

Avaya Solution & Interoperability Test Lab

## Application Notes for DuVoice DV2000 with Avaya Communication Manager Using Digital Station Interface – Issue 1.0

### Abstract

These Application Notes describe the configuration steps required for the DuVoice 2000 hospitality messaging system to interoperate with Avaya Communication Manager. In the compliance testing, the DuVoice DV2000 used the digital station interface from Avaya Communication Manager to provide automated attendant, voicemail, and wake-up call features.

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

The DuVoice DV2000 is a hospitality messaging system that provides automated attendant, voicemail, and wake-up call features. The compliance testing focused on integrating DuVoice DV2000 with Avaya Communication Manager using the digital station interface.

In the test configuration shown in **Figure 1**, the TN2224 Digital Line card in Avaya Communication Manager was connected to the Dialogic D/82JCT-U PBX Integration Board in DuVoice DV2000. The digital ports were configured as digital stations with type "7434ND" and members of a hunt group on Avaya Communication Manager. Incoming calls to the hunt group were delivered over an unavailable digital station to DuVoice DV2000. DuVoice DV2000 used the digital station display information from Avaya Communication Manager to determine the type of call and hence the service to provide - such as automated attendant for incoming trunk calls, voicemail and wake-up call scheduling for internal calls, and voicemail coverage for redirected calls.

For voicemail coverage scenarios, the voicemail messages were recorded and saved on DuVoice DV2000. The Leave Word Calling feature on Avaya Communication Manager was used by DuVoice DV2000 to turn on/off the message waiting lamp for internal user stations such as the guests and the hotel staff.

DuVoice DV2000 also has a Property Management System (PMS) interface, and a PMS simulator was used in the compliance testing to initiate the room check-in, check-out, and move requests to DuVoice DV2000. In addition, the InnDesk web interface of DuVoice DV2000 was used in the compliance testing to monitor the guest check-in, check-out, and wake-up call status.



Figure 1: DuVoice DV2000 with Avaya Communication Manager

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# 2. Equipment and Software Validated

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

Equipment	Software
Avaya S8500 Server	Avaya Communication Manager 5.0, R015x.00.0.825.4
<ul> <li>Avaya G650 Media Gateway</li> <li>TN799DP C-LAN</li> <li>TN2224CP Digital Line</li> </ul>	HW01 FW024 HW08 FW015
Avaya 4600 Series IP Telephones (H.323)	2.9
Avaya 9600 Series IP Telephones (H.323)	2.0
DuVoice DV2000 • Dialogic D/82JCT-U PBX Integration Board	4.00.067 SR 6.0

## 3. Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager. The procedures fall into the following areas:

- Administer system parameters features
- Administer feature access codes
- Administer digital stations
- Administer hunt group
- Administer class of service
- Administer system parameters coverage forwarding
- Administer coverage path
- Administer user stations

### 3.1. Administer System Parameters Features

Use the "change system-parameters features" command to disable **Temporary Bridged Appearance on Call Pickup**, which is located on **Page 4**.

```
change system-parameters features Page 4 of 17

FEATURE-RELATED SYSTEM PARAMETERS

Reserved Slots for Attendant Priority Queue: 5

Time before Off-hook Alert: 10

Emergency Access Redirection Extension:

Number of Emergency Calls Allowed in Attendant Queue: 5

Maximum Number of Digits for Directed Group Call Pickup:4

Call Pickup on Intercom Calls? y Call Pickup Alerting? y

Temporary Bridged Appearance on Call Pickup? n Directed Call Pickup? y

Extended Group Call Pickup: simple
```

Navigate to **Page 6**, and enable **7434ND**. This parameter allows for the use of "7434ND" as a station type.

change system-parameters features	Page 6 of 17
FEATURE-RELATED SYSTEM PAR	RAMETERS
Public Network Trunks on Conference Call:	: 5 Auto Start? n
Conference Parties with Public Network Trunks:	: 6 Auto Hold? n
Conference Parties without Public Network Trunks:	: 6 Attendant Tone? y
Night Service Disconnect Timer (seconds):	: 180 Bridging Tone? n
Short Interdigit Timer (seconds):	: 3 Conference Tone? n
Unanswered DID Call Timer (seconds):	: Intrusion Tone? n
Line Intercept Tone Timer (seconds):	: 30 Mode Code Interface? n
Long Hold Recall Timer (seconds):	: 0
Reset Shift Timer (seconds):	: 0
Station Call Transfer Recall Timer (seconds):	: 0 Recall from VDN? n
DID Busy Treatment:	: tone
Allow AAR/ARS Access from DID/DIOD?	? n
Allow ANI Restriction on AAR/ARS?	? n
Use Trunk COR for Outgoing Trunk Disconnect?	? n
7405ND Numeric Terminal Display?	? n 7434ND? y

### 3.2. Administer Feature Access Codes

Use the "change feature-access-codes" command, navigate to **Page 3** and enter available access code values for **Leave Word Calling Send A Message** and **Leave Word Calling Cancel A Message**, as shown below.

```
change feature-access-codes
                                                                Page
                                                                       3 of
                                                                              9
                               FEATURE ACCESS CODE (FAC)
            Leave Word Calling Send A Message: *28
          Leave Word Calling Cancel A Message: #28
  Limit Number of Concurrent Calls Activation:
                                                       Deactivation:
              Malicious Call Trace Activation:
                                                       Deactivation:
        Meet-me Conference Access Code Change: *30
PASTE (Display PBX data on Phone) Access Code: *31
 Personal Station Access (PSA) Associate Code: *32
                                                       Dissociate Code: #32
       Per Call CPN Blocking Code Access Code: *33
     Per Call CPN Unblocking Code Access Code: #33
                   Posted Messages Activation: *34
                                                       Deactivation: #34
                 Priority Calling Access Code: *35
                           Program Access Code: #35
```

#### 3.3. Administer Digital Stations

Add a station for each connected digital port to DuVoice DV2000 using the "add station n" command, where "n" is an available extension number. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Type:** "7434ND"
- **Port:** The digital port connected to DuVoice DV2000, in this case "01A0801".
- Name: A descriptive name.

```
add station 62501
                                                                      1 of
                                                               Page
                                                                             6
                                    STATION
Extension: 62501
                                        Lock Messages? n
                                                                      BCC: 0
    Type: 7434ND
                                        Security Code:
                                                                       TN: 1
    Port: 01A0801
                                                                       COR: 1
                                      Coverage Path 1:
                                                                      COS: 1
    Name: DuVoice Digital #1
                                     Coverage Path 2:
                                     Hunt-to Station:
STATION OPTIONS
                                          Time of Day Lock Table:
                                  Personalized Ringing Pattern: 1
             Loss Group: 2
            Data Module? n
                                                Message Lamp Ext: 62501
         Display Module? y
       Display Language: english
                                                 Coverage Module? n
         Survivable COR: internal
                                               Media Complex Ext:
   Survivable Trunk Dest? y
                                                    IP SoftPhone? n
                                             Remote Office Phone? N
```

Navigate to **Page 2**. Enter "none" for **LWC Reception**. Enter "y" for **LWC Activation**, **Restrict Last Appearance**, and **Display Client Redirection**. Retain the default values in the remaining fields.

add station 62501	Page 2 of 6
	STATION
FEATURE OPTIONS	
LWC Reception: none	Auto Select Any Idle Appearance? n
LWC Activation? y	Coverage Msg Retrieval? y
LWC Log External Calls? n	Auto Answer: none
CDR Privacy? n	Data Restriction? n
Redirect Notification? y	Idle Appearance Preference? n
Per Button Ring Control? n	Bridged Idle Line Preference? n
Bridged Call Alerting? n	Restrict Last Appearance? y
Active Station Ringing: singl	e
H.320 Conversion? n	Per Station CPN - Send Calling Number?
Service Link Mode: as-ne	eded
Multimedia Mode: basic	2
MWI Served User Type:	Display Client Redirection? y
AUDIX Name:	Select Last Used Appearance? n
	Coverage After Forwarding? s

Navigate to **Page 4**, and remove the default "call-appr" assignment for **BUTTON ASSIGNMENTS 3**. Retain the default values in the remaining fields.

add station 62501			Page	4 of	6
	STATIO	4			
SITE DATA					
Room:		Headset	? n		
Jack:		Speaker	? n		
Cable:		Mounting	: d		
Floor:		Cord Length	: 0		
Building:		Set Color	:		
ABBREVIATED DIALING List1:	List2:	List3:			
BUTTON ASSIGNMENTS					
1: call-appr	6:				
2: call-appr	7:				
3:	8:				

Repeat this section to administer a station for every connected digital port to DuVoice DV2000. For the compliance testing, two stations were administered as shown below.

Solution & Interoperability Test Lab Application Notes ©2008 Avaya Inc. All Rights Reserved. 6 of 23 DuVoice-Digital

#### 3.4. Administer Hunt Group

Add a hunt group using the "add hunt n" command, where "n" is an available hunt group number. For **Group Name**, enter a descriptive name. For **Group Extension**, enter an available extension number.

add hunt-group 62Page1 of60HUNT GROUPHUNT GROUPN50Group Number:62ACD?n50Group Name:DuVoiceDigital HuntQueue?nGroup Extension:62500Vector?n50Group Type:ucd-miaCoverage Path:5050TN:1Night Service Destination:5050COR:1MM Early Answer?n50ISDN/SIP Caller Display:5555

Navigate to Page 3, and enter the digital station extensions from Section 3.3 as members.

```
add hunt-group 62

HUNT GROUP

Group Number: 62

Member Range Allowed: 1 - 1500

GROUP MEMBER ASSIGNMENTS

Ext

Name(19 characters)

1: 62501

DuVoice Digital #1 14:

2: 62502

JuVoice Digital #2 15:

3:

16:
```

### 3.5. Administer Class of Service

Use the "change cos" command to enable **Client Room** for the class of service designated for the guest users. In the compliance testing, class of service "6" was used for all guest users.

change cos												Pag	je	1	of	2	
CLASS OF SERVICE																	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Auto Callback	n	У	У	n	У	n	У	n	У	n	У	n	У	n	У	n	
Call Fwd-All Calls	n	У	n	У	У	n	n	У	У	n	n	У	У	n	n	У	
Data Privacy	n	n	n	n	n	У	У	У	У	n	n	n	n	У	У	У	
Priority Calling	n	У	n	n	n	n	n	n	n	У	У	У	У	У	У	У	
Console Permissions	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Client Room	n	n	n	n	n	n	У	n	n	n	n	n	n	n	n	n	
Restrict Call Fwd-Off Net	У	У	У	У	У	У	У	У	У	У	У	У	У	У	У	У	
Call Forwarding Busy/DA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Personal Station Access (PSA)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Extended Forwarding All	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Extended Forwarding B/DA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Trk-to-Trk Transfer Override	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
QSIG Call Offer Originations	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Contact Closure Activation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

### 3.6. Administer System Parameters Coverage Forwarding

Use the "change system-parameters coverage-forwarding" command to disable **Keep Held SBA at Coverage Point**, as shown below.

```
change system-parameters coverage-forwarding
                                                                       1 of
                                                                              2
                                                                Page
               SYSTEM PARAMETERS CALL COVERAGE / CALL FORWARDING
CALL COVERAGE/FORWARDING PARAMETERS
         Local Cvg Subsequent Redirection/CFWD No Ans Interval (rings): 2
       Off-Net Cvg Subsequent Redirection/CFWD No Ans Interval (rings): 2
                         Coverage - Caller Response Interval (seconds): 4
    Threshold for Blocking Off-Net Redirection of Incoming Trunk Calls: 1
                         Location for Covered and Forwarded Calls: called
COVERAGE
                                        Keep Held SBA at Coverage Point? n
       External Coverage Treatment for Transferred Incoming Trunk Calls? n
       Immediate Redirection on Receipt of PROGRESS Inband Information? n
                                              Maintain SBA At Principal? y
                                           Station Hunt Before Coverage? n
```

### 3.7. Administer Coverage Path

Add a coverage path using the "add coverage path n" command, where "n" is an available coverage path number. For the **Point1** field, enter "h62" to designate the hunt group from **Section 3.4** as the first coverage point. This coverage path will be assigned to all user stations that use the DuVoice DV2000 for voicemail, including guests and staff.

add coverage path 6			Page 1 of 1
5 1	COVERAGE I	PATH	-
Coverage	Path Number: 6		
		Hunt a	fter Coverage? n
Next	Path Number:	Linkag	e
COVERAGE CRITERIA			
Station/Group Status	Inside Call	Outside Call	
Active?	n	n	
Busy?	У	У	
Don't Answer?	У	У	Number of Rings: 2
All?	n	n	
DND/SAC/Goto Cover?	У	У	
Holiday Coverage?	n	n	
COVERAGE POINTS			
Terminate to Coverage F	ts. with Bridged	d Appearances?	n
Point1: h62 Rr	lg: Point2:		
Point3:	Point4:		
Point5:	Point6:		

#### 3.8. Administer User Stations

Set the coverage path for each guest and staff user by using the "change station n" command, where "n" is the existing user's extension. For the **Coverage Path 1** field, enter the coverage path number from **Section 3.7**.

If the user is a guest, then enter the class of service number from Section 3.5 for the COS field.

change station 60201	Pag	ge 1 of	5
	STATION		
Extension: 60201	Lock Messages? n	BCC:	0
Type: 4620	Security Code: *	TN:	1
Port: S00000	Coverage Path 1: 6	COR:	1
Name: DuVoice Basic Guest	Coverage Path 2:	COS:	6
	Hunt-to Station:		
STATION OPTIONS			
	Time of Day Lock Table:		
Loss Group: 19	Personalized Ringing Pattern:	1	
	Message Lamp Ext:	60201	
Speakerphone: 2-way	Mute Button Enabled?	У	
Display Language: english	Expansion Module?	n	
Survivable GK Node Name:			
Survivable COR: internal	Media Complex Ext:		
Survivable Trunk Dest? y	IP SoftPhone?	У	
	IP Video Softphone?	n	
	Customizable Labels?	У	

Repeat this section to set the coverage path for every guest and staff user that will use the DuVoice DV2000 for voicemail, and set the class of service for every guest user. In the compliance testing, two guest users and two staff users were configured, as shown below.

list station	60201 co	unt 5					
			STATIONS				
Ext/ Hunt-to	Port/ Type	Name/ Surv	GK NN	Move	Room/ Data Ext	Cv1/ Cv2	COR/ Cable/ COS Jack
60201	S00000 4620	DuVoice	Basic Guest	no		6	1 6
60202	S00166 4625	DuVoice	Extended Gue	st no		6	1 6
64201	S00002 9630	Duvoice	Front Desk	no		6	1
64202	S00001 4620	DuVoice	Staff	no		6	1 1

## 4. Configure DuVoice DV2000

This section provides the procedures for configuring DuVoice DV2000. The procedures fall into the following areas:

- Shutdown server
- Administer integration template
- Administer voice ports
- Administer mailboxes
- Startup server

#### 4.1. Shutdown Server

From the DuVoice DV2000 server, select **Start > Programs > DuVoice > Server Control**. The **Server Control** screen is displayed. Select **Shutdown** to stop the server, in order to make all subsequent configuration changes.

	OK
Computer Name: DVSERVER	
System State: The system is running.	Startup
	Shutdowr
roduct Information	_
DV2000	Options
Duvoice Corporation Copyright (c) 2000-2008	
Serial number: 8060	
Serial number: 8060 Installation Date: 2008/12/02	
Serial number: 8060 Installation Date: 2008/12/02 Warranty Expiration: 2009/03/02 —	
Serial number: 8060 Installation Date: 2008/12/02 Warranty Expiration: 2009/03/02 — Version: 4.00.067	

### 4.2. Administer Integration Template

This configuration section is only needed when the values used for the Leave Word Call feature access codes and number of extension digits on Avaya Communication Manager, are other than the default values below that are assumed by DuVoice DV2000:

Parameter	<b>DuVoice DV2000 Defaults</b>
Leave Word Calling Send A Message	*4
Leave Word Calling Cancel A Message	#4
Number of Extension Digits	4

From the DuVoice DV2000 server, select **Start > Programs > DuVoice > System Configuration**. The **Enter Password** screen is displayed. Log in with the appropriate credentials.

ОК
Cancel

The **System Configuration** screen is displayed. Select **Integrations > Templates** from the top menu.

🚡 System Configurati	on					
Password Define Ports	Integrations Locations	Features Tools	Help			
Port Number	Templates	Hunt Group	PBX Template	Default Mailbox	Location	
	TAPI Integration					
	e					
						NUM //

The Manage Integration Templates screen is displayed next. Select the existing Avaya Digital template and click Edit.

Vame	Used	Modified	Edit
🛾 Avaya Digital	8	12/02/2008 13:20:07	Copy
			Delete
			New
			Import

The Avaya Digital Properties screen is displayed. Select the General tab, and click On code in the MWI Dial Codes section.

eneral   T	ransfer   Inband   Disconnec	t		
i.	- Port Dial Codes	MWI Dial Code	98	
	System start up	On code	Default MWI Method	
	System exit	Off code	Inband	•
	On hook	Use same p	- port to deactivate	
	Off hook	Serial Integration	on	
	Initialization	None	💌 Deta	ils
1	Port Idle Strobe	Abandoned po	ort restart code	
	Jutanual (Inco)	Deglare	port code	
		Reverse deg	lare port code	
		Trim off Dialtone	(100 = 1 Second)	
		Inter-Digit Delay	(100 = 1 Second) [250	<b></b>

The **PBX Code Editor** pop-up window is displayed. Select the **Build dial string** field, and click **Edit** to set the field value to the **Leave Word Calling Send A Message** feature access code from **Section 3.2**.

Action	Data	OK
Build dial string Sleep Add extension to dial	*28 1 second string	Cancel
Dial		Edit
		Up
		Down
		Delete

The Avaya Digital Properties screen is displayed again. Click Off code in the MWI Dial Codes section.

Ē	Port Dial Codes	MWI Dial Code	•\$	- 22
	System start up	On code	Default MWI Method	
	System exit	Off code	Inband	-
	On hook	Use same p	port to deactivate	
	Off hook	- Serial Integratio	on	
	Initialization	None	💌 Details	
[	Port Idle Strobe	Abandoned po Deglare p	ort restart code	
	Interval (Tms)	Reverse degl	are port code	
		Trim off Dialtone Inter-Digit Delay	(100 = 1 Second) 0 *	

Solution & Interoperability Test Lab Application Notes ©2008 Avaya Inc. All Rights Reserved. The **PBX Code Editor** pop-up window is displayed. Select the **Build dial string** field, and click **Edit** to set the field value to the **Leave Word Calling Cancel A Message** feature access code from **Section 3.2**.

PBX Code Editor		×
Action	Data	ОК
Build dial string Sleep Add extension to dial	#28 1 second string	Cancel
Ulai		Edit
		Up
		Down
		Delete
Select the PBX code t	o add	<u> </u>

The Avaya Digital Properties screen is displayed again. Select the Inband tab. Click on Edit **RNA code**, and add a new code of "rrrrr\_sssss" to accept five digits extensions, as shown below.

Click on **Edit subscriber login code**, and add a new code of "\_eeeee" to accept five digits extensions, as shown below.

Avaya Digital Properties	5		×
General Transfer Inba	and Disconnect		
	Wait for digits time out (10ms	) <b> 111</b>	
	Number of digits to get	11	
	Edit busy code	xb-b	
	Edit RNA code	rrrrr_sssss 🔻	
	Edit always forward code		
	Edit immediate record code	▼	
	Edit subscriber login code	_eeeee 🔽	
	Save	Save As Cancel	Help

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### 4.3. Administer Voice Ports

From the **System Configuration** screen, select **Define Ports** > **Voice Ports** > **Define a Range of Voice Ports** from the top menu.

\Xi System	Configuration					_ 🗆 ×
Password	Define Ports I	ntegrations Locations Features Tools	Help			
Port Numb	Voice Ports	Define a Voice Port	PBX Template	Default Mailbox	Location	
	FAX Ports	Define a Range of Voice Ports				
1 7		Remove a Voice Port				
I		Remove Range of Voice Ports				
Create a ran	ige of new ports					NUM /

The **Port Creation Wizard** is displayed. Follow the **Port Creation Wizard** to create the appropriate number of voice ports, and assign the default **Avaya Digital** integration template from **Section 4.2** to the new voice ports.

Welcome to the Port Creation Wizard! The following dialogs will guide you through the port definition process. When you create a range of ports, the attributes you select will be incorporated into all the newly created ports. If you already have a port on the system with the attributes you wish the new ports to have, you can use that port as a model and apply those attributes to the newly created range.
To continue, click Next.

At the completion of the **Port Creation Wizard**, the newly created voice ports will appear in the **System Configuration** screen, as shown below. Right click on the first voice port entry, and select **Open** from the drop-down list.

Reserved Define Ports In	tegrations Location	r Features Tools	Help			
Port Number	Extension	Hunt Group	PBX Template	Default Mailbox	Location	
Voice Port Number 1	0		Avaya Digital	991	Default Location	Open
🛣 Voice Port Number 2	0		Avaya Digital	991	Default Location	Copy Delete
						Arrange Icons New

The Voice Port Number 1 screen is displayed. For Extension number, enter the corresponding digital station extension from Section 3.3 that is physically connected to the voice port, in this case "62501". For Hunt group extension is a member of, enter the hunt group extension from Section 3.4.

Voice Port Number 1		×
Port Configuration		
PBX Port Integration Extension number Hunt group extension is a PBX integration file Port Owner / Location Info External IVR filename Assigned location: Application: Owner mailbox number:	62501       member of       62500       Avaya Digital       ormation       Default Location       Default       991	Details Details
	OK Cancel	Apply Help

Repeat this procedure for every voice port. For the compliance testing, two voice ports were administered as shown below.

Password Define Ports In	tegrations Location	ns Features Tools	Help			
Port Number	Extension	Hunt Group	PBX Template	Default Mailbox	Location	
🛣 Voice Port Number 1	62501	62500	Avaya Digital	991	Default Location	
🛣 Voice Port Number 2	62502	62500	Avaya Digital	991	Default Location	

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#### 4.4. Administer Mailboxes

From the DuVoice DV2000 server, select **Start > Programs > DuVoice > Mailbox Administration**. The **Enter Password** screen is displayed. Log in with the appropriate credentials.

Enter Password	
Estavour examined	OK
Enter your password	Cancel

The **Mailbox Administration** screen is displayed next. Select **Mailbox > Create** from the top menu.

File Configuration Mailbox Templates Help							
	Create	n First name	Туре	Description	Location	New messages	Last login
± Type	Delete	Operator	Standard	Operator	Default Location	0	0000/00/00 00:00
<ul> <li>Language</li> <li>Search Results</li> <li>Recently Change</li> <li>Recently Creates</li> <li>Selected</li> </ul>	Edit	Directions greet	System	Audio Text	Default Location	0	2008/02/12 10:42
	Import	System Reserved	System	Main Greetings	Default Location	0	2008/02/12 10:31
	Import	System Reserved	System	Disconnect	Default Location	0	0000/00/00 00:00
	Restore	System Reserved	Standard	Fax Storage	Default Location	0	0000/00/00 00:00
	Range Create Search	-					100000000000000000000000000000000000000

The **Create Mailbox** screen is displayed next. For **Mailbox Number**, enter the first guest user extension from **Section 3.8**, in this case "60201". For **Mailbox Type**, select "Guest" from the drop-down list. Retain the default values in the subsequent screen.

Create Mailbox		
Mailbox Number 60201		
Create Based On:		î
Mailbox Type	Guest	
C Mailbox Template	AudioText	<u> </u>
Guest mailbox.		
	ОК	Cancel

Repeat this procedure to add a mailbox for every user extension from **Section 3.8**. For the compliance testing, two mailboxes were administered for the two guest users with mailbox type "Guest", and two mailboxes were administered for the two staff users with mailbox type "Standard", as shown below.

				1				r
+ All	Mailbox	Extension	First name	Туре	Description	Location	New messages	Last login
± Type	0	64201	Operator	Standard	Operator	Default Location	0	0000/00/00 00:00
+ Language	500	500	Directions greet	Directions greet System	Audio Text	Default Location	0	2008/02/12 10:42
- Search Results	991	991	System Reserved	System	Main Greetings	Default Location	0	2008/02/12 10:31
Recently Changed	999	999	System Reserved	System	Disconnect	Default Location	0	0000/00/00 00:00
Becently Created	9000	9000	System Reserved	Standard	Fax Storage	Default Location	0	0000/00/00 00:00
Colorbod	60201	60201	Guest Room 60201	Guest		Default Location	0	2008/03/12 10:05
Selected	60202	60202	Guest Room 60202	Guest		Default Location	1	2008/03/12 10:04
	64201	64201	Standard 64201	Standard		Default Location	0	2008/02/12 13:11
	64202	64202	Standard 64202	Standard		Default Location	0	2008/02/12 13:16

#### 4.5. Startup Server

From the DuVoice DV2000 server, select **Start > Programs > DuVoice > Server Control**. The **Server Control** screen is displayed. Select **Startup** to start the server.

system Information	ОК
Computer Name: DVSERVER	
System State: The system is not running.	Startup
Product Information	Shutdowr
DV2000	<b>.</b>
DuVoice Corporation Copyright (c) 2000-2008 Serial number: 8060	- Uptions
Installation Diate: 2008/12/02 Warranty Expiration: 2009/03/02	
Version: 4.00.067 Hotfix: None	

# 5. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on DuVoice DV2000:

- Automated attendant navigation for incoming trunk calls, such as transfer to guests and staff, direction playback, and collection of calling party name for staff transfer with call screening.
- Handling of voicemail messages and message waiting lamps for check-in, check-out, and move requests initiated via the PMS simulator.
- Voicemail recording, logging, and retrieval, with proper message waiting lamp activation/deactivation.
- Scheduling and delivering of wake-up call requests, including retried attempts and escalation to staff.

The serviceability testing focused on verifying the ability of DuVoice DV2000 to recover from adverse conditions, such as disconnecting and reconnecting the digital line cables to DuVoice DV2000.

### 5.1. General Test Approach

All tests were performed manually. The verification included the use of the DuVoice DV2000 InnDesk web interface to monitor the guest check-in, check-out, and wake-up call status.

### 5.2. Test Results

All tests were executed and passed.

## 6. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager and DuVoice DV2000.

From the DuVoice DV2000 server, select **Start > Programs > DuVoice > Port Activity**. The **Port Activity View** screen is displayed. Verify that all voice ports are in the **IDLE** state, as shown below.

🖀 Port Activity View				
File View Tools 1: IDLE Calls[0] ID[None]	06:39 12/4/2008	terren a		
2: IDLE Calls[0] ID[None]	06:39 12/4/2008			
Total Hours: 10733	Calls In: 93		Calls Out: 86	

Make an incoming trunk call to the hunt group. Verify that the calling party hears the greeting announcement from DuVoice DV2000, and that the **Port Activity View** screen indicates an active connection to one of the voice ports, as shown below.

🖀 Port Activity View			
File View Tools			
2: IDLE Calls[0] ID[None]	06:39 12/4/2008		
Total Hours: 10733	Calls In: 93	Calls Out	: 86 //

Check in some guests, create voice messages, and schedule wake-up calls. Access the DuVoice DV2000 web interface by using the URL "http://ip-address" in an Internet browser window, where "ip-address" is the IP address of the DuVoice DV2000 server. Verify that the screen below shows the correct status of the guest check-in, voice messages, and wake-up calls requests.

DuVoice - Orea	tioni December	8th 2008 at 06	1518		Access: Limited   Username: AnonymousUser   Login
In	n	De	25	<b>k</b>	
Home DID	List Help				
		1			Refresh
	Pendi	ng Wakeup	Calls		Failed Wakeup Calls Today
Room	Sch	eduled		Attempts	None
60201	12/08/2	008 at 08:15		0	Rooms Checked Out
	Roo	ms Checked	In		
Room	ame N	laid Status	Text Msgs	. Voice Msgs.	Koom Maid Status lext Msgs.
60201 Guest R 60202 Guest R	oom 60201 oom 60202	Dirty Dirty	0	1	
				InnDesk b v.1.09 -	Home y: DuVoice.com 4.00.067.000

## 7. Support

Technical support on DuVoice DV2000 can be obtained through the following:

- **Phone:** (425) 250-2393
- Email: <u>support@duvoice.com</u>

## 8. Conclusion

These Application Notes describe the configuration steps required for DuVoice DV2000 to interoperate with Avaya Communication Manager. All feature and serviceability test cases were completed successfully.

## 9. Additional References

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

- *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 4.0, Release 5.0, January 2008, available at <u>http://support.avaya.com</u>.
- *System Reference Guide*, 3<sup>rd</sup> Edition, Version 4.00.065, October 2008, available on the DuVoice DV2000 server as part of the installation.

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