

Mitel Enhanced Paging Application Version 4.X

Administration and User Guide

June 2021

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1. INTRODUCTION

This document describes version 4.x of the Mitel Enhanced Paging application developed by Mitel. This is provided as an alternative to the built-in paging group features of the Mitel phone system and provides several enhancements relative to the standard Mitel paging groups.

1.1 SCHEDULE-BASED PAGING

Paging details can be configured ahead of time including the group, the audio file or text to speech details and other aspects of a page. These pages can then be configured to be made automatically using a weekly calendar, that is, send this page at 9 AM every Monday.

1.2 AUTO-ANSWER CALLS AS WELL AS INTERCOM CALLS TO

PARTICIPANTS

The system's paging support places intercom calls to stations but if the called party is on a call that call is not interrupted. Instead the call presents with a call waiting tone and a beep in the ear. For emergency notifications and other high priority messages this is unacceptable. This application provides paging groups which can instead use an auto answer call rather than an intercom call. This causes the current call to be put on hold and then the paging call is connected.



Note! Mitel system versions prior to 14.2, build 19.43.1700 did not support this feature on the 400-Series phones. When auto-answer calls are made to 400-Series phone models they do not automatically answer the call. Instead, the call presents as a ringing call like any other call.

1.3 SUPPORT FOR AD-HOC CALLER PAGING

In addition to pre-recorded audio pages, properly authorized you can call into a specific group managed by the Enhanced Page server, record, and send a message to the group. Caller can be required to enter a 4-digit security code to make a page. If they are required to enter the code, they are given 3 chances to provide the correct code before they are told that they are not authorized and disconnected.

1.4 GROUPS CONFIGURED WITH A LIST OF VALID CALLERS

The application supports a Windows client to administer the groups. In addition to supporting the entry of the group members and the security code for ad-hoc callers, the admin also allows one or more internal extension to be configured who can always page the group regardless of whether a security code is configured. If a caller not in the list calls the group and the group does not support users entering a security code, then the caller is told that they are not authorized and disconnected.

1.5 STATION PAGING AND EXTERNAL PAGING SUPPORT

The application supports paging user stations and properly configured external paging systems. The pages to user stations will all play at the same time where the pages to external paging system will not have their audio synchronized.

1.6 SUPPORT FOR DISTRIBUTED PAGING

In the built-in paging support in the Mitel system, all paging audio is sent from the customer's headquarters server. In the enhanced paging system, multiple servers can be deployed and configured in such a way that users will be paged by the local server. This reduces the load on the WAN as generally audio will not need to be sent outside of the local site. Note that while audio paging is distributed, text pages are always sent from the Headquarters site. However, this does not present any significant bandwidth issue as the data involved is so small relative to audio paging.



Note! While audio paging is distributed, text pages are always sent from the Headquarters site. However, this does not present any significant bandwidth issue as the data involved is so small relative to audio paging.

1.7 PHONE MESSAGE SUPPORT

Using the Mitel Phone interface available in Mitel 7.5 and later versions for some phone models, this application also supports a simple text page feature that allows you to log into a web site and select a group to send a message to and after entering a text message request that the message be sent to all group members. The message can also be sent with an optional message to be played on your phones to alert you on the message. The optional tone is a group setting.



Note!

- This feature is an optional component which is not included with your deliverable. Unless you plan to use the text page feature, you can ignore the parts of this document which discuss the installation, configuration and usage of the text paging portions of the system.
- This feature requires the Phone API introduced in Mitel version 7.5 (build 12.14.6901.0 or later) which support text messaging. The following phone models support text messaging: 265, 560, 560G, 565, and the 655. Mitel will work with the customer after they upgrade to a compliant Mitel server as we will need to provide an additional service to support the text paging. In addition, it is possible that some changes will be made in the interfaces between now and when the customer upgrades in which case we would provide an updated installer for the server service too.

1.8 SUPER GROUPS

In addition to groups of stations, the system will also allow the creation of super groups. Super groups are groups of regular groups. Creating super groups allows more than 100 stations to be paged. Pages sent to super groups are sent to one sub-group at a time until all members of all contained groups have been notified.

2. REQUIREMENTS

- As part of installation, the application and admin may be prompted to install the Microsoft .NET runtime from the Microsoft web site.
- The paging service must be installed on the customer's Headquarters (Connect Director) and/or DVS servers.
- To make pages using text to speech support you'll need to install the Microsoft Text to Speech engine and one or more voices. See the appendix which details how to download and install the engine and voices to your server.
- The text paging support requires a separate Phone API (PAPI Service.) See the appendix which details the installation and configuration of the separately available Phone API Service. The text message feature requires a minimum Mitel version of 8.1.
- The phone API is only supported will with 265, 560, 560G, 565, and the 655 model phones. Phone API support may be added in subsequent releases for additional phone models as well.

3. CAPACITY

By default, groups can be configured with up to 100 members. In addition, also by default, the Enhanced Page server is configured to make up to 200 simultaneous calls to group members in support of simultaneous page requests. The system will dynamically calculate if it has enough call resources based on the configuration when deciding if it can start to send a page. When the server goes to send a page request (from the admin, from the command line utility, a scheduled page or an ad-hoc page) it will check to see if the number of allowed calls per server minus the count of members for any and all groups currently being paged is sufficient for the page. If not, then the page is queued as well as any subsequent pages that arrive until current pages complete and free up sufficient call resources. When a page completes the system takes the next page waiting in line and if there are sufficient call resources available to start the page then it does otherwise it will wait for subsequent active pages to also complete until there are sufficient call resources available to start the page. The defaults for both maximum number of members per group as well as the maximum numbers of calls per server can both be changed but groups with more than 100 members should only be used with testing and may not work correctly or may fail in some situations. Similarly, the maximum allowed calls per server can be increased to up to 250 calls per server but again, doing so is not tested and may not work.

Customers who exceed 100 members per group and/or 200 calls per server do so at their own risk. These two settings are configured as part of the server's settings using the Admin client.

4. INSTALLATION

There are three separate setup programs which make up the application. The server and web site are usually installed on the Mitel server while the Admin client can be installed on the server and/or on any Windows PC on the same network. The installers are provided in the form of zip files which should be unzipped into a folder before being installed:

- **STPSEnhancedPageServerSetup4.x.y**

This installs the **STPS Enhanced Page Server** service. This service provides the core ability to support the page calls as well as the phone messages feature used in conjunction with the STPS Phone API Service.

- **STPSEnhancedPageAdminSetup4.x.y**

This installs the Enhanced Page admin client as well as the separate command line utility. This will usually be installed on at least the same server PC where the page server is installed but can additionally be installed on administrator's PCs. The admin client interfaces with the service.

- **STPSEnhancedPageWebSiteSetup4.x.y**

This installs the web site used to allow users to send pre-recorded and text to speech pages. It also supports the phone text messaging feature. The web site interface with the service.

4.1 PREPARING FOR INSTALLATION

Before the service and web site are installed, the customer and partner will want to plan out the topology of their network. While one instance of the application can be installed and used to manage all enhanced paging groups, in the interest of decreasing WAN loading between sites, each system can instead be configured to handle a subset of the available users to avoid the need for a server at one site to be paging users at other sites. As an example, assume that the customer will be deploying the server at three sites:

- New York where the headquarters server is located.
- Chicago where a DVS is located.
- LA where a DVS is located.

Both the Page Server service and the Page Web Site would be installed at all three locations. At the time of installation, each Page Server service can be configured with the extensions it will support paging to and from. For example:

- New York users are in the range 1000-1999.
- Chicago users are in the range 2000-2999.
- LA users are in the range 3000-3999.

If the phone message capability is used then in addition to the page server and web site, the customer will also have to install the STPS Phone API Service. This will be installed on the headquarters server and used by all servers across all sites to send text pages. As part of installing a Page Server you will, in addition to specifying the range of user extensions served by the server, also indicate the location of the Phone API Service.

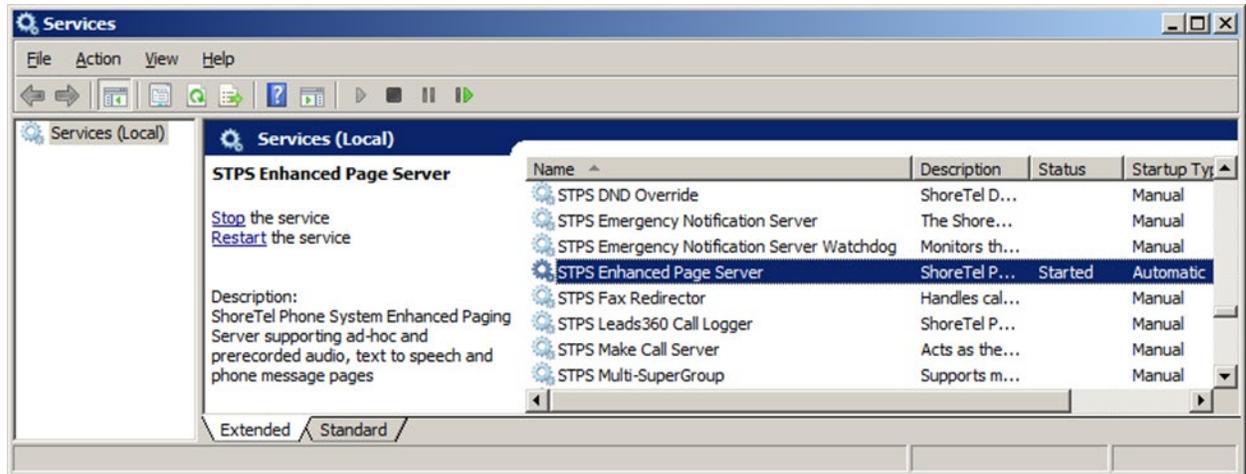
For more information, see [Appendix B: Installing the Phone API \(PAPI\) Server](#).

4.2 INSTALLING THE STPSENHANCEDPAGESERVERSETUP SERVER

To install the page service:

1. Run the *STEnhancedPageServerSetup.exe* after unzipping the files in the zip file of the same root name into a folder. The install wizard should start running.

2. Click **Next**, select the install directory, click **Next**, and then click **Next** again to start the installation. When the installation completes, click **Close**.
3. Verify that the service is installed and is running by opening the Windows Services program and looking for the service named **STPS Enhanced Page Server**:



4. Before the service can function, you must configure some of the service settings and create some Groups to use. To do so, you must install and use the separate Windows Admin Client.

4.3 INSTALLING THE ADMIN CLIENT AND COMMAND LINE UTILITY: STPSENHANCEDADMINSETUP

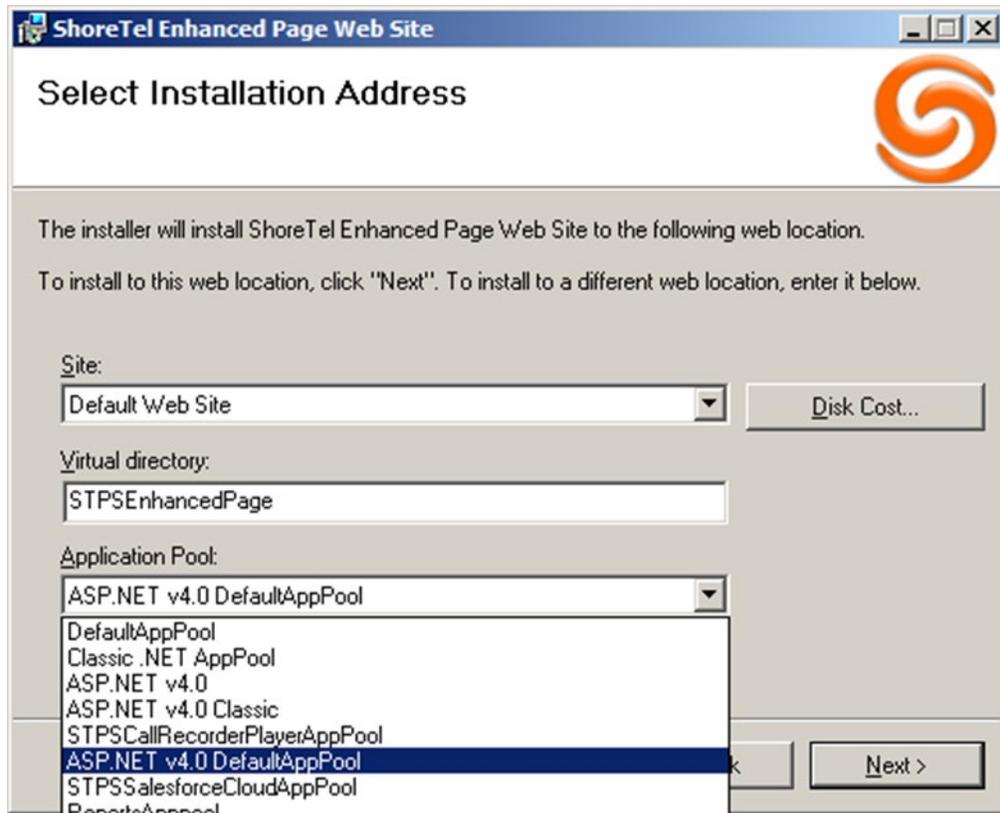
To install the Enhanced Page Admin client and the command line utility on the server PC or any other PC:

1. Run the *STPSEnhancedPageWebSiteSetup.exe* after first unzip the files in the zip file of the same name into a folder. The install wizard should start running.
2. Click **Next**, select the install directory, click **Next**, and then click **Next** again to start the installation.
3. When the installation completes, click **Close**. See the [Using the Admin Client](#) section for information about configuration regarding using the Admin client to setup and configure the server. See the [Command Line Utility](#) section for more information.

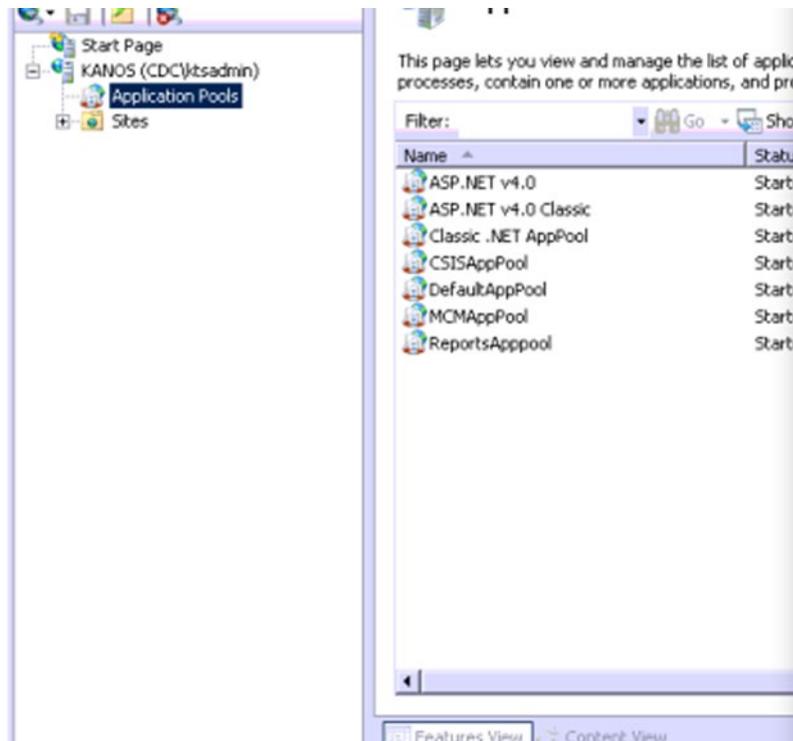
4.4 INSTALLING THE WEB SITE: STPSENHANCEDPAGEWEBSITESETUP

To install the Enhanced Page Website:

1. Run the *STEnhancedPageWebSiteSetup.exe* after first unzip the files in the zip file of the same name into a folder. The install wizard should start running.
2. Click Next. The **Select Installation Address** page opens:



Depending on the Windows version you have, it might also look like this:



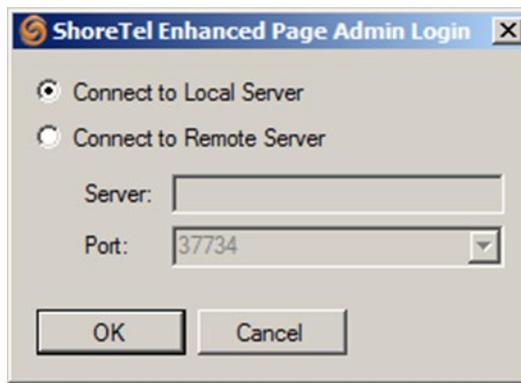
3. You can accept or change Site and Virtual Directory settings. For the Application Pool you must select **ASP.NET v4.0 DefaultAppPool** or, depending on your version of Windows, just **ASP .NET v4.0** rather than the **DefaultAppPool**.
4. Click **Next > Next** to confirm the installation and then, when the installation completes, **click Close**.

5. USING THE ADMIN CLIENT

After the Enhanced Page service and admin client have been installed you are ready to use the Admin client to setup and configure the server. The only required setup is to create one or more groups with some members. However, there are several server settings that you might want to change or configure to tune the behavior of the service. Each group will require a route point so you may want to first run Director and create one or more route points. In addition, if you plan to use the Admin client's prompt recorder capability, you must create a route point for that feature. See the [Appendix on using Director](#) to create and configure route points.

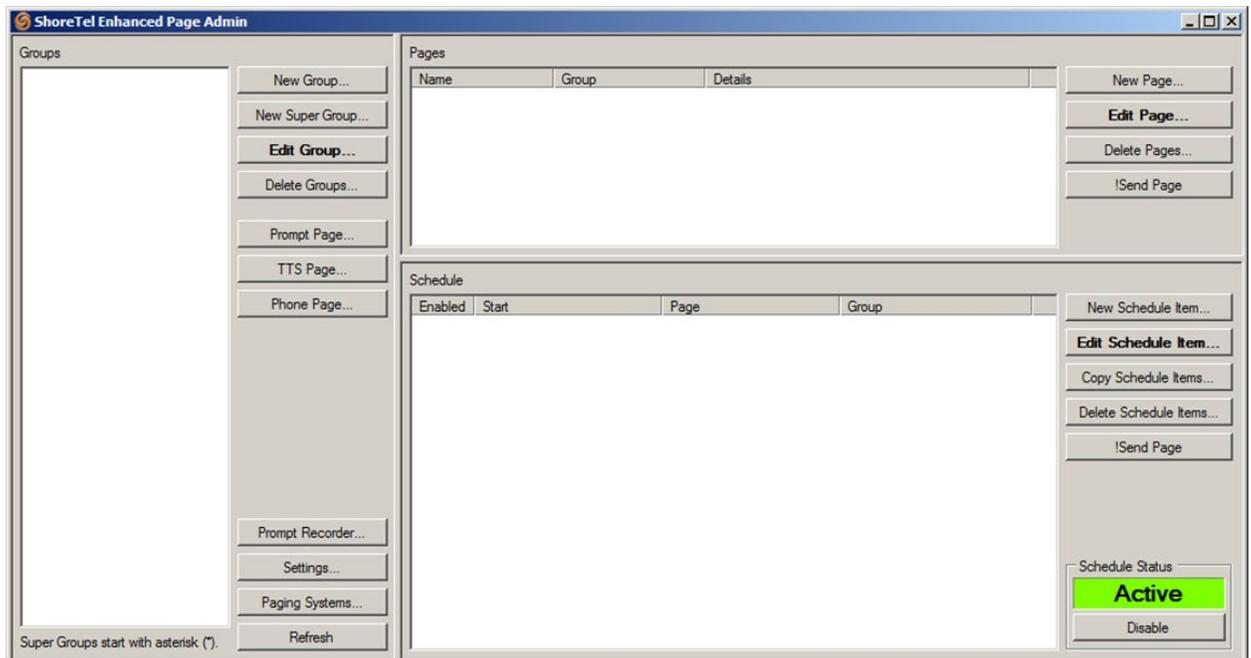
5.1 LOGGING INTO THE ADMIN CLIENT

1. When the Admin client is installed it should create a shortcut icon on the user's desktop as well as in their Programs Mitel folder. Either shortcut can be used to start the Admin. At startup, you should be prompted with a logon dialog:



2. If you are running the Admin client on the same PC where the service is installed, you can leave the **Connect to Local Server** option selected and click **OK**. If you are connecting to a server on another PC, select **Connect to Remote Server**, enter the server name or IP address, and click **OK**.

Assuming the client can connect to the server the main screen should show:



5.2 ADMIN MAIN SCREEN

The main screen of the Admin client's user interface has three areas or panes. The use of these three panes is described in a section below:

Field	Description
Group Pane	On the left hand side is the Groups pane. Any groups you create will be listed here.
Pages Pane	In the upper right is the Pages pane. Any predefined audio file pages, text to speech pages or phone message pages which you create will be listed here.
Schedule Pane	In the lower right is the schedule pane. Any schedule items you create will be listed here.

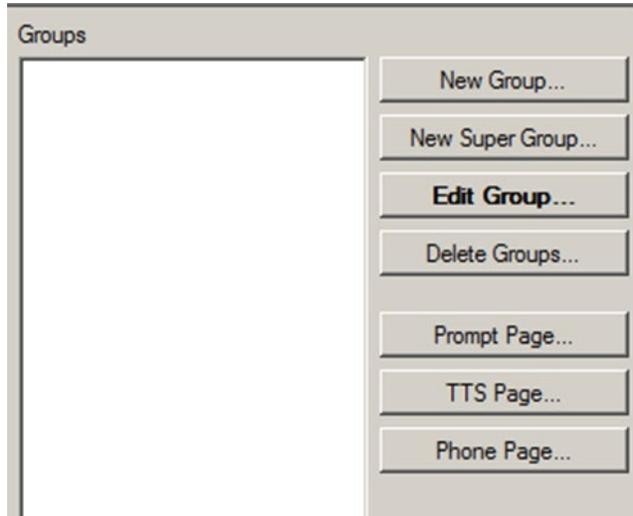
In the lower right corner of the Group pane are several additional buttons. The use of these buttons is described here:

Field	Description
Prompt Recorder	Clicking the Prompt Recorder option will open the Prompt Recorder dialog window. Unlike other dialogs you may see, this is a modeless dialog which means it can be kept open and used while performing other functions using the Admin Client. See the section below which covers the Prompt Recorder .
Settings	Clicking the Settings option will open the Settings dialog. Use this option to configure system wide settings. See the section below which covers the Settings dialog.
Paging Systems	Clicking the Paging Systems option will open the Paging Systems dialog. Use this option to configure any external paging systems that you may want to make calls to as part of one or more groups. See the section below which covers the Paging Systems dialog.
Refresh	Clicking the Refresh option causes the client to re-cache settings and other information from the server. This is used in several cases: <ul style="list-style-type: none"> • If another user has run the Admin client and made changes at the same time you are running the Admin client, then clicking Refresh will synchronize your Admin's UI with the changes. • If you add or remove route points or stations using Connect Director, then clicking Refresh

will cause the Admin to get the latest details from the server.

5.3 GROUPS PANE

The **Groups** pane is displayed on the left side of the main window. On the left side all currently defined groups are listed and on the right side are buttons (excluding the three at the bottom) used to create, edit, and delete groups or send various types of pages to the existing groups.



5.3.1 NEW GROUP

To create a regular group, click **New Group**. The Group dialog will open:

New Group

Route Point:

Allow unregistered callers

Code:

Stations Allowed to Call this Group

Stations:

- 110:User110
- 111:User111
- 210:User210
- 211:User211
- 212:User212
- 213:User213

Callers:

Add >>>

<<< Remove

Group Members:

Stations:

- 110:User110
- 111:User111
- 210:User210
- 211:User211
- 212:User212
- 213:User213

Members:

Add >>>

<<< Remove

External Paging Systems

Page Systems:

- x210 (210)

Page Systems to Call:

Add >>>

<<< Remove

Member options:

Auto Answer No Answer Timeout:

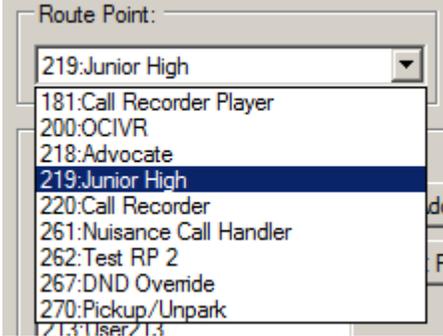
CHM Override Playback Prompt:

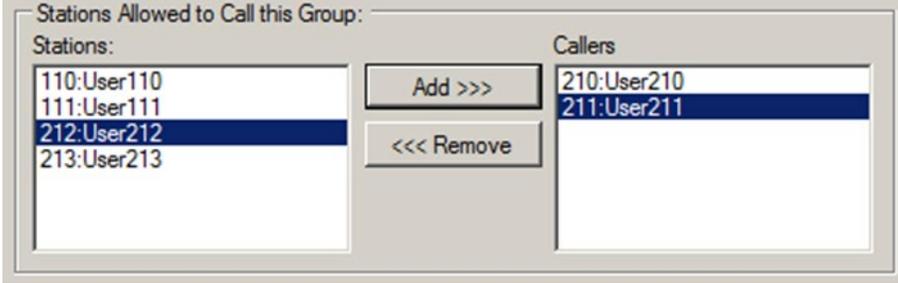
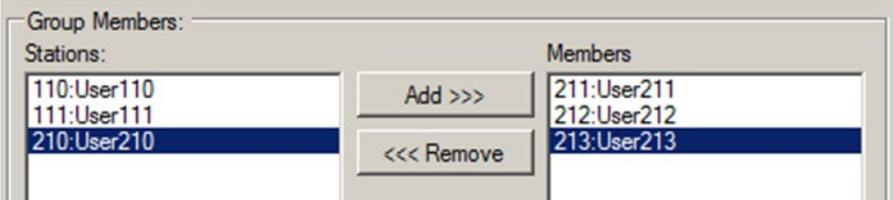
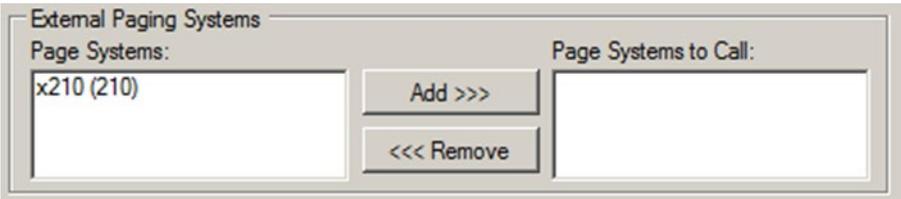
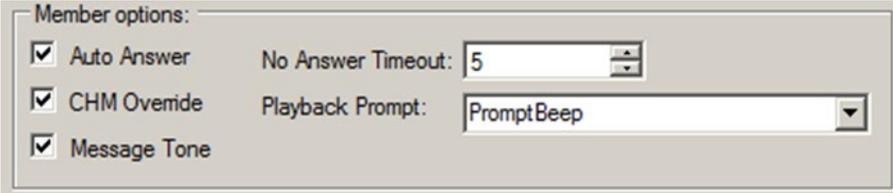
Message Tone

OK Cancel

At minimum, for a group to be usable, you must assign it a route point and add at least one member. The dialog has several controls.

Field	Description
Route Point	Select the route point that this group will use. See the Appendix below regarding using Director to create Route Points.

	 <p>Note! if you create route points while the Admin is running, you must click Refresh from the main screen to load the updated list of route points and be able to assign the new route point to a group.</p> 
<p>Allow Unregistered Callers</p>	<p>For ad-hoc audio paging, callers can page a group if they are listed as one of the Callers (see the Stations Allowed to Call this Group below) or, Allow Unregistered Callers is checked and the caller provides the correct four DTMF digit Code in response to being prompted when they call. If you will only allow registered Callers to make audio pages or you won't be using this group for ad-hoc paging, then leave this unchecked.</p> 
<p>Code</p>	<p>This is the four-digit code which, if correctly provided by a calling party through DTMF digits, will allow you to record and send an audio page by calling the group's route point.</p>
<p>Stations Allowed to Call this Group</p>	<p>On the left side are listed all the stations in the system that are not currently assigned as Callers into this group. On the right side are any stations (Callers) allowed to call this group. To make a station an allowed caller into the group, locate it in the Stations list and either double click it or, select it and click Add. To remove a Caller (stations allowed to call this group) from the right side, locate it and either double click it or click the Remove.</p>  <p>Note! You are only using the code mechanism to control callers into the group, or you won't be using this group for ad-hoc paging then you don't need to add any Callers.</p>

	
<p>Group Members</p>	<p>On the left side are listed all the stations in the system that are not currently assigned as Members of this group. On the right side are any stations (Members) that are members of this group. To make a station a member of the group, locate it in the Stations list and either double click it or, select it and click Add. To remove a Member from the group, locate it on the right side and either double click it or click Remove.</p> 
<p>External Page Systems</p>	<p>On the left side are listed all the configured paging systems. These are configured in the External Paging Systems dialog accessed from the admin's main window. On the right side are listed all the external paging systems that are assigned to be called for this group. To add a page system to the group, locate it in the Page Systems list and either double click it or, select it and click Add. To remove a page system from the group, locate it on the right side and either double click it or click Remove.</p> 
<p>Member Options</p>	<p>At the bottom of the screen are several settings which, except for the Message Tone checkbox, control how the members of the group will be called for audio pages. The Message Tone checkbox is used for the Phone Text Message page type.</p> 
<p>Auto Answer</p>	<p>If this option is checked, then the system will make an auto answer call to group members when making audio pages. If unchecked, it will make an intercom call. See the comment in the Introduction for an understanding of how the two call types differ.</p>

	 <p>Note! This option is only used when calling regular members. External paging systems ignore this option.</p>
No Answer Timeout	<p>This sets the number of seconds the system will wait for all parties to connected before it starts the playing the page. It can take several seconds for all calls made to the members to complete and the called phones to go off hook. Because of phones out of service, analog extension, and other issues some calls might never connect so this tells the service how long to wait before giving up on members who haven't connected. The default is 5 seconds.</p>  <p>Note! This option is only used when calling regular members. External paging systems ignore this option and use the paging system's Seconds to wait for answer setting instead.</p>
CHM Override	<p>If this option is checked, then calls to members will be made in such a way that any call handling mode (CHM) which would cause the call to be forwarded will be ignored and the call will ring through. If unchecked, then the call will follow any forwarding in effect at the destination station.</p>  <p>Note! This option is only used when calling regular members. External paging systems ignore this option.</p>
Playback Prompt	<p>This specifies an audio file that is played prior to the message when making an audio page (ad-hoc, pre-recorded or text to speech) to a group. If left blank, then no audio is played prior to the message. The prompt file is expected to be in the Page folder of the server install location. You can use the Prompt Recorder option to record the file. You can select from the current list of recorded pages by clicking the drop-down arrow.</p>  <p>Note! This option is the only option also used when calling external paging systems.</p>
Message Tone	<p>This is the only option which doesn't apply to audio calls made on behalf of the group. If checked, then a phone text message page made to the group will play a short tone in addition to displaying the message on the member's phone screens.</p>

5.3.2 NEW SUPER GROUP

To create a super group, click **New Super Group**. The **New Super Group** dialog will open:

New Super Group

Route Point:

Allow unregistered callers

Code:

Stations Allowed to Call this Group

Stations:

- 110:User110
- 111:User111
- 210:User210
- 211:User211
- 212:User212
- 213:User213

Callers

Add >>>

<<< Remove

Group Members:

Groups:

- 260:Test RP
- 261:Nuisance Call Handler

Members

Add >>>

<<< Remove

External Paging Systems

Note: Supergroups use the external paging systems configured for each subgroup when calling each subgroup.

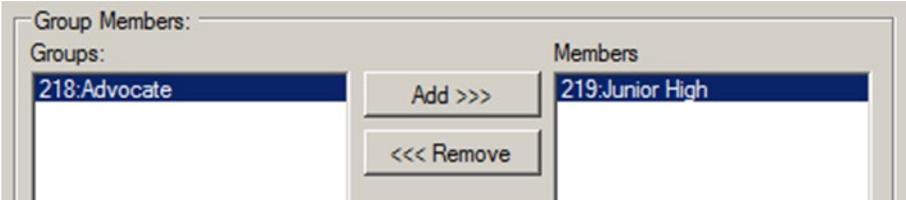
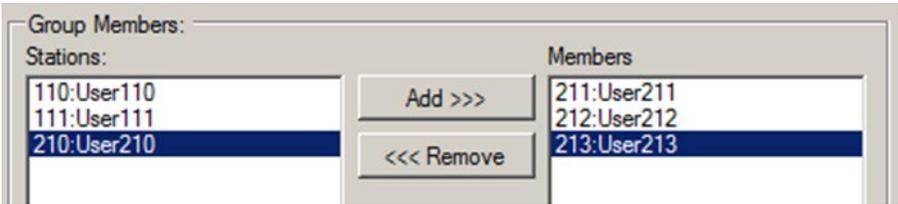
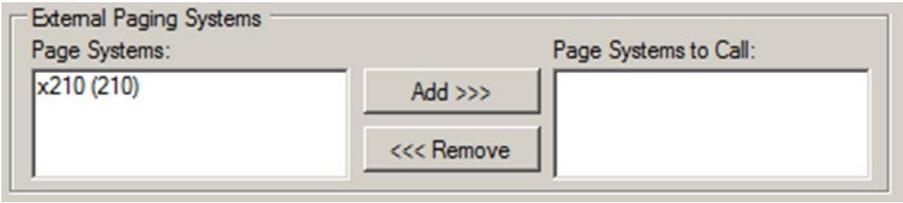
Member options:

Note: Supergroups use the member options of each subgroup when calling or sending a phone message to the subgroup's members.

OK Cancel

This is essentially the same as the regular group dialog except that the group members are other groups and the **External Paging Systems** and **Member** options panes at the bottom are replaced with notes that states that supergroups use the external paging systems and member options respectively of each subgroup. The **Route Point**, **Allow unregistered callers/Code**, and **Stations Allowed to Call this group** serve the same purpose as a regular group.

Field	Description
Group Members	On the left side are listed all the regular (non-super) groups in the system that are not currently assigned as Members of this super group. On the right side are any groups (Members) that are members of this super group. To

	<p>make a group a member of the group, locate it in the Groups list and either double click it or, select it, and click Add. To remove a Member from the group, locate it on the right side and either double click it or click Remove.</p> 
<p>Prompt Page</p>	<p>To send a prompt page to a group without creating a Page item (see the next section), click Prompt Page. This will display the Send Prompt Page dialog:</p>
<p>Group Members</p>	<p>On the left side are listed all the stations in the system that are not currently assigned as Members of this group. On the right side are any stations (Members) that are members of this group. To make a station a member of the group, locate it in the Stations list and either double click it or, select it and click Add. To remove a Member from the group, locate it on the right side and either double click it or click Remove.</p> 
<p>External Page Systems</p>	<p>On the left side are listed all the configured paging systems. These are configured in the External Paging Systems dialog accessed from the admin's main window. On the right side are listed all the external paging systems that are assigned to be called for this group. To add a page system to the group, locate it in the Page Systems list and either double click it or, select it and click Add. To remove a page system from the group, locate it on the right side and either double click it or click Remove.</p> 
<p>Member Options</p>	<p>At the bottom of the screen are several settings which, except for the Message Tone checkbox, control how the members of the group will be called for audio pages. The Message Tone checkbox is used for the Phone Text Message page type.</p>

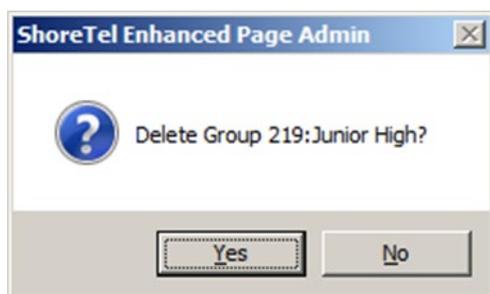
Member options:	
<input checked="" type="checkbox"/> Auto Answer	No Answer Timeout: 5
<input checked="" type="checkbox"/> CHM Override	Playback Prompt: PromptBeep
<input checked="" type="checkbox"/> Message Tone	

5.3.3 EDIT GROUP

To edit an existing a regular or super group, either double click the group in the left-hand Groups pane or select the group and then click **Edit Group**. Depending on if the group is a regular or super group the appropriate group dialog will open, and the same settings used when the group was created can be set or changed.

5.3.4 DELETE GROUPS

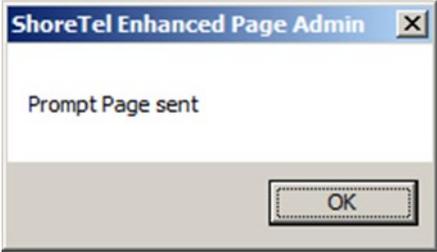
To delete groups, select the groups in the left hand Groups pane. You can select multiple items with **Ctrl+Click** and a range of items with **Shift+Click**, then **click Delete Groups** and click **Yes** when asked to confirm:



Note! If you delete a group, any pages that use the group as well as any schedule items that use one of the pages will also be deleted.

5.3.5 PROMPT PAGE

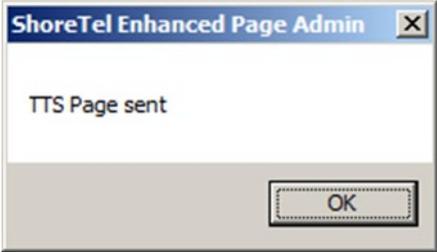
To send a prompt page to a group without creating a Page item (see the next section), click **Prompt Page**. This will display the **Send Prompt Page** dialog:

Field	Description
Group	If a group was currently selected, then it will be set as the Group field. You are free to set or change it to any currently defined group or super group.
Prompt	Select the prompt you wish to play from the drop-down Prompts list. If required, you can use the Prompt Recorder to record a new prompt.
Repeat Count	Normally, the prompt will play to the group one time. However, if you want the prompt to repeat one or more times, then change the repeat count to the number of repetitions. For example, to repeat the prompt once set the repeat count to 1.
Super Group Repeat Count	This field is only shown if the group is a super group. Normally, when the system plays a message to a super group it calls the members of each subgroup and plays the message one or more times based on the repeat count. When it completes playing to all the subgroups it is done. However, if the super group repeat count is greater than zero, then the service will restart with the first group and repeat the activity of calling each subgroup and playing the message again.
Play Prompt	<p>After you have selected a group and a prompt and optionally set the repeat and super group repeat counts, you can play the prompt to the group by clicking the Play Prompt option. When the play is sent, you will see this message popup:</p> 
Close	When you are done playing prompts you can close the dialog by clicking the Close option.

5.3.6 TTS PAGE

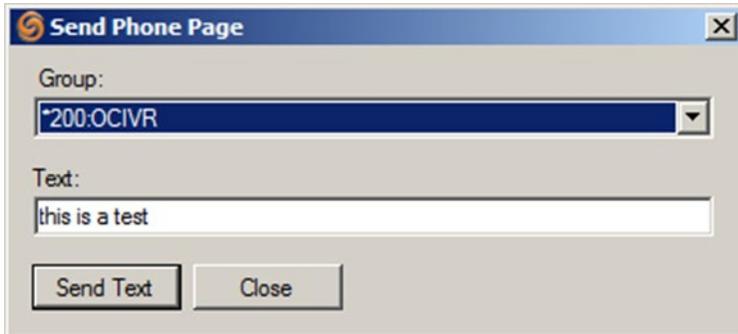
To send a Text to Speech (TTS) page to a group without creating a Page item (see the next section), click **TTS Page**. This will display the **Send Text to Speech Page** dialog:

Field	Description
Group	If a group was currently selected, then it will be set as the Group field. You are free to set or change it to any currently defined group or super group.
Text	Enter the text which you want to have spoken using text to speech to the group members here.
Text to Speech Voice	If the Use Default Voice option is checked, then the page will use the current default TTS voice (see the section on the system settings where the system's default voice is set). If not checked, then the Voice Setting option is enabled and you can select any of installed TTS voices to be used when converting the text to speech.
Text to Speech Rate	If the Use Default Rate option is checked, then the page will use the current default TTS rate (see the section on the system settings where the system's default rate is set). If not checked, then the Rate setting is enabled and you can select any a rate ranging from -10 (slowest) to +10 (fastest) to be used when converting the text to speech.

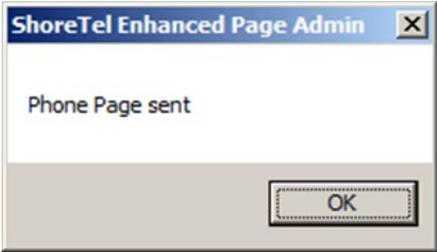
Repeat Count	Normally, the prompt will play to the group one time. However, if you want the prompt to repeat one or more times, then change the repeat count to the number of repetitions. For example, to repeat the prompt once set the repeat count to 1.
Super Group Repeat Count	This field is only shown if the group is a super group. Normally, when the system plays a message to a super group, it calls the members of each subgroup and plays the message one or more times based on the repeat count. When it completes playing to all the subgroups it is done. However, if the super group repeat count is greater than zero then the service will restart with the first group and repeat the activity of calling each subgroup and playing the message again.
Play Text	After you have selected a group and entered some text and optionally set a voice, rate, repeat and super group repeat counts, you can play the text to the group by clicking the Play Text option. When the play is sent, the following message appears: 
Close	When you done playing TTS text, you can close the dialog by clicking the Close option.

5.3.7 PHONE PAGE

This is used to send a text message to the phone displays of the group members phones. For details, see the [Phone Message Support](#) section in the Introduction and [Appendix B: Installing The Phone API \(PAPI\) Server](#). Click the **Phone Page** option to display the **Phone Page** dialog:

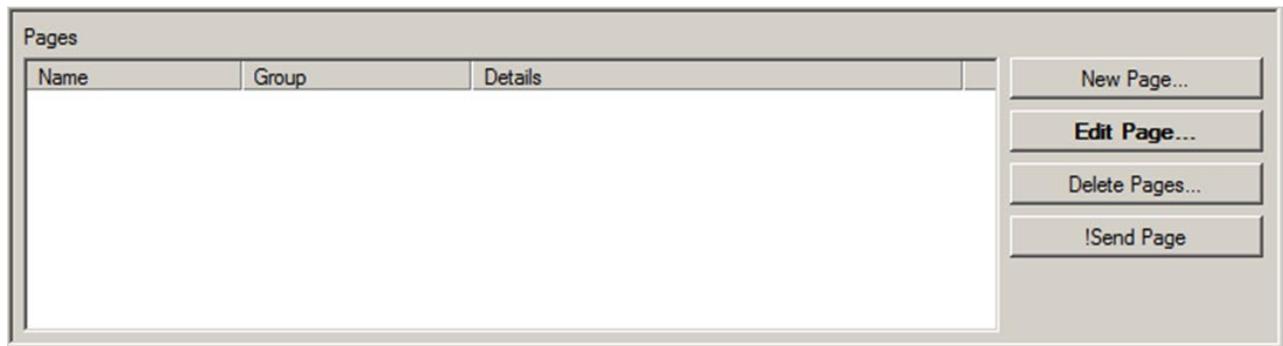


Field	Description
Group	If a group was currently selected, then it will be set as the Group field. You are free to set or change it to any currently defined group or super group.
Text	Enter the text which you want to have displayed on the group member's phone displays.

Send Text	<p>After you have selected a group and entered some text, you can send the text to the group member's phones by clicking the Send Text option. When the text is sent, the following message will appear:</p> 
Close	<p>When you complete sending text messages to phone, you can close the dialog by clicking the Close option.</p>

5.4 PAGES PANE

The **Pages** pane is displayed in the upper right corner of the main window. On the left side all currently defined pages are listed and on the right side are options used to create, edit and delete pages as well as send a page:



5.4.1 NEW PAGE

To create a page, click the **New Page** option. The Page dialog will open:

Field	Description
Name	Enter the name you want to assign to this page.
Group	For new pages, if a group was currently selected then it will be set as the Group field. You are free to set or change it to any currently defined group or super group.
Audio File Text to Speech Phone Message	These three radio buttons allow you to select the type of page. These correspond to the three types of pages that the Enhanced Page server supports. The settings for each of the page types are the same one available when sending a page using the Group Pane's buttons.
Send Page	To test a page you have configured, click the Send Page option.

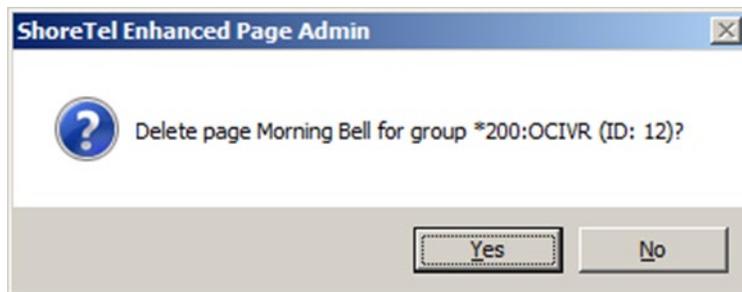
OK	Click OK to close the dialog and save any changes.
Cancel	Click Cancel to close the dialog and throw away any changes.

5.4.2 EDIT PAGE

To edit an existing page, either double click the page in the left-hand **Pages** pane or select the page and then click the **Edit Page** option. The **Page** dialog will open, and the same settings used when the page was created can be set or changed.

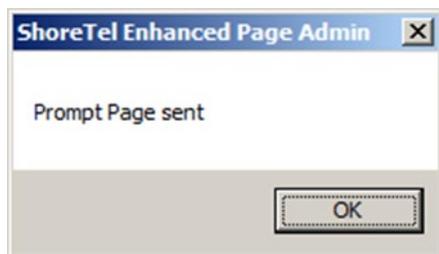
5.4.3 DELETE PAGES

To delete pages, select the pages in the left hand Pages pane. You can select multiple items with **Ctrl+Click** and a range of items with **Shift+Click**, then click the **Delete Pages** option and click **Yes** when asked to confirm:



5.4.4 SEND PAGE

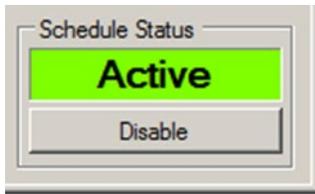
To send one of the pages in the Pages list, select it and click the **Send Page** option. The page should be sent, and you should receive the following confirmation message:



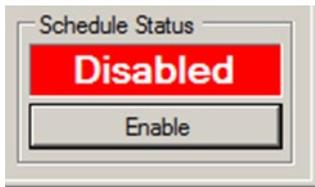
5.5 SCHEDULE PANE

The Schedule pane is displayed on the lower right corner of the main window. On the left side all currently defined schedule items are listed and on the right side are buttons used to create, edit, copy, and delete schedule items as well as send a schedule item's page right away. In addition, in the lower right corner is a button to turn all scheduling off or on.

This shows scheduling active:



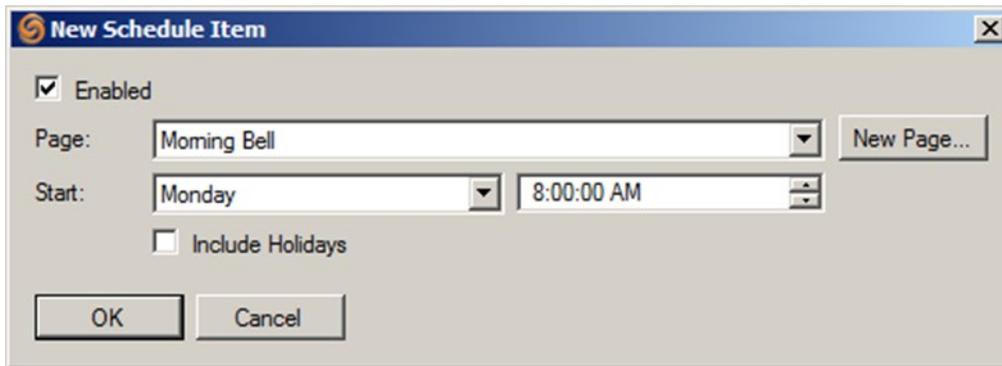
This shows scheduling disabled:

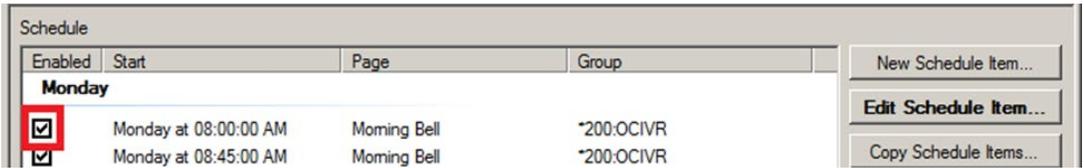


Click the **Disable** or **Enable** option as appropriate.

5.5.1 NEW SCHEDULE ITEM

To create a schedule item, click the **New Schedule Item** option. The New Schedule Item dialog will open:



Field	Description
Enabled	<p>If checked, the Enabled checkbox means this schedule item is active and the associated page will be sent on schedule. In addition to editing a schedule item to enable or disable it, you can also change the enabled/disabled status of a schedule item directly from the Schedules Pane by clicking the checkbox when one or more schedule items are selected:</p> 
Page	<p>For new schedule items, Page will be sent to the currently selected page in the Pages pane if any. You can select which specific page they want to use. To create a new page, you can do so directly from this dialog by clicking the New Page option.</p>
Start	<p>A schedule item causes a page to automatically occur once per week on the Start day and time. Select the day and time that the page should be made.</p>

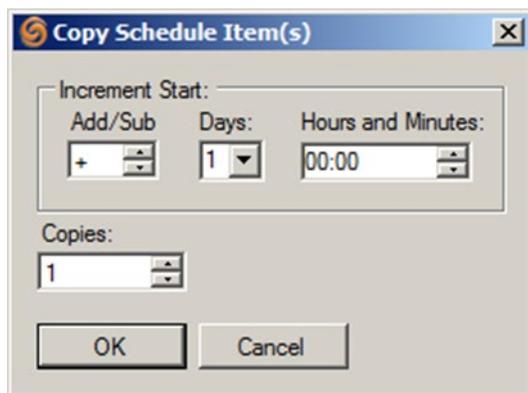
Include Holidays	If checked, then the schedule item will still occur on holidays (see the Setting Section's Holidays option and dialog for details on configuring the holidays.) If unchecked and the day of the week happens to coincide with a configured holiday, then the page will not occur.
OK	Click OK to close the dialog and save any changes.
Cancel	Click Cancel to close the dialog and throw away any changes.

5.5.2 EDIT SCHEDULE ITEM

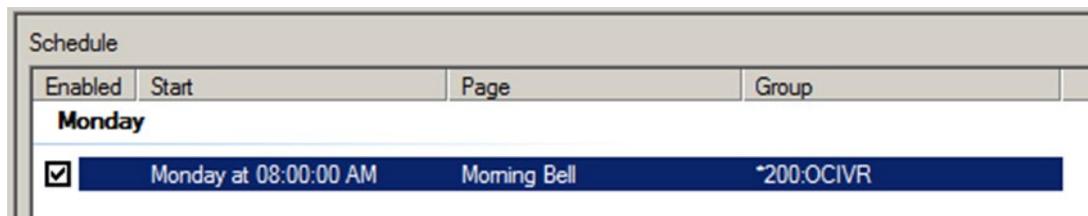
To edit an existing schedule item, either double click the schedule item you want to edit or select it and click **the Edit Schedule Item** option. The **Schedule** dialog will open, and you can change the settings described above.

5.5.3 COPY SCHEDULE ITEM

To copy one or more schedule items, select them from the list of schedule items in the **Schedule** pane and then click **Copy Schedule Item(s)**. The **Copy Schedule Items** dialog will open:



The Copy schedule items dialog allows you to copy the schedule items to earlier or later in the week. You can copy by days and/or hours and minutes and you can make one or more copies incrementing or decrementing by the same amount from the previous copy. To copy to later, set the **Add/Sub** field to show the + sign. To copy to earlier, set the **Add/Sub** field to show the - sign. Select the number of Days (zero is allowed), Hours and Minutes, and the number of Copies to make. As an example, if you had this schedule item:



If you copied it with these settings:

Copy Schedule Item(s)

Increment Start:

Add/Sub: Days: Hours and Minutes:

Copies:

This would make 4 copies where each one would occur a day after the previous schedule item resulting in this Schedule:

Schedule

Enabled	Start	Page	Group
Monday			
<input checked="" type="checkbox"/>	Monday at 08:00:00 AM	Morning Bell	*200:OCIVR
Tuesday			
<input checked="" type="checkbox"/>	Tuesday at 08:00:00 AM	Morning Bell	*200:OCIVR
Wednesday			
<input checked="" type="checkbox"/>	Wednesday at 08:00:00 AM	Morning Bell	*200:OCIVR
Thursday			
<input checked="" type="checkbox"/>	Thursday at 08:00:00 AM	Morning Bell	*200:OCIVR
Friday			
<input checked="" type="checkbox"/>	Friday at 08:00:00 AM	Morning Bell	*200:OCIVR

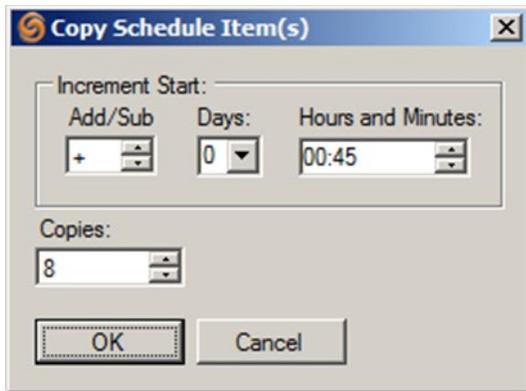
Schedule Status: **Active**

As another example, again if you started with this schedule item:

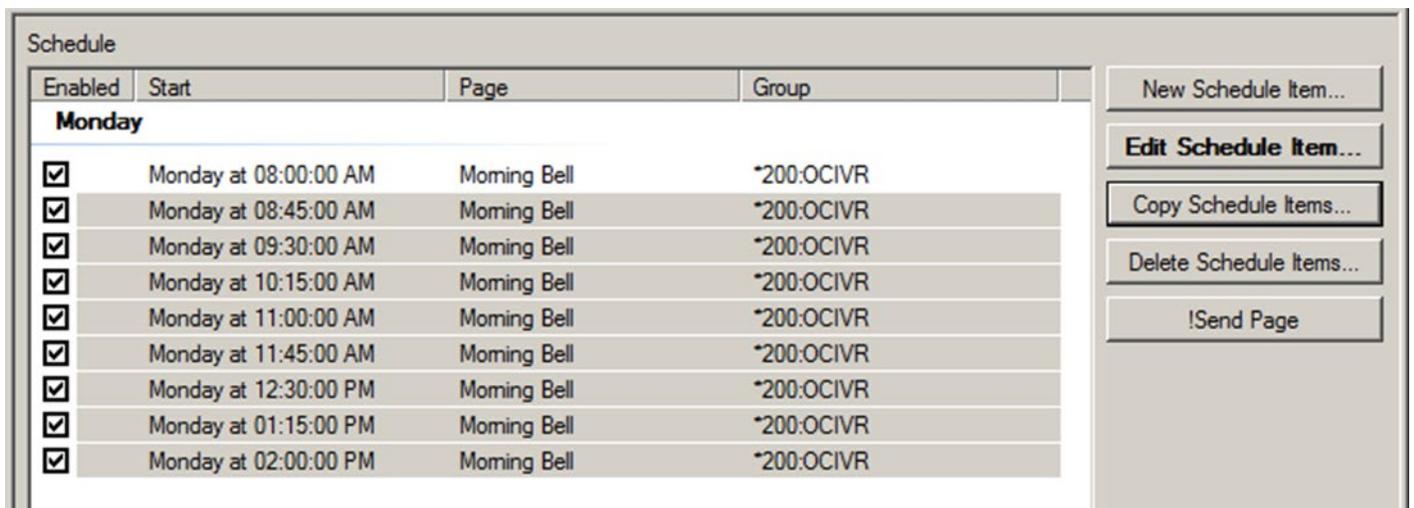
Schedule

Enabled	Start	Page	Group
Monday			
<input checked="" type="checkbox"/>	Monday at 08:00:00 AM	Morning Bell	*200:OCIVR

But this time made copies with these settings:

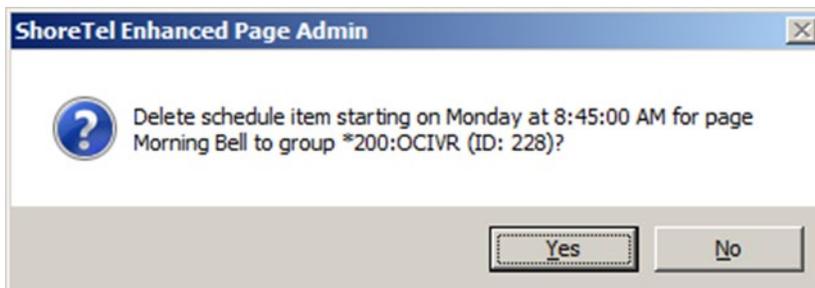


This would make 4 copies where each one would occur a day after the previous schedule item resulting in this Schedule:



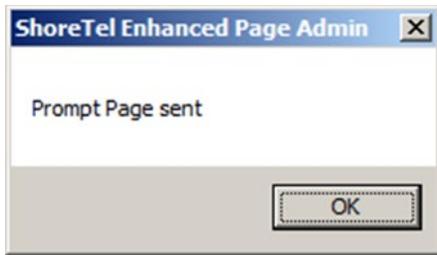
5.5.4 DELETE SCHEDULE ITEM

To delete schedule items, select the schedule items in the left hand Schedule pane. You can select multiple items with **Ctrl+Click** and a range of items with **Shift+Click**, then click the **Delete Schedule Items** option and click Yes when asked to confirm:



5.5.5 SEND PAGE

To send a page using a schedule items associated page, select it and click the Send Page option. The page should be sent, and you will receive the following message:



5.6 PROMPT RECORDER

You are free to record prompts using any tool you want. However, the Enhanced Page application only supports the native Mitel recording format. This is the same format as the Mitel voice mail system so you could potentially use the voice mail system to record a prompt and extract it from the system and place it in the correct location for use by the Enhanced Page service.

The page prompt format supported is:

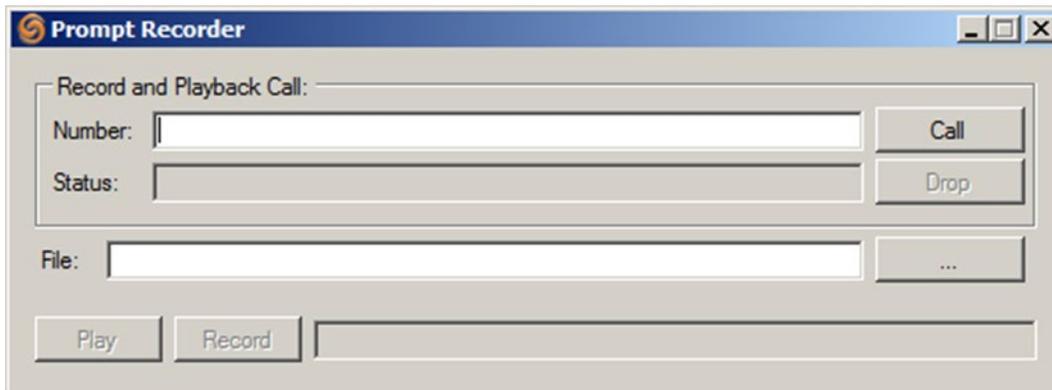
CCITT u-Law 8.000 KHz, 8 Bit, Mono format

For page prompt files to be usable by the Enhanced Page service they need to be placed in the service's Pages folder. Assuming the server was installed in the typical default location, this path will be:

C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Server\Pages

When first installed several public domain prompt files are provided for testing.

When the **Prompt Recorder** option is clicked, the Prompt Recorder's window is displayed:



If instead you see this error:

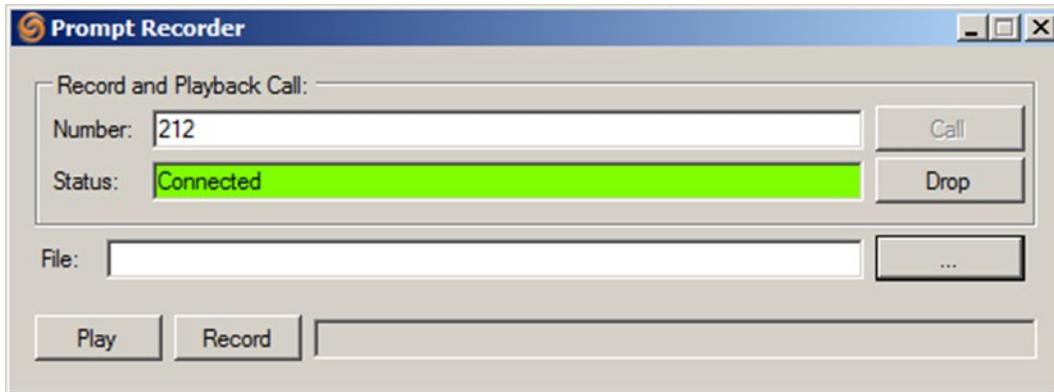


You must open the settings and configure the Prompt Recorder Route Point setting.

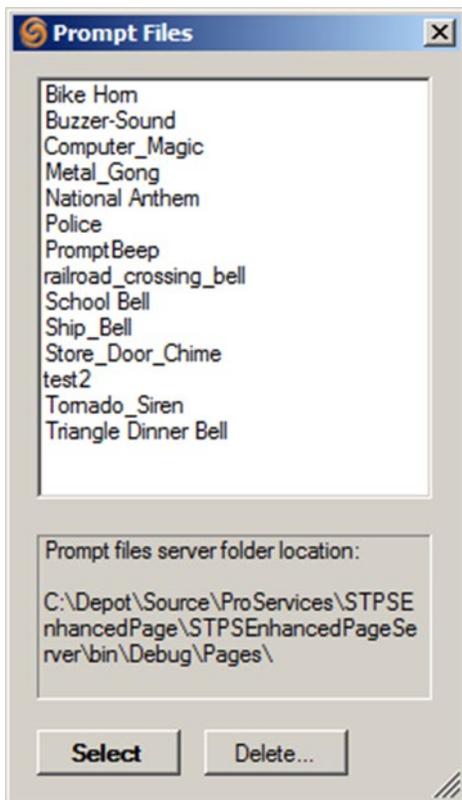
The way the prompt recorder works is by calling a phone number (typically an internal extension although it can be an external number with an appropriate trunk access code prefix) and then the operator, using the buttons can record and listen to new and existing prompts.

The number entered will be remembered by the admin. If you typically record prompts from the same number each time, you must enter it the first time you go to use the Prompt Recorder.

To setup a call that can be used for recording, after entering the number, click the **Call** option. If successful, the status should show a green connected status and the **Play** and **Record** options will become enabled:

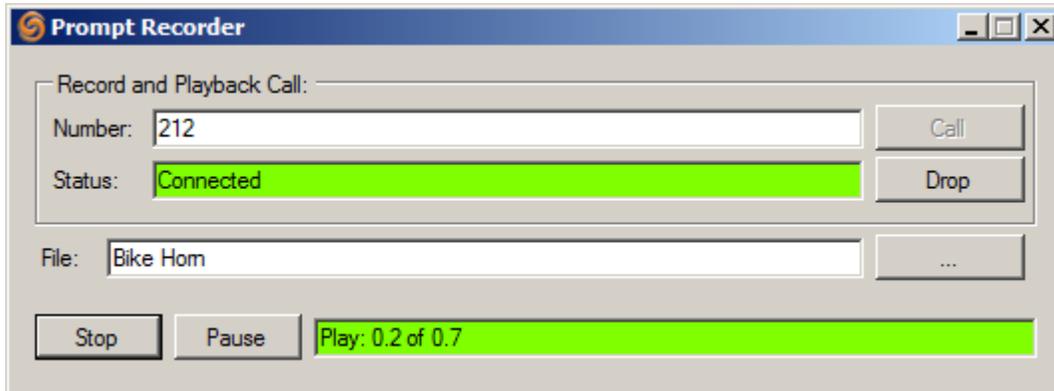


Before you can record a prompt or playback an existing prompt, you must enter the File settings. To view and select the currently available recorded prompts, you can click the ... option. This will open the **Prompt Files** dialog which lists all the current prompts:



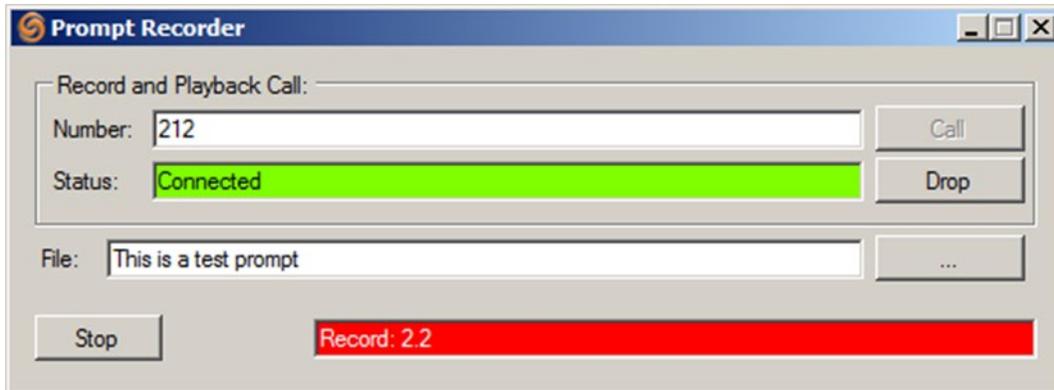
Note! The Prompt Files dialog also lists the full path to the prompt files as a reminder in case you want to use Windows File manager to directly work with the files. While you must use Windows File manager to rename files or copy files in and out of the Pages folder, you can use the **Prompt Files** dialog to delete files. Select one or more current prompt files and then click the Delete option. You can use **Ctrl+Click** or **Shift+Click** to select multiple files or a range of files.

To select a prompt file, either double click a prompt file or, or select and click the **Select** option in the prompt file you want to listen to or re-record. The dialog will close, and the file will be placed in the **File** field of the **Prompt Recorder** Dialog. If the Prompt Recorder currently has a call active, it will automatically start playing through the user's phone:



When the prompt recorder is playing back a prompt, you can stop or pause the playback using the appropriate option.

If you have entered a new File name or an existing file is showing in the File setting, but playback isn't stopped, then the second option can be used to record the prompt. Click the **Record** option and then start speaking:



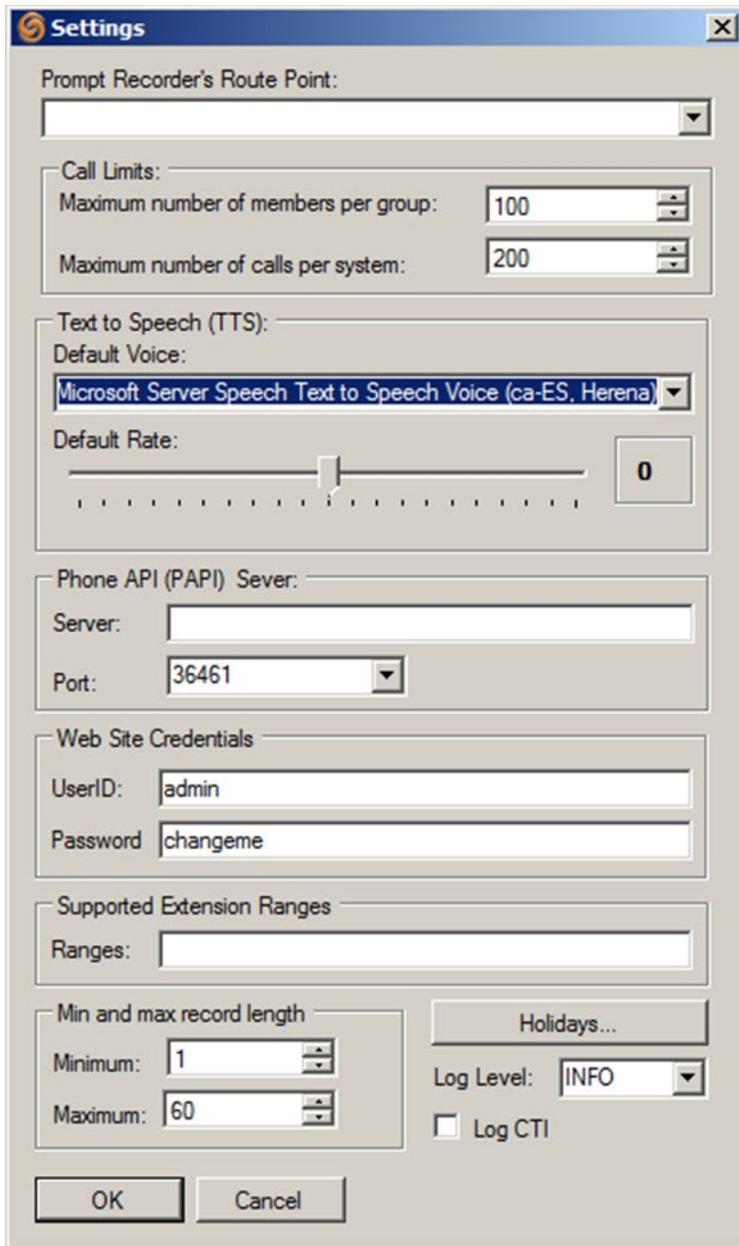
When you are done, click the **Stop** option. You can immediately review your prompt by clicking the **Play** option. When you are done using the prompt recorder, click the **Close** option in the upper right corner.



Note! The prompt recorder hides and so you can, if you want, leave the recording call active and come back to it later. In addition, you can leave the **Prompt Recorder** window showing and use other features of the Admin to quickly record the prompts you want as you create a set of Pages.

5.7 SERVER SETTINGS

Clicking the **Settings** option opens the **Settings** dialog:



The Settings dialog contains settings that apply to the server. Starting from the top it contains the following settings.

5.7.1 PROMPT RECORDER ROUTE POINT

You can select a route point to be used by the Prompt Recorder feature of the Enhanced Page Admin. The list of route points reflects the available route points when the Admin client loaded so if you add a new Route Point in Connect Director, you must use the Refresh option from the main Admin window. Until the Prompt Recorder Route Point is set, you will not be able to use the Prompt Recorder.

5.7.2 CALL LIMITS: MAXIMUM NUMBER OF MEMBERS PER GROUP

Select the maximum number of members that can be added to a group. This defaults to 100 but customer might choose to try higher numbers which although unsupported may in fact be fine. The maximum number of users per group you can configure is 200 members.

5.7.3 CALL LIMITS: MAXIMUM NUMBER OF CALLS PER SYSTEM

Select the maximum number of calls that the server can be making at the same time in support of audio pages. This defaults to 200 but customer may choose to try higher numbers which although unsupported might work fine. The maximum number of calls per system you can configure is 250 calls.

5.7.4 TEXT TO SPEECH (TTS): DEFAULT VOICE

When playing an audio page using text to speech, this selects the default voice and default rate that will be used.



Note! Configuring and using the Text to Speech support requires the installation of the Microsoft Server Text to Speech Engine and one or more of the voices. See [Appendix C: Configuring the Text to Speech Support](#) on installing the Microsoft Server TTS Engine and Voices.

5.7.5 PHONE API (PAPI) SERVER: SERVER/PORT

Normally, the Phone API Service is installed on the same PC as the Enhanced Page service but if not then you want to configure the PAPI Server's name or IP address. If for some reason you modify the port that the PAPI server expects clients to connect on, then you must set the port.

5.7.6 WEB SITE CREDENTIALS: USERID/ PASSWORD

Part of the Enhanced Page Application package is the web site that allows end users to send pages to groups. When you access the web site, you will be asked to provide a user ID and password in order to login. These settings control the User ID and Password that the service will require client users to enter.

5.7.7 SUPPORTED EXTENSION RANGES

Normally, all extensions on the system are visible to the Enhanced Page server. However, if multiple Enhanced Page Servers are installed then you may want to configure each server to only support a sub-set of the total available extensions. The expected format is individual extensions and extension ranges separated by commas. An extension range is the low extension number, a dash, and the upper extension number of the range. As an example, the ranges might be configured like this:

100, 200-299, 402, 409, 480-499

5.7.8 MIN AND MAX RECORD LENGTH: MINIMUM/MAXIMUM

These settings only affect the ad-hoc recording feature. Pre-recorded and Text to Speech prompts are not limited. When a caller calls a group route point and records a prompt, if the prompt is shorter than the minimum length it is discarded and not sent. If prompt recording is active when the recording reaches the maximum time, then it is automatically stopped and the caller is prompted to send the prompt.

5.7.9 HOLIDAYS

Clicking the **Holidays** option opens the Holidays dialog used to configure the holidays for the users. Information on holidays is used by the service's schedule feature for schedule items that are marked to not play on holidays. If you do not want to use schedule pages do not need pages to automatically not play on holidays, then you can skip entering any holidays. See the section below on the [Holiday Schedule](#) dialog.

5.7.10 LOG LEVEL

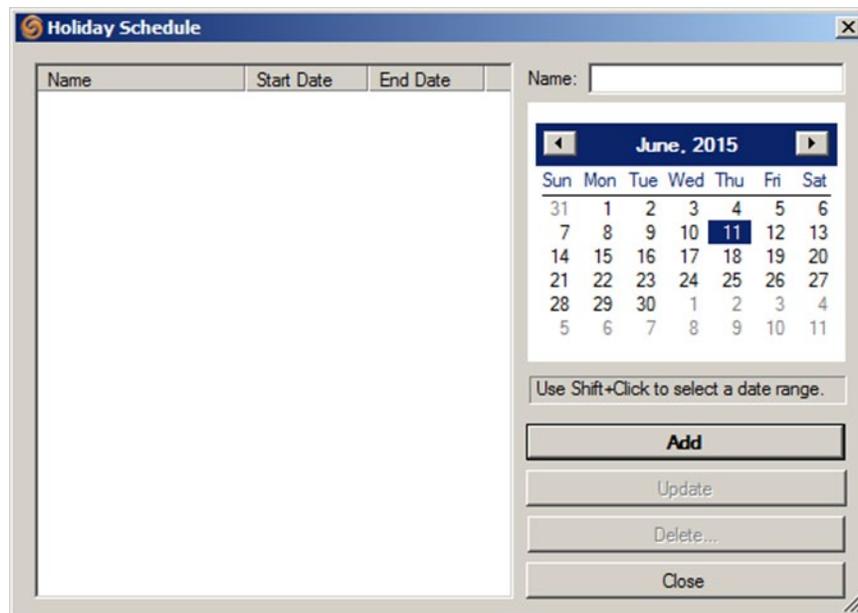
The service has an internal text log that it writes to the Logs folder located in the application's install folder. The current log file will be named *STPSEnhancedPage.log* and up to 10 earlier logs will be retained, each named with a numeric suffix. The log level ranges from None to Debug with the default being Info. If a customer is asked to reproduce an issue and capture logs, they must set the log level to Debug, reproduce the issue, and then retrieve and send the log to us. In some cases, you might ask them to stop and restart the service with Debug level logging enabled so we can see details of the service's startup.

5.7.11 LOG CTI

The service used a lower level CTI interface has its own logging feature. Selecting this option enables that low level log. This log feature writes one log file per day named *STPSEnhancedPageCTI_<day of the week>* where <day of the week> is replaced with the day of the week. For example, *STPSEnhancedPageCTI_FRIDAY.log*. Logs older than one week are removed automatically when a new day's logging starts.

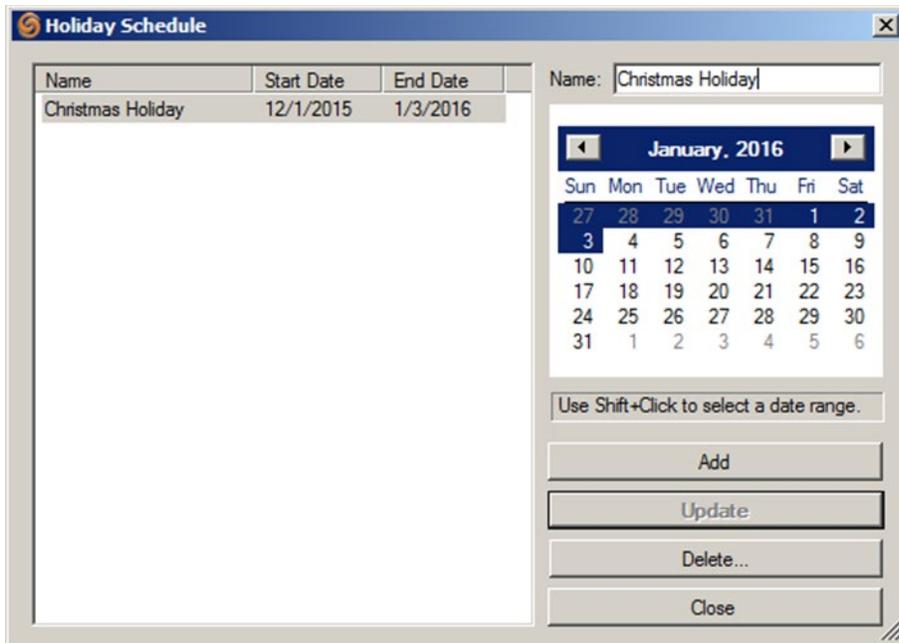
5.8 HOLIDAY SCHEDULE DIALOG

From the **Settings** dialog, clicking the **Holidays** option will display the **Holidays** dialog. This dialog shows any currently configured holidays in the left pane. On the right side is where you go to enter new holidays or modify existing holidays:



For example, if you want to enter a Christmas holiday starting Christmas eve, 2015 (December 24th) through the weekend after New Year's, 2016 (January 3rd) you would scroll the calendar to December and then click December 24th.

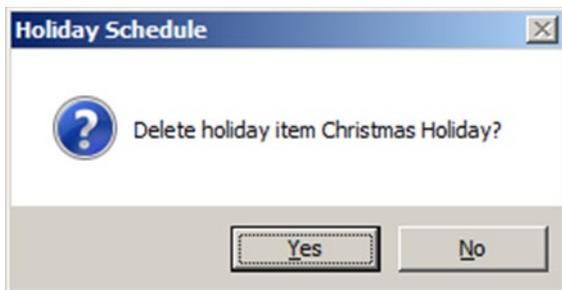
Then locate the end date of the holiday scrolling the calendar as needed and then, while holding down the Shift option, click the last day of the holiday, in this case January 3rd. Then enter a name for the holiday ("Christmas Holiday") and click the **Add** option under the calendar. The holiday should show in the left-hand list of schedules:



Continue to enter additional holidays as needed ensuring to click the **Add** option vs. the **Update** option.

If you want to update a holiday item, you can select it, make any changes needed to the date range and/or name and then click the **Update** option. Ensure not to click the **Add** option as this will add a new holiday.

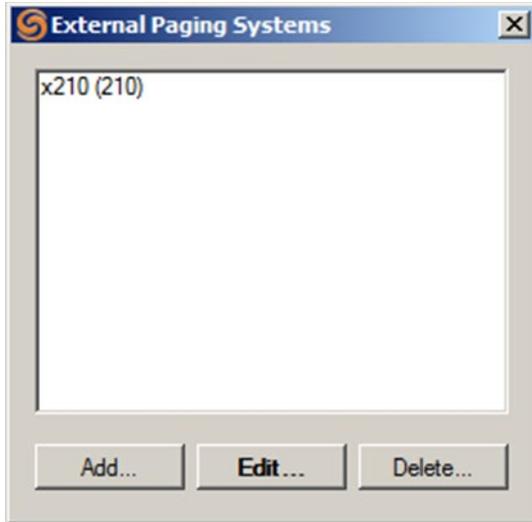
If you want to delete one or more previously entered holidays, you can select the holidays. Use **Ctrl+Click** to select multiple independent items or **Shift+Click** to select from the last selected item through the new items clicked, then click **Delete** and you will get the following message asking you to confirm:



When you are done editing the holidays, click **Close** to dismiss the dialog. You must configure holidays each year as holidays do not automatically reoccur.

5.9 PAGING SYSTEMS

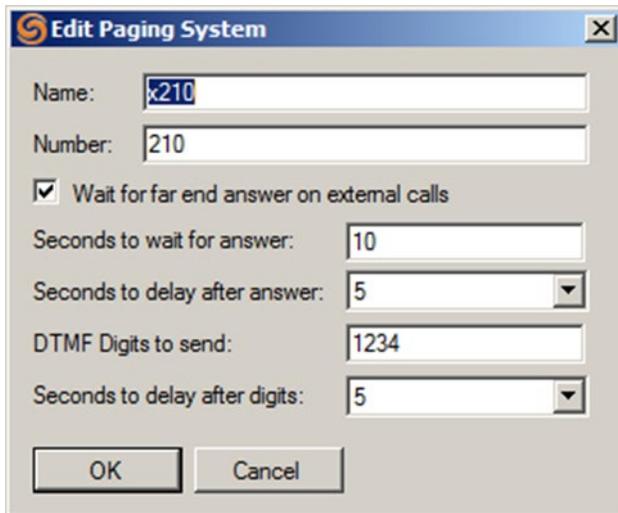
Clicking the **Page Settings** option opens the **External Paging Systems** dialog:



The **External Paging System** dialog contains a list of the currently configured external paging systems. The format of each entry displayed is Name (Number) so the above entry has a name of “x210” and a number of “210”. This dialog allows new external paging systems to be added and existing configured paging system to be edited or deleted using one of the three buttons at the bottom of the dialog.

5.9.1 ADD/EDIT

Clicking the **Add** or **Edit** options opens the Add or Edit Paging System dialog:



You can provide details that will allow the Enhanced Paging Application server to interface to a specific external paging system. You can assign an arbitrary **Name** to the paging system. You can view this same name listed when configuring a group to call the paging system. Enter the **Number** of the paging system. If the paging system is connected through a trunk, ensure that you include and trunk prefix. If the paging system is connected through a trunk, then check or uncheck the **Wait for far end answer on external calls** checkbox to control if the outbound calling logic will wait for a far end answered event before starting to interface with the called device. To control how long the called external paging device will be given to answer the call, enter the number of seconds in the **Second to wait for answer** field. To have the call delay after it connects, enter the number of **Seconds to delay after answer**. If no delay is required, then enter zero. If the external paging system requires DTMF digits to be sent by

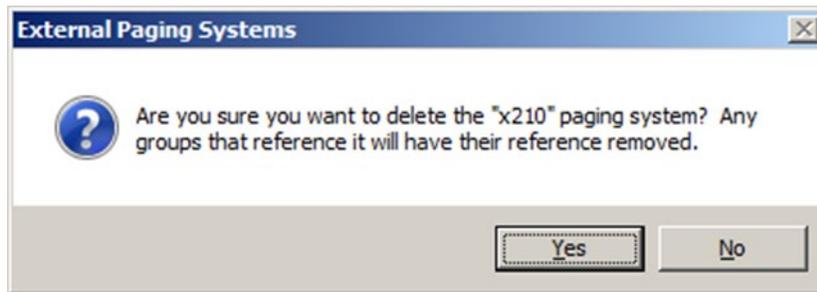
the calling party, then enter the digits in the **DTMF Digits to send** field. This could be used to provide a specific zone code or security key to the paging system.



Note! DTMF digit generation is NOT supported on internal calls. If you want to delay after generating DTMF digits, you can select the number of **Seconds to delay after digits** before the audio will start to play to the external paging system.

5.9.2 DELETE

To delete a configured external paging system, select the item in the list and click the **Delete** option. A dialog like the following will display:



Click **Yes** to confirm the deletion or **No** to cancel.



Note! As the dialog states, any groups that reference the paging system will have their reference removed.

6. COMMAND LINE UTILITY

When you install the Admin utility, this also installs a separate command line utility names *STPSEnhancedPageCommand.exe* in the same folder. If you installed the Admin in the default location on the C: drive, this would be the full path for the utility:

C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities\STPSEnhancedPageCommand.exe

The Utility allows pages to be sent from the command line and can also be potentially used from third party scheduling systems or as part of a larger IT process where you want to automate sending a page at the completion of some activity.

Running the utility without any parameter or with invalid parameters will cause the utility to display the valid parameters:

```

Administrator: Command Prompt
C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities\STPSEnhancedPageCommand
es>STPSEnhancedPageCommand

ERROR: Pages or Page Groups or Group command line parameter must be set

Parameters:
  /pages !
  /page=<page name>
  /groups !
  /group=<group extension>
    /file=<File Name> !
    /text=<Text> [/voice=<Voice>] [/rate=<-10..10>] !
    /message=<Text>
    [/repeat=<number>]
    [/supergrouprepeat=<number>]
  [/server=<Server name or IP address [/port=<TCP port>]]

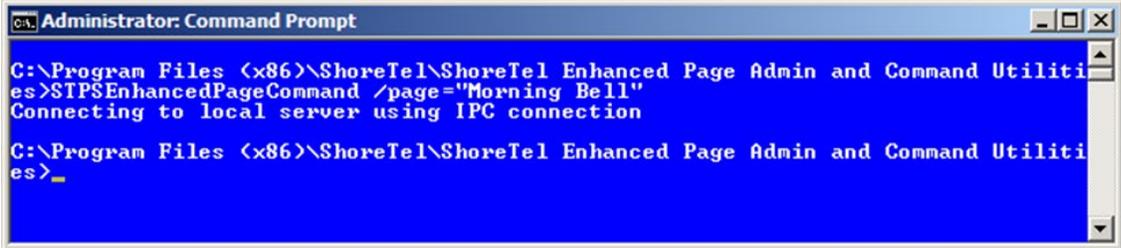
Examples:
  /pages
  /page="Morning Announcement"
  /groups
  /group=220 /file="C:\School Closing.wav"
  /group=221 /text="The mall is closing."
  /group=222 /file=C:\alert /server=192.168.0.2 /repeat=1
  /group=221 /text="The mall is closing." /voice=en-US /rate=-2
  
```

If you are executing the utility anywhere besides the server PC, then you must provide the server parameter and possibly the port parameter.

/server=<Server name or IP address>

/port=<TCP port>

Parameter	Description
<i>/pages</i>	This displays all of the currently configured pages along with details showing the group the page will be sent to:

	 <pre> Administrator: Command Prompt C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities>STIPSEnhancedPageCommand /pages Connecting to local server using IPC connection Evening Bell (218:Advocate) Morning Bell (*200:0CIUR) C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities> </pre>
<p>/page=<page name></p>	<p>This sends a specific page. For example:</p>  <pre> Administrator: Command Prompt C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities>STIPSEnhancedPageCommand /page="Morning Bell" Connecting to local server using IPC connection C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities> </pre>
<p>/groups</p>	<p>This displays all the groups currently configured on the server:</p>  <pre> Administrator: Command Prompt C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities>STIPSEnhancedPageCommand /groups Connecting to local server using IPC connection *200:0CIUR 218:Advocate 219:Junior High C:\Program Files (x86)\ShoreTel\ShoreTel Enhanced Page Admin and Command Utilities> </pre>
<p>/group=<group name></p>	<p>This sends a page to a specific group. In addition to /group you are required to also enter either:</p> <p>/file=<File Name></p> <p>/text=<Text></p> <p>/message=<Text></p> <p>For /file and /text you can also optionally provide:</p> <p>/repeatcount=<number></p> <p>/supergrouprepeatcount=<number></p> <p>For /text you can also optionally provide:</p> <p>/voice=<voice name part></p> <p>/rate=<-10...10></p>  <p>Note! For /voice, you only must supply a unique part of the voice name.</p>

If a parameter being passed such as the file name or text contains any spaces, then you must enclose the text in double quotes.

7. WEB SITE



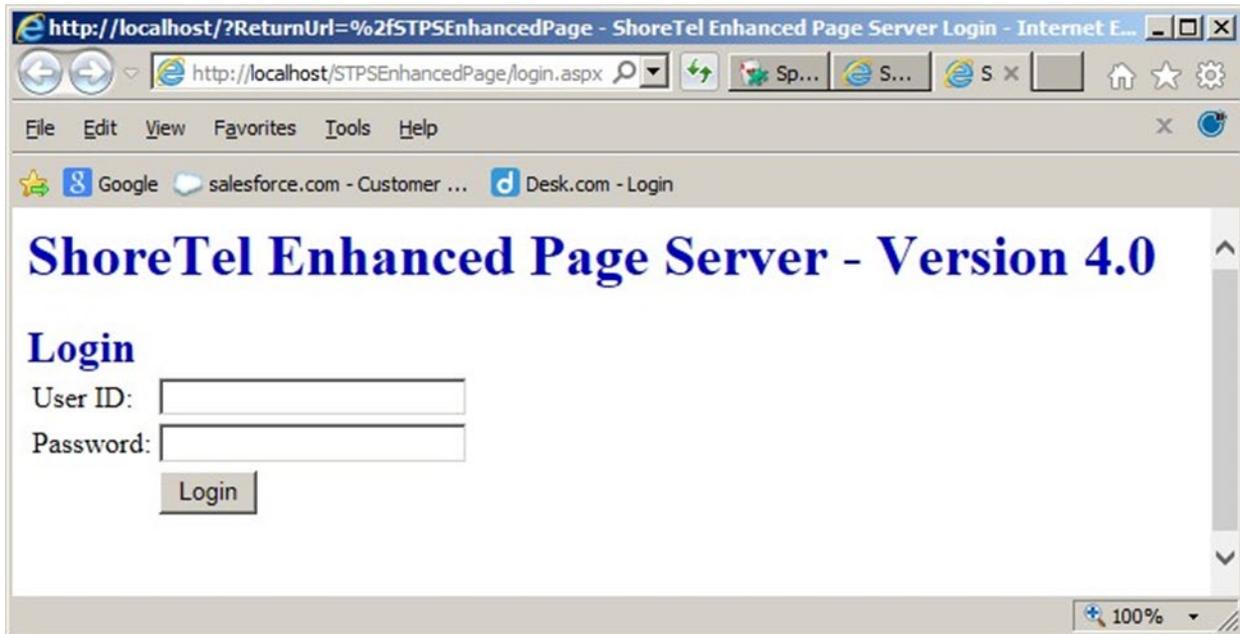
Note! Where previous versions of this application used the web site for administration and in some cases initiating pages, the newer version only support initiating pages.

The web site is used by end users to send pre-recorded, text to speech and phone message pages. Users log into the web site using the system wide user ID and password configured in the server settings.

Run a web browser and try to navigate to the web site. For example, if you are running the browser on the server itself and assuming you accepted the defaults when you installed the Web Site you would use this URL:

<http://localhost/STPSEnhancedPage>

If you are successful, then this page will open:



Enter the user ID and password configured for the server (the default, when first installed, User ID is **Admin** and Password is **changeme**). If successful, the main window of the web site should show:

ShoreTel Enhanced Page Server Paging Group List - Internet Explorer

http://localhost/STPSEnhancedPag

File Edit View Favorites Tools Help

Google salesforce.com - Customer ... Desk.com - Login

ShoreTel Enhanced Page Server

Pages

Morning Bell (*200:OCIVR)

Send Page

Paging Group List

*200:OCIVR
218:Advocate
219:Junior High

Note: Supergroup names start with asterisk (*)

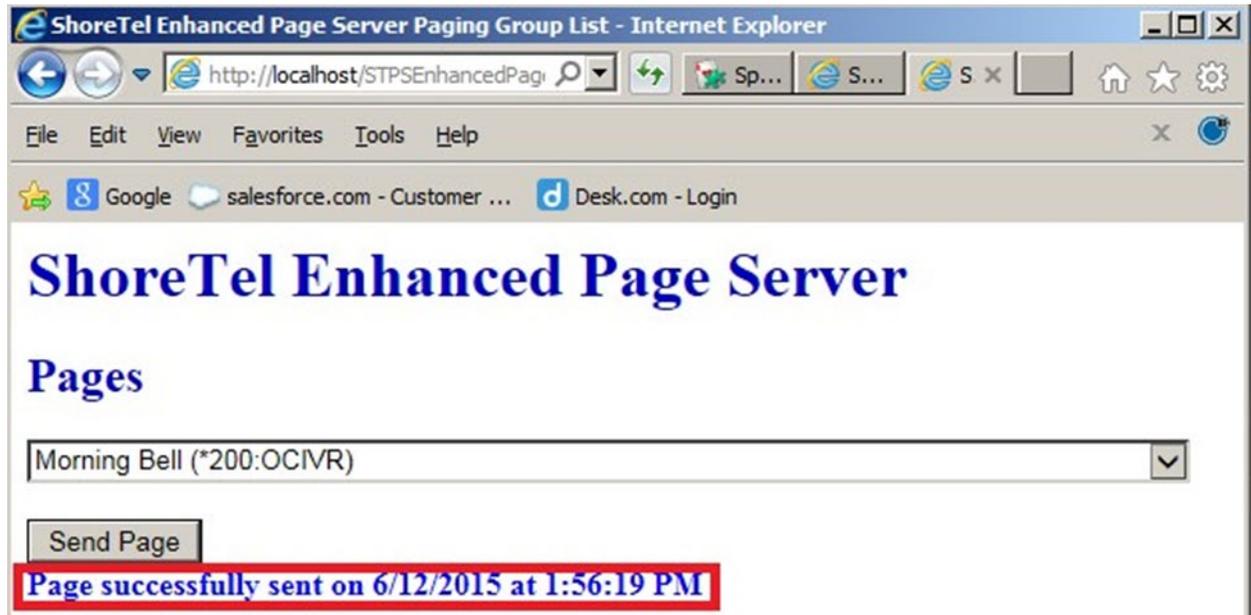
Prompt Page... TTS Page...

Phone Page...

Logout

100%

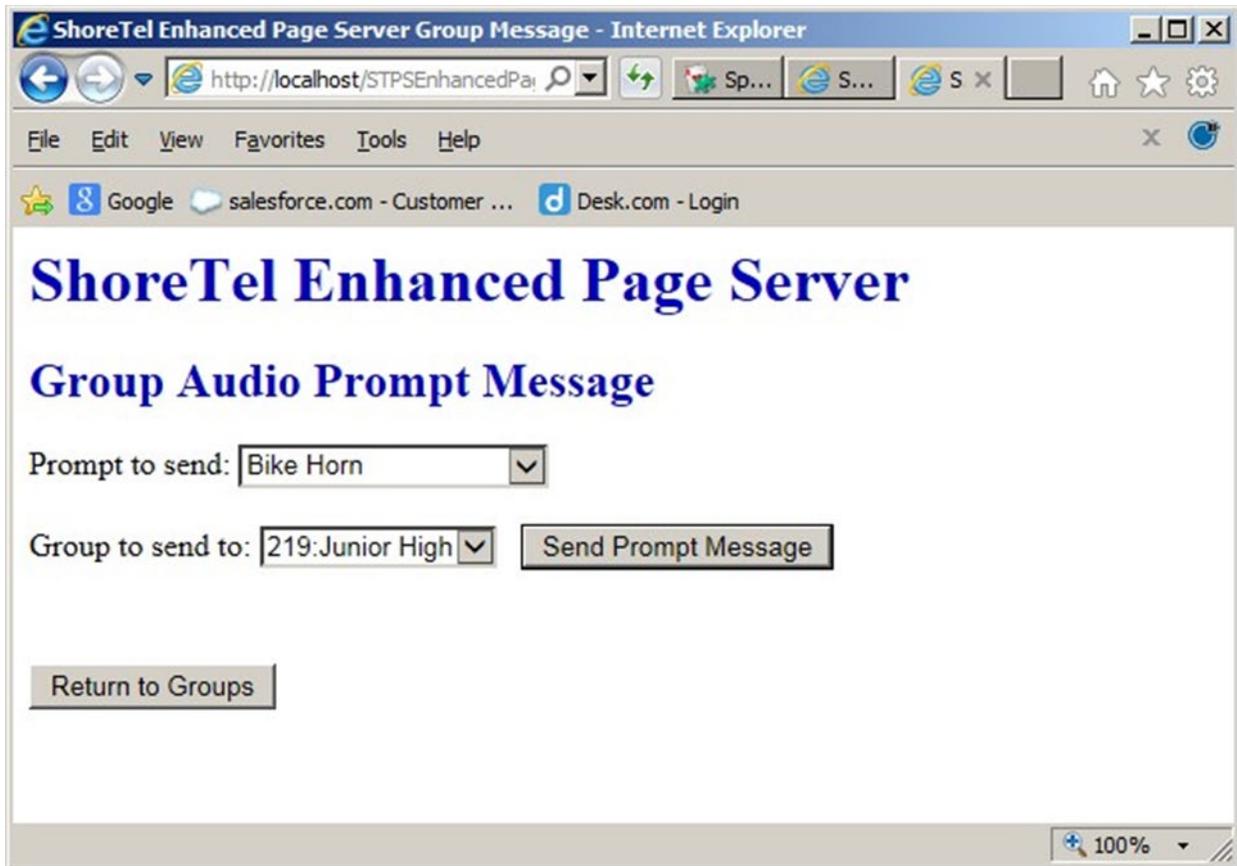
The web site supports two ways to send pages. For pages configured in the admin, you can select the entry in the top **Pages** field which shows the name of the page and in parenthesis, the group the page will be sent to and then click the **Send Page** option. The result of the page will be shown as follows:



Similarly, to send a page without having to have created a Page entry, you can select the group you want to send to under the Paging Group List and then click the **Prompt Page**, **TTS Page**, or **Phone Page** option.

7.1 PROMPT PAGE

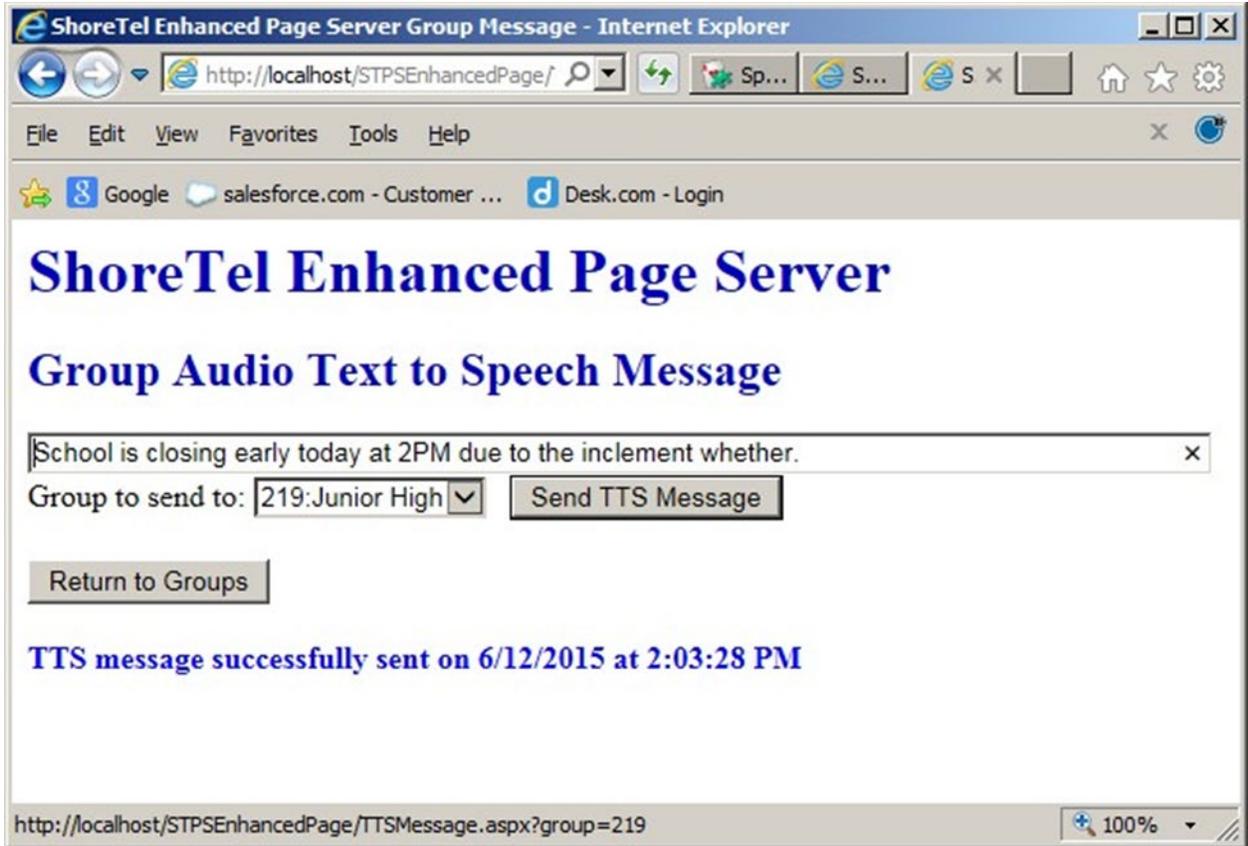
The Prompt Page form looks like this:



Select the prompt you want to send and either accept or change the group and then click the **Send Prompt Message** option.

7.2 TTS PAGE

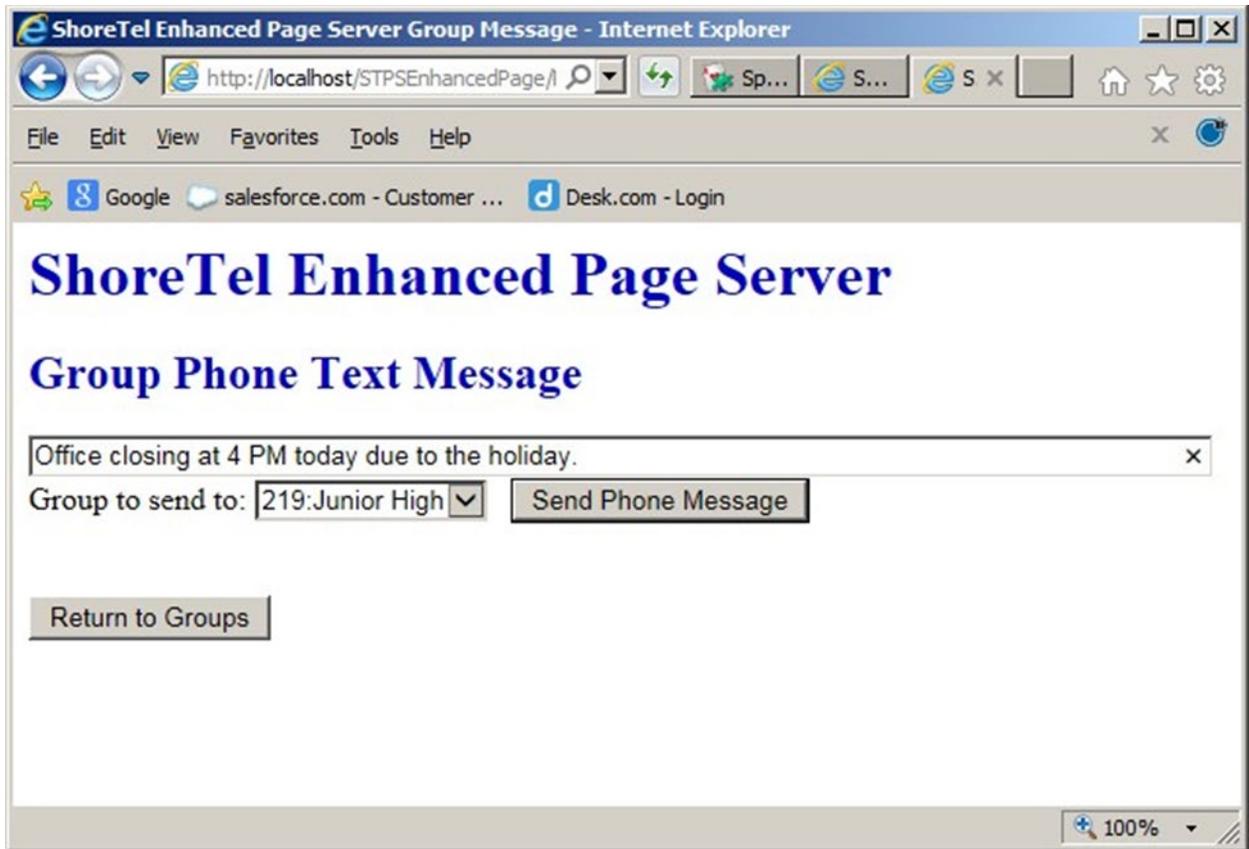
The TTS page form looks like this:



Enter the text you want to play as audio using text to speech and either accept or change the group and then click the **Send TTS Message** option.

7.3 PHONE PAGE

The Phone page form looks like this:



Enter the text you want to send and either accept or change the group and then click the **Send Phone Message** option.

8. AD-HOC PAGING

While audio pages can be made using pre-recorded prompt files or text to speech generated audio files, you can also call into a group's route point and if allowed, can record an audio page which will be sent to the group members.

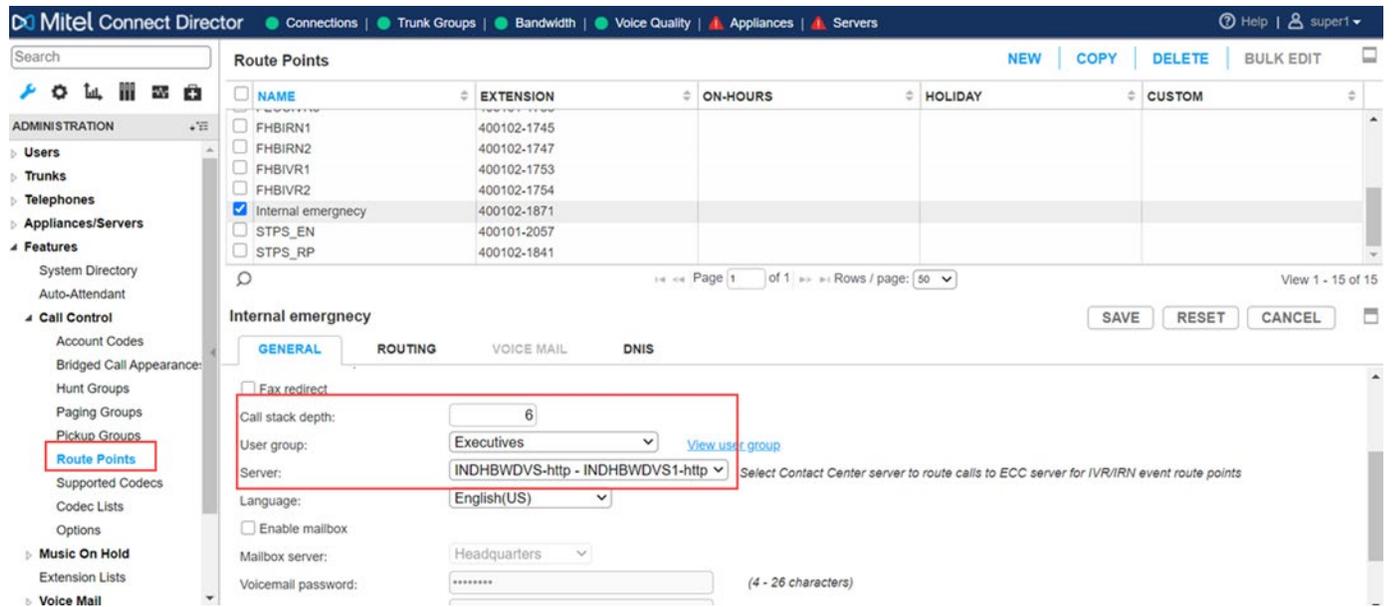
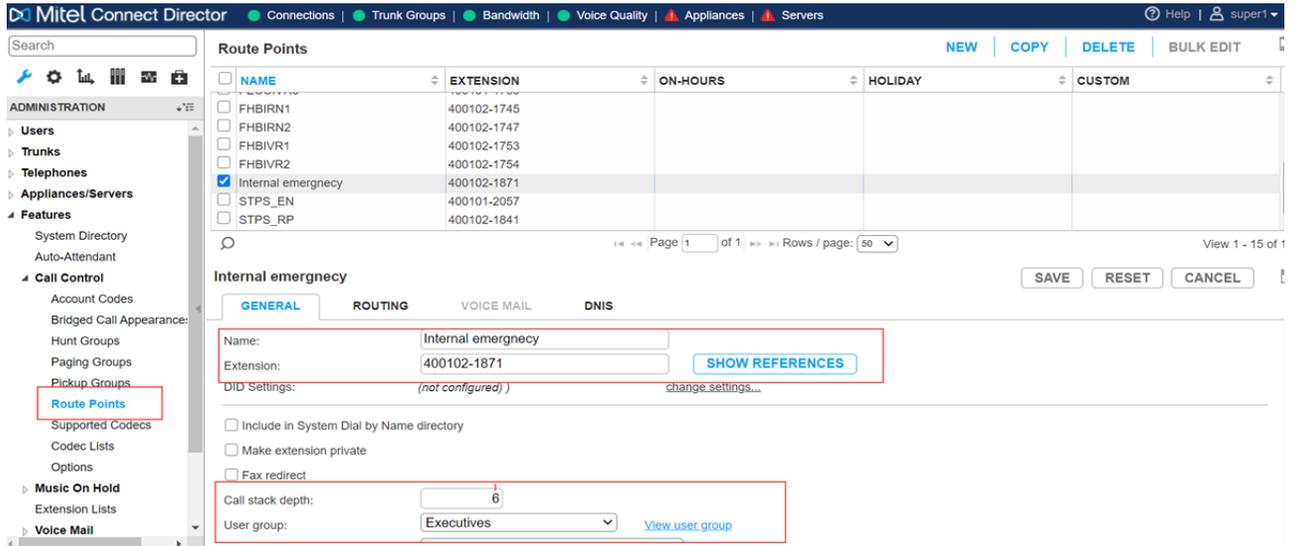
8.1 SENDING AN AUDIO PAGE TO A PAGING GROUP

- A call is placed to the group's route point extension.
- The call should be automatically answered.
- If the caller is on the list of valid callers, then they are immediately prompted to start recording their prompt.
- If the caller is not on the list of valid callers for the group, then if the group allows unregistered callers then they will hear a message: **"Please enter the security code for this page zone."** If they fail to provide the correct four DTMF digits matching the configured security code or if the group does not allow unregistered callers, then they will hear this message: **"You are not authorized to call this group, goodbye"** and the call will be disconnected.
- If the caller can make a page, then they will hear this message: **"Record your page after the tone. When you are done you may hang up to send or press pound for more options"** followed by a beep. If you do not want to wait for the message to complete, you can press the pound key while it is playing to jump ahead to recording the page message.
- Start speaking to record your page. When you are done, you can hang up to automatically send the page. If you do send the page then the members of the group or, if the group is a super group, the members of each contained group will be called and when they are connected the server will attempt to play the page message to all of the called users at the same time. If the **Playback Prompt** group setting is set, then the audio file will play before the message.
- After recording your message, if you press the pound key rather than hanging up, you should then hear this message: **"You may now hang up to send your page or press 1 to re-record or 2 to disconnect without sending."**
- If you hang up, the page will be sent to the group members.
- If you press **1** you will go back up to the step above where you are asked to **"Record your page after the tone..."**
- If you press **2** you will hear: **"Your page will not be sent, goodbye"** and the call will be disconnected.

9. APPENDIX A: CREATING A ROUTE POINT IN CONNECT DIRECTOR

To create the route point to be used for the paging group:

1. Run Connect Director and under Call Control, select **Route Points**.
2. Click **New** and complete the following fields:

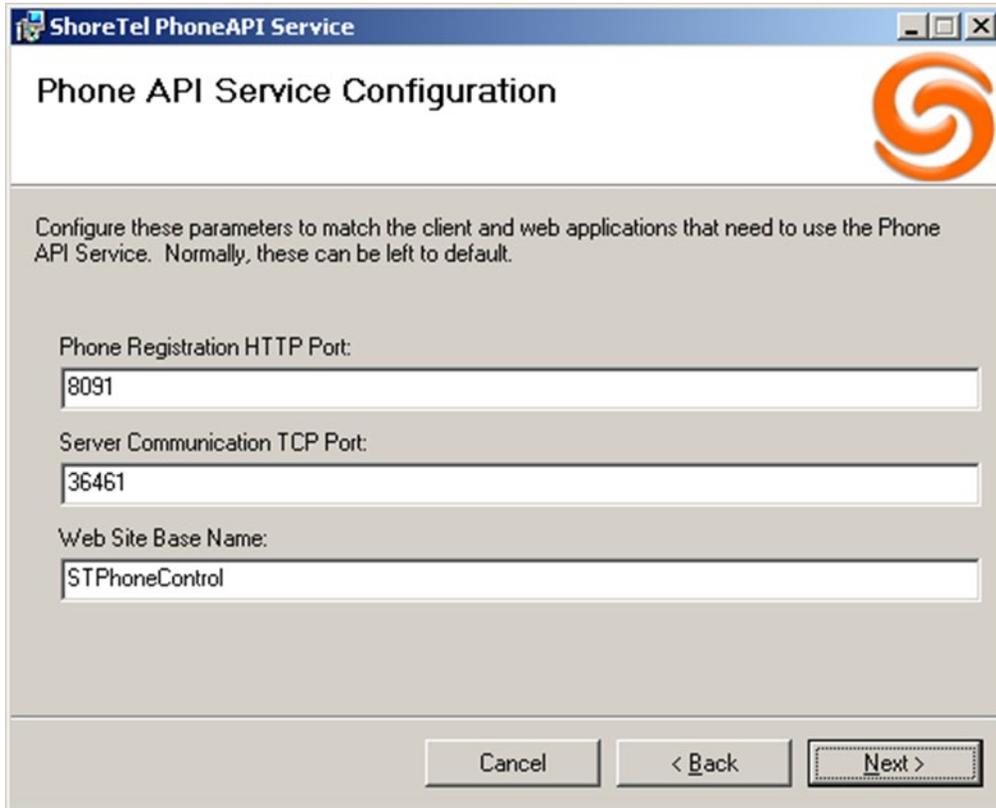


Parameter	Description
Name	This will show up in the administration program as the paging group's name. It will also show up as the title of

	the phone message when a text page is sent to the members of an enhanced paging group. This title will appear at the top and the bottom of the phone display with the message content in the middle.
Extension	The extension is the primary identifier of the paging group and is the number that end users will call when they want to page members of the group.
User Group	The paging service needs to be able to make outbound calls from the route point to the members of the paging group. Therefore, you must ensure that the group to which the route point is assigned has the Directed Intercom/Group Paging setting on the Telephony Class of Service enabled to Allow Initiation .
Route Point Server	This specified the Mitel server that will host this route point and must match the server that the Enhanced Paging Application is installed on.
Call stack depth	This controls the maximum number of calls which can be active on the paging group at the same time. At a minimum, you should set this to the maximum number of members you anticipate ever having in the group. In addition, because multiple users can call into the paging group simultaneously, you may want to provide several additional call stacks to support these additional calls.

10. APPENDIX B: INSTALLING THE PHONE API (PAPI) SERVER

The Phone API Server is required to support the Text Paging feature. In addition to running a setup program to install a Windows Service, there is additional configuration required as detailed in this section. The first step is to run the STPAPIServiceSetup.exe after unzipping the files the zip file with the same name into a folder. The install wizard should start running. Click next and you should come to this dialog to enter this server's settings:



Three configuration options will be set during the installation:

- Registration Port Number
This is the HTTP port number the ShoreTel Phone API Service will listen to for Phone API registration requests. This value must match the value configured as the Registration Server in the <Phone Model>custom.txt files. Default is 8091.
- Server Communication Port Number
This is the TCP port number the ShoreTel Phone API Service uses for .NET remoting communications. It does not need to be changed unless there is a known conflict in your network. Default is 36461.
- Web Site Base Name
This is the base name of the Mitel Phone Web Site. You can leave this set to the default value (STPhoneControl) as it is not used as part of the enhanced paging application.

10.1 MITEL SYSTEM CONFIGURATION

10.1.1 CUSTOM FILE SETTINGS

To enable Phone API within the Mitel system, some settings need to be added to the “custom” phone configuration files. These are present on the Mitel system and are named in relation to the phone model (the phone model code followed by “custom.txt”). Their location and format vary based on phone model.

10.1.2 PHONE MODELS 265, 560, 560G, 565, AND 655

For the following phone models, these files are located on the Connect Director server in location *C:\inetpub\ftproot*.

Phone Model	Configuration File Name
265	s36custom.txt
560	s6custom.txt
560g	s6gcustom.txt
565	s6ccustom.txt
655	swecustom.txt

The format of these files must conform to the following description/example:

A minimal set of parameters is needed to enable basic operations within Phone API. Assume the Mitel Phone API Service was installed on IP address 10.10.10.10, then the custom files for Phone API capable phones should have the following minimally configured.

TrustedServers 10.10.10.10

RegistrationServer <http://10.10.10.10:8091/PhoneAPI/PhoneReg.aspx>

RegistrationExpires 60

10.1.3 PHONE MODELS 420, 480, 480G, AND 485G

For the following phone models, these files are located on the ShoreTel Director server in location *C:\inetpub\ftproot\phoneconfig*.

Phone Model	Configuration File Name
420	custom_IP420.txt
480	custom_IP480.txt
480g	custom_IP480g.txt
485g	custom_IP485g.txt

The format of these files must conform to the following description/example:

A minimal set of parameters is needed to enable basic operations within Phone API. Assume the ShoreTel Phone API Service was installed on IP address 10.10.10.10, then the custom files for Phone API capable phones should have the following minimally configured.

[papi]

registrationServer = http://10.23.194.72:8091/PhoneAPI/PhoneReg.aspx trustedServers = 10.23.194.72

registrationExpires = 60

10.1.4 MORE ABOUT CONFIGURATION

For more details and the full list of “custom” phone configuration file directives, see the section on configuration parameters in the Mitel Phone API (PAPI) Development Guide (for MGCP phones) or Mitel Phone API Guide for 400-Series IP Phones(for 400-Series phones).

10.1.5 CONNECT DIRECTOR

To enable a Mitel user’s ability to use Phone API functions, in the individual user’s settings, **Allow Phone API** checkbox must be checked. This applies the setting to the individual user, but only when that user is currently residing on a Phone API capable device.

See example screenshots below:

ShoreTel™
ShoreWare Director
 Logoff Administrator

Users
 Edit User

[New](#) [Copy](#) [Save](#) [Delete](#) [Reset](#)

▼ **General** ▶ Personal Options ▶ Distribution Lists ▶ Workgroups

First Name:
 Last Name:
 Number:
 License Type:
 Caller ID: (e.g. +1 (408) 331-3300)
 DID: (DID Range: +14087770400 - 498)
 PSTN Failover:
 User Group: [Go to this User Group](#)

Site:
 Language:
 Home Port:
 IP Phones
 Ports
 SoftSwitch
 Current Port: [Go Home](#)
 Jack #

Mailbox on Server: [Escalation Profiles and Other Mailbox Options](#)
 Accept Broadcast Messages
 Include in System Dial By Name Directory
 Make Number Private
 Fax Support:
 Client Type: Enable Contact Center Integration
 Allow Use of Soft Phone
 Allow Phone API

Configuring user to allow Phone API (Mitel 14.x and earlier)

ShoreTel Connect Director | Connections | Trunk Groups | Bandwidth | Voice Quality | Appliances | Servers

Search

Users | NEW | COPY | DELETE | EXPORT... | BULK

ADMINISTRATION

- Users**
- Trunks
- Telephones
- Appliances/Servers
- Features
- System
- Applications

<input type="checkbox"/>	FIRST NAME	LAST NAME	EXTENSION	MOBILE EXTENSION	CLIENT USER NAME	SITE	USER GROUP
<input type="checkbox"/>	Ad	Hquser	115		AdHquser	Headquarters	Executives
<input type="checkbox"/>	Adam	Smith	403		asmith	Headquarters	Executives
<input checked="" type="checkbox"/>	David	Ricardo	402		DRicardo	Headquarters	Executives Acco
<input type="checkbox"/>	Grant	Schenck	406		GSchenck	Headquarters	Executives
<input type="checkbox"/>	Grant	Schenck1	401		gschenck1	Headquarters	Executives
<input type="checkbox"/>	James	Benton	405		JBenton	Headquarters	Executives
<input type="checkbox"/>	Jay	Maskell	503		JMaskell	Headquarters	Executives
<input type="checkbox"/>	John	Keynes	409		JKeynes	Headquarters	Executives
<input type="checkbox"/>	Navin	Mishra	404		NMishra	Headquarters	Executives
<input type="checkbox"/>	NavinTest1	JohnFord	502		jford	Headquarters	Executives
<input type="checkbox"/>	NavinTest2	BruceWalker	504		bwalker	Headquarters	Executives

Page 1 of 1 | Rows / page: 50

Extension 402: David Ricardo | **TELEPHONY** | VOICE MAIL | ROUTING | MEMBERSHIP | DNIS | APPLICATIONS | **SAVE**

Bluetooth headset
 Enable handsfree mode
 Enable call waiting tone
 Trunk group access code: Analog Loop Start
 Mailbox for recorded calls:

Fax support: User - Redirect
 Enable video calls: Standard
 Enable telephony presence
 Enable shared call appearances
 Enable use of soft phone
 Enable phone API (PAPI)
 Enable remote phone authentication
 Enable mobile access

In addition, note the appropriate number of purchased **Mitel Phone API Licenses** must be set in your license page as shown in the screen shots below.

- Administration
 - Users...
 - Trunks...
 - IP Phones...
 - Switches
 - Call Control...
 - Voice Mail...
 - Auto-Attendant Menus
 - Workgroups
 - Schedules
 - Personal Call Manager...
 - System Directory
 - Application Servers
 - Conference Bridges
 - Sites
 - System Parameters...
 - Dialing Plan
 - Digit Translation Tables
 - System Extensions
 - SNMP
 - BOOTP Server

License Requirements

[Help](#)

License Requirement List

Send/Print

Request System License Key

Name	Required	Purchased
Keyed Licenses:		
ShoreWare System License (Enterprise Edition)	1	1
ShoreWare Additional Site License	0	0
ShoreWare Extension License	8	60
ShoreWare Mailbox License	19	60
ShoreWare SoftPhone License	0	5
ShoreWare Additional Language License	0	1
ShoreWare Remote Web Reporting License	0	0
ShoreWare Mobile Call Manager License	0	0
Self-audited Licenses:		
<u>ShoreWare Personal Call Manager Software</u>	0	5
<u>ShoreWare Advanced Call Manager Software</u>	16	100
<u>ShoreWare Operator Call Manager Software</u>	0	5
<u>ShoreWare Workgroup Agent Call Manager Software</u>	3	5
<u>ShoreWare Workgroup Supervisor Call Manager Software</u>	1	5
<u>ShoreWare Remote Server Software</u>	0	0
<u>ShoreWare SIP Trunk License</u>	1	1
<u>ShoreWare TAPI Application Server</u>	0	0
<u>Shoreware Phone API License</u>	2	5

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Configuring Phone API licenses (Mitel 14.x and earlier)

11. APPENDIX C: CONFIGURING THE TEXT TO SPEECH SUPPORT

This application uses the Microsoft Server Text-to-Speech (TTS) engine to convert textual information into audio streams. To use TTS, customers will need to install the Microsoft Speech Platform Runtime (x86 version) and the voice file along with a voice for playback.

To configure the Test-to-Speech support, follow these steps:

1. Install the Microsoft Speech Platform x86 Runtime:
 - a. The Microsoft Text-to-Speech components are now distributed in the zip package with the Advanced Application code. To install, locate the MSTextToSpeechRuntime.zip and unzip the two files to the hard drive.
 - b. Run the **SpeechPlatformRuntime.msi** file and follow the prompts to complete the installation.
2. Install the voice file and select the voice:
 - a. On the same computer, run the **MSSpeech_TTS_en-US_Helen.msi** file to install the voice files.
 - b. There might be other voice files available from Microsoft as part of their Software Development Kits, but these are not distributed with the Mitel application. To select the voice file to use, run the admin program and after selecting the server, navigate to the **Settings** dialog, and in the **Text to Speech** pane at the top right corner, select the **Voice Name** drop-down list and then select a voice as shown in the following screen capture:

