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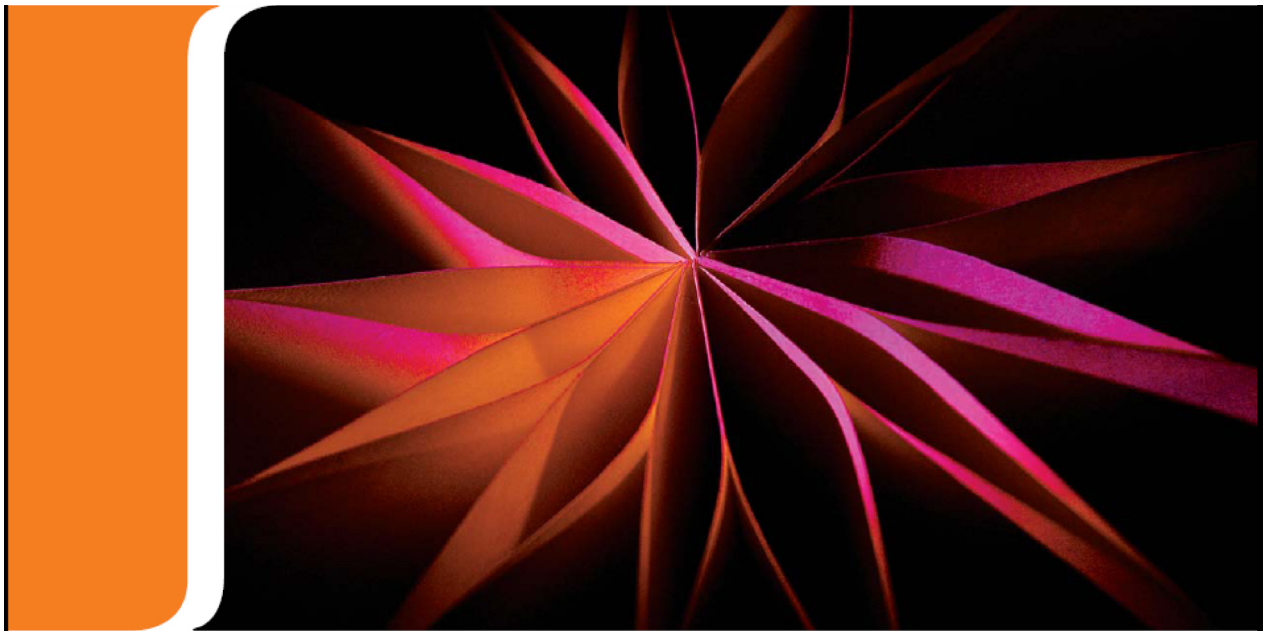
ShoreTel Server 12.2 Software Release Notes

Part Number 800-1603-01



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ShoreTel Server 12.2 Software Release Notes

These Release Notes summarize new features and enhancements in ShoreTel Server Release 12.2.

What's in these notes?

What are New Features and Enhancements in ShoreTel 12.2?

The new features and enhancements in ShoreTel Release 12.2 are listed below.

Table 1. New Features and Enhancements in ShoreTel 12.2

Feature	Description	Page
Legacy Voicemail TUI	Multiple TUI styles available	5
Analog Trunk Pulse Dialing	Backward compatibility maintained	8

Legacy Voicemail TUI

- Support for multiple voice mail telephone user interface (TUI) styles is added.
- ShoreTel or Legacy Voice Mail TUI style can be used.

How to Configure Telephone User Interface (TUI) Style

1. Log into ShoreWare Director. (Figure 1)
2. Click Administration->Users->Class of Service.

   The Class of Service screen is displayed. (Figure 2)
3. Under “Voice Mail Permissions,” click “New.”

   The “Edit Voice Mail Permissions Screen” screen is displayed. (Figure 3)
4. From the “Voice Mail Prompt Style” pull-down menu, select either “ShoreTel” or “Legacy Voice Mail TUI.”

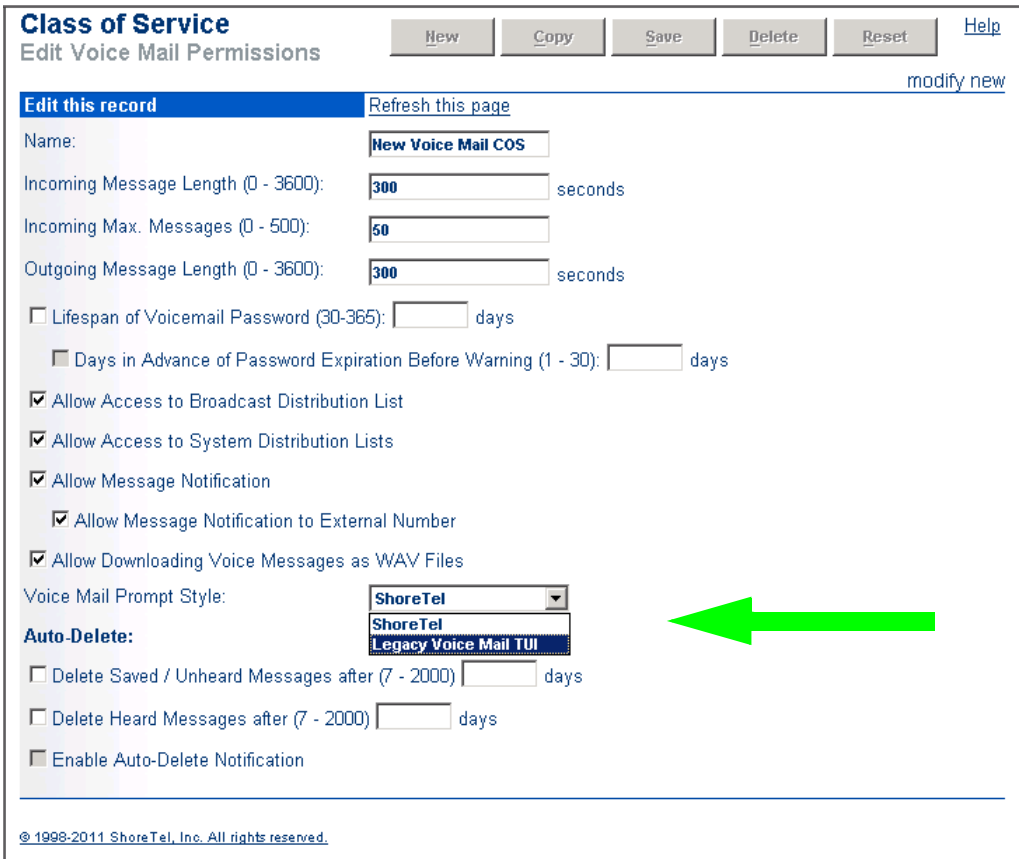
   NOTE The default is “ShoreTel.”
5. Click “Save.”

   Voice mail menus are set to the selected style.

Figure 1. ShoreTel ShoreWare Director Login Screen

Figure 2. Class of Service Screen

Figure 3. Edit Voice Mail Permissions Screen



Analog Trunk Pulse Dialing

- Support for pulse dialing on analog trunk ports is added for backward compatibility.
- Pulse dialing is supported only on analog trunks.
- Pulse dialing is not supported on telephones on extension ports.

NOTE Most Public Switched Telephone Network (PSTN) carriers no longer support pulse dialing through analog trunks. Dual-Tone Multi-Frequency (DTMF) dialing is the default signaling method for dialing numbers through analog trunks.

How to Enable Pulse Dialing

1. Log into ShoreWare Director. (Figure 4)
2. Click Administration->Trunks->Trunk Groups.

   The Trunk Groups screen is displayed. (Figure 5)

   NOTE A Trunk Group must be created before it can be displayed in the list of Trunk Groups.
3. Under the “Name” column, click the name of the analog trunk group that you want to dial out numbers using pulse dialing (for example, “IntPulseTrunk”).

   The “Edit Analog Loopstart Trunk Group” screen is displayed. (Figure 6)
4. Click “Enable Pulse Dialing.” (Figure 6)

   NOTE The option to enable pulse dialing is displayed only if an Analog Loopstart Trunk Group is created in Director for a region or country where pulse dialing is available.
5. Click “Save.”

   Dialed digits are sent through the selected trunk group to the Central Office (CO) in the form of pulses.

   NOTE The ON Duration, OFF Duration, and GAP Duration between digits is specified by a region or country.

Figure 4. ShoreTel ShoreWare Director Login Screen

Figure 5. Trunk Groups Screen

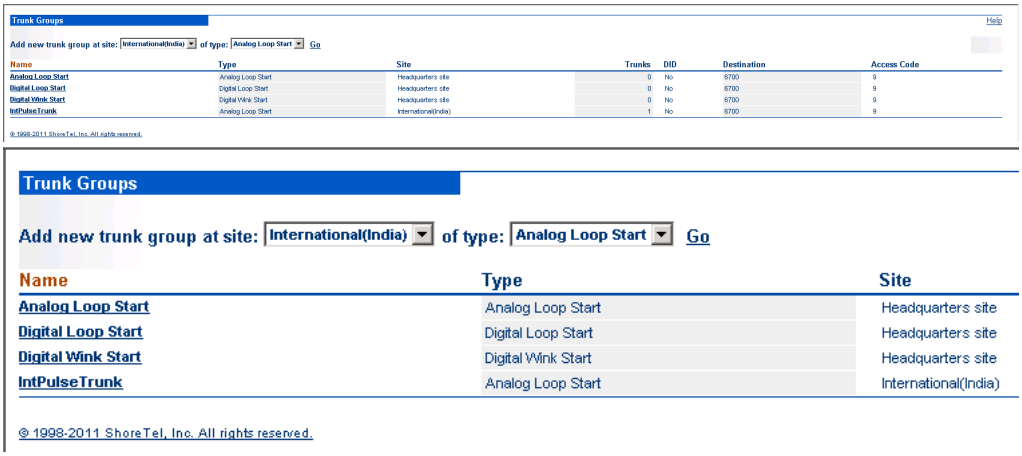
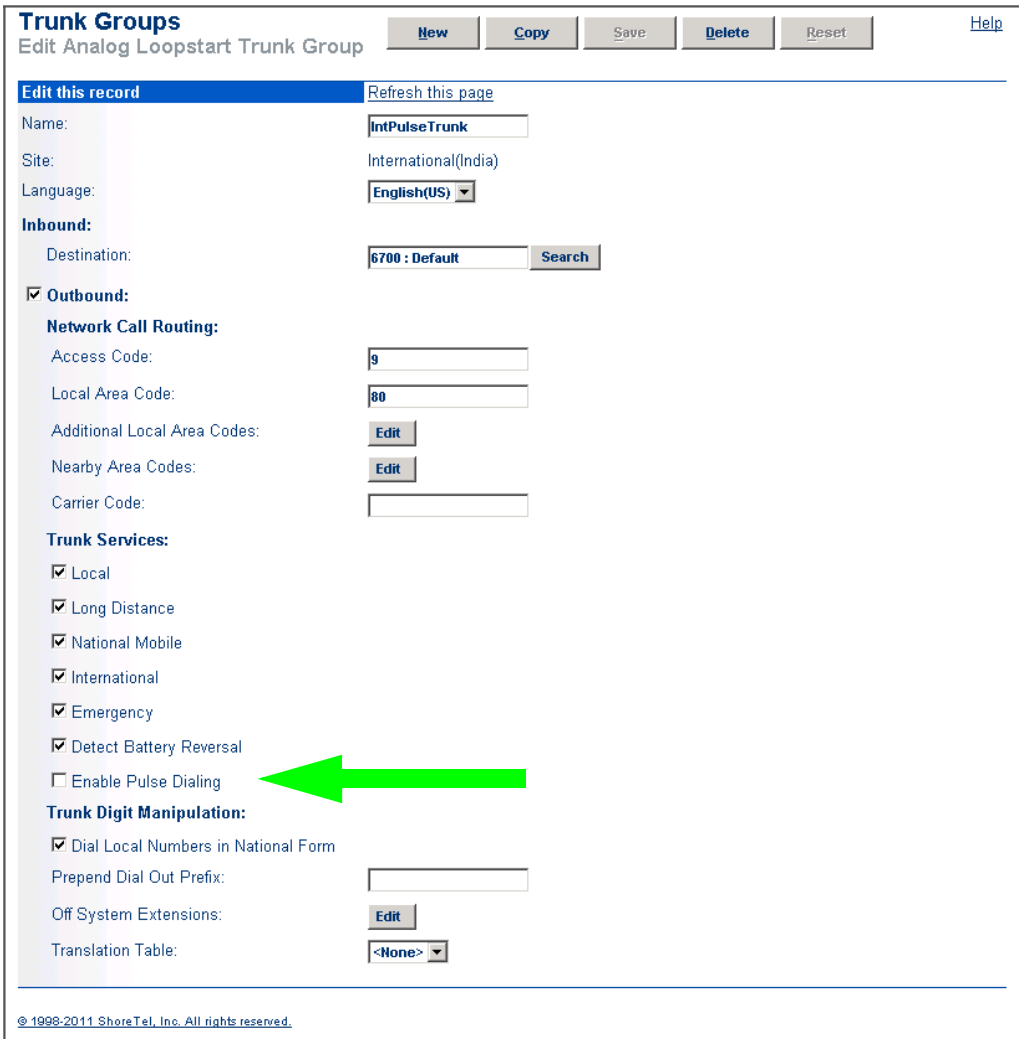


Figure 6. Edit Analog Loopstart Trunk Group Screen



How to Install ShoreTel Release 12.2?

See “Server Installation” in the *ShoreTel 12.0 Planning and Installation Guide* for information and instructions on installing and configuring ShoreTel 12.2.

How to Upgrade to ShoreTel Release 12.2?

See “Server Installation” in the *ShoreTel 12.0 Planning and Installation Guide* for information and instructions on upgrading to ShoreTel 12.2.

ShoreTel Server and Client Upgrade Paths

- single-step from 10 to 12.2
- single-step from 10.1 to 12.2
- single-step from 10.2 to 12.2
- single-step from 11 to 12.2
- single-step from 11.1 to 12.2
- single-step from 11.2 to 12.2
- single-step from 12 to 12.2

  IMPORTANT Older servers and clients can be upgraded to ShoreTel 12.2 only if they are first upgraded to ShoreTel 10, 10.1, 10.2, 11, or 12.

Upgrading ShoreTel System from 32-bit to 64-bit Windows Server OS

Upgrade procedure is clarified.

1. Upgrade the 32-bit Server OS to a 32-bit Server OS build that supports Windows Server 2008 R2, 64-bit.

   IMPORTANT Qualifying builds = ST11-16.5.8506.0 and higher.

2. Verify that the entire system is upgraded to the new 32-bit Server OS build.
3. Back up the upgraded 32-bit system.
4. Migrate to Windows Server 2008 R2, 64-bit.

For more detailed instructions, see the *ShoreTel Planning and Installation Guide*, Section 17.5, "Upgrading Windows 2008 (32-bit) to Windows 2008 R2 (64-bit)."

NOTE Procedure does not apply to a new installation of Windows Server 2008 R2, 64-bit.

What are ShoreTel Release 12.2 System Requirements?

See “Server Requirements” and “Desktop Requirements” in the *ShoreTel 12.0 Planning and Installation Guide* for information on the hardware and software required to run and use ShoreTel 12.2.

Hardware/Software Requirements Changed or Support Added in 12.2

Main Server Hardware Requirements Changed

Very large deployments (10K to 20K users)

- ShoreTel Communicators for Web and Mobile per server: 1,000
- ShoreTel Communicators for Windows per server: 500

DVS Hardware Requirements Changed

Very large deployments (10K to 20K users)

- ShoreTel Communicators for Web and Mobile per server = 1,000
- ShoreTel Communicators for Windows per server = 500

Windows Server (Terminal) Requirements Changed

W2008 R2

- Users supported per WS = 100
- Presence/call load = 5000 BHCC (Presence is Presence status displayed in Contact area of ShoreTel Communicator)
- RAM memory required per client within WS = 150 MB
- Processor (minimum) = Dual QuadCore E5520@ 2.26 GHZ/32 GB RAM

Windows Server (Terminal) Support Added

W2008 R2 with XenApp-6 Platinum

- Users supported per WS = 100
- Presence/call load = 5000 BHCC (Presence is Presence status displayed in Contact area of ShoreTel Communicator)
- RAM memory required per client within WS = 175 MB
- Processor (minimum) = Dual QuadCore E5520@ 2.26 GHZ/32 GB RAM

Main and DVS Operating System under VMware Support Added

- Windows Server 2008 R2 SP1 64-bit, (Standard, Enterprise)

VMware Virtual Environment for Main and DVS Servers Support Added

- VMware Vsphere 4.1 (ESX 4.1/ESXi 4.1)

ShoreTel Mobility Router Appliance Supported Added

- MR2000
- MR4000
- MR6000

Scale Requirements Changed or Support Added

Very Large deployments (10K - 20K users)

- Switches per site = 60

Trunks

- Trunks per Trunk Group = 220

Clients

- ShoreTel Communicators per system = 10,000
- ShoreTel Communicators for Mobile per system = 1,000
- ShoreTel Communicators in HQ server (combination of desktop and mobile) per system = 1,000

Very Large Deployments (10K to 20K users)

- ShoreTel Communicators for Web and Mobile per server = 1,000
- ShoreTel Communicators for Windows per server = 500

Very Large System (20K users) Requirements Changed or Added

- ShoreTel Communicators for whole system = 10,000
- Trunk groups = 500
- Distributed DB = Must be enabled

  NOTE Only 10 DVS's can be enabled with Distributed DB maximum, but system can have 20 DVS's.

- Switches per site = 60
- ShoreTel Communicators for Windows per server = 500
- ShoreTel Communicators for Web and Mobile per server = 1,000

New Features and Enhancements in ShoreTel 12.1

The new features and enhancements in ShoreTel Release 12.1 are listed below.

Table 2. New Features and Enhancements in ShoreTel 12.1

Feature	Description	Page
Communicator for Windows	Contact Center Agent interface simplification	17
Euro-ISDN	Channel Negotiation & Connected Number	24
Internet Browser	Windows Internet Explorer 9 support	30
Mobile Extension	Enhanced support	31
SIP INFO Pass Through	Enhanced support	36
Serviceability	Enhancements	37
Shorewareconfig Distributed Database	Disk space reclaim	42
Small Business Edition (SBE)	VMware vSphere & SIP FAX server support	54
Voicemail	Greeting only	61

Communicator for Windows: Contact Center Agent Interface Enhancements

The Communicator for Windows UI is enhanced to provide better status information and improve the experience of Contact Center Agents.

Communicator for Windows Enhancements

- Toolbar showing Contact Center status information at all times is added (page 17).
- Color coding scheme designating Agent status is added (page 19).
- Release with/without code is clarified (page 20).
- Wrap-Up with/without code is clarified (page 22).

Contact Center Toolbar Status Indicator

A toolbar showing the Agent State is added to Contact Center in Minimal mode and Normal mode, providing clear, visible status information to the Contact Center Agent at all times.

> **NOTE** This enhancement is visible only when the Contact Center is enabled in Communicator for Windows.

The Contact Center Toolbar is displayed after the Call Toolbar, before any programmable toolbars (Figure 7). The Contact Center Toolbar can be hidden by toggling the View->Show Contact Center Toolbar menu (Figure 8).

Figure 9 shows the “Logged Out of All Groups” message in Normal Mode.

Figure 10 shows the “Logged Out of All Groups” message in Minimal Mode.

Figure 11 shows the “Logged Into All Groups” message in Normal Mode.

Figure 12 shows the “Logged Into All Groups” message in Minimal Mode.

Figure 7. Contact Center Toolbar

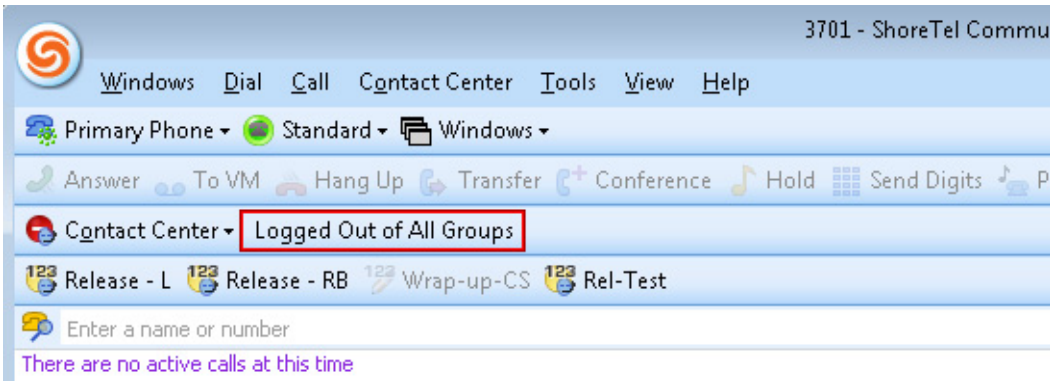
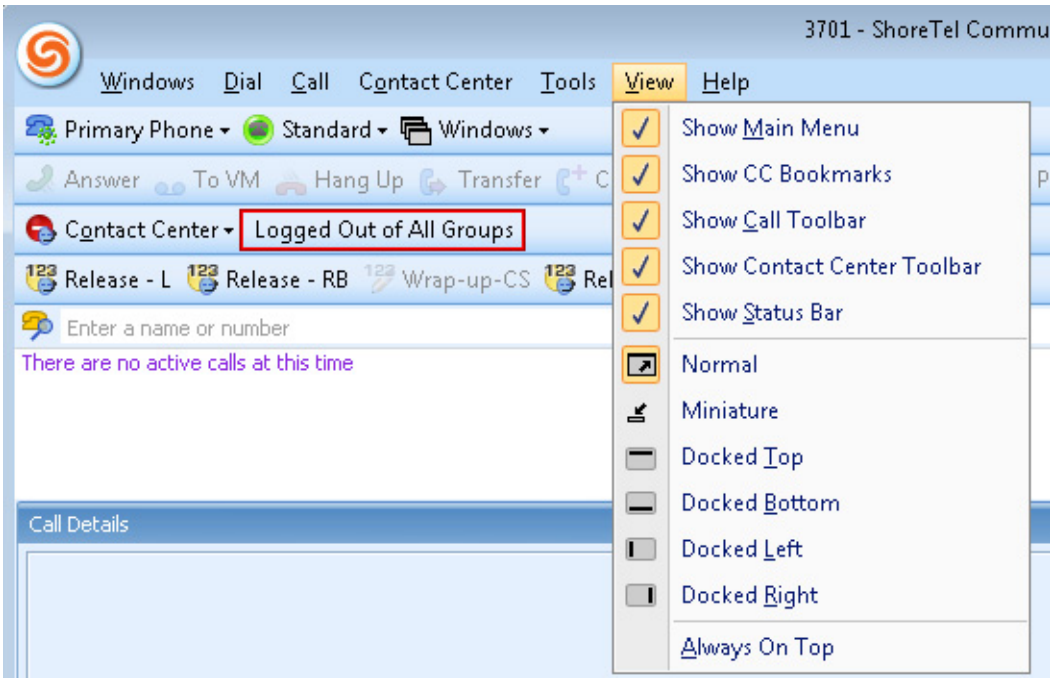
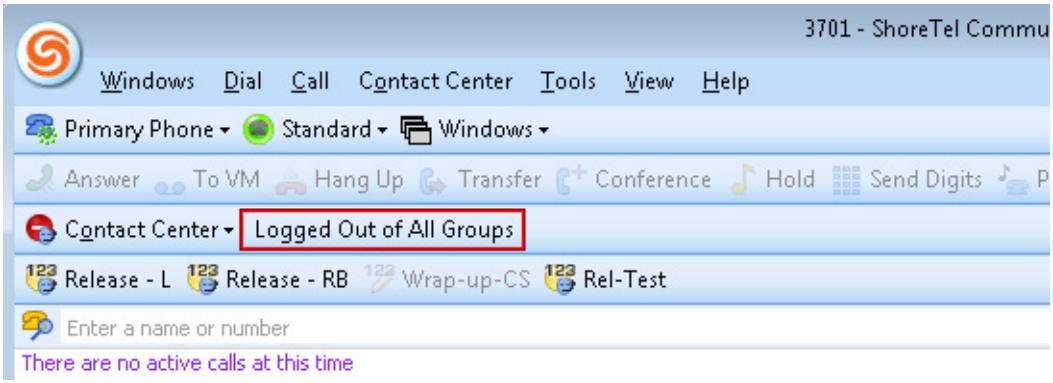


Figure 8. Show Contact Center Toolbar Menu



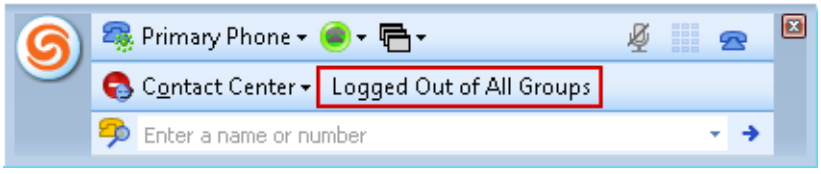
Logged Out of All Groups, Normal Mode

Figure 9. Logged Out of All Groups, Normal Mode



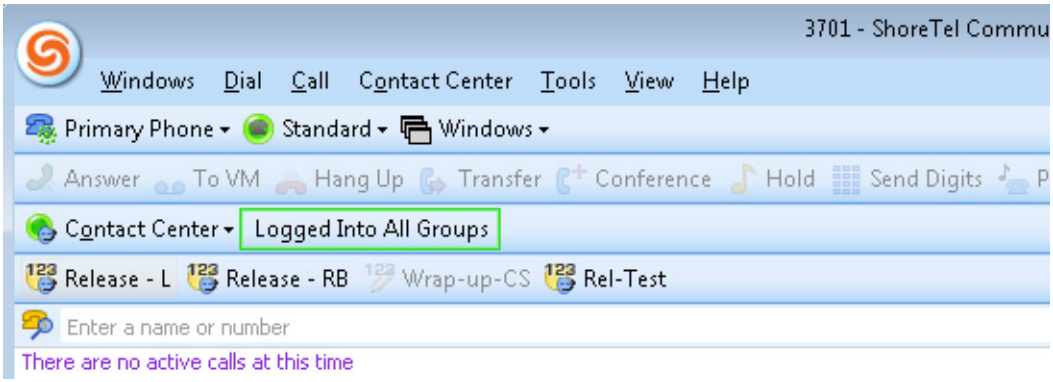
Logged Out of All Groups, Minimal Mode

Figure 10. Logged Out of All Groups, Minimal Mode



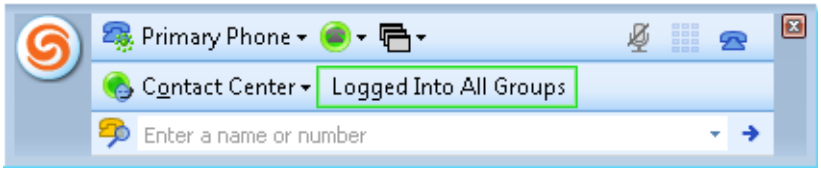
Logged Into All Groups, Normal Mode

Figure 11. Logged Into All Groups, Normal Mode



Logged Into All Groups, Minimal Mode

Figure 12. Logged Into All Groups, Minimal Mode



Agent Status Indicator Color Scheme

The color of the line of the rectangle highlighting the status of an Agent is different for each state. The colors and states are listed below.

Table 3. Agent Status Indicator Colors

Color	Status
Red	Logged Out
Green	Logged In
Blue	Wrap-Up
Yellow	Released

Release with/without Code

The amount of time an Agent spends between calls is displayed in Contact Center in the Release message, providing a visual accounting of the time spent from the end of one call to the beginning of the next call.

> **NOTE** The timer increments from zero when a call is ended, and is reset to zero when the next call is started. Time is displayed in hh:mm:ss (hours, minutes, seconds).

A Release message can be configured by an Agent to display a code or description of the reason for the Release.

If a Release is started without a code, the timer begins incrementing from zero after the Release is specified by the Agent.

If a Release is started with a code, the timer begins incrementing from zero after the Release and the Release code are specified by the Agent.

Figure 13 shows a “Release without Code” in Normal Mode.

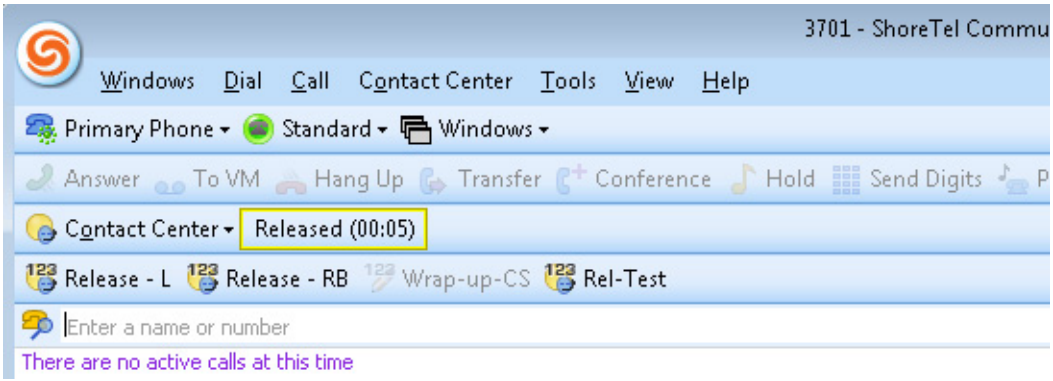
Figure 14 shows a “Release without Code” in Minimal Mode.

Figure 15 shows a “Release with Code” in Normal Mode.

Figure 16 shows a “Release with Code” in Minimal Mode.

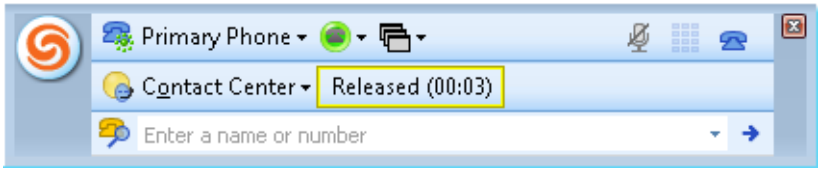
Release without Code, Normal Mode

Figure 13. Release without Code, Normal Mode



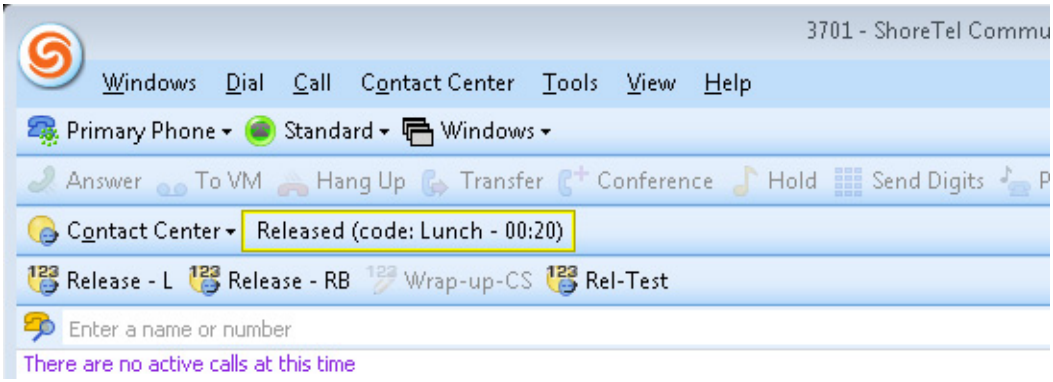
Release without Code, Minimal Mode

Figure 14. Release without Code, Minimal Mode



Release with Code, Normal Mode

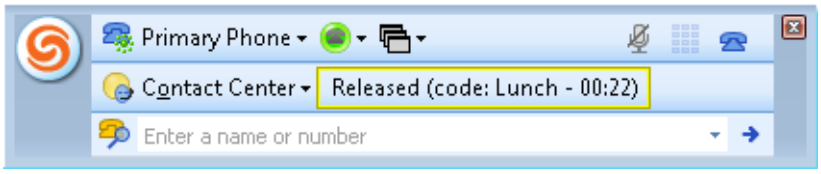
Figure 15. Release with Code, Normal Mode



NOTE If a "Release with Code" button is programmed with a blank field or without a leading digit, a "No Code" option can be selected for a Release Code in Normal Mode (but the code is not shown).

Release with Code, Minimal Mode

Figure 16. Release with Code, Minimal Mode



Wrap-Up with/without Code

A description of the outcome of a completed call is displayed in Contact Center in the Wrap-Up message, providing a visual description of the nature of the completed call.

> **NOTE** The Wrap-Up message, like a Release message, includes a timer that increments from zero when a call is ended, and is reset to zero when the next call is started. Time is displayed in hh:mm:ss (hours, minutes, seconds).

A Wrap-Up message can be configured by an Agent to display a code or description of the reason for the Wrap-Up.

If a Wrap-Up is started without a code, the timer begins incrementing from zero after the Wrap-Up is specified by the Agent.

If a Wrap-Up is started with a code, the timer begins incrementing from zero after the Wrap-Up and the Wrap-Up code are specified by the Agent.

If a Wrap-Up is extended by an Agent, the timer continues incrementing from the point at which the extension is specified (the timer is not reset).

Figure 17 shows a “Wrap-Up without Code” in Normal Mode.

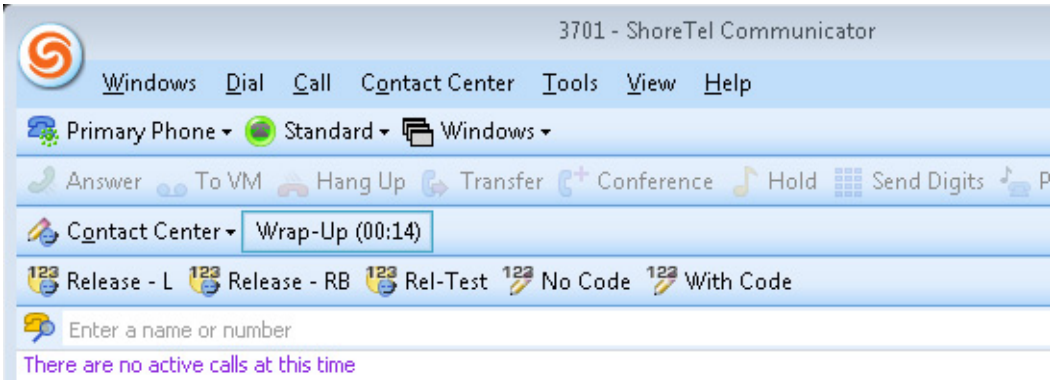
Figure 18 shows a “Wrap-Up without Code” in Minimal Mode.

Figure 19 shows a “Wrap-Up with Code” in Normal Mode.

Figure 20 shows a “Wrap-Up with Code” in Minimal Mode.

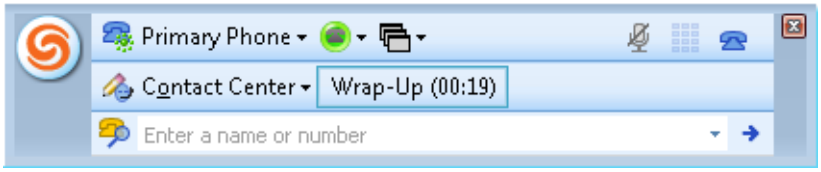
Wrap-Up without Code, Normal Mode

Figure 17. Wrap-Up without Code, Normal Mode



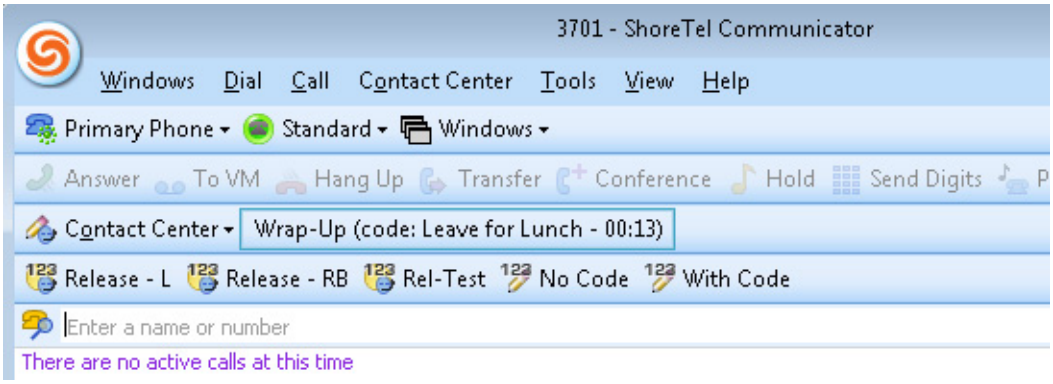
Wrap-Up without Code, Minimal Mode

Figure 18. Wrap-Up without Code, Minimal Mode



Wrap-Up with Code, Normal Mode

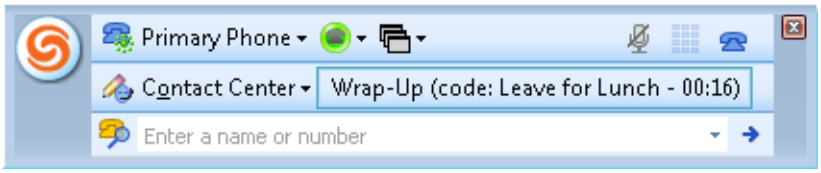
Figure 19. Wrap-Up with Code, Normal Mode



NOTE If a "Wrap-Up with Code" button is programmed with a blank field or without a leading digit, a "No Code" option can be selected for a Wrap-Up Code in Normal Mode (but the code is not shown).

Wrap-Up with Code, Minimal Mode

Figure 20. Wrap-Up with Code, Minimal Mode



Euro-ISDN: Channel Negotiation and Connected Number Display

- A Euro-ISDN profile can be configured to allow a central office to negotiate the choice of an outbound ISDN call (page 24).
- A Euro-ISDN profile can be configured to allow an outside caller to a ShoreTel user to see a number of the ShoreTel user that answers the call (page 27).

Euro-ISDN Channel Negotiation

A ShoreTel Voice Switch can be configured in Director to allow a central office (CO) to negotiate the choice of an outbound ISDN channel on a PRI or BRI.

This feature is supported for Euro ISDN for PRI and BRI.

NOTE This feature does not apply to inbound calls. Also, this feature is not supported for North America ISDN protocols (for example, NI2, DMS, and ESS).

ISDN Channel Negotiation

A ShoreTel system selects the outbound ISDN bearer channel and does not negotiate with the central office (CO) for the choice of channel. This behavior is called exclusive mode.

In Europe (or in any ETSI-compliant network), an ISDN profile can be configured in Director to enable the ShoreTel Voice Switch to allow the CO to negotiate the channel.

The behavior that supports negotiation is called preferred mode. Although this function is available to BRI, it is more relevant to PRI.

The following trunk and switch settings are available in Director after an ISDN profile is created:

- The ISDN profile is selected in the drop-down scroll list near the top of the Trunk Groups editing window. When this choice and other configuration steps are saved, the ISDN profile is applied to the trunk group.
- In the Voice Switch window (Administration–>Platform Hardware–>Voice Switches...), the Layer 3 area has two critical parameters for ISDN channel negotiation: the Central Office Type must be Euro ISDN, and the Protocol Type must be ISDN User.

ISDN Profile to Enable ISDN Channel Negotiation

For backwards compatibility, the default for channel negotiation remains exclusive mode. Therefore, ISDN channel negotiation must be enabled through an ISDN profile that enables the preferred mode.

To enable ISDN channel negotiation, create an ISDN profile in Director as follows:

1 Navigate to Administration–>Trunks–>ISDN Profiles (Figure 21).

The ISDN Profiles window lists all existing ISDN profiles by name, the enable status of each profile, and a checkbox for selecting a profile.

Figure 21. List of Existing ISDN Profile

NOTE The name of the default profile SystemISDNTrunk is reserved and cannot be used for new profiles. (In other words, the default ISDN profile cannot be modified.)

2 Press the New button to start a new profile.

The Edit ISDN Trunk Profile window is opened (Figure 22).

3 In the Name field, type a name for the profile (ISDNCustomizedProfile, for example).

4 In the Custom Parameters area, type the following string:

```
ChannelPreferredMode=yes
```

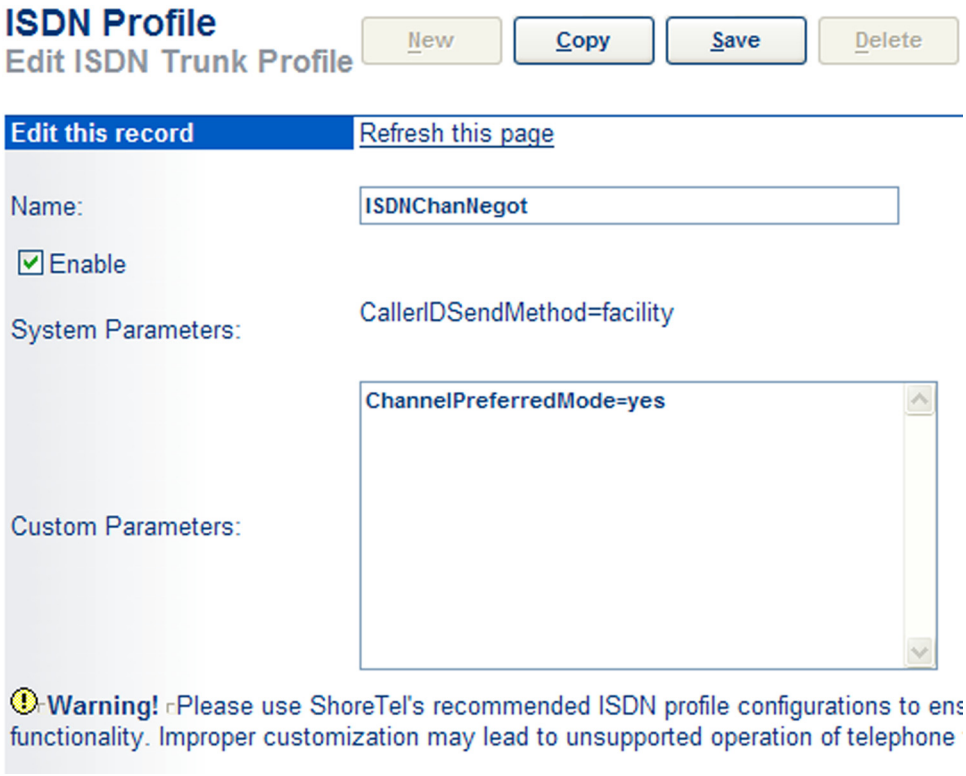
NOTE Custom Parameters are case sensitive.

5 Click the Enable checkbox. (The profile still must be applied to specific trunk groups.)

6 Click Save.

7 Complete the related configuration steps in the Trunk Editing and Switch Editing windows.

Figure 22. Creating a New Profile for Enabling ISDN Channel Negotiation



NOTE The figure is cropped to highlight the edits. The entire "Warning" message is as follows: *Warning! Please use ShoreTel's recommended ISDN profile configurations to ensure optimal functionality. Improper customization may lead to unsupported operation of telephone features.*

Switch Settings for Euro-ISDN Channel Negotiation

For the switch parameters that apply to ISDN channel negotiation, perform the following steps in Director:

1. Navigate to Administration–>Platform Hardware–>Voice Switches/Server Appliances–>Primary (or Spare).
2. Select an existing switch or start a new switch.
3. For configuration of this function, select ISDN User in the Protocol Type drop-down menu (under the "Layer 3" heading located mid-screen).
4. For configuration of this function, select Euro-ISDN in the Central Office Type drop-down menu (under the "Layer 3" heading located mid-screen).
5. Click the Save button when all other necessary switch parameters are selected.

Euro-ISDN Profile for Connected Number Display

An ISDN profile can be created in Director that allows an outside caller to a ShoreTel user to see a number of the ShoreTel user that answers the call.

This feature is supported for carriers or service providers configured with Euro-ISDN PRI or BRI.

> **NOTE** This feature is not supported for ShoreTel deployments for North America Protocol (for example, NI2, DMS, and ESS). Also, this feature is not supported for ISO QSIG or ECMA QSIG.

Connected Number Display for Outside Callers

When an outside caller calls a ShoreTel user and the ShoreTel user answers the call, the phone number of the ShoreTel user is sent back to the outside caller through the ISDN Connect message. The phone number of the ShoreTel user can be the user's DID or BTN of the trunk group.

The following trunk and switch settings are available in Director after an ISDN profile is created:

- To apply the ISDN profile to a trunk group, select the profile in the drop-down scroll list near the top of the Trunk Groups editing window. After the trunk group configuration is saved, the ISDN profile is applied to the trunk group.
- The billing telephone number (BTN) should be specified (in addition to the ISDN profile) for the trunk group for the following reasons: If the final recipient's ShoreTel extension lacks a DID or has a privacy configuration, the switch sends the BTN to the outside caller.
- In the voice switch window (Administration–>Platform Hardware–>Voice Switches), the Layer 3 parameters include two critical parameters for this function: the Central Office Type must be set to Euro ISDN, and the Protocol Type must be set to ISDN User.

Creating ISDN Profile for Called Number Display

An ISDN profile for controlling the display of the ShoreTel user's number on the caller's phone can have one of three possible keyword settings and results, as follows:

- useBTN - The ShoreTel Voice Switch sends only the BTN in the Trunk Group in the CONNECT message to the service providers or carrier. The caller can see the Connect Number Display.
- present - The outside caller can see the number of the ShoreTel user answering the call. The number of the user can be DID or the BTN in the Trunk Group.
- restrict (default) - Neither the BTN nor the DID of the called ShoreTel user goes into the CONNECT message back to the central office. The caller sees no ID for the ShoreTel user.

To create an ISDN profile in Director that allows a caller to see the ShoreTel user's DID (keyword=present), perform the following steps:

1 Navigate to Administration–>Trunks–>ISDN Profiles (Figure 23).

The ISDN Profiles window lists all existing ISDN profiles by name, the enable status of each profile, and a checkbox for selecting a profile.

2 Press the New button to start a new profile.

The Edit ISDN Trunk Profile window is opened (Figure 24).

3 In the Name field, type a name for the profile (CalledDIDdisplay, for example).

NOTE The name of the default profile SystemISDNTrunk is reserved and cannot be used for new profiles. (In other words, the default ISDN profile cannot be modified.)

4 In the Custom Parameters area, type the following string:

```
ConnectedLine=present
```

NOTE The Custom Parameters are case sensitive.

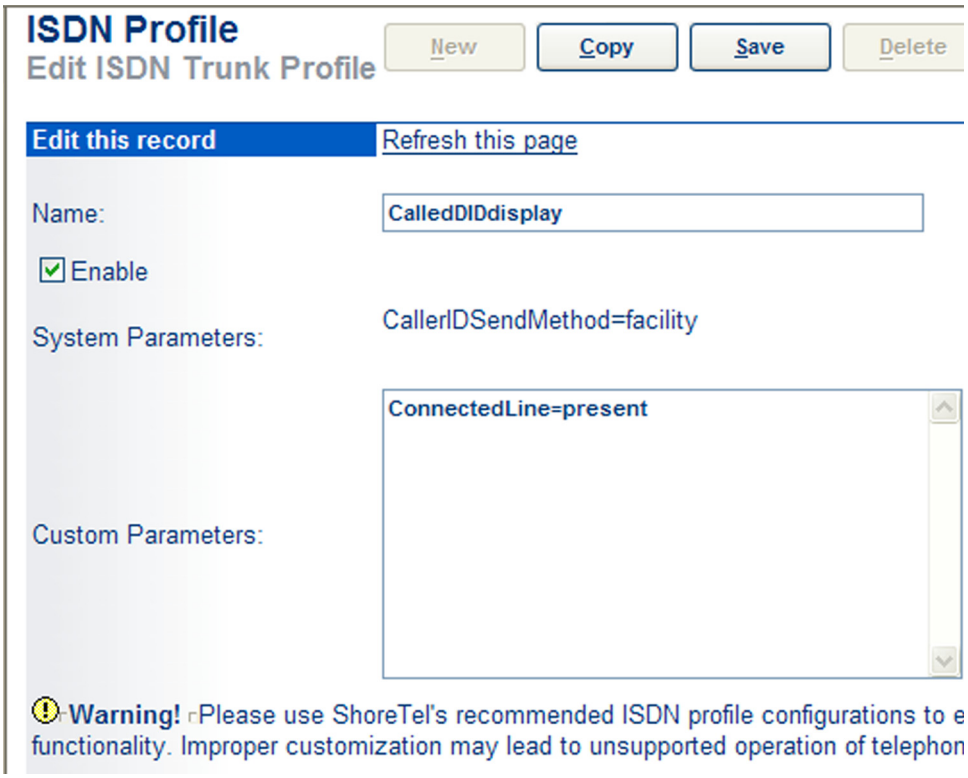
5 Click the Enable checkbox. (The profile still must be applied to specific trunk groups.)

6 Click the Save button.

7 Now, complete the related configuration steps in the Trunk Editing and Switch Editing windows.

Figure 23. List of Existing ISDN Profile

Figure 24. Creating a New Profile for Specifying Called Party Behavior



NOTE The figure is cropped to highlight the edits. The entire "Warning" message is as follows: *Warning! Please use ShoreTel's recommended ISDN profile configurations to ensure optimal functionality. Improper customization may lead to unsupported operation of telephone features.*

Internet Browser: IE 9 Support

Windows Internet Explorer 9 support is added.

Browser Support Summary

- Director
  - Windows Internet Explorer 8.0
  - Windows Internet Explorer 9.0
- ShoreTel Communicator for Web
  - Safari 4.0 on Macintosh
  - Windows Internet Explorer 8.0
  - Windows Internet Explorer 9.0
  - Firefox 3.6 on Windows and MAC OS
- ShoreTel Web Conferencing
  - Safari 4.0 on Macintosh
  - Windows Internet Explorer 8.0
  - Windows Internet Explorer 9.0
  - Firefox 3.6 on Windows and MAC OS

Mobile Extension Enhancements

The steps required to configure SIP-based mobile devices for users are simplified, and simultaneous ringing can be configured for ShoreTel Mobility devices.

- ShoreTel Mobility is integrated into the ShoreTel system.
- A mobile client can be added as an additional phone to a user extension (desktop is preferred phone).
- A mobile client does not require an additional ShoreTel user license.
- A mobile client can be added to the list of simultaneous ringing devices for a preferred phone.
- If a preferred phone fails, calls are automatically routed to the mobile client.
- If the preferred user is inaccessible (Out-of-Service, DND, etc.), the additional phones can still receive calls via Simultaneous Ringing.
- Both the mobile client and the desk phone share a single voicemail box and caller ID.
    - A Message Waiting Indicator is activated for the mobile client.
    - Prompts are sent to the mobile client when voicemails are received, read, and deleted.

  NOTE No configuration changes are required in Director to enable this feature.
- Outbound calls from the mobile client present the preferred user's caller ID.
- Inbound calls to the mobile client receive the preferred user's caller ID.
- A SIP extension is automatically created for the mobile client phone on the system (an additional extension and voicemail license are not required, but a SIP license is consumed).
    - A SIP extension is used for management only.
    - A SIP extension is not displayed in the phone/client directory.
    - A SIP extension cannot be dialed.

  NOTE When the "Allow Enhanced Mobility with Extension" user option is selected, the SIP Phone License is incremented after the user phone is registered.

ShoreWare Director Interface Changes Required for Mobile Access

Mobility access for individual users must be enabled or disabled in ShoreWare Director.

- Enable mobility access (page 32).
- Disable mobility access (page 34).

NOTE For information on using Director to manage the setup of Mobility Voice Mail, see the ShoreTel Mobility Router Integration Guide.

NOTE For information on how to access enterprise Voice Mail from a mobile phone, see the ShoreTel RoamAnywhere Client User Guide for your mobile device(s).

How to Enable Mobility Access for Individual Users in Director

1. Launch ShoreWare Director.
2. Click Administration->Users->Individual Users.

   The Individual Users page is displayed.
3. Select a user.
4. Click the General tab, if it is not selected (Figure 25).
5. Scroll down to the Mobility Options section (Figure 26).

   NOTE The Mobility Options section is not present for individual users that existed in Director before ShoreTel Release 12.1. To enable the Mobility Options section for individual users that existed in Director before ShoreTel Release 12.1, delete then add each user.
6. Click “Allow Enhanced Mobility with Extension.”

   A list of extensions is displayed.

   NOTE When “Allow Enhanced Mobility with Extension” is selected, the SIP Phone License is incremented after the user phone is registered.
7. Select an extension (or, enter another, available extension).
8. Click Save.

   The mobile extension is added to the user's list of additional phones.

   If the user’s two additional phones are already allocated, you can replace one with the number of the new mobile extension.

   NOTE To enable simultaneous ringing for the mobile extension, configure the user’s User Group settings.

Figure 25. Edit User Page General Tab

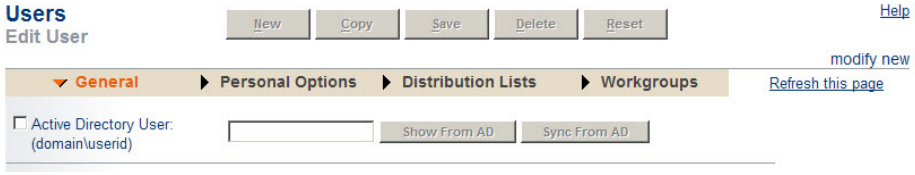
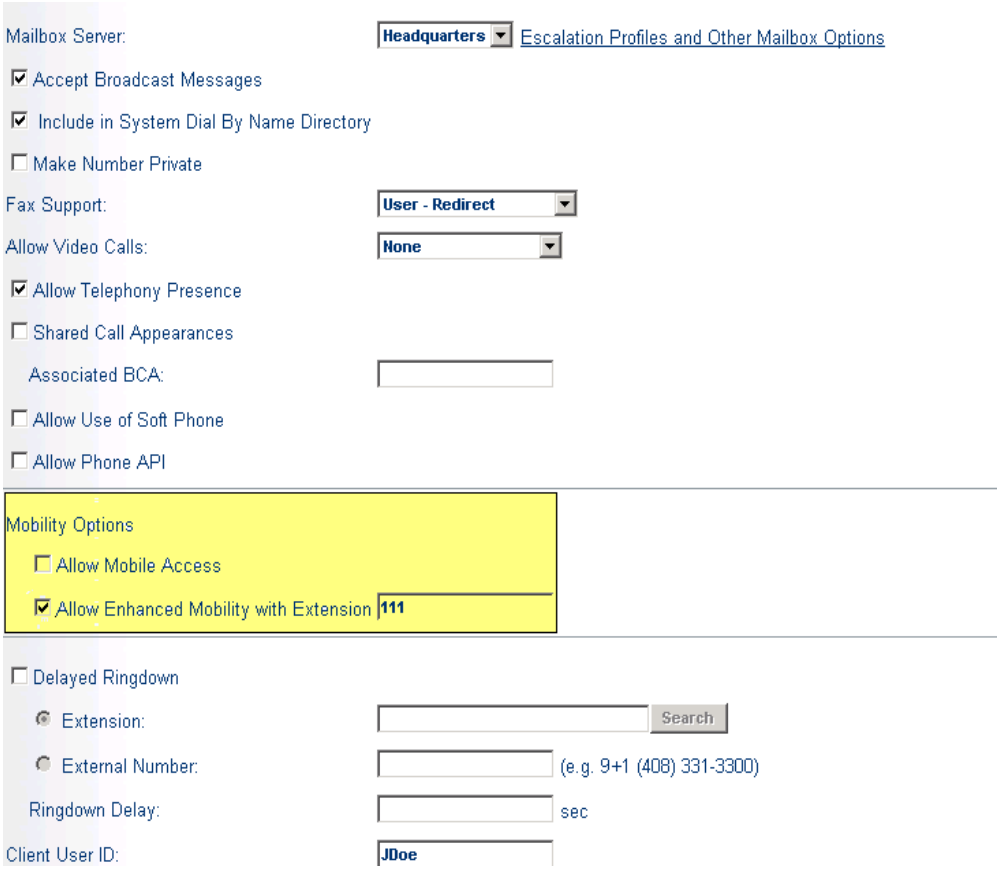


Figure 26. Allow Enhanced Mobility with Extension Checked



How to Disable Mobility Access for Individual Users in Director

1. Launch ShoreWare Director.
2. Click Administration->Users->Individual Users.

   The Individual Users page is displayed.
3. Select a user.
4. Click the General tab, if it is not selected (Figure 27).
5. Scroll down to the Mobility Options section.
6. Uncheck “Allow Enhanced Mobility with Extension” (Figure 28).
7. Click Save.

   The user’s mobile extension is deleted from the list of extensions.

   The user’s mobile extension is removed from the user’s list of additional phones.

Figure 27. Edit User Page General Tab

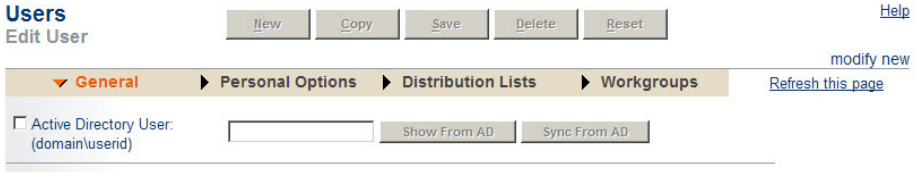
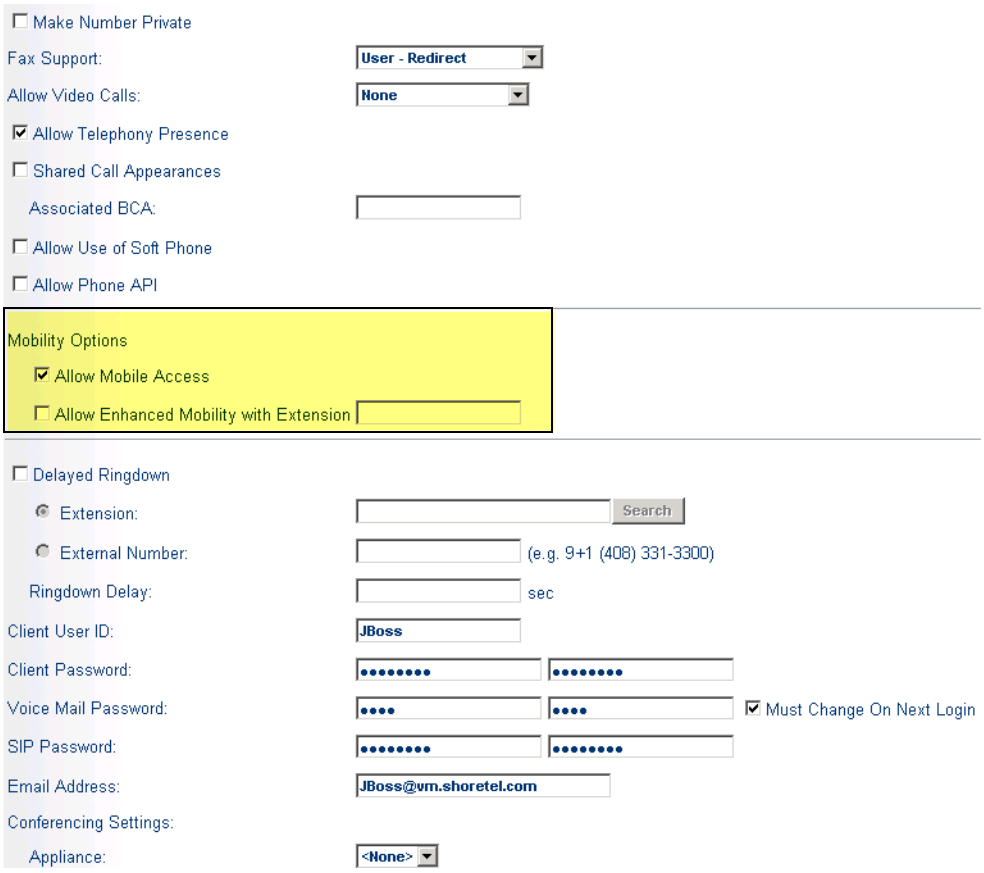


Figure 28. Allow Enhanced Mobility with Extension Unchecked



SIP INFO Pass Through Enhanced

- A new SIP profile parameter is available:

  `SIPInfoPassThroughMediaCtrlXML='no|yes'`

  `no`: Media is not passed through from end-to-end.

  `yes`: Media is passed through from end-to-end.

  Default: `yes`.

- RFC 5168, “XML Schema for Media Control,” is supported.

RFC 5168 - XML Schema for Media Control

- Defines an Extensible Markup Language (XML) Schema for video fast update in a tightly controlled environment.
- Describes a method deployed in Session Initiation Protocol (SIP) based systems.
- Is used across real-time interactive applications from different vendors in an interoperable manner.
- For more information, see RFC 5168.

Serviceability Enhancements

Several administrative default settings are changed (see below), and one button is renamed (page 41).

Administrative Default Settings Changed

- Maximum Inter-Site Jitter Buffer (Voice Encoding and Quality of Service) (page 37).
- DiffServ/ToS Byte (Voice Encoding and Quality of Service) (page 37).
- DiffServ/ToS Byte (Video Quality of Service) (page 37).
- Delay After Collecting Digits (IP Phone Option) (page 39).
- Calls in Queue Warning (Workgroup Threshold) (page 40).
- Calls Waiting Time Warning (Workgroup Threshold) (page 40).

NOTE Existing objects created using old defaults are not changed.

Maximum Inter-Site Jitter Buffer (Voice Encoding and Quality of Service)

The default “Maximum Inter-Site Jitter Buffer” size is increased from 50 msec to 300 msec.

This setting enhances support for mobile solutions and VPN phones.

Figure 29: Director->Call Control->Call Control Options: Edit: Voice Encoding and Quality of Service: Maximum Inter-Site Jitter Buffer.

DiffServ/ToS Byte (Voice Encoding and Quality of Service)

The default “DiffServe/ToS Byte” setting is increased from 0 to 184.

This setting enhances support for mobile solutions and VPN phones.

Figure 29 Director->Call Control->Call Control Options: Edit: Voice Encoding and Quality of Service: DiffServ/ToS Byte.

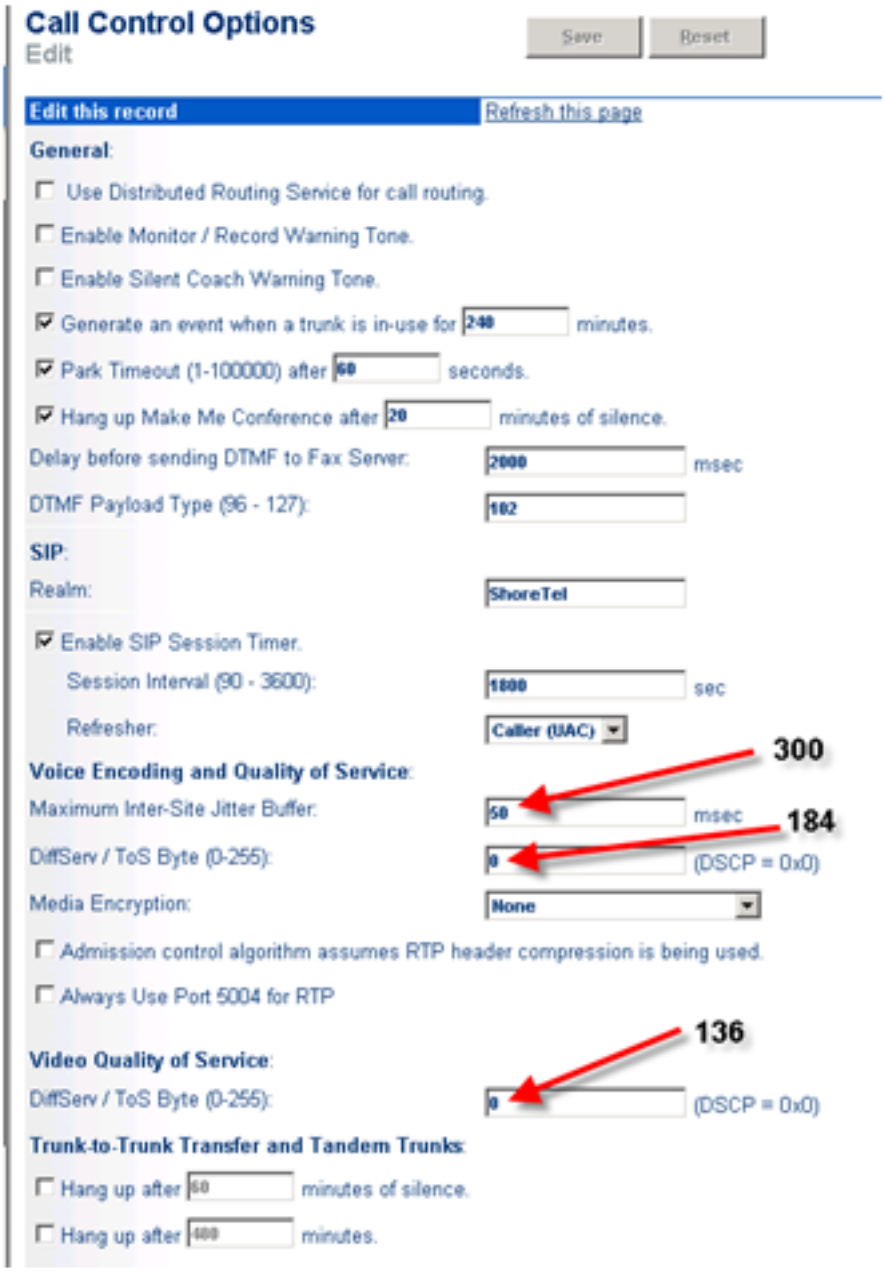
DiffServ/ToS Byte (Video Quality of Service)

The default “Video DiffServe” setting is increased from 0 to 136.

This setting enhances support for mobile solutions and VPN phones.

Figure 29 Director->Call Control->Call Control Options: Edit: Video Quality of Service: DiffServ/ToS Byte.

Figure 29. Call Control Options Screen



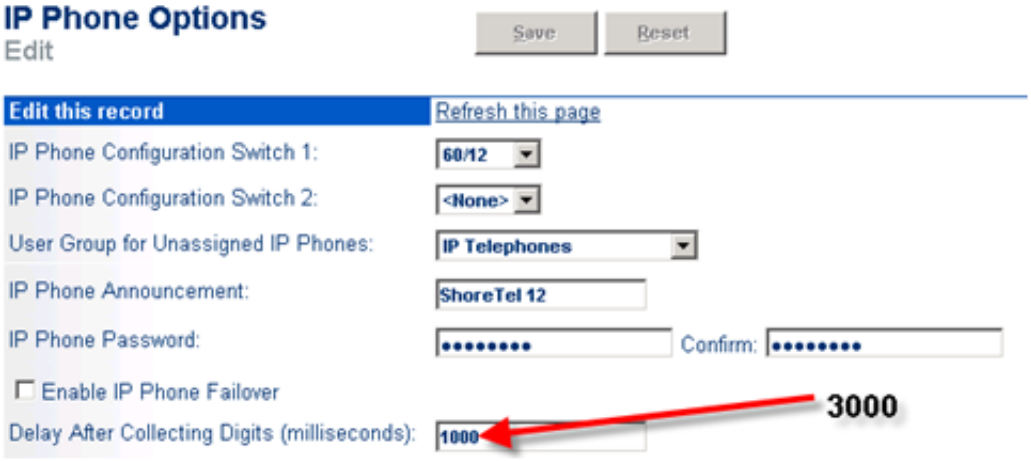
Delay After Collecting Digits (IP Phone Option)

The default “Delay After Collecting Digits” setting is increased from 1 second to 3 seconds.

This setting allows more time for user interaction when selecting call control IP Phone options.

Figure 30: Director->IP Phones->Options: IP Phone Options: Delay After Collecting Digits.

Figure 30. IP Phone Options Screen



Calls in Queue Warning (Workgroup Threshold)

The default “Calls in Queue Warning” setting is increased from 1 call to 3 calls.

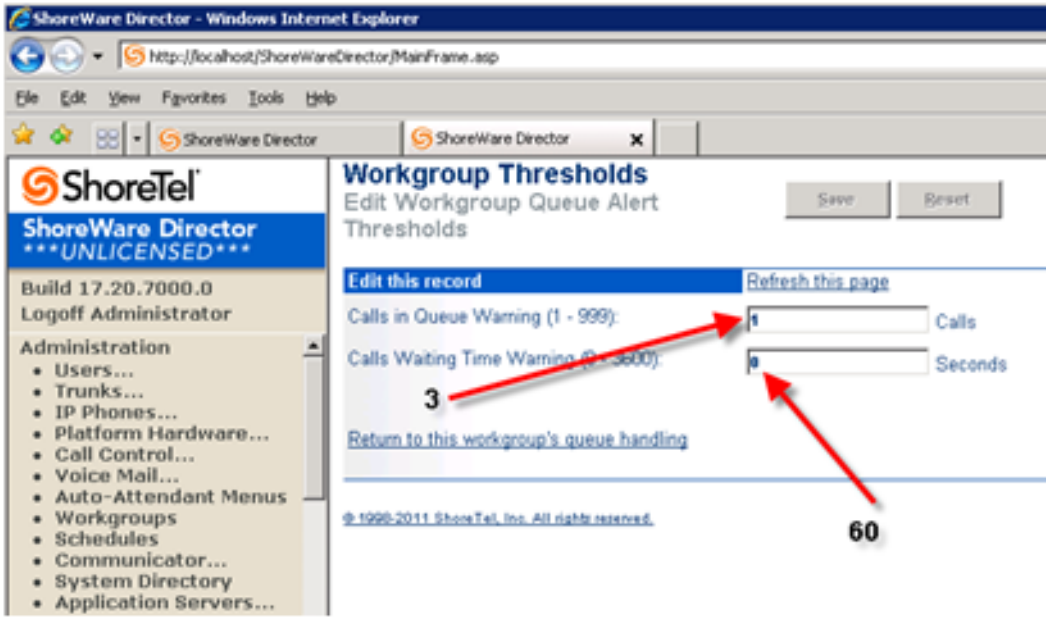
Figure 31: Director->Workgroups: Edit Workgroups: Workgroup Queue Handling: Edit Queue Handling: Queue Thresholds: Edit Alert Thresholds: Workgroup Thresholds: Calls in Queue Warning.

Calls in Queue Warning (Workgroup Threshold)

The default “Calls Waiting Time Warning” is increased from 0 seconds to 60 seconds.

Figure 31: Director->Workgroups: Edit Workgroups: Workgroup Queue Handling: Edit Queue Handling: Queue Thresholds: Edit Alert Thresholds: Workgroup Thresholds: Calls Waiting Time Warning.

Figure 31. Workgroup Thresholds Screen



Button Renamed (Main Server Maintenance)

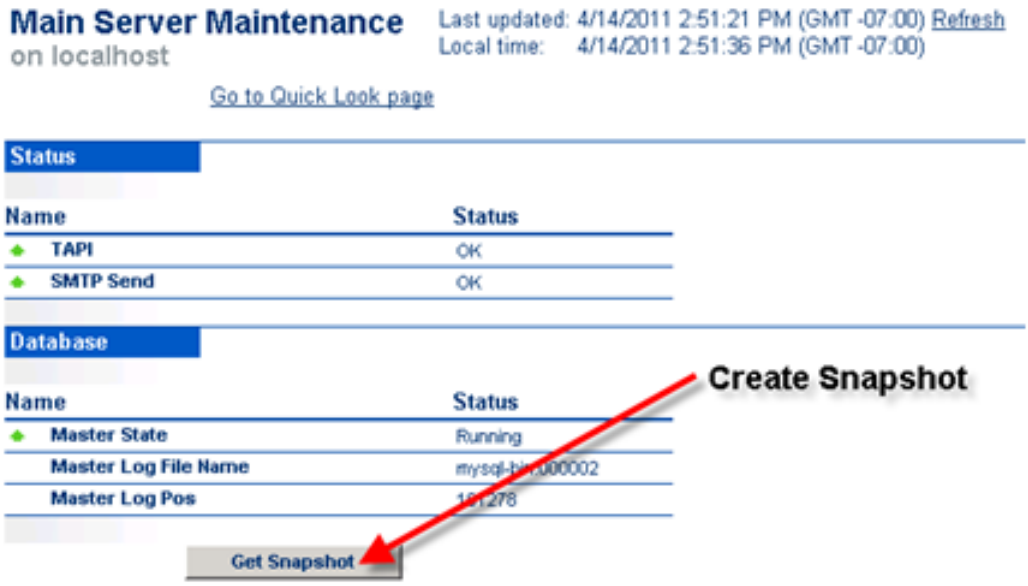
"Get Snapshot" is renamed "Create Snapshot."

"Get Snapshot" renamed "Create Snapshot"

The "Get Snapshot" button is renamed the "Create Snapshot" button. This change more accurately defines the action.

Figure 32: Director->Quick Look: Servers: Headquarters: Main Server Maintenance.

Figure 32. Main Server Maintenance Screen



Shorewareconfig Distributed Database: Disk Space Reclaim

Disk space consumed by tables created by MySQL in the ShoreTel Shore Ware configuration database on the headquarters server and the distributed voice server(s) can be reclaimed by manually performing a few simple procedures.

Disk Space Usage

During ShoreTel system operation, the ShoreWare configuration database on the headquarters server and on the distributed voice server(s) can increase in size, causing a backup to take longer than normal or the upgrade process to fail.

To control the size of your ShoreWare configuration database and reduce the time required to back up or upgrade your ShoreTel system, you can reclaim disk space from your headquarters server and your distributed voice server(s) by running the Disk Reclaim Tool.

The procedure for running the Disk Reclaim Tool on your headquarters server starts on page 44.

The procedure for running the Disk Reclaim Tool on your distributed voice server(s) starts on page 48.

Disk Reclaim Tool FAQ

Where Should I Run the Disk Reclaim Tool?

- On your headquarters server.
- On all distributed voice server(s) that have the database enabled.

When Should I Run the Disk Reclaim Tool?

- Before upgrading your system.

  See page 44 and page 48.

- During system maintenance.

  See page 53.

Do I have to Run the Disk Reclaim Tool on My Servers Sequentially?

- You must run the tool on your headquarters server first.
- After the tool is finished running on your headquarters server, run the tool at the same time on all your distributed voice servers that have the database enabled.

How Much Hard Disk Space Does My Server Need to Run the Disk Reclaim Tool?

- At least two times the size of the `ibdata` file in the following location:

  `C:\Shoreline Data\Database\ShoreTelConfig\Data`

Do I Have to Manually Restart My Servers after Running the Disk Reclaim Tool?

- You do not have to manually restart your servers after running the Disk Reclaim Tool; your servers are automatically restarted after the disk reclaim process is completed.

Running the Disk Reclaim Tool on Your Headquarters Server

- Back up your ShoreWare database to a Network Drive (page 44).
- Back up your ShoreWare WebBridge database to a Network Drive (page 45).
- Run the Disk Reclaim Tool (page 46).

Back Up Your ShoreWare Database to a Network Drive

1 On the headquarters server desktop, click Start->Run.

2 On the Run window, type the following:

```
cmd /C "C:\Program Files\Shoreline Communications\ShoreWare
Server\MySQL\MySQL Server 5.0\Examples\BackupConfig.bat"
```

NOTE If your ShoreWare Server software is not installed in "`C:\Program Files`," enter the path where your ShoreWare Server software is installed.

By default, a backup is made in the following location:

```
C:\shorewareConfigDump.sql
```

3 Open the log file generated for the ShoreWare backup:

```
C:\BackupConfig.log
```

4 Scroll down to the end of the file.

"The dump is COMPLETE" message is written to the file when the backup is completed (Figure 33). This message is written only for ShoreTel Releases 11.1 and above.

NOTE If the dump does not complete, perform the following procedure:

a Verify that an antivirus program is not running on your server.

b Verify that the MySQL service is running on your server.

c Verify that you have the privileges required to run the command on your server.

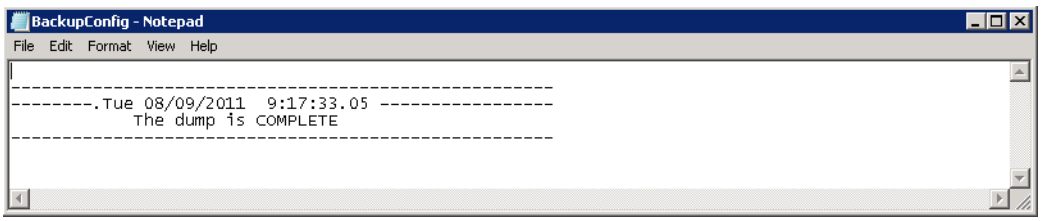
d Verify that the ShoreWare database exists on your server.

e Verify that the ShoreWare database on your server is not empty.

f Verify that the hard disk on your server is not full.

g Run the back up command again (`BackupConfig.bat`).

Figure 33. BackupConfig.log "The dump is COMPLETE" Message



Back Up Your ShoreWare WebBridge Database to a Network Drive

NOTE You must perform this procedure only if your system is running ShoreWare Server Software Release 12 and above, and if your system includes a Service Appliance 100 (SA-100).

1 On the headquarters server desktop, click Start->Run.

2 On the Run window, type the following:

```
cmd /C "C:\Program Files\Shoreline Communications\ShoreWare
Server\MySQL\MySQL Server 5.0\Examples\BackupWebBridge.bat"
```

NOTE If your ShoreWare Server software is not installed in "`C:\Program Files`," enter the path where your ShoreWare Server software is installed.

By default, a backup is made in the following location:

```
C:\shorewareWebBridgeDump.sql
```

3 Open the log file generated for the ShoreWare backup:

```
C:\BackupWebBridgeDump.log
```

4 Scroll down to the end of the file.

"The dump is COMPLETE" message is written to the file when the backup is completed (Figure 34). This message is written only for ShoreTel Releases 12 and above.

NOTE If the dump does not complete, perform the following procedure:

a Verify that an antivirus program is not running on your server.

b Verify that the MySQL service is running on your server.

c Verify that you have the privileges required to run the command on your server.

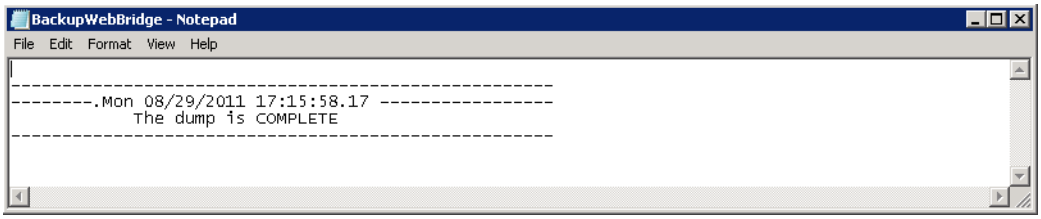
d Verify that the ShoreWare database exists on your server.

e Verify that the ShoreWare database on your server is not empty.

f Verify that the hard disk on your server is not full.

g Run the back up command again (`BackupWebBridge.bat`).

Figure 34. BackupWebBridge.log "The dump is COMPLETE" Message



Run the Disk Reclaim Tool

NOTE Prior to running the Disk Reclaim Tool, you must download to your headquarters server the Server package of the ShoreWare Software Release to which you want to upgrade your system.

1. Log on as Administrator (or make sure you have Administrator Rights).

   NOTE You must have Administrative Privileges to run the Disk Reclaim Tool.

2. Go to the location of the Server package.
3. Navigate to the DiskReclaim folder.
4. Select and right-click the Disk Reclaim Tool:

   `DiskReclaim.exe`

   (If you are presented the option to run the tool as Administrator, click that option. If the option is not available, double-click the tool.)

   The Disk Reclaim process is started.

   NOTE If errors are encountered, the Disk Reclaim Tool restores the server to its previous state.

   Figure 35 shows the disk reclaim process starting on an x86 server with a 64-bit operating system.

   Figure 36 shows the disk reclaim process in progress on an x86 server with a 64-bit operating system.

   Figure 37 shows the disk reclaim process completing on an x86 server with a 64-bit operating system.

   NOTE The server is automatically restarted after the disk reclaim process is completed.

Figure 35. Disk Reclaim Starting

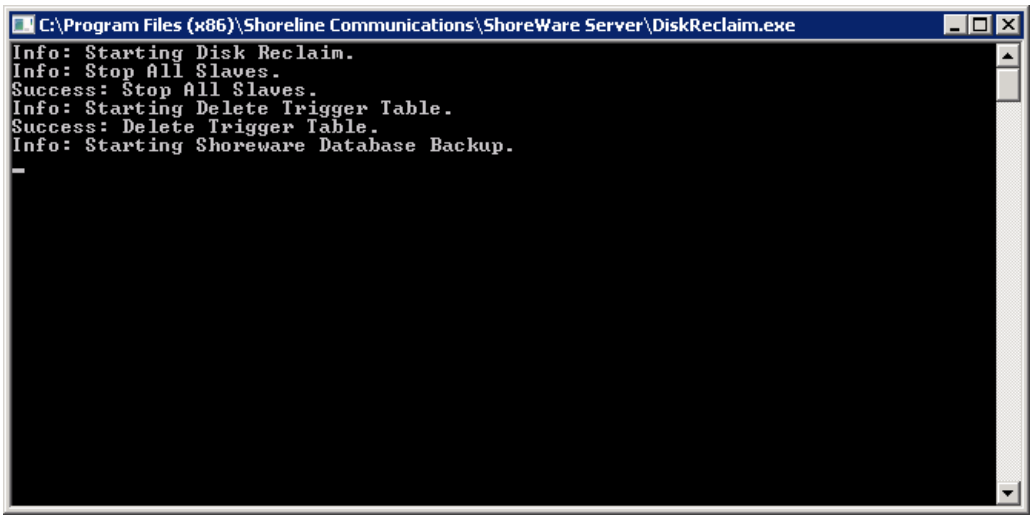


Figure 36. Disk Reclaim in Progress

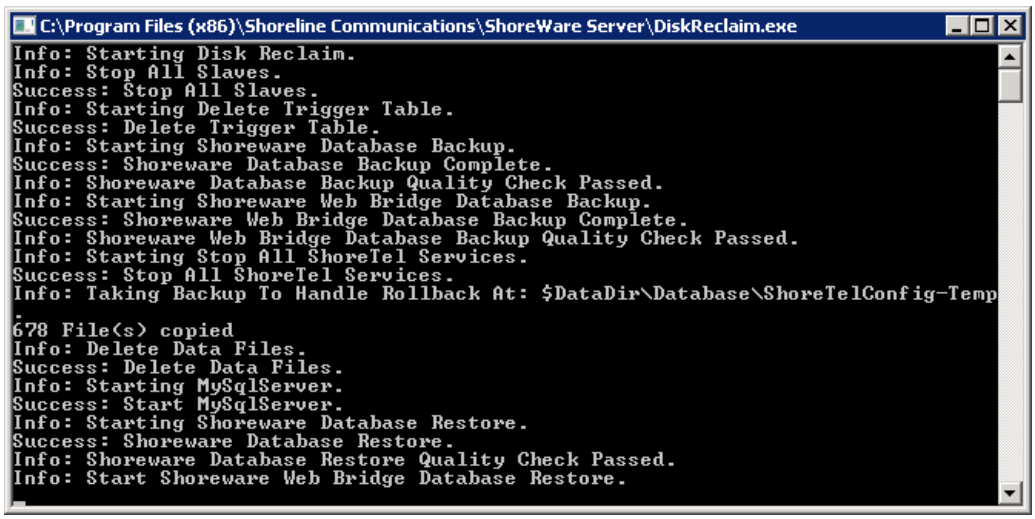
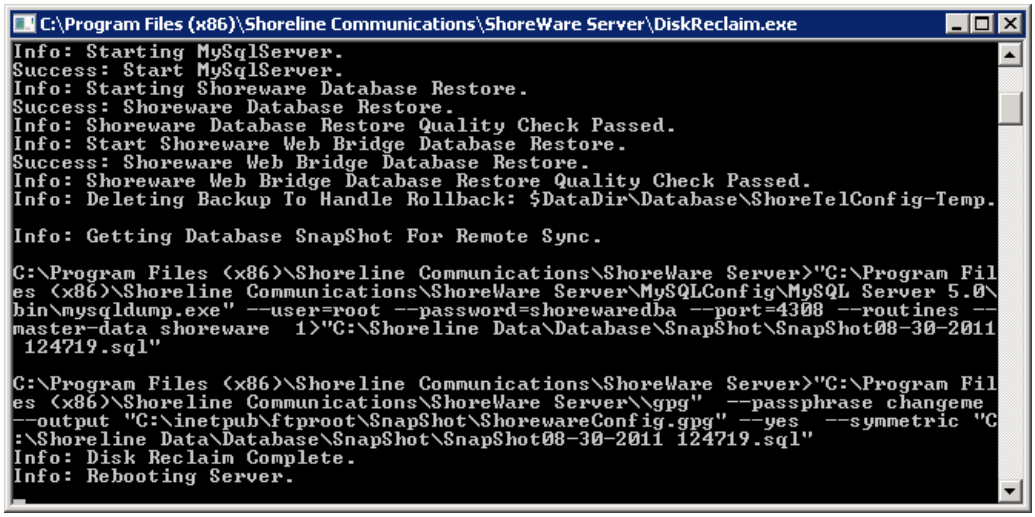


Figure 37. Disk Reclaim Completing



Running the Disk Reclaim Tool on Your Distributed Voice Server(s)

- Run the Disk Reclaim Tool (page 48).
- Resynchronize Your Distributed Voice Server Database (page 51).

NOTE By default, a distributed voice server has no local database. Run the Disk Reclaim tool on your distributed voice server(s) only if the local database is enabled on the server.

Run the Disk Reclaim Tool

NOTE Prior to running the Disk Reclaim Tool, you must download to your distributed voice server(s) the Remote Server package of the ShoreWare Software Release to which you want to upgrade your system.

1. Log on as Administrator (or make sure you have Administrator Rights).

   NOTE You must have Administrative Privileges to run the Disk Reclaim Tool.

2. Go to the location of the Remote Server package.
3. Navigate to the DiskReclaim folder.
4. Select and right-click the Disk Reclaim Tool:

   `DiskReclaim.exe`

   (If you are presented the option to run the tool as Administrator, click that option. If the option is not available, double-click the tool.)

   The Disk Reclaim process is started.

   NOTE If errors are encountered, the Disk Reclaim Tool restores the server to its previous state.

   Figure 38 shows the disk reclaim process starting on a distributed voice server.

5. If you are prompted to delete data files, click `Y` (yes).

   Figure 39 shows the Delete Data Files prompt on a distributed voice server.

   Figure 40 shows the disk reclaim process in progress on a distributed voice server.

   Figure 41 shows the disk reclaim process completing on a distributed voice server.

   NOTE The server is automatically restarted after the disk reclaim process is completed.

Figure 38. Disk Reclaim Starting

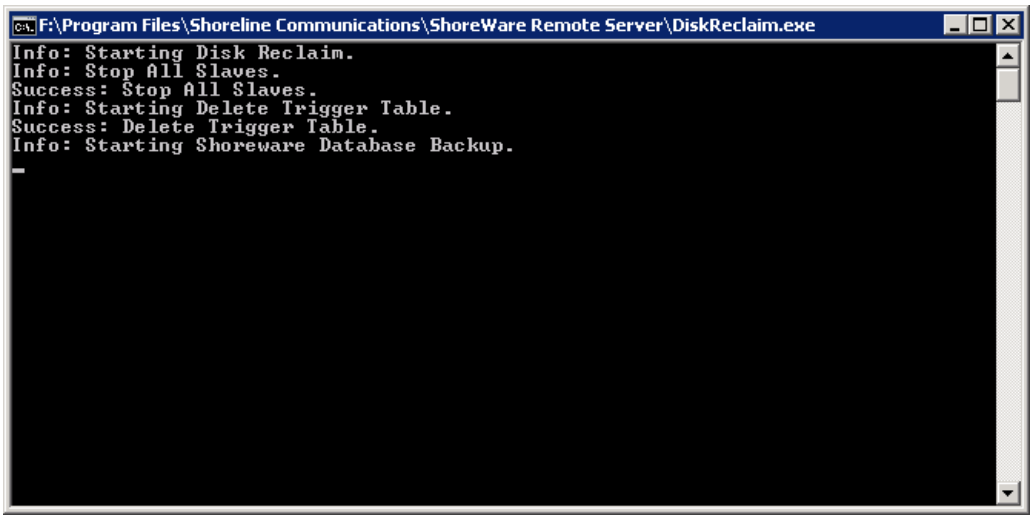


Figure 39. Delete Data Files Prompt

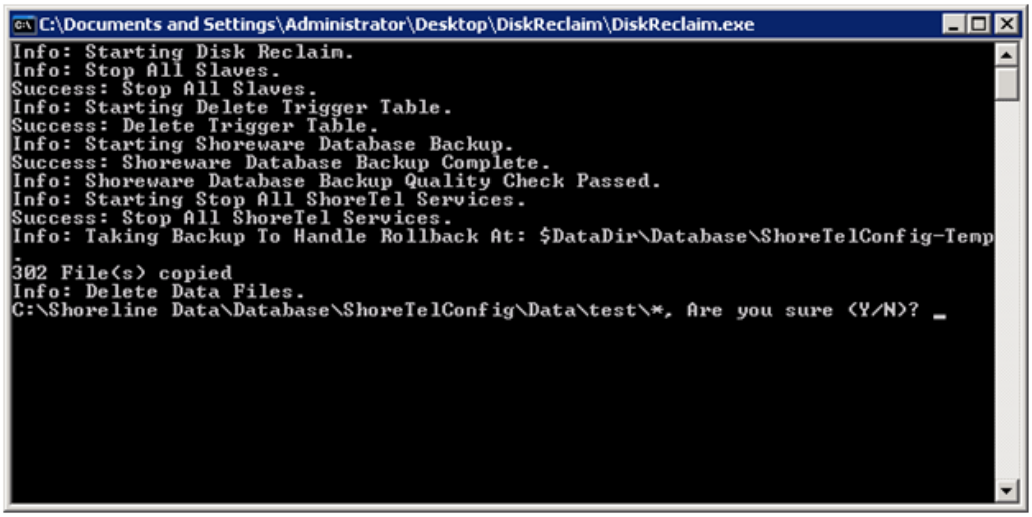


Figure 40. Disk Reclaim in Progress

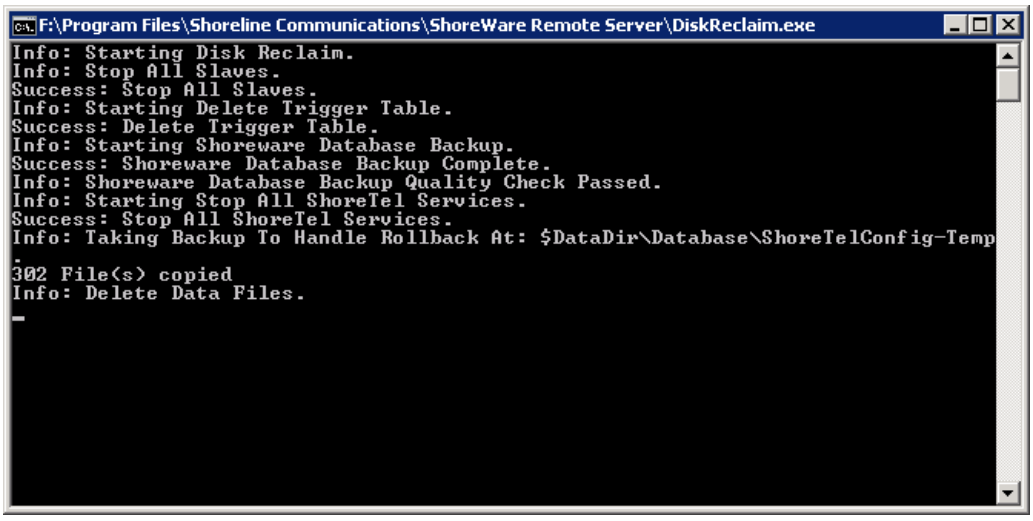
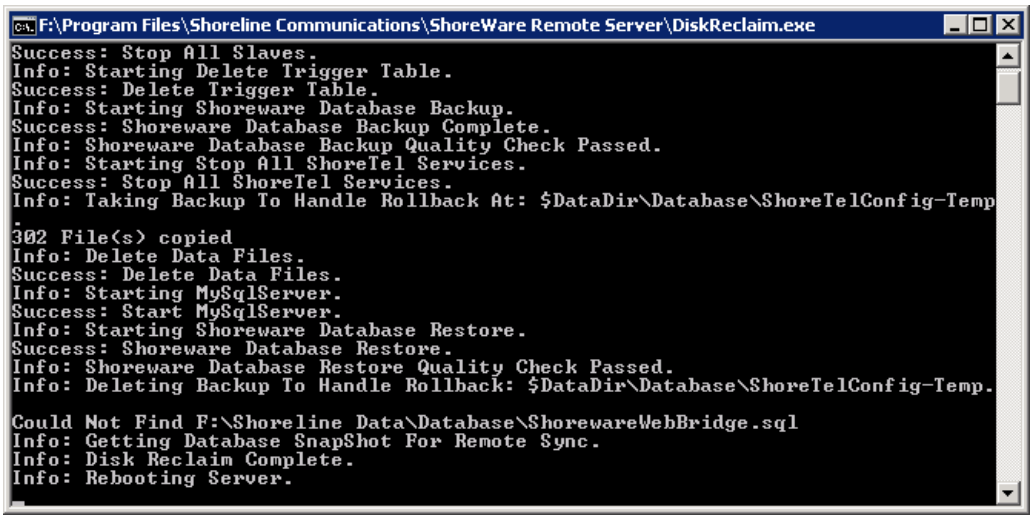


Figure 41. Disk Reclaim Completing



Resynchronize Your Distributed Voice Server Database

1 Log into ShoreWare Director.

2 Click Maintenance->Quick Look.

The Quick Look screen is displayed (Figure 42).

3 Click the name of your distributed voice server (Remote Server), listed under Server/Appliance.

The Remote Server Maintenance screen is displayed (Figure 43).

4 Scroll down to the `Resync` button.

5 Click `Resync`.

Your distributed voice server database is resynchronized.

Figure 42. Quick Look Screen

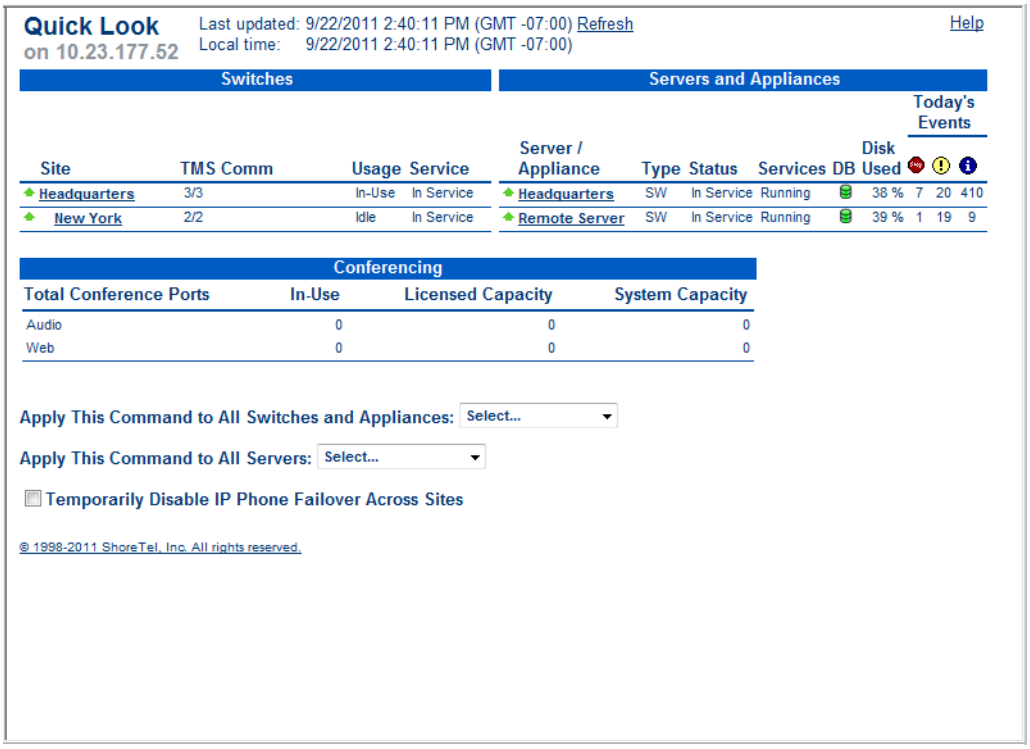
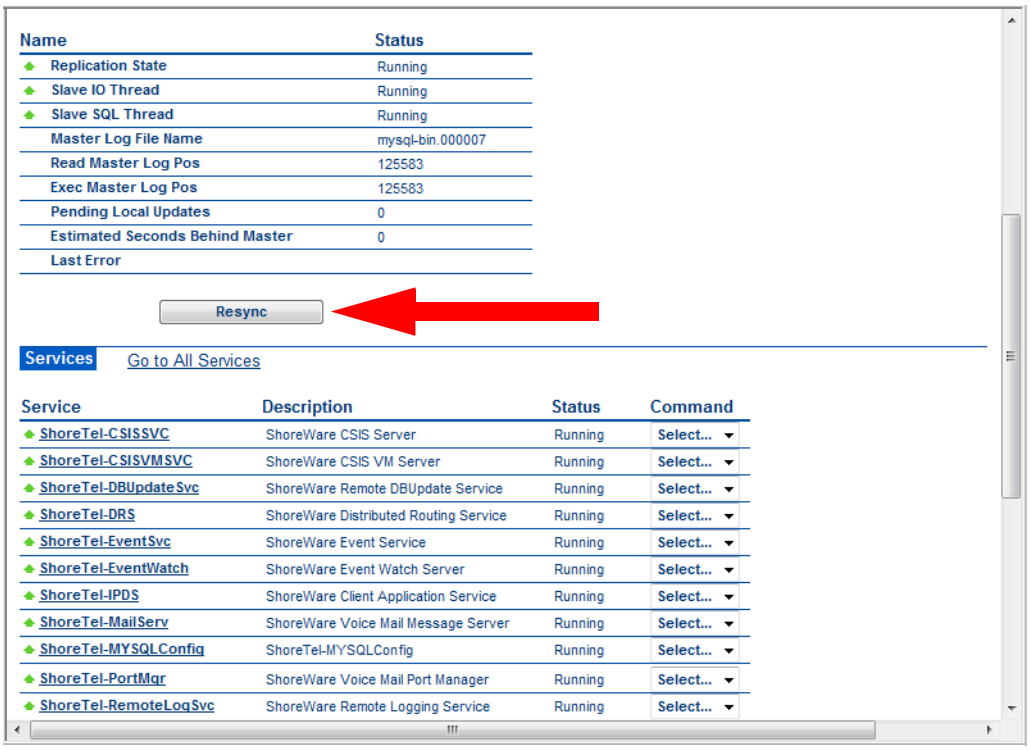


Figure 43. Remote Server Maintenance Screen: Resync Button



Running the Disk Reclaim Tool During System Maintenance

- Run the Disk Reclaim Tool on your headquarters server first.

  See page 44.

- Run the Disk Reclaim Tool on all of your distributed voice server(s) that have the database enabled.

  See page 48.

Run the Disk Reclaim Tool on Your Headquarters Server

1. Back up your ShoreWare Database to a network drive.

   See page 44.

2. Back up your ShoreWare WebBridge Database to a network drive.

   See page 45.

3. Run the Disk Reclaim Tool:

   a. Log on as Administrator (or make sure you have Administrator Rights).

   NOTE You must have Administrative Privileges to run the Disk Reclaim Tool.

   b. Navigate to the following location:

   ```
   \Shoreline Communications\ShoreWare Server
   ```

   c. Select and right-click the Disk Reclaim Tool:

   ```
   DiskReclaim.exe
   ```

Run the Disk Reclaim Tool on Your Distributed Voice Server(s)

1. Log on as Administrator (or make sure you have Administrator Rights).

   NOTE You must have Administrative Privileges to run the Disk Reclaim Tool.

2. Navigate to the following location:

   ```
   \Shoreline Communications\ShoreWare Remote Server
   ```

3. Select and right-click the Disk Reclaim Tool:

   ```
   DiskReclaim.exe
   ```

4. Resynchronize your distributed voice server database.

   See page 51.

Small Business Edition (SBE): VMware vSphere & SIP FAX Server Support

SBE is enhanced for VMW, SIP Fax server, and other features.

Supported and unsupported SBE features are clarified.

SBE Enhancements

- ShoreTel system type (SBE or EE) is displayed in Director on Navigation panel and Licenses page.
- External SIP FAX servers can be configured in Director.

  NOTE For information on implementing SIP FAX servers, see the *ShoreTel Planning and Installation Guide*.
- SBE is validated on VWware with WS 2008 R2 64-bit

  NOTE This enhancement is for customers providing their own servers. It does not apply to SBE servers included in SBE bundles. For information on running SBE on VMware with WS 2008 R2 64-bit, see the *ShoreTel Planning and Installation Guide*.

SBE Clarifications

- SBE does not support DVS, SMDI, AMIS, QSIG, or on-net dialing.
- SBE reports should be run outside of normal business hours.
- SBE is available on a ShoreTel server (page 55) or a Customer server (page 55).

  NOTE Server supplied by customer must meet SBE server requirements.
- SBE can be upgraded to Enterprise Edition (EE) (page 56).
- SBE server VMware support (page 57).
- SBE features and capabilities are documented (page 57).
- SBE multi-site configuration support (page 60).

SBE server shipped by ShoreTel

- Select SBE bundles include a server running embedded Microsoft Windows Server for Telecommunications Systems (an operating system used on standalone telecommunications products).
- The operating system is the full version of Microsoft Windows Server, with some strict license requirements.
- No keyboard, mouse, or monitor may be connected to the server.
- All administration must be performed through a remote desktop or an embedded Web tool, providing access to the full capabilities of Microsoft Server.
- Each server is pre-configured, pre-tested, and ready for ShoreTel Director Small Business Edition software.

Minimum SBE Server Requirements (for servers shipped by ShoreTel)

Table 4. Minimum SBE Server Requirements (for servers shipped by ShoreTel)

Component	Minimum Requirement
Processor	Intel Celeron E3400, DualCore 2.6 Ghz, 1MB Cache and 800FSB
Memory	2.0GB,Non-ECC,800MHz DDR2
Keyboard	No Keyboard Option
Monitor	No Monitor Option
Hard Drive	250GB, SATA
Floppy Disk Drive	No Floppy Drive
Operating System	Microsoft Windows Server 2003 for Telecommunications Systems
Mouse	No Mouse Option
NIC	On board Network Adapter
Optical Drive	16X DVD-ROM SATA
* The server power cord is automatically selected based on shipment location to support US, UK, or EMEA power requirements.	

NOTE ShoreTel reserves the right to change the server vendor at any time without written or prior notification. The new server will meet or exceed the specifications listed here.

Customer-provided SBE Server

- Customer can supply own server

  NOTE Server supplied by customer must meet SBE server requirements listed below.

- Useful if customer wants different configuration, such as RAID1 drives, redundant power supplies, redundant network interfaces, rack mount, and so on

Customer-provided SBE Server Specifications

- Must meet or exceed following specifications:
  - Celeron Dual Core 2.5 GHz or better
  - 2 GB RAM or better
  - 80 GB hard disk or better
  - DVD ROM drive or better
  - 10/100 Ethernet NIC or better
  - One or more USB ports
  - Microsoft Windows Server 2003/2008 Standard or Enterprise edition

Upgrading SBE to Enterprise Edition

- SBE can be upgraded to an Enterprise Edition no sooner than 120 days after the SBE license is activated
- An upgrade SKU is required for each SBE system combined into a multi-site system

Using SBE Server in Enterprise Edition

After SBE is upgraded to an Enterprise Edition, an SBE server can be used in an Enterprise Edition as a headquarters (HQ) server or a distributed voice server (DVS).

- SBE Server as HQ
  - Number of users in system: Cannot exceed 100
  - Simultaneous media calls to server: 10

    (Media calls to server are used by several features, including paging, workgroups, voicemail, auto-attendant menus, and account codes.)
  - Busy hour completion: 500
  - Web Reports: Not supported
- SBE Server as DVS
  - Number of users in system: Cannot exceed 500
  - Maximum number of users: Cannot exceed 100
  - Simultaneous media calls to server: 10.

    (Media calls to server are used by several features, including paging, workgroups, voicemail, auto-attendant menus, and account codes.)
  - Busy hour completion: 500
  - Web Reports: Supported (they are run from HQ server)

SBE Server VMware Support

SBE server software can run in a virtualized environment.

Minimum Virtual Server Requirements for SBE

Table 5. Minimum Virtual Server Requirements for SBE

Virtual Server Requirement	Minimum
Cores per VM	2
Processor Host Environment	Quad-core Intel Xeon X5550 processor; 2.66 GHz or similar
RAM per VM	4GB
Disk Size per VM	60GB

Operating Systems Supporting VMware for SBE

Table 6. Operating Systems Supporting VMware for SBE

Operating System	VMware Supported?
Embedded Microsoft Windows Server for Telecommunications Systems	No
WS 2008 SP2 32-bit	Yes
WS 2008 R2 64-bit, or WS 2008 R2 SP1 64-bit	Yes

SBE Features and Capabilities

Table 7. SBE Features and Capabilities

Feature	Capability
System	
Sites	3
Switches (per system)	5
Switches per site	5
Simultaneous calls (extension calling extension)	25
Simultaneous media calls to a server (workgroup, paging, vmail)	10
Busy hour call completion	500
Users	
Total users with extensions	50
Total users with extensions and virtual users (virtual users per server)	100

Table 7. SBE Features and Capabilities

Feature	Capability
Trunks	
Trunks	50
Trunk groups	250
Trunks per trunk group	50
Servers	
Server	3 (1 HQ, 1 DVS for CC/ECC, 1 redundant DVS for CC/ECC
DVS	0 (unless used for CC/ECC)
Voicemail	
Mailboxes (total)	100
Distribution lists	1,000
Personal distribution list	99
Auto Attendant	
Menus (total)	256
Levels	256
Schedules	256
Calls per server	10
Hunt groups	
Hunt groups per switch	8
Total hunt group members per switch	16
Enhanced call routing per switch	2200
Workgroups	
Workgroups per system	50
Agents per workgroup	50
Agents per system	50
Supervisors	50
Paging groups	
Paging groups total per system	300
Paging group members total per system	50

Table 7. SBE Features and Capabilities

Feature	Capability
Paging groups (continued)	
Max number of simultaneous paging group calls	10
Account codes	
Account codes per system	500
Call Detail Record	
Storage by default	1.5 GB
Storage capacity	Not limited by ShoreTel
Communicator	
Total for personal, professional, workgroup & operator	50
Personal access	50
Professional access	50
Operator access	50
Agent access	50
Supervisor access	50
Mobile access	50
Programmable buttons	
IP phone buttons configured for extension monitoring (per switch)	1024
Phones that can monitor an extension	32
Conferencing	
ShoreTel converged conference- concurrent audio and web ports	24 ports (count against 50 user limit)
SA-100 - concurrent audio users (total for system)	50 ports (do not count against 50 user limit)
SA-100 - concurrent web users (total for system)	50 ports (do not count against 50 user limit)
ECC	
Concurrent Agents	50

Table 7. SBE Features and Capabilities

Feature	Capability
IM and presence	
Configured users	50
Active users	50
ShoreTel mobility	
Max users	50 (do not count against 50 user limit)

SBE Multi-Site Configuration Support

SBE multi-site configuration does not support the following features:

- multi-site (distributed) workgroups
- multi-site (distributed) paging
- multi-site (distributed) account codes

Voicemail: Greeting Only

User experience is enhanced for customers using SMDI (Simplified Message Desk Interface) to integrate ShoreTel voicemail with external PBX systems.

> **NOTE** SMDI defines the interface between a voicemail system and a phone system such as a PBX or Public Telephone Switch. SMDI is used to provide the voicemail system with the information it needs to process a call. Each time a call is sent to voicemail, a message is sent using SMDI over a serial interface. The message identifies the line, the type of call, and the calling/called party numbers.

Enhancements

- Names and extensions of SMDI mailbox-only users can be added to an Extension List in Director (page 61).
- New Call Handling Mode option to put voicemail in “Greeting Only” mode is added (page 63).

SMDI Mailbox-only Users can be added to an Extension List

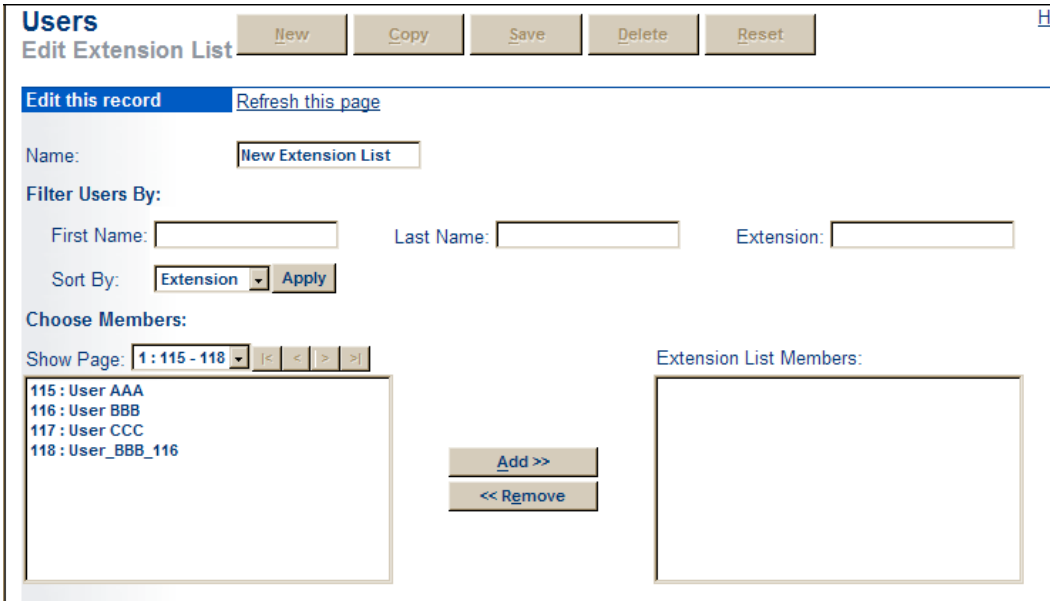
SMDI mailbox-only user names and extensions are now displayed in a Members list, from which they can be selected and added to an Extension List.

After SMDI mailbox-only user names and extensions are added to an Extension List, an Auto-Attendant can be created with an option to dial the Extension List by name.

From the Auto-Attendant, callers can search Extension Lists for sites or departments and be transferred to a specific extension.

Figure 44: Director->Administration->Users->Extension Lists->Edit Extension List: Choose Members.

Figure 44. Edit Extension List



"Greeting Only" Mode

Voicemail can be set to play a greeting then disconnect the call, without taking a message.

When this Call Handling Mode option is enabled, the voicemail server issues the following prompt: "No messages may be taken for this mailbox."

NOTE There is no option to disable the playing of this prompt.

When this option is disabled, the voicemail server issues the following prompt: "Please leave a message."

This option is added in Director (Figure 45), Communicator for Windows (Figure 46), and Communicator for Web (Figure 47).

The default setting for this option is disabled.

Figure 45: Director->Administration->Users->Call Handling Mode Defaults->Standard Mode: Edit Default Values.

Figure 45. Director

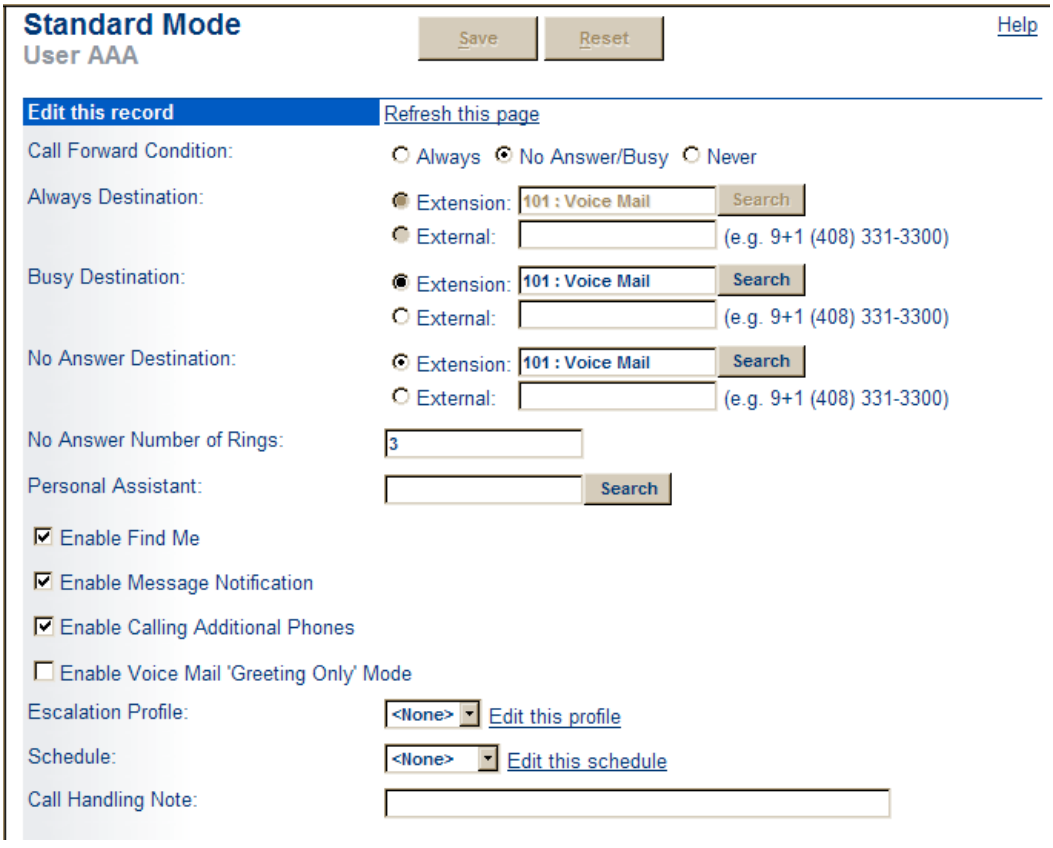


Figure 46: Communicator for Windows->Application Button->Options->Options and Preferences->Call Handling Mode->Standard:Edit Destination.

Figure 46. Communicator for Windows

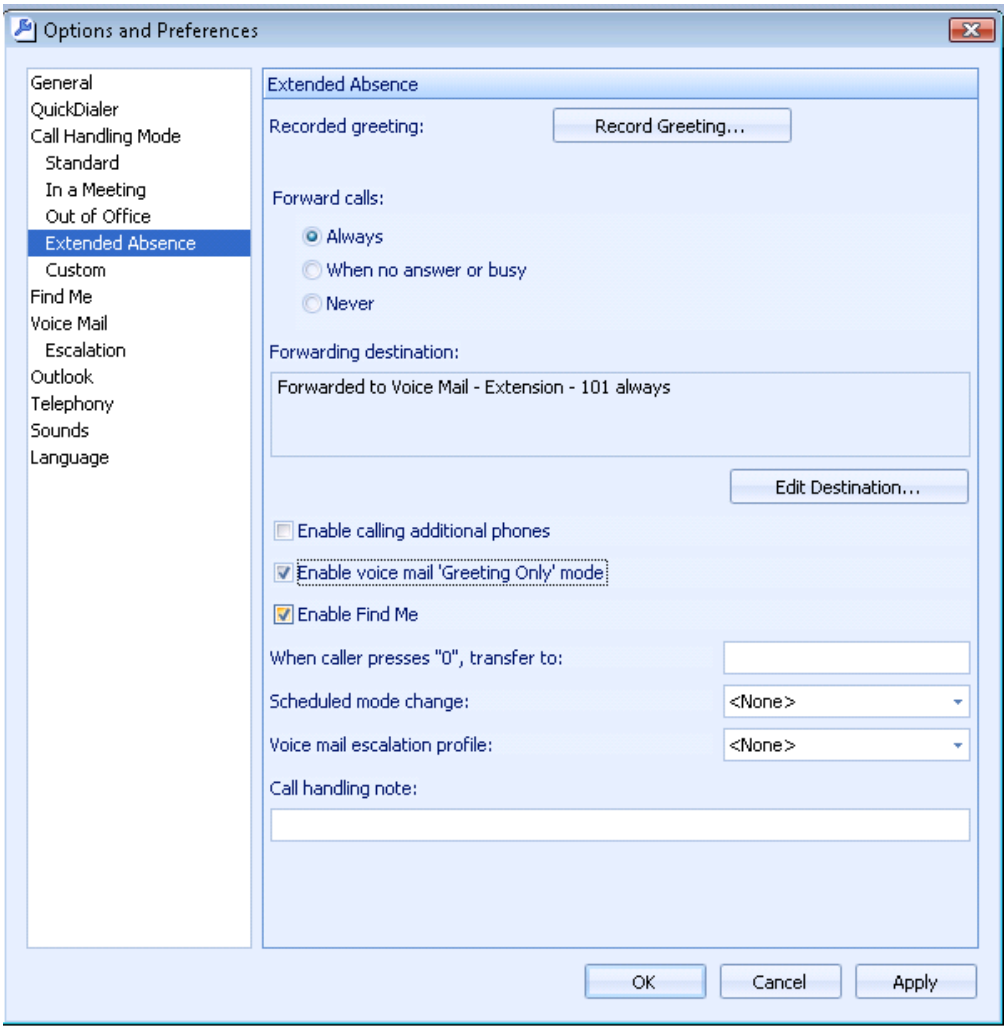
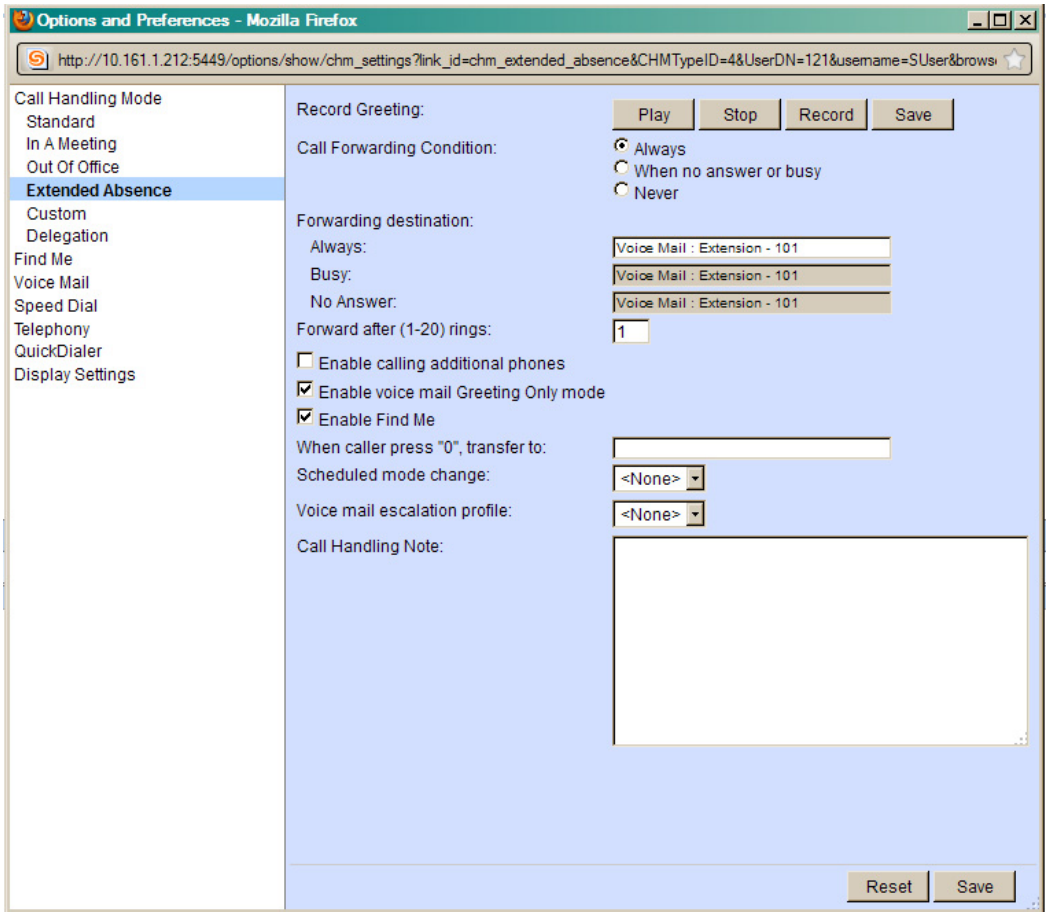


Figure 47: Communicator for Web->More->Preferences->Call Handling Mode->(CHM type)

Figure 47. Communicator for Web



Related Documentation

Other publications in the ShoreTel system documentation suite include the following:

- *ShoreTel Planning and Installation Guide*
- *ShoreTel System Administrator's Guide*