

# Abstract

DuVoice DV2000 hospitality server allows ShoreTel® IP switches to be used in hospitality applications. In addition to guest and staff voice messaging, DuVoice provides an interface between the ShoreTel IP switch and the Property Management System (PMS), guest and staff controlled wake up calls, and staff administration access via a Web console.

### **Table of Contents**

Table of Contents	I
Overview	2
Features and Benefits	2
Guest Messaging	2
Staff Messaging	2
Guest Wake-up Calls	2
Integration with any PMS	2
Track Housekeeping	2
Easy Staff Training	3
DuVoice Overview and Contact Info	3
DuVoice Product Information	3
DuVoice Architectural Overview	4
Requirements	4
Limitations	5
Version Support	5
Certification Testing Results Summary	5
Table 1- Basic Feature Test Cases	5
DuVoice Configuration Overview	6
Port Configuration	6
SIP Connector	7
Hospitality Configuration	8
ShoreTel Configuration Overview	9
ShoreTel Configuration	9
ShoreTel System Settings – General	10
,	

Call Control Settings:	11
Figure 4 – Administration Call Control/Options	11
Figure 5 – Call Control/Options	12
SIP Profiles:	12
Figure 6 – SIP Profiles	12
Figure 7 – Edit SIP Server Profile	13
SIP Servers:	14
Figure 8 – Edit SIP Server Profile	14
Figure 9 – SIP Server New Screen	15
Switch Settings - Allocating SIP Proxy Ports	16
Figure 10-Administration Switches	16
List of Primary Switches	17
Figure 11 – Edit ShoreGear Switch	17
Site Settings	17
Figure 13 – Sites	18
Figure 14 – Edit User Group	19
Figure 15 – Adding/Editing Users	20
DuVoice Troubleshooting	21
DuVoice Technical Support	22
Document and Software Copyrights	22
Trademarks	22
Disclaimer	22
Company Information	22

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The ShoreTel Technical Support organization will provide Customers with support of ShoreTel's published software interfaces. This does not imply any support for the Member's solution directly. Customers or reseller partners will need to work directly with the Member to obtain support for their solution.

## **Overview**

The DV2000 hospitality solution consists of guest messaging software, wakeup call software, PMS interface software and optional call accounting software on a 2U rack mount Windows 7 PC.

A TCPIP or serial link between the PMS server and the DuVoice hospitality server provides a variety of automated functions and features.

The ShoreTel "Hospitality Service" allows the DuVoice to change class of service on guest room extensions and add the guest name into the ShoreTel based on information received from the PMS upon check in and check out.

DuVoice also offers web server software that provides staff with access to guest administration features through "InnDesk" which is a web console.

Hospitality call accounting (Metropolis) can also be hosted on the same server with the DV2000 application.

## **Features and Benefits**

### **Guest Messaging**

The DV2000 system provides guest mailboxes which are easy for any guest to use. Extended stay features can also be implemented where guests can record personal greetings and set a mailbox password. Mailboxes will be reset automatically upon check out – archiving messages, removing wake up calls, turning off message lights and routing callers to the operator from a checked out room.

### **Staff Messaging**

DuVoice recommends using the ShoreTel voice messaging for staff but the DuVoice server can be used for staff messaging as well. Messaging features for staff include enterprise class staff messaging that provides voicemail messages to a staff member's email. Note: The 3<sup>rd</sup> party voice messaging option from ShoreTel is required for the "Message" button on ShoreTel telephones to operate.

### **Guest Wake-up Calls**

Guests can schedule their own wake up calls from their telephone via touch-tones, or they can request staff to schedule the call for them. With the easy to use InnDesk Web console, staff can set the wakeup call using any PC on the hotel network through the web console. Staff can also use a special staff Touch-tone User Interface (TUI) to set wake up calls from any telephone. The system can be configured to retry wake up calls for a preset number of attempts. In the event that all calls go unanswered, the system can generate a notification call to staff to alert them of the failed wake up call. A detailed report of wakeup call activity is available to staff. The guest is presented a friendly wake up call announcement and even has the ability to snooze the wakeup call for 10 minutes. The announcement can be recorded by hotel staff or professional studio talent.

### **Integration with any PMS**

DuVoice supports integration with any Property Management System. There are many different vendors and protocols that support various features. While DuVoice has relationships with many PMS companies, DuVoice can appear to the PMS software as a popular hospitality PBX. This allows compatibility with any PMS vendor. Basic features such as check in, check out and room clean/dirty are supported by most PMS companies. More advanced features such as setting wake up calls through the PMS are also available on some PMS integrations.

### **Track Housekeeping**

From a room, housekeeping staff can enter a special code using the guest room telephone to indicate that they are working in that room. Upon completion of room cleaning, staff can enter a code to indicate that the room is clean, still dirty or in need of maintenance. DuVoice can send that update information to the PMS depending on the system in use.



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### **Easy Staff Training**

The intuitive InnDesk allows for quick staff training – especially important in the hospitality industry where staff turnover is always an issue. Flash training videos at <u>www.duvoice.com</u> are also available to the hotel staff.

## **DuVoice Overview and Contact Info**

DuVoice has created messaging solutions since 1990. Since the mid-1990's, DuVoice has place a special focus on providing messaging solutions to the hospitality industry. Product development, technical support and professional services combine to make DuVoice a leader in the industry.

For general sales questions, please contact your reseller or contact DuVoice directly at:

The DuVoice Sales Department	Resellers who want to start selling this solution should
800.888.1057	contact:
sales@duvoice.com	The DuVoice Sales Department 800.888.1057,
www.duvoice.com	sales@duvoice.com
	www.duvoice.com

## **DuVoice Product Information**

DV2000 with the 2U rack mount chassis shown



A turnkey system from DuVoice includes a 2U rack Windows 7 PC. The DuVoice software can also run under VMWare running Hypervisor.





## Requirements

This application requires the following:

- DV4 or DV2000 turkey server or software only (Win 7 stand alone or VMWare session)
- ShoreTel Hospitality Service on the ShoreWare Director server
- Serial or IP connection to PMS



- Optional Call Accounting Software (Metropolis or SDD is recommended)
- ShoreWare External Unified Messaging SIP Link license if the DuVoice system is to be used for staff messaging.

# Limitations

- Using ShoreTel analog gateways guest rooms will require analog telephones with FSK message waiting lights or IP telephones. Telematrix hospitality telephones (<u>www.cetisgroup.com</u>) have the FSK message waiting lights as an option. Standard hotel telephone neon or LED message waiting lamps are not supported by ShoreGear analog extensions but are supported by TTP approved Audiocodes gateways.
- Must run ShoreTel 11.1 Build 16.23.7305 (or above)

# **Version Support**

The table below contains the matrix of DuVoice versions certified on the identified ShoreTel software releases. Products listed in the table below were certified via the Technology Partner Program certification process for the ShoreTel system.

DuVoice Version	5.00.031 or above
ShoreTel 11.1	$\checkmark$

# **Certification Testing Results Summary**

ID	Name	Description	Results
	Port Function		
1.1	Call each VM port in turn	Each port answered	Pass
1.2	Call each VM port in turn	Each port integrated	Pass
	Stations		
1.3	Call VM hunt group from	Answered into guest mailbox	Pass
	Station		
1.4	Station to RNA Station	Answered with correct MB Greeting	Pass
1.5	Station to Busy Station	Answered with correct MB Greeting	Pass
	MWI		
1.6	Leave first new message	MWI ON	Pass
	in MB		
1.7	Retrieve last new	MWI OFF	Pass
	message in an MB		
1.8	Room Extension User	Use the Front Desk application to check the guest in	Pass
	Group	and out, then confirm the room User Group in the	
		ShoreTel changes upon check in and check out.	
4.0			
1.9	Wake Up Call Testing	Set an automatic wake up while in a room to call back	Pass
		In a rew moments.	

### Table 1- Basic Feature Test Cases



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ID	Name	Description	Results
1.10	Multiple wake up calls	Use InnDesk, and create an automatic wake up at a scheduled time to a range of rooms and verify multiple phones received the wake up call.	Pass
1.11	Text message notification – MWI ON	Use InnDesk, configure "Text message count" to a value greater than 0. Guest room phone notified of text message with flashing MWI.	Pass
1.12	Text message notification – MWI OFF	Guest contacts front desk for text message. Front desk sets "Text message count", using InnDesk, to a value of 0, MWI stops flashing on guest room phone.	Pass
1.13	Automatic Call Forward to voice mail – DND (Do Not Disturb)	Configure guest room phone to "DND". Place call to guest room phone, call is forwarded to voice mail.	Pass
1.14	Automatic Call Forward to voice mail – DND (Do Not Disturb) MWI ON	Configure guest room phone to "DND". Place call to guest room phone and leave voice message. Guest room phone indicates voice message received with flashing MWI	Pass
1.15	Wake up call received with DND (Do Not Disturb) enabled	Configure guest room phone to "DND". Use InnDesk, create an automatic wake up. Wake up call rings guest phone.	Pass

## **DuVoice Configuration Overview**

These steps will guide you through configuring your system to connect with the ShoreGear SIP Proxy via SIP. For more information please see the DuVoice Manual located on the system desktop, also located in the DuVoice folder in the Start Menu or online at http://manual.duvoice.com.

### **Port Configuration**

Run System Configuration from the start menu located in the DuVoice folder.

🛣 System Configuration						×
<u>Password</u> <u>D</u> efine Ports	Integrations Loca	itions <u>F</u> eatures	<u>T</u> ools <u>H</u> elp			
Port Number	Extension	Hunt Group	PBX Template	Default Mailbox	Location	
🕱 Voice Port Number 1	348		ShoreTel	991	Default Location	
🛣 Voice Port Number 2	348		ShoreTel	991	Default Location	
🛣 Voice Port Number 3	348		ShoreTel	991	Default Location	
🛣 Voice Port Number 4	348		ShoreTel	991	Default Location	
Ready						//

Double click Voice Port Number 1.

Voice Port Number 1	×
Port Configuration   SIP Configuration   SIP	
PBX Port Integration	
Extension number 348	
Hunt group extension is a member of	
PBX integration file Shore Tel	Details
Port Owner / Location Information	
External IVR filename	
Assigned location: Default Location 👻	Details
Application: Default	
Owner mailbox number: 991	
OK Cancel	Apply Help

Enter the extension number associated with the DuVoice system configured in Shoreware Director under SIP Servers.

Click **SIP Configuration** tab.

Voice Port Number	r1				×
Port Configuration	SIP Configuration	SIP			
Display name			Account name	348	_
User agent	DuVoice		Password		_
Local Port	5060		Domain		
				I Enable Register	
		ОК	Cancel	<u>A</u> pply H	elp

- a. Enter the extension number assigned to the DuVoice system under Account name.
- b. Check Enable Register.
- c. Leave all other fields as default.

Click **Ok** to save changes.

For all other channels enter the same extension number as port 1 and confirm **Enabled Register** is not checked.

SIP Connector

Select Features | Connectors | SIP



Connectors					- • •
Connectors System Details ACM Inventory Server D-IP Office Room Status Server ShoreTel SIP Univerge / Sphere	SIP Location Registrar address Local address Register expire time I	Default Location 10.40.12.39 10.40.12.75 3600 +	seconds		
			ОК	Cancel	Аррју

- a. Enter the IP address of the ShoreGear SIP Proxy Switch for **Registrar address**.
- b. Confirm the IP address located in the **Local Address** field is that of the network connection currently being used on the system. If the system has multiple network connections this might be different.
- c. Check **SIP Trunk**.
  - **Note**: DuVoice does not connect to the ShoreGear SIP Proxy Switch as an external trunk; however this field must be checked for proper SIP registration.

Click **Ok** to save changes.

#### **Hospitality Configuration**

Select Features | Connectors | ShoreTel

Connectors				- • •
System Details	ShoreTel			
···· Inventory Server	Name or IP address	10.40.12.10		
IP Office	TCP/IP Port	8097		
ShoreTel	Interval (seconds)	90 -		
Univerge / Sphere	Retries	3 •		
			ОК	Cancel <u>A</u> pply

This configures the DuVoice for changing user names and User Groups via the ShoreTel Hospitality Server Interface provided by ShoreTel.

- a. Enter the IP address for the ShoreTel Headquarter Server.
- b. Check **Enable**.

Click **Ok** to save changes.

Choose Features | Hospitality | Phone Control



Hospitality Configuration				
General	Phone Control			
Maid Codes Phone Control	PBX Type: Shore Tel Auto-set phone state on I▼ Check-in: Checked In I▼ Check-out: Checked Out User group restrictions / call restrictio To edit an entry, left-click on it. For	Call acco Type: Enable Disable Vodavi-s Outdial n values all other actions, right-cli	Call accouting Type: -none Enabled: -no change Disabled: -no change Vodavi-specific settings Outdial prefix: 470	
	Display Text	PRX Value	PMS Value	
	Checked In Checked Out	In Service Out of Service	1.10 1000	
	Active PMS: DuVoice (DUVOICE	)		
		[	OK Ca	ncel <u>A</u> pply

This configures the DuVoice Hospitality interface for sending changes to the ShoreTel Headquarter Server when interfacing with a Property Management System (PMS).

- a. Select **ShoreTel** for **PBX type**.
- b. Enter User Groups associated with guest rooms under User group restrictions.
  - i. **Display Text** field is used for staff only.
  - ii. **PBX Value** must be set to the exact case sensitive name of the User Groups configured on the ShoreTel Headquarter Server.
  - iii. **PMS Value** varies depending on your installed PMS and is not covered in this document. Please see the DuVoice manual for more information.
- c. If phones should be automatically configured at check in or check out choose the appropriate groups under **Auto-set phone state on**.

## **ShoreTel Configuration Overview**

The configuration information below shows examples for configuring ShoreTel, and DuVoice for an External Voice Mail System via SIP. Even though configuration requirements can vary from setup to setup, the information provided in these steps, along with the ShoreTel Planning and Installation Guide and documentation provided by DuVoice should prove to be sufficient. However, every design can vary and some may require more planning than others.

## **ShoreTel Configuration**

Set up the DuVoice system as an External Voice Mail System. The DuVoice Server needs to be configured as a third-party messaging system on the ShoreTel system as a SIP Unified Messaging Server.

Install the ShoreTel Hospitality Service on the ShoreWare Director server to allow DuVoice systems to change the guest name and User Group on their ShoreTel system.



Create two user groups for the hotel room phones, In Service and Out of Service, and set the restrictions accordingly.

Use the settings outlined in the screen shots below.

## ShoreTel Hospitality Service

An available ShoreTel designed service installed on the ShoreWare Director server which enables the DuVoice system to change the name and User Group associated with a guest room phone when guests check in/out.

- · Changing the name insures hotel staff phones display the guest's name on the phone's display.
- Changing the User Group enables control of the calling permissions for each room (e.g. reducing call permissions for unoccupied rooms, increasing them at check in).

The ShoreTel Hospitality Service enables these functions but requires a compatible DuVoice system to initiate the changes.

ShoreTel Professional Services has created the Hospitality Service solution to allow external property management systems to initiate user name and User Group changes on their ShoreTel system. This can ensure, for example, when a hotel guest checks into a room, the guest's name will appear on their ShoreTel room phone and the User Group of the phone will be changed to allow the desired calling access (i.e. to make external long distance calls). When a guest checks out, the name on the phone can be reset to a generic name (e.g. "Room 234") and the User Group can be reset to "house phone" access.

The Hospitality Service is a Windows install package consisting of STHospitalitySetup.exe and STHospitalitySetup.msi files. Copy both these files to a permanent location anywhere on the ShoreWare Director server and execute STHospitalitySetup.exe, accepting all defaults.

The default install location is "C:\Program Files\ShoreTel\Hospitality Service". The service itself will appear in the Windows Services Control Panel under the name "STPS Hospitality Service". This service must be running for the Hospitality Service to perform its function. It should begin running automatically upon install and upon server startup (e.g. after a reboot).

The Hospitality Service can function only when installed on the ShoreWare Director server.

Requests to change the name and/or User Group of a ShoreTel user must be initiated by an external automated system such as a property management system. The ShoreTel Hospitality Service will not take any action without such external stimulus.

Order the ShoreTel Hospitality Service from ShoreTel using SKU 93080 "Professional Services Custom Software".

### ShoreTel System Settings – General

The first settings to address within the ShoreTel system are the general system settings. These configurations include the Call Control, SIP Servers, the Switch Settings and the Site Settings.



## **Call Control Settings:**

The first settings to configure within ShoreWare® Director are the Call Control Options. To configure these settings for the ShoreTel system, log into ShoreWare Director and select "Administration" then "Call Control" followed by "Options" (**Figure 4**).

<b>Shore</b> Tel <sup>®</sup>				
ShoreWare Director				
Build 16.22.9109.0 Logoff TPP				
Administration				
Users				
Trunks				
• IP Phones				
Switches				
Call Control				
<ul> <li>Account codes</li> <li>Bridgod Call</li> </ul>				
<ul> <li>Appearances</li> <li>Hunt Groups</li> </ul>				
• Paging Groups				
<ul> <li>Pickup Groups</li> </ul>				
<ul> <li>Route Points</li> </ul>				
<ul> <li>Supported Codecs</li> </ul>				
<ul> <li>Codec Lists</li> </ul>				
o Options 🚽 🛶 🛶 🛶				
<ul> <li>Voice Mail</li> </ul>				

## Figure 4 – Administration Call Control/Options

The "Call Control/Options" screen will then appear (Figure 5).

<b>Shore</b> Tel <sup>®</sup>	Call Control Options	Save	<u>R</u> eset <u>Help</u>
ShoreWare Director	Editable second	Defeet this sees	
Build 16.22.9109.0 Logoff TPP	General:	Refresh this page	
Build 16.22.9109.0 Logoff TPP Administration • Users • Trunks • IP Phones • Switches • Primary • Spare • Call Control • Voice Mail • Auto-Attendant Menus • Workgroups • Schedules • Communicator • System Directory • Application Servers • Conference Bridges • IM Servers • SIP Servers • Sites • System Parameters • Preferences Maintenance • Quick Look • Voice Mail Servers • Switch Connectivity • Conference Ports • Event Log • Services • Event Filters	Edit this record         General:         Use Distributed Routing Service for call rou         Enable Monitor / Record Warning Tone.         Enable Silent Coach Warning Tone.         Generate an event when a trunk is in-use for         Park Timeout (1-100000) after 60         Hang up Make Me Conference after 20         Delay before sending DTMF to Fax Server:         DTMF Payload Type (96 - 127):         SIP:         Realm:         Enable SIP Session Timer.         Session Interval (90 - 3600):         Refresher:         Voice Encoding and Quality of Service:         Maximum Inter-Site Jitter Buffer:         DiffServ / ToS Byte (0-255):         Media Encryption:         Admission control algorithm assumes RTP	Refresh this page uting. or 240 minutes. seconds. minutes of silence. 2000 102 ShoreTel 3600 Caller (UAC) 300 0 None header compression is b	msec sec msec (DSCP = 0x0)
Reports     Options	Always Use Port 5004 for RTP (This option Trunks or SIP Extensions. This feature is incom	n is unavailable because y mpatible with SIP devices	your system utilizes SIP Servers, SIP
Shorelel			

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## Figure 5 – Call Control/Options

Disabling the parameter "Always Use Port 5004 for RTP" is required for implementing SIP on the ShoreTel system. For SIP configurations, Dynamic User Datagram Protocol (UDP) must be used for RTP Traffic. If the parameter is disabled, Media Gateway Control Protocol (MGCP) will no longer use UDP port 5004; MGCP and SIP traffic will use dynamic UDP ports. Once this parameter is disabled (unchecked), make sure that "everything" (IP Phones, ShoreGear® Switches, ShoreWare Server, Distributed Voice Mail Servers / Remote Servers, Conference Bridges and Contact Centers) is "fully" rebooted – this is a "one time only" item. By not performing a full system reboot, one-way audio will probably occur during initial testing.

NOTE: As of ShoreTel Release 8, the parameter "Always Use Port 5004" is disabled (unchecked) on new installations. The parameter "Always Use Port 5004" will appear if an upgrade to ShoreTel Release 8 (and above) from a previous release lower than ShoreTel Release 8 was performed.

### **SIP Profiles:**

Within ShoreWare® Director are the SIP Profiles. To configure these settings for the ShoreTel system, log into ShoreWare Director and select "Administration" then "SIP Servers..." followed by "SIP Profiles". Select the "New..." button to create a new SIP Profile (**Figure 6**).



Figure 6 – SIP Profiles

A new SIP Profile screen is displayed (Figure 7).

<b>Shore</b> Tel <sup>®</sup>	SIP Profile Edit SIP Server Profile	e New Copy Save Delete	Reset Help
ShoreWare Director		-	
Build 16.22.9109.0	Edit this record	Refresh this page	
Administration • Users	Name:	DuVoiceHospitality	
<ul><li>Trunks</li><li>IP Phones</li><li>Switches</li></ul>	Priority:	100	
Call Control     Voice Mail	Enable		
<ul> <li>Auto-Attendant Menus</li> <li>Workgroups</li> <li>Schedules</li> <li>Communicator</li> <li>System Directory</li> <li>Application Servers</li> <li>Conference Bridges</li> <li>IM Servers</li> <li>SIP Servers</li> <li>SIP Servers</li> <li>SIP Profiles</li> </ul>	System Parameters: Custom Parameters:	AddrSupport=diversion acceptMWI=notify	
<ul> <li>Sites</li> <li>System Parameters</li> <li>Preferences</li> </ul>	Warning! Please use S     customization may lead to fa	ShoreTel's recommended SIP profile configurations to aulty operation of telephone features.	o ensure optimal functionality. Improper
Maintenance	@ 1998-2010 ShoreTel, Inc. All right	ts reserved.	

## Figure 7 – Edit SIP Server Profile

Enter the SIP Server Profile information to create a new SIP Profile.

- a. Name: This parameter is the label by which Director refers to the profile
- b. User Agent: This parameter is the expression ShoreWare uses to identify devices covered by the profile, it is not used by the SIP servers. The profile cannot be saved without a value, so you should define it as '.\*' (without the single quotes, should just be period followed by the asterisk).
- c. **Priority**: This parameter lists the status of the profile. The default is 100 and there is no need to modify this parameter.
- d. **Enabled**: This check-box controls whether the profile is available for use. The default is not enabled (not checked) be sure to enable / check this option
- e. System Parameters: This field lists the device characteristics and default settings.
- f. Custom Parameters: The contents of this field list additional device settings or overwrite default settings listed in the System Parameters field. Make sure to include the following entries in the Custom Parameters (note these are case sensitive):
  - i. AddrSupport=diversion
  - ii. acceptMWI=notify
- g. Click Save to store your changes

**Note:** Please do not disable any of the default SIP Profiles. In case there are issues with the custom profile defined, disabling the system profiles may cause DuVoice to not be added to the ShoreTel system. Refer to the ShoreTel Administration Guide for more information.



## SIP Servers:

Within ShoreWare® Director are the SIP Servers. To configure these settings for the ShoreTel system, log into ShoreWare Director and select "Administration" then "SIP Servers..." followed by "SIP Servers". Select the "New..." button to create a new SIP Server (**Figure 8**).

ShoreTel	SI	P Serve	rs							<u>Help</u>
ShoreWare Director	SI	Server Lis	t				0 records check	ed.		
Build 16.22.9109.0 Logoff TPP						Override Default			Voice Mail	Fax
Administration		Name	Extension	Site	Host	Port	SIP Profile	Protocol	Enabled	Enabled
• Users • Trunks		DuVoice	348	Sunnyvale TPP Lab	10.40.12.75		DuVoiceHospitality	UDP	No	No
<ul> <li>IP Phones</li> <li>Switches</li> <li>Call Control</li> <li>Voice Mail</li> <li>Auto-Attendant Menus</li> <li>Workgroups</li> <li>Schedules</li> <li>Communicator</li> <li>System Directory</li> <li>Application Servers</li> <li>Conference Bridges</li> <li>IM Servers</li> <li>SIP Servers</li> <li>SIP Servers</li> </ul>	<u>© 19</u>	198-2010 Shore	Tel, Inc. All rig	hts reserved.				<u>-</u>		

Figure 8 – Edit SIP Server Profile

A new SIP Server screen is displayed (Figure 9).

C SIP Server Info - Windows Inter	net Explorer
http://10.40.12.10/shorewaredirector/	SIPServer.asp?ID=2&sipsvrdn=348&siteid=1&name0=DuVoice&ip 💙
Name:	DuVoice
Site:	Sunnyvale TPP Lab 💌 🔫
Protocol:	UDP
Host (Name / Address / Domain):	10.40.12.75 Ping
Override Default Port:	
Allow External Voice Mail for Ex	tension-Only User 🗲
Allow Fax Redirect to This Serv	er
Extension:	348
Assigned User Group:	Executives
SIP Profile:	DuVoiceHospitality
Digest Authentication:	<none></none>
User ID:	
Password:	
<u></u> <u>S</u> ave	Close Previous Next
Done	😜 Internet 🔍 100% 👻 🛒

## Figure 9 – SIP Server New Screen

Enter the SIP Server information to create a new **SIP Server**. Once the parameters are populated, click "**Save**" to store your changes.

Table 6 displays the SIP Server configuration fields and descriptions.

Field	Description
Name:	Enter an appropriate descriptive server name
Site:	Select the appropriate site location
Protocol:	Select UDP
Host (Name/Address/Domain):	Enter the IP address of the DuVoice server
Override Default Port:	Leave blank



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Allow External Voice Mail for Extension-Only User	Check this parameter (see Note below)
Allow Fax Redirect to This Server	Leave blank
Extension:	The system will automatically assign the next available extension, however you can define a different unused extension.
Assigned User Group:	Assign an appropriate user group that has access to the necessary trunks, in this example we selected the "Executives" user group.
SIP Profile:	Enter the SIP profile created in previous step, see <b>Figure 7</b> .
Digest Authentication:	Leave this as <none></none>
User ID:	Leave blank
Password:	Leave blank

Table 6 - SIP Server Info Requirements

NOTE: Checking the "Allow External Voice Mail for Extension-Only User" option will require the ShoreWare External Unified Messaging SIP Link license from ShoreTel.

### Switch Settings - Allocating SIP Proxy Ports

When allocating SIP Proxy Ports, the changes are modified by selecting "Administration," "Switches" then "Primary" in ShoreWare Director (Figure 10)





### Figure 10 – Administration Switches

### **List of Primary Switches**

This action brings up the "Primary Switches" screen. From the "Switches" screen, simply select the name of the switch to configure. The "Edit ShoreGear ...Switch" screen will be displayed (see Figure 11). Within the "Edit ShoreGear ...Switch" screen, define one of the "Port Type" settings from the available ports to "100 SIP Proxy", then save the change.

Switches Edit Shore	Gear 120/24 Switch	New	<u>C</u> opy <u>Save</u>	<u>D</u> elete <u>R</u> eset
Edit this rec	ord	Refresh this pa	ge	
Name:		TPP-SG120-3		
Description:				
Site:		Sunnyvale TPF	Lab	
IP Address:		10.40.12.39	Find Switches	)
Ethernet Add	lress:	00-10-49-05-93-	D	
Server to Mar	nage Switch:	Headquarters	~	
Caller's Eme	rgency Service Identification	n (CESID):	(e.g. +1 (408) 331-3	300)
Music O	n Hold Source			
TP	Pretel LAN 1 LAN 2 • • • • • • • • • • • • • • • • • • •	MAINT EXT 9		ShoreGear-120/24
Port	Port Type	Trunk Group	Description	Jack Number
1 Edit	Extension ⊻	~	SMDI	
2 Edit	Extension 😪	~	SMDI	
3 Edit	Extension 😪	~	SMDI	
4	5 IP Phones Y	~	P04	
5	5 IP Phones M	×	P05	
6	5 IP Phones	×	P06	
7	100 SIP Proxy 💌 <	~	P07	

### Figure 11 – Edit ShoreGear Switch

If the ShoreGear switch that you have selected has "built-in" capacity (i.e., ShoreGear 50/90/220T1/E1, etc.) for IP phones and SIP trunks, you can also remove 5 ports from the total number available to provide the "100 SIP Proxy" configuration necessary.

**Note:** Every 5 ports you remove from the total available will result in "100 SIP Proxy" ports being made available.

One dedicated ShoreGear 120 switch can act as a proxy for the entire site and support up to 2400 SIP phones.

#### **Site Settings**

The next settings to address are the administration of sites. These settings are modified under the ShoreWare Director by selecting "Administration" then "Sites" (Figure 12).





### **Figure 12 – Administration/Sites**

This selection brings up the "Sites" screen. Within the "Sites" screen, select the name of the site to configure. The "Edit Site" screen will then appear. Scroll down to the "SIP Proxy" parameters (Figure 13).



Two ShoreGear switches can be configured as SIP proxy servers for redundancy and reliability purposes.

The "Virtual IP Address" parameter is a new configuration parameter beginning with ShoreTel 8. This "Virtual IP Address" is an IP address that can be moved to a different switch during a failure. For each site that supports SIP extensions, one "Virtual IP Address" is defined that will act as the SIP Proxy for the site. This IP address must be unique and static.

The ShoreTel server will assign this "Virtual IP Address" to the ShoreGear that is configured as SIP proxy for the site. Two ShoreGear switches can be configured as SIP proxy servers for redundancy and reliability purposes. If the primary proxy server goes down, the other proxy switch will take over the "Virtual IP Address." Due to this "Virtual IP Address" mechanism, SIP phones will not know if the proxy switch goes off-line.

**Note:** If you choose not to define a "Virtual IP Address," you can only define one proxy switch, and there will be no redundancy or failover capabilities. The switches available in the "Proxy Switch 1 / 2" will only be shown if proxy resources have been enabled on the switch.

### **User Groups**

Within ShoreWare Director, select "Administration", then "Users…" followed by "User Groups". In the "User Groups" screen select "Add new". This action brings up the "Edit User Group" screen (Figure 14).

ShoreTel <sup>®</sup>	User Groups Edit User Group	New Copy Save Delete Reset Help
ShoreWare Director		
Build 16.22.9109.0	Edit this record	Refresh this page
Logoff TPP	Name:	In Service
Administration • Users	COS - Telephony:	Fully Featured Go to this Class of Service
<ul> <li>Individual Users</li> <li>User Groups</li> </ul>	COS - Call Permissions:	No Restrictions Go to this Class of Service
<ul> <li>Class of Service</li> <li>Anonymous</li> </ul>	COS - Voice Mail:	Large Mail Box Go to this Class of Service
Telephones	Send Caller ID as Caller	's Emergency Service Identification (CESID).
Batch Update	Send DID as Caller's En	nergency Service Identification (CESID).
• Call Handling	Account Code Collection:	Disabled 🗸
Mode Defaults     Trunks	Show ShoreTel Commu	nicator users a list of account codes when dialing.
<ul> <li>Switches</li> <li>Call Control</li> <li>Voice Mail</li> <li>Auto-Attendant Menus</li> <li>Workgroups</li> <li>Schedules</li> <li>Communicator</li> <li>System Directory</li> <li>Application Servers</li> </ul>	Outgoing Trunk Groups (Access Code):	<ul> <li>Analog Loop Start (9)</li> <li>Digital Loop Start (9)</li> <li>Digital Wink Start (9)</li> <li>PRI (8)</li> <li>PRI tie to Powerbar (9)</li> </ul>
<ul> <li>Conference Bridges</li> <li>IM Servers</li> <li>SIP Servers</li> <li>Sites</li> <li>System Parameters</li> <li>Breforences</li> </ul>	Voice Mail Interface Mode:	External Voice Mail SIP
Preferences	User Profile:	
Maintenance • Ouick Look	Toolbar 1:	<none> Y Go to this Toolbar</none>
Voice Mail Servers     Switch Connectivity	Toolbar 2:	None> Go to this Toolbar
Conference Ports     Event Log	Toolbar 3:	<none> Go to this Toolbar</none>



#### Users

<b>Shore</b> Tel <sup>®</sup>	Users New	Copy Save Delete Reset
ShoreWare Director	Edit User	
Build 16.22.9109.0 Logoff TPP	👻 General 🕨 Perso	onal Options > Distribution Lists > Workgroups Refresh this page
Administration • Users • Individual Users • User Groups • Class of Service • Anonymous Telephones • Extension Lists • Batch Update Utilify • Call Handling Mode Defaults • Trunks • IP Phones • Switches • Call Control • Voice Mail • Auto-Attendant Menus	First Name: Last Name: Number: License Type: Access License: Caller ID: DID Range: DID Number: PSTN Failover:	Guest Room I16 Extension-Only Personal (e.g. +1 (408) 331-3300) +12023604608 (1 of 1 available) inGate / EtherSpeak View System Directory (Range: +12023604608 - 12023604608) None
<ul> <li>Workgroups</li> <li>Schedules</li> <li>Communicator</li> <li>System Directory</li> <li>Application Servers</li> <li>Conference Bridges</li> <li>IM Servers</li> <li>SIP Servers</li> <li>SIP Servers</li> <li>SIP Servers</li> <li>Sites</li> <li>System Parameters</li> <li>Preferences</li> </ul>	User Group: Site: Language: Primary Phone Port: Current Port:	In Service Go to this User Group Sunnyvale TPP Lab English(US) O IP Phones IP110 O Ports TPP-SG120-2 - 3 O SoftSwitch CallCopy IP110 Go Primary Phone
Maintenance • Quick Look • Voice Mail Servers • Switch Connectivity • Conference Ports • Event Log • Services • Event Filters Reporting • Reports • Options	Jack #: External Mailbox through Server: □ Accept Broadcast Messages ☑ Include in System Dial By N □ Make Number Private Fax Support:	DuVoice V ame Directory

### Figure 15 – Adding/Editing Users

Define the "First Name" and "Last Name" as you deem appropriate. ShoreWare Director will auto-assign the next available "Number" (i.e., extension), but you can modify it to any available extension. Define the "License Type" as "Extension-Only". Define the proper "User Group" and set "External Mailbox through Server" to the name of your DuVoice SIP Server (created in **Figure 9**)

**Note:** If you configured the "License Type" for "Extension-Only," you cannot select "Any IP Phone" but instead must set the "Home Port" for the "SoftSwitch" selection. Save your changes

This completes the settings for the ShoreTel System.

# **DuVoice Troubleshooting**

The following tests should be performed after installation.

Integration	Testing
<b>D</b> / <b>D</b>	- 12 - I-

Р	Port Function	
	Call each VM port in turn	Each port answered
	Call each VM port in turn	Each port integrated

#### Stations

Call VM hunt group from Station	Answered into guest mailbox
Station to RNA Station	Answered with correct MB Greeting
Station to Busy Station	Answered with correct MB Greeting
Trunk to Busy Station	Answered with correct MB Greeting
Trunk to RNA Station	Answered with correct MB Greeting

#### MWI

Leave first new message in MB	MWI ON
Retrieve last new message in a MB	MWI OFF

#### Property Management Interface Testing

Confirm that PMS Interface application is correctly receiving data from the PMS system. Use the FrontDesk application to verify the status of the guest room upon check in and check out. Also confirm that the room User Group in the ShoreTel changes upon check in and check out.

#### Wake Up Call Testing

Set a automatic wake up while in a room to call back in a few moments.

#### Call Accounting Testing

When call accounting software is installed on system, you will need to confirm that the Station Message Detail Report (SMDR) is being received and sorted correctly.

# **DuVoice Technical Support**

DuVoice technical support can be reached by calling 425-250-2393 or emailing support@duvoice.com. Normal support hours are from 7:00 AM to 6:00 PM Monday through Friday Pacific time. Leaving a voice mail message after hours will page a technician who will return the call. Please have the system key number available when calling technical support. This number can be found on the software dongle which will be connected to a parallel printer port or USB port on the DuVoice server.

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