ShoreTel
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ShoreTel Inc.

Voice Mail Switch Quick Reference Guide

Revision 1

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8/27/2010

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

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VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Knowing the Basics of the V-Switch

What is a Voice Mail Switch? (aka V-Switch, **V**oice **M**ail **I**n a **B**ox (VMIB), VMB)

Voicemail Model Switches are ShoreGear switches that provide voicemail services and access to auto attendant menus for extensions hosted by the switch. Voicemail Model (V Model) switches provide local access to voicemail while being controlled by the Headquarters or a Distributed Voice Server as do all other ShoreGear switches.

Are V-Switches deployed in a similar fashion to the ShoreGear Switches?

V Model switches are deployed in the same manner as other ShoreGear 1-U Half Width switches and managed similarly to other switches and servers. Although, V-Switches are similar to other ShoreGear switches, they do have the addition of permanent flash and Compact Flash memory cards which provide local access to voicemail, automated scripts, and other services normally provided by the managing servers configure switch, voicemail, and server settings. The Device status is also monitored through the servers Director Maintenance windows.

Three ShoreGear switches operate as a ShoreGear voice switch and as a voice mail server:

- ShoreGear 90V
- ShoreGear 90BRIV
- ShoreGear 50V

Additional Details:

1. V Model switches have a slot on the left side of the chassis for accessing the CF card
2. V Model switches provide Voicemail and auto attendant services normally provided by the Main Server or a Distributed Server
3. The V Model switch portion runs on VxWorks and server functions run on Linux
4. The OS on other ShoreGear switches is VxWorks only. Other ShoreWare Servers run under Microsoft Windows
5. V Model switches do not support Simplified Message Desk Interface (SMDI)
6. Voicemail Model Switches use Qmail, instead of SMTP which is used by other Application Servers

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

What are the capacities of a V-Switch? *(See Administrators Guide for more details)*

Switch Model	Physical Ports	Software Ports	Voice Mailboxes	Simultaneous Voice Mail Calls
50V	6 Analog ports consisting of • 4 Trunks • 2 Extensions or DID Trunks	50 IP Phones 50 SIP Trunks 1000 SIP proxies Max	50 Mailboxes	9
90V	12 Analog Ports Consisting of • 8 Trunks • 4 Extensions or DID Trunks	90 IP Phones 90 SIP Trunks 1800 SIP Proxies Max	90 Mailboxes	9
90BRIV	4 Analog ports consisting of • 4 Extensions Digital Trunks consisting of • 8 BRI ports or 8 channels	90 IP Phones 90 SIP trunks 1800 SIP Proxies Max	90 Mailboxes	9

If my V-Switch is at capacity what happens to voice mail?

Application servers at remote locations can provide services to V Model switch User's when switch resource utilization is at capacity.

Voicemail file capacity depends on Compact Flash card size. 1-GByte cards can store up to 1500 minutes of audio data, translating into an average of more than 15 minutes for each SG 90V user. Voicemail services are provided directly to users from the switch through the IP Phone connected to the V Model switch. When users access voicemail through their computers, the V Model switch sends the file to a Main or Distributed Server, which then transmits the message to the PC.

When the Compact Flash is full, callers attempting to leave voice messages are told the mailbox is full. **Please note** that all Automated Attendant Menu's and Greetings are loaded onto each V Switch. Also, recorded names for all mailboxes on the system are stored on the compact flash of the switch. Lastly, each V Switch supports up to 4 languages, including the default language associated with its site.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

What Codec is used by the V-Switches?

V Model switches provide the same voice switch services as other 1-U Half Width Switches.

V Model switches store voicemail and Auto-Attendant information in 8-bit .wav (µ-law) format received through G.711 and G.729 codec's. The switches can negotiate ADPCM (DVI4/8000) and Linear (L16/8000) codec's. Each switch supports G.729 on trunks and extensions.

Each V Model switch utilize only the codec's residing on that switch. As with other 1-U Half Width Switches, V Model switch codec's cannot serve as a G.729 proxy.

Connectivity Requirements:

1. **NTP** (Network Time Protocol)
2. **FTP** (File Transfer Protocol)
3. **TMS** (Telephony Management Server)

Voicemail and auto attendant services require that the V model switch has connectivity with a Network Time Protocol (**NTP**) server. When backing up the V Switch, it requires FTP server connectivity. As data is backed up, it goes to the Main Server or to any computer with FTP server capabilities that must support RFC 959, the MDTM command, and the SIZE command.

While Distributed servers can manage the V model switch, switch applications depend on access to the database maintained on the Main server. Applications that run on these voice switches include voicemail and Telephone Management Server (TMS). ShoreTel Communicator clients connect only to the Main or Distributed Voice Servers, they are not managed by the V Switches.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Important Details on Accessing the V Switch:

1. Maintenance Port Connectivity via Serial Port **(19.2Kbs, 8, N, 1, No Parity, No Flow Control)**
2. PUTTY or another SSH client to connect to the VMB switch **(Host Name = IP Address of the V Switch, Port Field = 22, Connection Type = SSH)**
3. **Login** as **root** *(If you use the login of "admin" with the pw below, you will be taken directly to the STCLI command and will only have access to STCLI)*
4. **Password** is case sensitive and is **ShoreTel**
5. Enter command **stcli** for menu options

Options:

0 = Exit

1 = Show Version

2 = Show System Configuration

3 = Change System Configuration

4 = Reboot

5 = Shutdown

6 = Archive Logs

7 = Help

Additional information can be found in the Administrators Guide.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Frequently Asked Questions

Q: How much voicemail storage do the V switches have?
A: The SG-50V comes with a 1 GB compact flash card which supports up to 22 hours of voicemail storage. The SG-90V and SG-90BRIV each come with a 2 GB compact flash card which supports up to 56 hours of voicemail storage. A part of the flash memory is used for storing auto-attendant menus and voicemail prompts.

Q: What is the average mailbox size? Can I configure some mailboxes that are larger?
A: The average mailbox size (voicemail storage divided by number of mailboxes) is 26.4 min for SG-50V and 37.3 min for SG-90V and SG-90BRIV. However, you can configure mailboxes that are larger (or smaller) as long as the total voicemail storage required for all the mailboxes does not exceed the available capacity.

Q: Can I upgrade the compact flash card to provide more voicemail storage?
A: The field upgrade of the compact flash card is not supported at this time.

Q: How many V switches are supported per server?
A: A maximum of 100 V switches are supported per server.

Q: Why do I need a Network Time Protocol (NTP) time server configured for a V switch?
A: The NTP server provides a time reference which is used to timestamp voicemail messages and events.

Q: Do the V switches support n+1 redundancy?
A: Yes. The V switch n+1 redundancy works like the DVS n+1 redundancy. If the primary V switch hosting your mailbox fails, callers can leave new messages for you on a backup V switch (one of the n+1 switches). When your primary V switch comes back up, the messages will be copied back from the backup V switch to your primary switch. However, you cannot retrieve your messages until your primary switch resumes normal operation.

Q: Can I backup voice messages left on the V switch (like I do with the nightly backup on a DVS)?
A: Yes. You can configure the V switch (in Director) so that it would FTP the voice messages to a backup server every night.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Q: If the V switch hardware fails, can I retrieve the stored voice messages on its compact flash card?
A: If the V switch hardware other than the compact flash card itself fails, you can remove its compact flash card and bring it up on an identical replacement switch to retrieve the stored voice messages.

Q: If the compact flash card on a V switch fails (does not respond), can I RMA just the compact flash card?
A: No. If any part of the V switch fails, the entire V switch must be RMA'd.

Q: In a mixed voicemail environment, where some sites are using a V switch and some sites are using a DVS, can you failover from a DVS to a V switch and vice-versa? Is there any difference in voicemail functionality depending on how you failover?
A: Yes, a DVS can failover to a V switch and vice-versa. The only difference is that, unlike DVS, a V switch does not store all the recorded names, and, therefore, maybe be unable to play certain recorded names.

Q: How many auto-attendant menus are supported on V switches? How many languages?
A: The V switches support up to 256 auto-attendant menus and four languages.

Q: What is the minimum WAN bandwidth required for upgrading the firmware on a V switch at a remote site?

A: The WAN link from the switches FTP server (e.g., HQ) to the V switch must have a minimum available bandwidth of 64 kbps. To shorten the upgrade time, ShoreTel recommends 384 kbps of bandwidth (one-fourth of a full T1 bandwidth) which results in a firmware upgrade time of about 45 minutes. This upgrade time can be further reduced to about 20 minutes by using full T1 bandwidth.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Issues Encountered on the V Switch

VMB switch (50V/90V) appears to be down via Quick Look under Servers *(KB12933)*

Issue: A newly installed V switch (50V or 90V) is showing as down in the Server page within Quicklook

Scenario: VMB switches were not showing up as servers in quick look, but were showing connected in switches connectivity page.

Resolution: The switch must have a time server specified to function

To enable or configure a time server:

1. Use putty or another ssh client to connect to the VMB switch.
2. Login as root and password ShoreTel
3. Enter command stcli
4. Press 3 to change the settings
5. Press T to edit the time server ip
6. Enter the IP address of a time server
7. Press 0 to exit
8. Press 4 to reboot
9. Type "yes" to reboot
10. After rebooting, the switch will show up in quicklook correctly.

If the switch continues to show RED or DOWN in Quicklook please contact our Technical Assistance Center

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Not able to complete an ftp backup on a v switch *(KB14860)*

Issue: Not able to complete an ftp backup on v switch

Scenario: When trying to do an FTP backup for a V-switch, it keeps failing with EventID 100 "The server was unable to logon the Windows NT account <username> due to the following error: Logon failure: unknown user name or bad password"

Possible Resolution: Change password to exclude special characters (i.e. !, #, @) only use letters and numbers.

How can I verify the .wav files on a V-Switch *(KB14549)*

Issue: I have a SG50V or a SG90V switch and want to ensure the Auto Attendant Greetings on the switch match those on the Server.

Scenario: I'm hearing the backup Auto Attendant when I feel I should hear the AA greeting that I have recorded on the HQ Server. I want to ensure the greeting I recorded is now on the V-Switch.

Resolution: First you will need to find and listen to the wav file located on the HQ Server. These files are located on the hard drive (the drive depends on where the Shoreline Data folder is located) C:\Shoreline Data\Prompts

These are wav files that can be played using Windows Media Player.

To connect to the SG50V/SG90V switch,

1. Use putty or another ssh client to connect to the VMB switch.
2. Login as root and password ShoreTel
3. Type the command cd /cf/shorelinedata/Prompts (case sensetive)
4. Type the command ls -l

A list of wav files will appear.

Verify the wav file used by the AA is located in the list

If the wav file is not listed, **DO NOT** try to manually place it in the list. You will want to check SMTP traffic from the V Switch to the HQ Server. (***See KB654***)

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Steps to perform a "burnflash" on a VMB switch *(KB14279)*

Performing a burnflash on the VMB switches is done from the switch not the server.

NOTE: Performing a "burnflash" on a VMB switch deletes the entire configuration including ALL IP addresses and should only be done based on the recommendation of ShoreTel Escalations.

The switch will reboot and get an IP address via DHCP if available. It will be necessary to have access to the DHCP server to find the address in order to telnet to the switch to reconfigure the IP addressing. The other option is to have a console connection to reconfigure the IP addressing.

The steps to perform the "burnflash" on the VMB switch, is as follows:

1. Establish SSH session to the switch
2. Log in as root and pw of ShoreTel
3. type: svccli
4. type: burnflash
5. enter
6. allow at least 1 hour to complete.
7. get new IP address from DHCP server (or use console connection)
8. Establish SSH session to the switch
9. Re-enter all necessary ip configuration parameters, including NTP, DNS, SMTP
10. Reboot the V Switch

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

If swapping out my V switch, can I retain my voice mail messages? ***(KB12744)***

Issue: Swapping out V Switches

Scenario: If swapping out my V switch, can I retain my voice mail messages?

Resolution: Yes, there is a way to retain voice mail messages should you need to change out the V switch.

Steps to Replacing a V switch

When replacing a V Model switch, you can retain the voicemail contents on a CF card if the
replacement switch is the same model as the original.

To replace a V Model Switch and retain the voicemail on the original switch:

1. Remove the original switch from the ShoreTel network
2. Remove the plate covering the memory slot on the right side of the original switch
3. Remove the CF card from the memory slot
4. Remove the plate covering the memory slot on the right side of the replacement switch
5. Insert the CF card into the memory slot and replace the memory slot cover.
6. Connect the replacement switch into the network
7. In ShoreWare Director, open the Switches window by selecting Administration -> Switches
8. Open the Edit ShoreGear Switch panel by clicking the name of the replaced switch
9. Enter the MAC address of the new switch

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Phone FTP stops working after installing V switch *(KB12848)*

Issue: Our FTP Service is failing after installing a new ShoreGear V Switch

Scenario: We created a second FTP virtual site on the ShoreTel server specifically for the V Switch

Resolution: Creating a second FTP virtual site may prevent the phones from downloading correctly. Remove the 2nd FTP instance and confirm the phones can now FTP there configuration.

If you want to FTP the V series switch configuration to the ShoreTel server you can:

1. Create a 2nd FTP site using a port other than 21

2. Create a directory under INETPUB/FTPROOT and have the V series switch FTP to that directory. Note: This requires write access be enabled to the ShoreTel FTP server.

Are there any logs for the Qmail service on the V switches? *(KB15027)*

Question: Are there any logs for the Qmail service on the 50V or 90V switches?

Answer: Yes. If you need to determine why an email notification is not being delivered to a user on a V switch, the qmail.log file is very helpful.

To view this log:

1. Log into the V switch as root/ShoreTel

2. Type: cd /cf/qmail/logs/shoretel (Press enter)

3. Type cat qmail.log (This will result in the log streaming all the way through to the end)

4. Type cat qmail.log | more (This will result in the log being displayed one segment at a time - Pressing Enter and Spacebar will allow the log file to progress a line, or block of lines at a time)

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

How do I configure Smart Host for a V switch? *(KB14382)*

Issue: Configuring a SmartHost for a V Switch

Scenario: Need to setup a SmartHost for our V-Switch to properly boot up. How do I set up the smarthost for a V switch?

Resolution:

Login to V-switch as root/ShoreTel

Type: cd /var/qmail/control <press enter>
Type: vi smtproutes (in editing mode)

The screen will look something like this,
WHSG90V.com:WHSG90V.com
10.5.4.14:10.5.4.14
WHSG90V1.com:WHSG90V1.com
192.168.2.2:192.168.2.2
HEADQUARTERS.com:10.5.4.11
10.5.4.11:10.5.4.11
SANDEAGODVM.com:10.5.4.12
10.5.4.12:10.5.4.12
WH90VA.com:WH90VA.com
~
~
Press <Shift + O> . This will add a new line at the top of the screen

Type the customers company domain in caps and the customers exchange IP address , for example ACME.COM at 192.168.1.1 will look as follows:
ACME.COM:192.168.1.1
DO NOT USE YOUR NUMBER PAD. Use the numbers at the top of the ASDF portion of the keyboard.

How do I configure Smart Host for a V switch? *(KB14382)*
(Cont'd)

If you make a mistake, press <ESC>, then :q! (This should appear at the bottom of your screen as you type. If it is at the top of your screen, press <ESC> and then type the command again) and press <enter>. This should kick you back to the prompt, where you can restart the process.

If done correctly, the result will be as follows:

ACME.COM:192.168.1.1
WHSG90V.com:WHSG90V.com
10.5.4.14:10.5.4.14
WHSG90V1.com:WHSG90V1.com
192.168.2.2:192.168.2.2
HEADQUARTERS.com:10.5.4.11
10.5.4.11:10.5.4.11
SANDEAGODVM.com:10.5.4.12
10.5.4.12:10.5.4.12
WH90VA.com:WH90VA.com
~
~
When complete, Press <Esc>
Type :wq! (This is the command to save the changes and quit the document editor. The :wq! should appear at the bottom of your screen as you type it.)
Press <Enter>, then re-test the Voicemail to email notification.

See: http://www.lagmonster.org/docs/vi.html for more commands for the Linux VI text editor.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Voice Mail Notifications Not Working for VMB Switches (V Switches) *KB12960*

Issue: WAV files not attached for voice mail notifications

Scenario: By default most e-mail systems may block SMTP traffic from devices.

Resolution: When VMBs are deployed, if IT Administrators are blocking this traffic, they will need to add exceptions to allow this traffic from VMB switches.

How to identify?

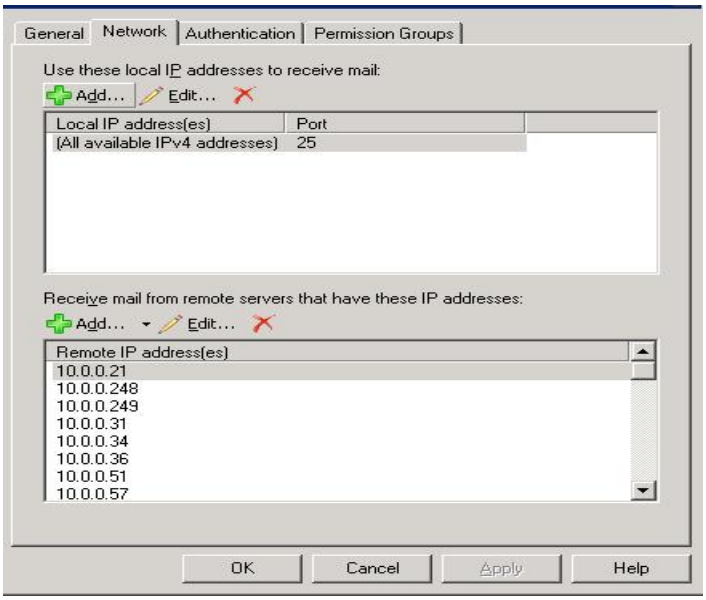
From the VMB switch, access the **current** file from the following location;

/cf/qmail/logs/send

You will see the following output,

@4000000049b85c203476afdc delivery 156: failure: Connected_to_10.0.0.88_but_sender_was_rejected./Remote_host_said:_530_5.7.1_Client_was_not_authenticated/

By default most e-mail systems may block SMTP traffic from devices. When VMBs are deployed, IT Administrators may be blocking this traffic, they will need to add exceptions to allow this traffic from VMB switches. An example of Exchange is shown below, accessed from Exchange Management Console>Server Configuration>Hub Transport> Receive Connectors path.



VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Restoring Voicemail messages and prompts on a single VMB switch

(KB13316)

This process restores all saved voicemail messages and prompts from the FTP server to a new CF card.

1. Console into the V switch
2. Log on to the V switch as root
3. Type svccli at the bash shell prompt. [root@name ~] # svccli
4. Type restorevm and press enter
5. Wait from a few seconds to minutes depending on the number of voicemail messages being restored
6. Check the HQ Event Log and wait until this message appears: “Voicemail restore succeeded” (see fig. c). If the message “Voicemail restore failed” appears, repeat the restorevm command above
7. Type getsvcstatus * at the shell prompt to verify that all the services are READY and mounted. The output should indicate that the CF card is operational
8. Type q to exit the svccli
9. Verify that all the messages have been restored by typing:

    a. [root@name ~] #cd /cf/shorelinedata/Vms/Message

    b. [root@name ~] # ls -ltr

    c. [root@name ~] # ls | wc

The restore voicemail process is now complete

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

How To: Repair corrupted compact flash on VMB *(KB12006)*

The CF card uses the Linux EXT3 file system. If the CF file system is grossly corrupted, it will not be mounted at startup time and many VMB services will not come up. This can happen in a couple of ways. If the system is power off rudely or Linux crashes, then any data that was left in RAM pending to be written to the CF card is probably lost. This could possibly include updates to the file system.

There is a file system checker utility that can be used to try and patch up the pieces.

Log in as "root" and run the command as described below from the bash shell

([root@<switch name or IP /]#).

Use the command:

e2fsck -f -v /dev/kcfa1

(**NOTE:** The last character is a one and not a lower case "L")

This will force a complete file system check and produce some verbose output when errors occur.

The user will be prompted with a yes/no choice to repair certain types of errors. If you do not type "y" for each it will timeout and scroll to the next one.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

User gets "no mailbox available" message when attempting to record mailbox name on VMB switch (KB14085)

VMB Vmail log shows:

Calling GetDiskFreeSpaceEx, Path= /cf/shorelinedata/Vms/Message

GetDiskFreeSpaceEx method failed, errno= 2
GetDiskFreeSpaceEx method failed, Please make sure this path exist: Path= /cf/shorelinedata/Vms/Message
Failed to get free disk space information: Error: 2 -

On the VMB switch, the Message directory had been removed.

Resolution:

If the Message directory is removed, the system will not automatically recreate it.

You must recreate the Message directory by the following steps:

1. cd /cf/shorelinedata/Vms

2. mkdir Message

Users will then be able to record name.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

V-switch services are not functioning *(KB12988)*

Issue: V switches are not playing prompts or voice mail messages

Scenario: There are several instances where V switches are not able to provide voicemail or play prompts.

Resolution: Often, the problem has the same root cause.

Log into the switch (using putty) and login via SSH. The username/password is "root/ShoreTel".

Run svccli to get into the services menu. Run "getsvcstatus" and make sure all services are enabled and running. If they are not, try to run "startsvc *". Try running "getsvcstatus" again. If the services have not restarted, hit "q" to go back to the shell.

Run the command "date", if it displays a date that is wildly off, (i.e. Jan 2, 1975), this indicates that the SNTP server was not able to be reached and this causes key services not to start.

To rectify this, run the command "stcli" to go to the configuration menu.

Verify connectivity to the NTP server, and change the IP or ensure that it can be reached from the switch. After the changes have taken effect, reboot.

Upon restart, verify that the date is correct with "date". Run "svccli" and run a "getsvcstatus" enter the services menu to verify that they are all running again.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

How to collect logs from V-Switch *(KB12976)*

- Setup an ftp server on the HQ or RM server to run on a unique port (other than 21) such as 8888. To do this go to the IIS Manager on the server, drill down to FTP Sites and add a new FTP site. Create a folder for this FTP site and give full permissions to write, read and access this FTP folder.

- ssh or serial into the VMB Switch. cd to /cf/shorelinedata/Logs folder.
  Zip the necessary files as follows
  tar -cf TarFile.tar File1.log File2.log .... etc
  This will tar (zip) File1.log, File2.log and all files specified and place them in the TarFile.tar file.

If you want to zip all files from a particular day (mar 23rd) then type

tar -cf TarFile.tar *0323*

- Now type ls -ltr. You should see the TarFile.tar in the list.

- To ftp this file into the Windows server type ftp 10.23.10.4 8888, with the right server IP address and ftp port number.
  Enter anonymous as user name. No need to enter any password. Type bin to enter into binary mode.
  Type mput TarFile.tar to upload this tar file into the server VMB FTP site that we created earlier.
  Type q to quit from the ftp application. You should see the TarFile.tar file in the FTP folder created for the VMB logs.

- Upload this file to Siebel as an attachment. This same logic can be applied for uploading core files from VMB switches.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

How can I verify the .wav files on a V-Switch *(KB14549)*

Issue: I have a SG50V or a SG90V switch and want to ensure the Auto Attendant Greetings on the switch match those on the Server.

Scenario: I'm hearing the backup Auto Attendant when I feel I should hear the AA greeting that I have recorded on the HQ Server. I want to ensure the greeting I recorded is now on the V-Switch.

Resolution: First you will need to find and listen to the wav file located on the HQ Server. These files are located on the hard drive (the drive depends on where the Shoreline Data folder is located) C:\Shoreline Data\Prompts

These are wav files that can be played using Windows Media Player.

To connect to the SG50V/SG90V switch,

1. Use putty or another ssh client to connect to the VMB switch.
2. Login as root and password ShoreTel
3. Type the command cd /cf/shorelinedata/Prompts (case sensetive)
4. Type the command ls -l

A list of wav files will appear.

Verify the wav file used by the AA is located in the list

If the wav file is not listed, **DO NOT** try to manually place it in the list. You will want to check SMTP traffic from V Swicth to the HQ Server. (See KB654)

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

SG90BRI-V Does Not Appear in Director *(KB14044)*

Issue: SG90BRI-V Does Not Appear in Director

Scenario: You are installing a new site in the U.K. They need an SG90BRI-V at that site. You open the "Switches" page and pull down the type menu. You find SG90BRI-V does not appear as a choice from the list of switches to use.

Resolution: In order for an SG90BRI-V switch to appear, you need to create a site that hosts a country that uses that switch. U.K. for example uses that switch, so if you create a site and select U.K. as the country, the SG90BRI-V switch will appear.

How to Set debug level to trace T.38 in V-Switch *(KB14360)*

This is used to trace logs in V-switch for T.38 debug

1. SSH to V-switch as root /PW
2. Goto CLI mode by command "cli"
3. Issue following commands in CLI:

```
CLI> trace_redirect 1
CLI> DEBUG_LEVEL 0xe00
CLI> sip_debug_level 2
CLI> ext_debug_level 1
CLI> sb_debug_level 1
CLI> mscmd_verbose 1
CLI> codec_debug 1
```

4. Copy all the logs from the console or set logs to a file.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

How to troubleshoot backup and restore issues in V-switch *(KB14361)*

How to troubleshoot backup/restore issues in V-switch.

1) ftpsync log file name/ location
   //cf/shorelinedata/Logs/ftpsync.Log
   If the backup/restore is successful, than ftpsync.Log file will have the following entry.
   main exit, backup/restore successful
2) ftp server write permission
   If the ftp server does not have write permission than ftpsync.Log file will have the following entry.
   "Putting file name failed: file name"
3) Look for .msg files in /cf/shorelinedata/Vms/Message folder
   If there are no files in present in /cf/shorelinedata/Vms/Message, backupvm command will not get called. Vmail log will have the following entry.
   BK: There are no .msg/wav files to backup, returning w/o calling Backupfiles present, so not calling backupvm
4) Look for smgr log file
   If ftpsync cannot finish the operation specified by the registry key ([ShoreTel/ServicesMgr/BackupRestore/VMail]\TimeoutSecs), than smgr kills ftpsync and tries to bring up ftpsync 3 (retry count) times.
   This retry count can be configured in the registry ([ShoreTel/ServicesMgr/BackupRestore/VMail]\Retries)
   These activities will be logged into smgr log.
5) Check for ftpsync time out value in the registry
   [ShoreTel/ServicesMgr/BackupRestore/VMail]\TimeoutSecs
6) Look for HQ event log
   HQ event log will have success/fail event logs.
   i.e. Services Manager received command backupvm from local svccli
   [2009/06/16 14:58:59.603 PDT 10.1.3.202]
   Voicemail backup succeeded
   [2009/06/16 14:59:32.425 PDT 10.1.3.202]
7) ftp server log file location.
   C:\WINDOWS\system32\LogFiles\MSFTPSVC1
8) Please note that ftp log file time stamps are in GMT.
9) Please check ftp server ip and directory in switch page from director for the particular V-switch.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

SC Error Messages on 90v switch (KB14314)

Issue: SC 4287/4243 Error Messages on 90v switch.

Scenario: Seeing a lot of application event warnings about 90v switch at a Houston remote site.

Event Type: Error
Event Source: ShoreWare
Event Category: VMS Services Manager
Event ID: 4287
Date: 11/5/2009
Time: 6:45:51 PM
User: N/A
Computer: SRV-VOIP
Description:
Compact Flash errors could not be corrected
[2009/11/05 19:44:45.273 CST 10.0.16.200]

Event Type: Warning
Event Source: ShoreWare
Event Category: VMS Services Manager
Event ID: 4243
Date: 11/5/2009
Time: 6:45:51 PM
User: N/A
Computer: SRV-VOIP
Description:
Service stts is not ready
[2009/11/05 19:41:53.258 CST 10.0.16.200]

Resolution: Running a Burnflash **(KB14279)** on the switch seemed to resolve this issue as events were not seen after the burnflash was completed. (*Make note that this was an exception as burnflashing a voice switch is not the recommended practice, but did work in this instance*). NTP server had to be re-entered.

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Debug Commands (KB13731)

This CLI debug tool works on VxWorks/Linux ShoreGear & Soft Switches.

To run the tool just type "dbg" on the switch CLI and the tool will guide you through.

dbg

=====For help on Switch CLI debugger type: dbg "help"

=====USAGE type: dbg "op [cmd] [val]"

Where valid operations are "man", "on", "off" and "set"

******EXAMPLES**********

dbg "man op (or) cmd"

dbg "on cmd1 [cmd2] ... upto 10 cmds"

dbg "off cmd1 [cmd2] ...upto 10 cmds"

dbg "set cmd val"

Using help command

dbg "help"

==========

WELCOME TO SWITCH CLI DEBUG TOOL

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=====USAGE type: dbg "op [cmd] [val]"

where valid operations are "man", "on", "off" and "set"

******EXAMPLES**********

dbg "man op (or) cmd"

dbg "on cmd1 [cmd2] ... upto 10 cmds"

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Debug Commands (KB13731)

dbg "off cmd1 [cmd2] ...upto 10 cmds"

dbg "set cmd val"

COMMONLY USED (COMBO) DEBUG COMMANDS

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Debug clear all.....clear

Debug any extension.....ext

Debug MGCP IPPhone.....ipphone

Debug SIP extension.....sipext

Debug any trunk.....trunk

Debug SIP trunk.....siptrunk

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SPECIFIC DEBUG COMMANDS

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Debug Extension CID.....cid

Debug Bridged call appearance....bca

Debug MWI.....mwi

Debug Fax redirection.....fax

Debug Office Anywhere.....oae

Debug MOH.....moh

Debug Local Auto Attendent.....baa

Dump MGCP protocol.....mgcp

Debug MGCP stack.....mgcpstack

VOICE MAIL SWITCHES (V-SWITCHES OR VMIB)

Debug Commands (KB13731)

Debug MGCP transaction mgr.....mgcptrans

Debug Phone Display.....ipdt

Debug SIP Interface.....sipintf

Debug SIP Proxy.....sipproxy

Debug SIP Registrar.....sipreg

Dump SIP protocol.....sip

Debug ShoreSIP UA.....ssua

Debug Codec negotiation.....codec

Debug ShoreSIP transaction mgr...ssuatrans

Debug LSP.....lsp

Debug Admission control.....adm

Debug MediaProxy.....mp

Debug Media switchboard.....sb

Debug Dialplans.....dnp

Debug tel config.....sw

Dump NCC Events.....ncc

Debug Switch-TMS interface.....tmsd

Using man command

dbg "man ext"

Dumps ext task debug traces. Can be set for all ext types

Usage: dbg "on/off/set ext [val]"

dbg "man sipext"

Voice Mail Switches (V-Switches or VMIB)

Debug Commands (KB13731)

Dumps sip ext debug traces

Usage: dbg "on/off/set sipext [val]"

Turn debug levels on/off

dbg "on ext"

dbg "on ext trunk ipphone"

dbg "off ext"

dbg "off ext trunk ssua"

Set debug levels explicitely

dbg "set ext 1"

dbg "set ssua 0xe00"

dbg "set ssua 0"

Clear all debug levels

dbg "clear"