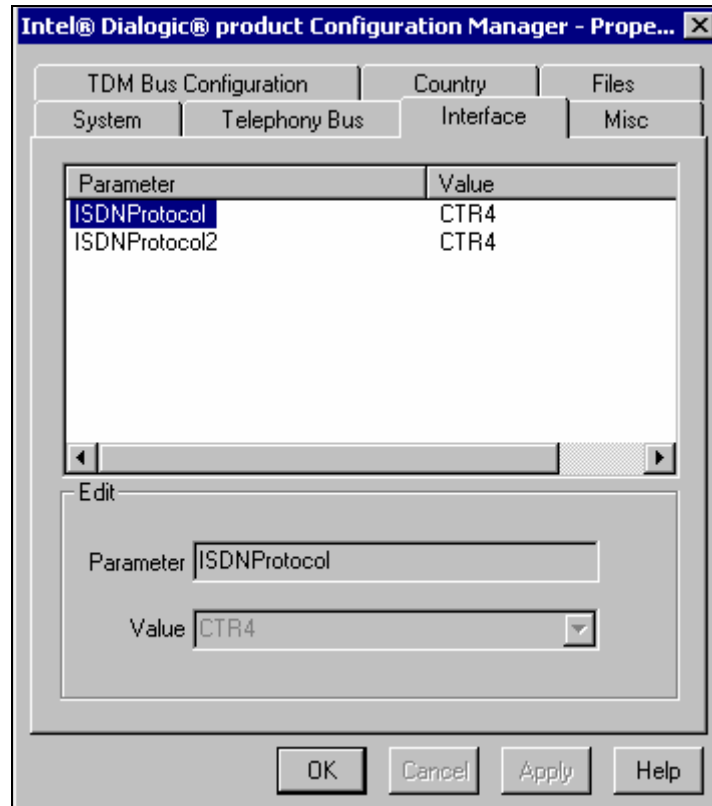
- Administer the Dialogic board
- Administer QueueBuster

4.1 Administer the Dialogic Board

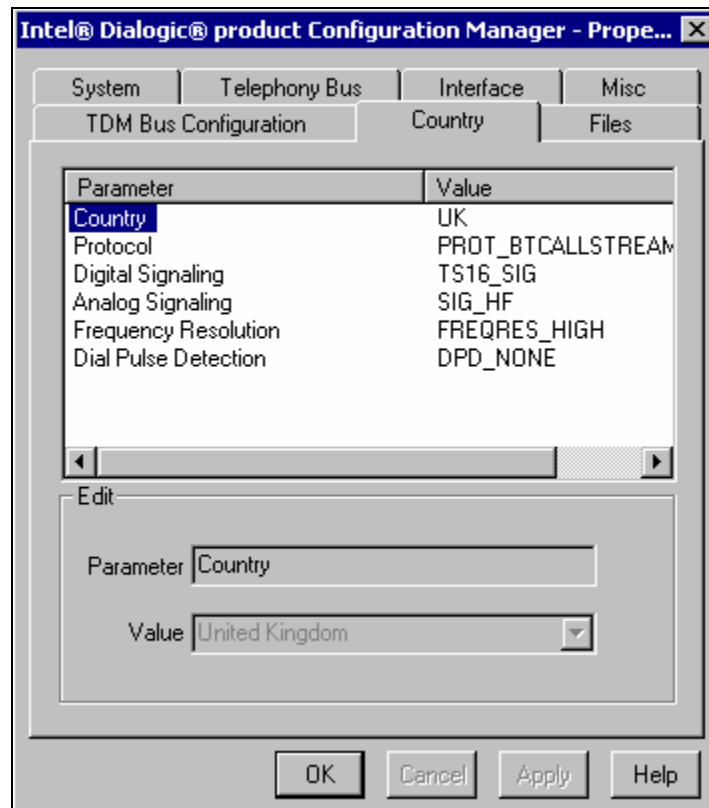
On the ICP server running QueueBuster, open the Dialogic Configuration Manager (DCM) located at the file path “Program Files\Dialogic\BIN\NCM.exe” on the drive where the application was installed. Right-click on the required board, select **Configure device** from the drop-down menu.



In the **Properties** dialogue box, click on the **Interface** tab and set the protocol for each interface to “CTR4”.



Next, click on the **Country** tab and ensure that the **Country** parameter is set to the country where the application is installed, then click **OK**.

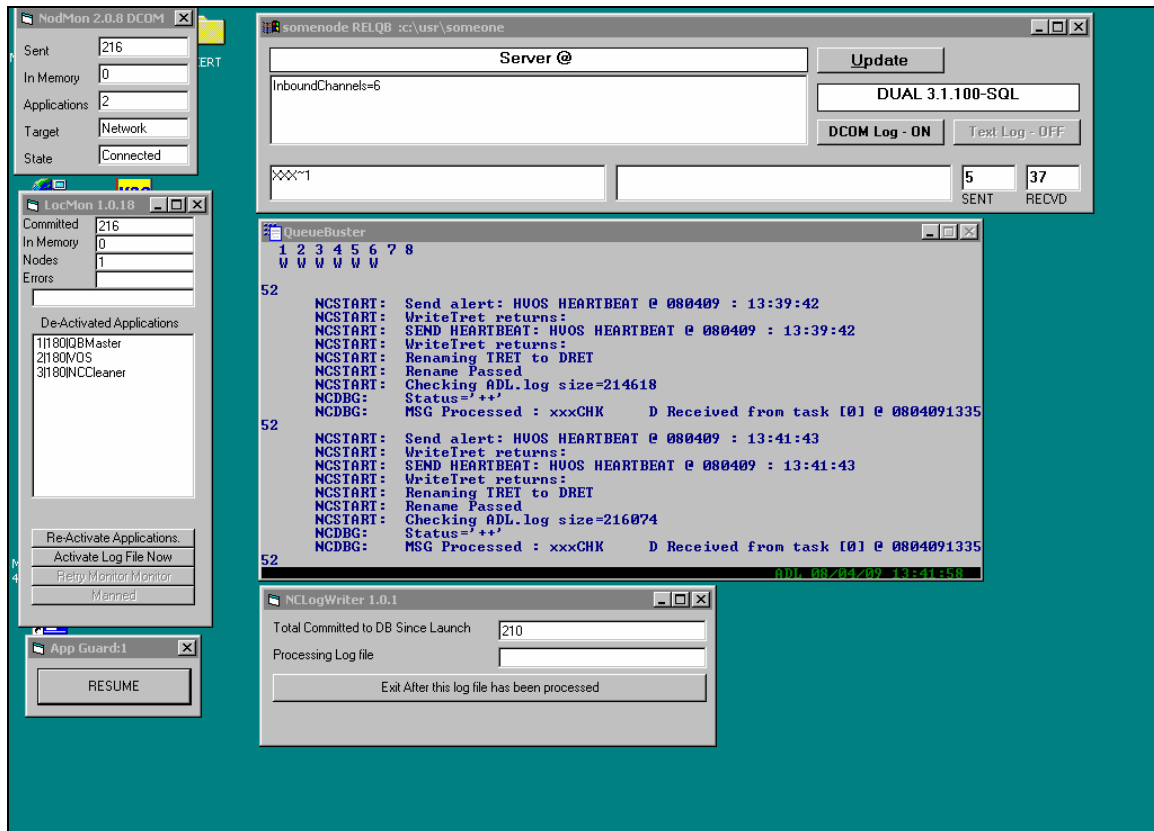


At this point, the Dialogic card is configured. If any changes are made to the card's configuration, the card should be restarted using the **stop** and **start** buttons on the left side of the DCM taskbar.

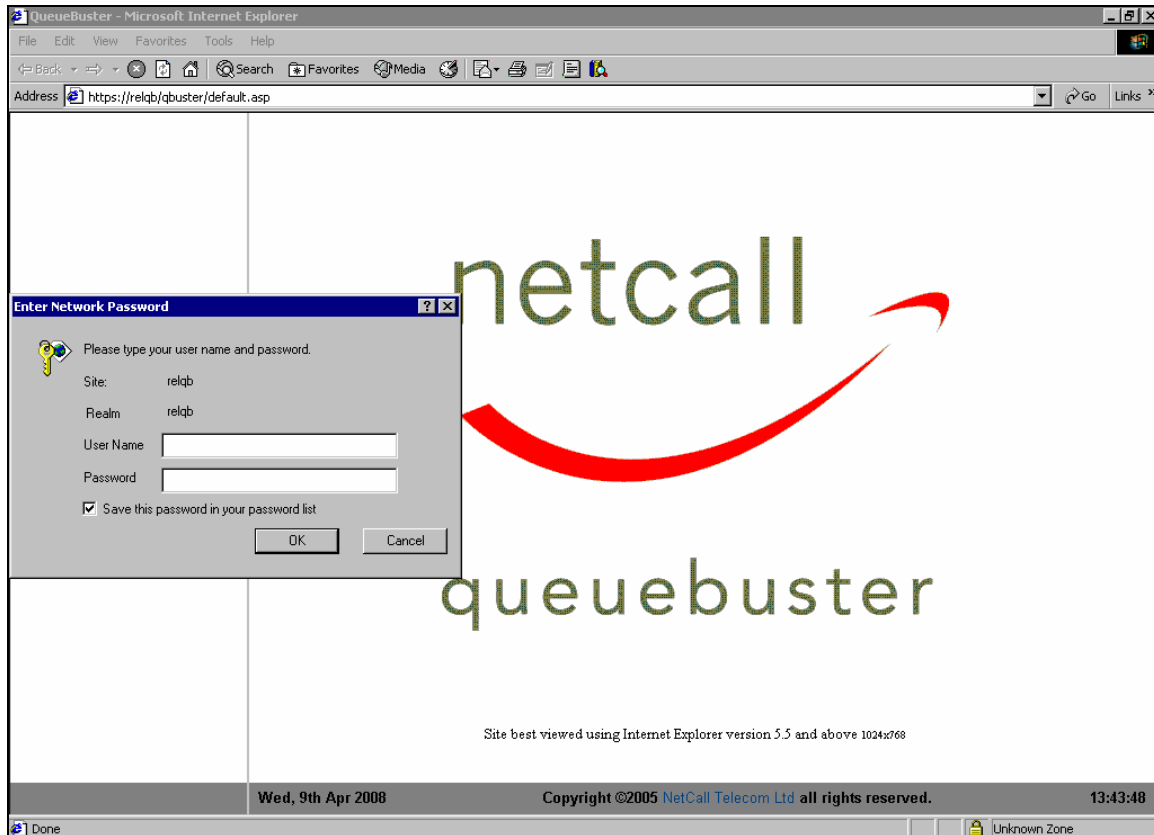


4.2 Administer QueueBuster

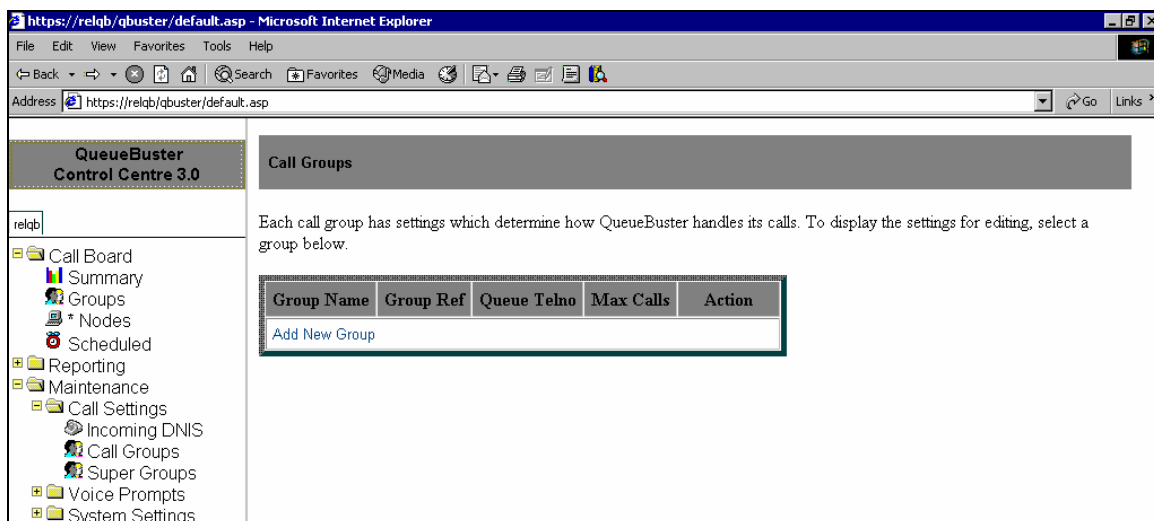
QueueBuster will start automatically on booting the ICP server. If QueueBuster needs to be started manually, open the Windows **Start** menu and select “Programs>Startup>Executiv”. Once started the following components of QueueBuster should appear on the desktop: **AppGuard**, **NodMon**, **LocMon**, **somenode**, **QueueBuster** and **NCLogWriter**.



To start administering QueueBuster, open a browser window and enter the following into the address bar: “http://hostname/qbuster/default.asp” where “hostname” is the hostname of the ICP server (this may vary). The **Enter Network Password** dialog box will appear. Log in using an appropriate user name and password.



The **QueueBuster Control Centre** main menu now loads. Next, select **Maintenance>Call Settings>Call Groups** to bring up the **Call Groups** page. Select **Add New Group**.



This brings up the **Call Group Maintenance** page. Configure the following fields and leave the rest at their default values.

- **Group Name:** Enter a descriptive name for the group.
- **Queue Telno:** Enter the agent VDN number configured in **Section 3.4**
- **Allow Repeat Callers:** “Yes” was selected for the compliance testing to allow the same ANI to call into QueueBuster more than once.

Once the configuration is complete, click on the **Add Now** button at the bottom of the form.

QueueBuster Control Centre 3.0

relqb

- Call Board
- Summary
- Groups
- * Nodes
- Scheduled
- Reporting
- Maintenance
 - Call Settings
 - Incoming DNIS
 - Call Groups
 - Super Groups
 - Voice Prompts
 - System Settings
- Support
- User Guide

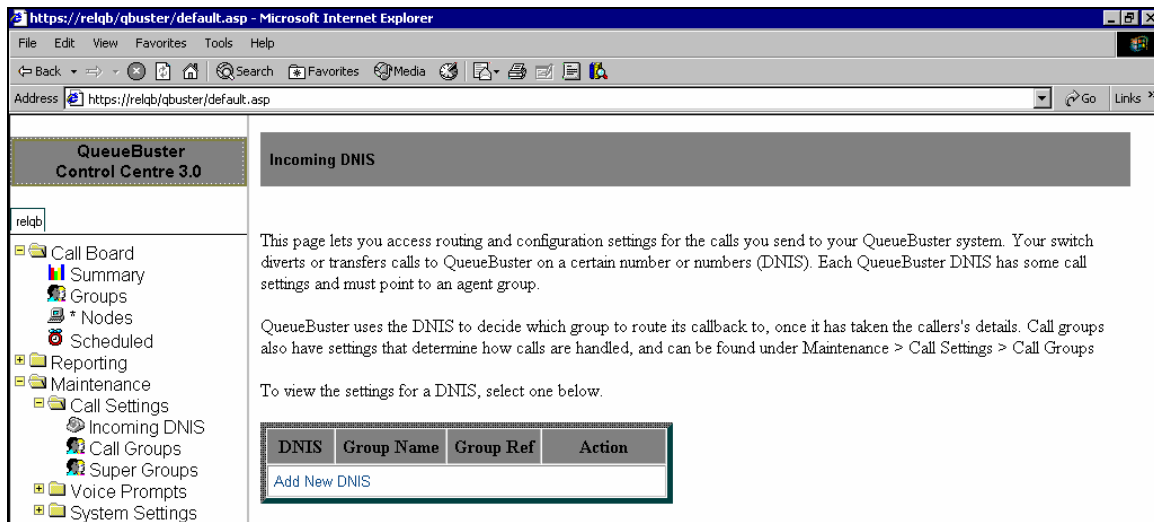
Call Group Maintenance

The settings below determine how QueueBuster handles callbacks to this group.

Group settings:	
Group Name	Avaya
Group Ref	17
Super Group	QueueBuster
Queue Telno	17401
Queue Availability	08:00 to 17:00 every day More...
Clear-Down Time	0 mins
Queue Timeout	60 mins
Answer Timeout	40 Secs
Max Calls	24 Current System capacity:60
Agent settings:	
Agent Detect	One To accept
Retry Agent failures	3 times, with a 2 minute interval
Agent Call Rescheduling	On
Caller settings:	
Allow Repeat callers ?	Yes
Bar Mobile callers ?	No
Retry Unavailable callers	All 3 times, with a 15 minute interval Advanced...

Add Now Cancel

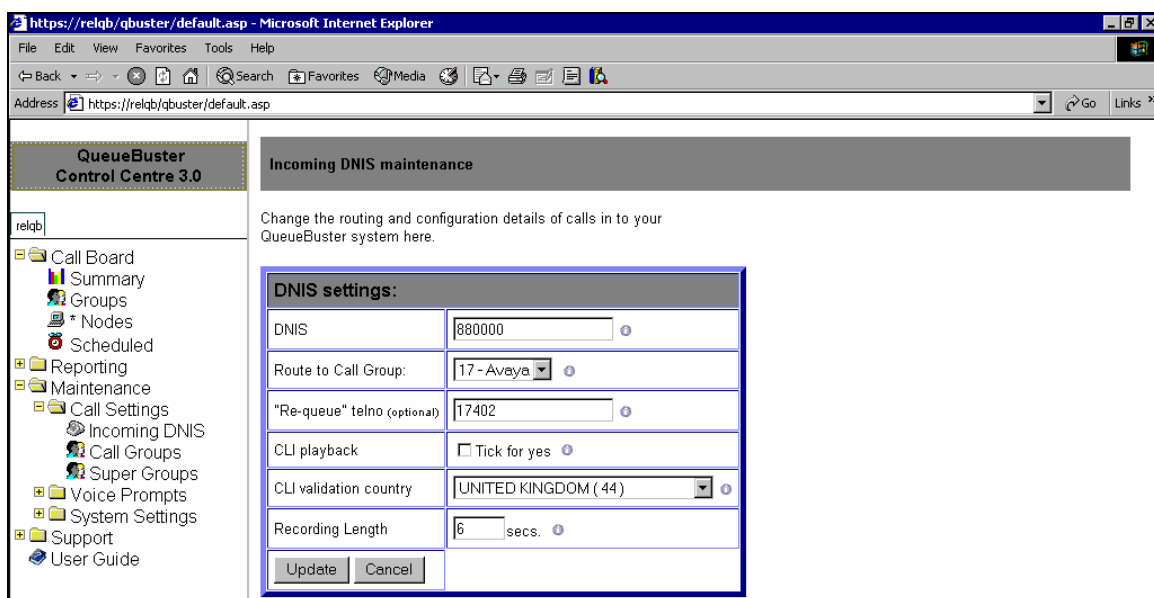
Next, create the incoming DNIS and add the call group to it. Select **Maintenance>Call Settings>Incoming DNIS** from the menu. This brings up the **Incoming DNIS** page.



Select **Add New DNIS**. This brings up the **Incoming DNIS maintenance** page. Configure the following fields and leave the rest at their default values.

- **DNIS:** Enter the number from the route-to step of the incoming VDN (see **Section 3.4**).
- **Route to Call Group:** Ensure this is set to the call group configured on the previous page.
- **CLI Validation Country:** Ensure this is set to the country where the system is installed.

Once completed, click on the **Update** button at the bottom of the form.



Next, select **Maintenance>System Settings>General** to open up the **General system settings** page. On this page ensure that the **System Country** field is set to the country where the system is installed and that the **Dialout Prefix setting** field is set to match the ARS feature access code in Avaya Communication Manager, configured in **Section 3.3**. Leave the remaining fields at their default values. Once completed, click on the **Update** button at the bottom of the form.

QueueBuster Control Centre 3.0

relqb

- Call Board
 - Summary
 - Groups
 - * Nodes
- Scheduled
- Reporting
- Maintenance
 - Call Settings
 - Incoming DNIS
 - Call Groups
 - Super Groups
 - Voice Prompts
 - System Settings**
 - General
 - Barring Rules
 - Priority Callers
- Support
- User Guide

General system settings

Change QueueBuster's system settings here.

Where you see ⓘ, hover the mouse to read more information.

System name ⓘ	relqb	
Background Colour	<input type="button" value="Pick Colour >"/>	Restore default
Foreground Colour	<input type="button" value="Pick Colour >"/>	Restore default
Performance summary hours ⓘ	Start: 09:01 hh:mm	Finish: 17:30 hh:mm
System country ⓘ	UNITED KINGDOM (44)	
Default Queue Availability ⓘ	08:00 to 22:00 every day More...	
Background Dialling ⓘ	NO	
Retry Unavailable callers	All 3 times, with a 15 minute interval ⓘ Advanced...	
Voice detect settings ⓘ	Don't monitor first 5 secs. ⓘ Detect on 0 hits in 0 samples. ⓘ	
Dialout Prefix setting ⓘ	9	
Ignore customers ANI / CLI ⓘ	<input type="checkbox"/>	
Caller survival time ⓘ	0 secs.	
<input type="button" value="Update"/> <input type="button" value="Cancel"/>		

Wed, 9th Apr 2008 Copyright ©2005 NetCall Telecom Ltd all rights reserved. 13:48:50

Local intranet

5 Interoperability Compliance Testing

The interoperability compliance test included both feature and serviceability testing.

The feature testing focused on verifying Netcall QueueBuster's ability to request and respond to Avaya Communication Manager features including.

- Inbound calls into QueueBuster.
- Call-back calls made from QueueBuster using the original ANI and using different numbers entered by the caller.
- Using the agent telephone to hold/transfer/conference whilst on a call initiated by QueueBuster.

The serviceability testing focused on verifying Netcall QueueBuster's ability to recover from an outage condition, such as disconnecting the E1 link or loss of power.

5.1 General Test Approach

All feature and serviceability test cases were performed manually. The verification included checking call states at the telephone sets, and capturing ISDN message traces.

5.2 Test Results

All feature and serviceability test cases passed successfully.

6 Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager and Netcall QueueBuster.

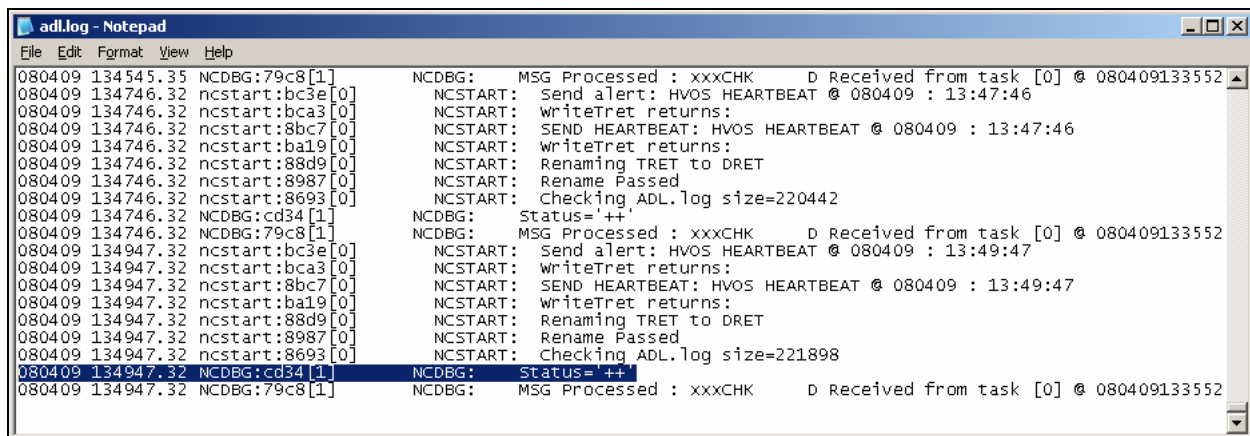
6.1 Verify Avaya Communication Manager

Use the “status trunk x” command, where “x” is one of the trunk groups used by QueueBuster, verify that the status of each trunk in the group is “in service/idle”.

status trunk 16				Page	1
TRUNK GROUP STATUS					
Member	Port	Service State	Mtce Connected Ports Busy		
0016/001	01A0501	in-service/idle	no		
0016/002	01A0502	in-service/idle	no		
0016/003	01A0503	in-service/idle	no		
0016/004	01A0504	in-service/idle	no		
0016/005	01A0505	in-service/idle	no		
0016/006	01A0506	in-service/idle	no		

6.2 Verify Netcall QueueBuster

Open the file “vosnt\exe\ADL.log” on the drive where QueueBuster is installed, and verify that the E1 links are up by searching for the most recent **NCDBG** line with a status of “++”. Each “+” represents an E1 link that is in service. An out of service E1 link would be represented by a “-”.



```
adl.log - Notepad
File Edit Format View Help
080409 134545.35 NCDBG:79c8[1] NCDBG: MSG Processed : xxxCHK D Received from task [0] @ 080409133552
080409 134746.32 ncstart:bc3e[0] NCSTART: Send alert: HVOS HEARTBEAT @ 080409 : 13:47:46
080409 134746.32 ncstart:bca3[0] NCSTART: writeTret returns:
080409 134746.32 ncstart:8bc7[0] NCSTART: SEND HEARTBEAT: HVOS HEARTBEAT @ 080409 : 13:47:46
080409 134746.32 ncstart:ba19[0] NCSTART: writeTret returns:
080409 134746.32 ncstart:88d9[0] NCSTART: Renaming TRET to DRET
080409 134746.32 ncstart:8987[0] NCSTART: Rename Passed
080409 134746.32 ncstart:8693[0] NCSTART: Checking ADL.log size=220442
080409 134746.32 NCDBG:cd34[1] NCDBG: Status= ++
080409 134746.32 NCDBG:79c8[1] NCDBG: MSG Processed : xxxCHK D Received from task [0] @ 080409133552
080409 134947.32 ncstart:bc3e[0] NCSTART: Send alert: HVOS HEARTBEAT @ 080409 : 13:49:47
080409 134947.32 ncstart:bca3[0] NCSTART: writeTret returns:
080409 134947.32 ncstart:8bc7[0] NCSTART: SEND HEARTBEAT: HVOS HEARTBEAT @ 080409 : 13:49:47
080409 134947.32 ncstart:ba19[0] NCSTART: writeTret returns:
080409 134947.32 ncstart:88d9[0] NCSTART: Renaming TRET to DRET
080409 134947.32 ncstart:8987[0] NCSTART: Rename Passed
080409 134947.32 ncstart:8693[0] NCSTART: Checking ADL.log size=221898
080409 134947.32 NCDBG:cd34[1] NCDBG: Status= ++
080409 134947.32 NCDBG:79c8[1] NCDBG: MSG Processed : xxxCHK D Received from task [0] @ 080409133552
```

7 Support

For technical support on QueueBuster, contact the Netcall Helpdesk on +44 207 570 8714. Technical support emails can be sent to customer.services@netcall.com.

8 Conclusion

These Application Notes describe the configuration steps required for successful interoperability of Netcall QueueBuster with Avaya Communication Manager using E1 trunks. All feature and serviceability test cases were completed successfully.

9 Additional References

This section references the product documentation that is relevant to these Application Notes.

- [1] *Administrator Guide for Avaya Communication Manager*, Doc ID: 03-300509, Issue 4, January 2008, available at: <http://support.avaya.com>.
- [2] The *QueueBuster User Guide* can be downloaded from the QueueBuster Customer Area (password required), available at: <http://www.hyperphonelink.com/NetCallWebInterface/Netcall/Engine/Load.aspx>.

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