Administrator's Guide

AudioCodes One Voice for Microsoft® Skype for Business

Fax Server & Auto Attendant IVR

Version 2.5x

Skype for Business

audiocodes

Table of Contents

List of Figures

List of Tables

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Notice

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Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Microsoft has rebranded Lync as Skype for Business and therefore, whenever the term Skype for Business appears in this document, it also applies to Lync Server 2013

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Related Documentation

Manual Name
Fax Server & Auto Attendant IVR Installation Guide

Document Revision Record

LTRT	Description
28867	• Updated: Configuring Administrator Settings; LDAP Settings • Added: Generic SIP Support
28868	• Updated to Software Update 2.5.100 • Fax and IVR Software Upgrade section added
28869	Added: Changing the Fax Engine Log level
28915	Typo fixed for: Application = C:\Program Files (x86)\Commetrex\otf\bin\faxserver -c 4 -p 9435 -f 5 -o mulaw –a mulaw"

Software Revision Record

The following table lists the software versions released in Version 2.5.

Table 1-1: Software Revision Record

Software Version	Date
2.5.0	Jun 2016
2.5.6	Dec 2016
2.5.7	Jun 2017
2.5.9	Oct 2017
2.5.11	Feb 2018
2.5.12	May 2018
2.5.13	May 2018
2.5.14	May 2018
2.5.100	Oct 2018
2.5.102	Jan 2019

Note: The latest software versions can be downloaded from:
https://downloads-audiocodes.s3.amazonaws.com/Download/AC_FAX_IVR_IW.html
Since the file is zipped, you need to unzip it to a temporary directory.

1 Introducing AudioCodes' Fax Server & Auto Attendant

1.1 Fax Server

AudioCodes' Fax-to-Mail application and Mail-to-Fax application (referred to in this guide as 'the Fax Sever') is a powerful and flexible software application used for managing inbound and outbound fax calls and delivering them efficiently to their correct destination.

As part of AudioCodes' One Voice for Skype for Business offering, the Fax Server can be deployed on the following platforms:

- AudioCodes' Mediant 800 Gateway and SBC /Mediant 1000 Gateway and SBC
- Survivable Branch Appliances (SBAs) in branch offices of distributed enterprises.
- Deployed on a Windows standard server.

For enterprises with multiple branch offices, the application can be deployed per local branch, or as a centralized application in the datacenter that serves all remote branches.

1.1.1 Features and Benefits

The Fax Server application supports:

- Corporate fax, Fax DID per user, or one number for both Voice and Fax.
- Always-available service 24/7/365
- Reliable, no fax machine maintenance required, no more 'Out of paper', 'Out of toner'", 'Paper Jam' or 'Faxes Getting Lost' notifications
- Go Green: Eliminates massive paper consumption and annoying piles of spam faxes
- Savings on DID lines: One DID per user for both voice and fax calls
- AudioCodes' Mediant 800/1000 SBA platforms
- Fax is received as email with PDF attachments and can be viewed on PCs and smartphones and printed, archived and forwarded to others
- Incoming faxes can be routed to one or multiple destinations
- Automatic Fax Detection supporting T.38 and T.30 fax protocols
- Send Faxes from your PC or Mobile
- Easy-to-use web interface for managing system service
- Easy to set up: Integrates with the enterprise's Active Directory (LDAP) and the enterprise's mail server (SMTP)
- Scalable from a few fax ports to dozens of fax ports
- Archiving – all in and out faxes are automatically archived on users mail

1.2 Auto Attendant

AudioCodes' Auto Attendant is an Interactive Voice Response (IVR) system that provides enterprises with a powerful and flexible tool to manage inbound calls and deliver them to intended destinations, based on buttons pressed by callers, using DTMF detection or speech activated.

Auto Attendant supports advanced Call Queue for Automatic Call Distribution (ACD) based on different routing modes and agents availability.

As part of AudioCodes' One Voice for Skype for Business offering, Auto Attendant can be deployed together with AudioCodes' Survivable Branch Appliances (SBAs) in branch offices to replace Skype for Business's Response Group Service (RGS) when the connection with the central Skype for Business is lost.

Auto Attendant is a pure software application which can also be deployed on standard server hardware.

The ACD routes and queues incoming calls to a group of people, called agents, such as for a help desk or a customer service desk.

The ACD comprises:

- Agents
- Groups
- Queues
- ACD Flows
- IVR
- Holidays
- Business Working Hours

For a detailed description of each, see under Section 4.5, Managing ACD, on page 85.

1.2.1 Features and Benefits

Features:

- Automatically plays voice prompts to callers.
- Transfers callers to additional menus and extensions based on caller input.
- Supports different IVR behavior for working hours, non-working hours and holidays.
- Automatic Call Distribution (ACD) to Skype for Business agents.
- Multi-Language support and localization.
- Allows direct extension reach with minimal DID.
- Graphical User Interface for managing IVR menus and call flow.
- Voice activation and Text to Speech.

Benefits:

- Maximizes employee productivity by automating inbound enterprise call routing.
- Reduces Direct Inward Dialing / Direct Dial-In (DID / DDI) requirements through direct extension dialing.
- Increases customer satisfaction through reduced waiting times.
- Suitable for main offices and remote branches.
- Supports application survivability at branch offices.
- Replaces Skype for Business Response Group Service (RGS) as a standalone solution.
- Multi-language support for global enterprise Skype for Business deployments.
- Saves on operational costs by reducing the number of operator calls.

1.3 About this Guide

This guide provides administrators instructions on how to manage AudioCodes' Fax Server and Auto Attendant (AA) using AudioCodes' Application Web Administration, a web-based management interface that enables system administration, user management, viewing system online status, producing historical reports, and other functionalities.

Note: Fax Server and the Auto Attendant are licensed using AudioCodes license key. This guide presents both services. If your system is licensed with a partial license, some features or services will be unavailable.

2 Introducing the Application Web Administration

The Application Web Administration makes setting up and managing the Fax Server and Auto Attendant simple. Use the tool to change your administrator password, load a new license, view server alarm and log files, manage users, configure other system configuration parameters, and more.

The Application Web Administration is a secured Web client that runs on any standard Web browser, such as Internet Explorer, Firefox or Chrome. No pre-installation is necessary to use it.

To access it, you must be an authorized system administrator.

The tool provides three major functionalities:

- **Configuration**: First-time configuration such as license and security. Used by the system administrator during first-time configuration.
- **Management**: Enables the system administrator to manage the services functionality, settings and more.
- **Status and Diagnostics**: Enables the system administrator to view system logs and status.

2.1 Accessing the Application Web Administration

This section shows how to access the Application Web Administration tool.

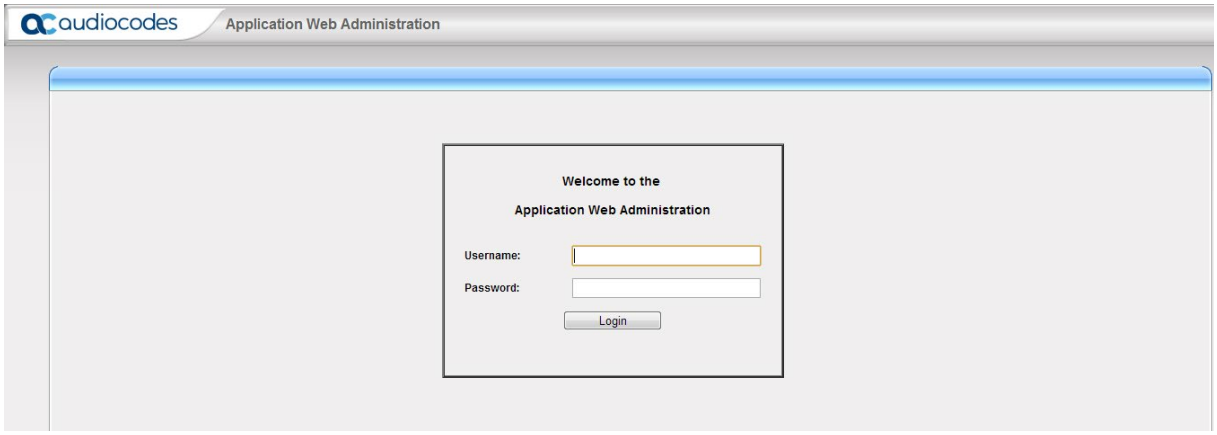
➢ **To access the Application Web Administration tool:**

1. Open port **8090** to enable system management.
2. In your browser, browse to the URL of the Application Web Administration, e.g., **IP address>:8090/** -OR- **http://10.1.10.11:8090**

Note:

- The tool uses port **8090** when the standard port **80** is used by another application installed on the same server.
- The tool uses HTML5. Browsers without HTML5 support will not be able to use all features.
- Set the gateway to support T.38 on the Fax Server side.

Figure 2-1: Application Web Administration - Login



3. Enter your Username and Password (default = **Admin** and **Admin**) and click **Login**; the login information is verified and the application is launched; the **Welcome to Application Web Administration** (home) page is displayed.

Note: For security reasons it's advisable to modify the password after first-time login.

Figure 2-2: Application Home Page

2.2 Getting Acquainted with Application Web Administration

The Application Web Administration interface includes:

- **Toolbar** (providing commonly used command buttons)
- **Navigation pane** (comprising the Navigation Bar and Navigation Tree)
- **Configuration pane** (in which the configuration is displayed and modified)

2.2.1 Toolbar

The toolbar displays the following buttons:

Table 2-1: Description of Toolbar Buttons

Button	Description
Home	Navigates to the Application Web Administration tool's Home Page
Restart	Restarts the system services
Help	Displays online context-sensitive Help topics
Log Off	Enables you to log off the Web Admin client

2.2.2 Navigation Bar

The Navigation Bar tabs enables quick access to Navigation Tree options:

Table 2-2: Navigation Bar Tabs

Tab	Description
Configuration	Enables you to view and change Application configuration settings (see Section 3 on page 17).
Management	Enables you to manage Application users, Auto Attendant IVR, Automatic Call Distribution, and specific settings (see Section 4 on page 33).
Status & Diagnostics	Enables you to view current Application system status and archived system logs (see Section 5 on page 103).

2.2.3 Home Page

Displayed after login, the Home Page displays the status of IVR Counters, Fax In, Fax Out, and General. See Figure 2-2 above.

Table 2-3: Home Page

Item	Description
IVR Counters	
IVR Calls in Progress	The number of IVR calls currently in progress.
IVR Total Counters	IVR counters (number of calls, total time, etc.) since the last time the service was up. For information on the different total counters, see "In Calls", "Current Calls" and 'Out Calls" and "Session Duration" in this table below.
Fax In	
Processing 'n' new message(s)	The number of messages ('n') that are currently being processed.
Mails Sent Successfully	The number of mails successfully sent. Click this line to show a list of mails, including these details: Time sent, from which phone number, to which e-mail address. To display a detailed Received Faxes screen, click one of the lines.
Failed Messages	The number of mails that failed to be sent. Click this line to show a list of failed mails, including these details: Time sent, from which phone number, to which e-mail address. To display a detailed Received Mails screen, click one of the lines.
Fax Out	
Messages in progress	The number of Fax out currently in progress.
Faxes Sent successfully	The number of faxes successfully sent. Click this line to show a list of faxes, including these details: Time sent, from which phone number, to which e-mail address. To display a detailed Received Faxes screen, click one of the lines.
Failed Messages	The number of faxes that failed to be sent. Click this line to show a list of failed faxes, including these details: Time sent, from which phone number, to which e-mail address. To display a detailed Received Faxes screen, click one of the lines.

Item	Description
General	
Services Status	Displays the status of all services: Fax Engine, Fax Server, Email Service, System Watchdog, and Simple Mail Transfer Protocol (SMTP).
Fax Server	Displays additional information about the Fax Server: The number of faxes received since last start-up and the maximum number of fax ports handled by this system.
System	Displays additional system information: IP address, server name, and free disk space on C: drive.
Fax License	Displays fax license information: Number of days left to license expiration, the expiration date, and the maximum number of fax ports.
IVR License	Displays Auto Attendant license information: Number of days left to license expiration, the expiration date, and the maximum number of Auto Attendant ports.
Version	Displays system version information: System version, e-mail service version, and the system watchdog version.
In Calls	
Total in calls	Total incoming calls to the IVR.
Total in calls answered	Total incoming answered by the IVR.
Current Calls	
Total current established calls	Number of established calls.
Total current active session	Number of IVR sessions (a session in an incoming call and optional outgoing call, for example to an ACD agent).
Out Calls	
Total out calls initiated	Total out calls initiated by the IVR (for example to an ACD agent)
Total out calls answered	Total out calls initiated by the IVR (for example to an ACD agent) and answered.
Total out calls timeout	Total out calls initiated by the IVR (for example to an ACD agent) and timed out.
Total out calls canceled	Total out calls initiated by the IVR (for example to an ACD agent) and canceled by the IVR.
Total out calls failed	Total out calls initiated by the IVR (for example to an ACD agent) and failed due to error (for example invalid number).
Total out calls duration	Total duration of all out calls initiated by the IVR (for example to an ACD agent).
Session Duration	
Total session duration	Total duration of all call sessions.

3 Configuring the Application

The navigation tree under the **Configuration** tab lets you to easily manage Application issues such as licensing and administrator security.

3.1 Configuring Administrator Settings

The Administrator Settings navigation tree lets you change the administrator password and create other administrators with customize permissions.

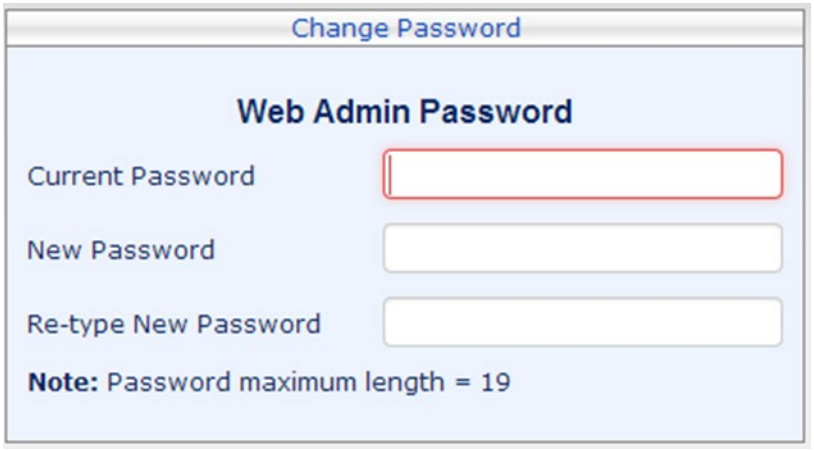
Tip: For security reasons, it's advisable to change the default password. Write down the new password and keep in a safe place. It's not possible to restore a forgotten password.

The default Username and Password are **Admin** and **Admin**.

➢ **To change administrator password:**

1. Click the **Configuration** tab in the navigation pane and under **Security Settings**, click **Administrator Password**.

Figure 3-1: Administrator Password



2. In the 'Current Password' field, enter your current password.
3. In the 'New Password' field, enter the new password. Then re-enter the new password in the 'Retype New Password' field.
4. Click **Submit**.

3.1.1 Password Rule

The administrator password must be between 8-20 characters and should contain at least:

- one lower-case letter
- one upper case letter
- one digit
- one special character

3.1.2 Managing Administrators

The system supports multiple 'sub-admin' users, each with their own permissions. This way, the super Administrator can assign administrative tasks to various people and limit their access to only the tasks they need to perform.

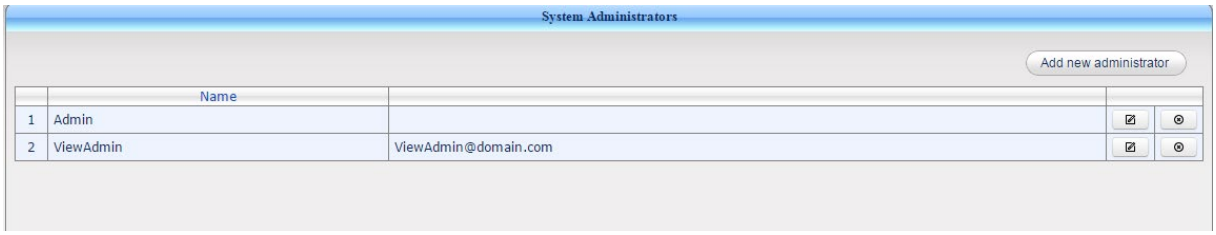
The system supports the following permission rights options:

- **None** – Cannot access specific settings pages
- **View Only** – Can view page settings but cannot change them
- **View & Write** – Can view and change specific page settings

➢ To display Administrators defined in the system:

- In the Navigation pane, click **Configuration** and then under the **Security Settings** root node, click **Administrators**. The following screen is displayed:

Figure 3-2: System Administrators Screen



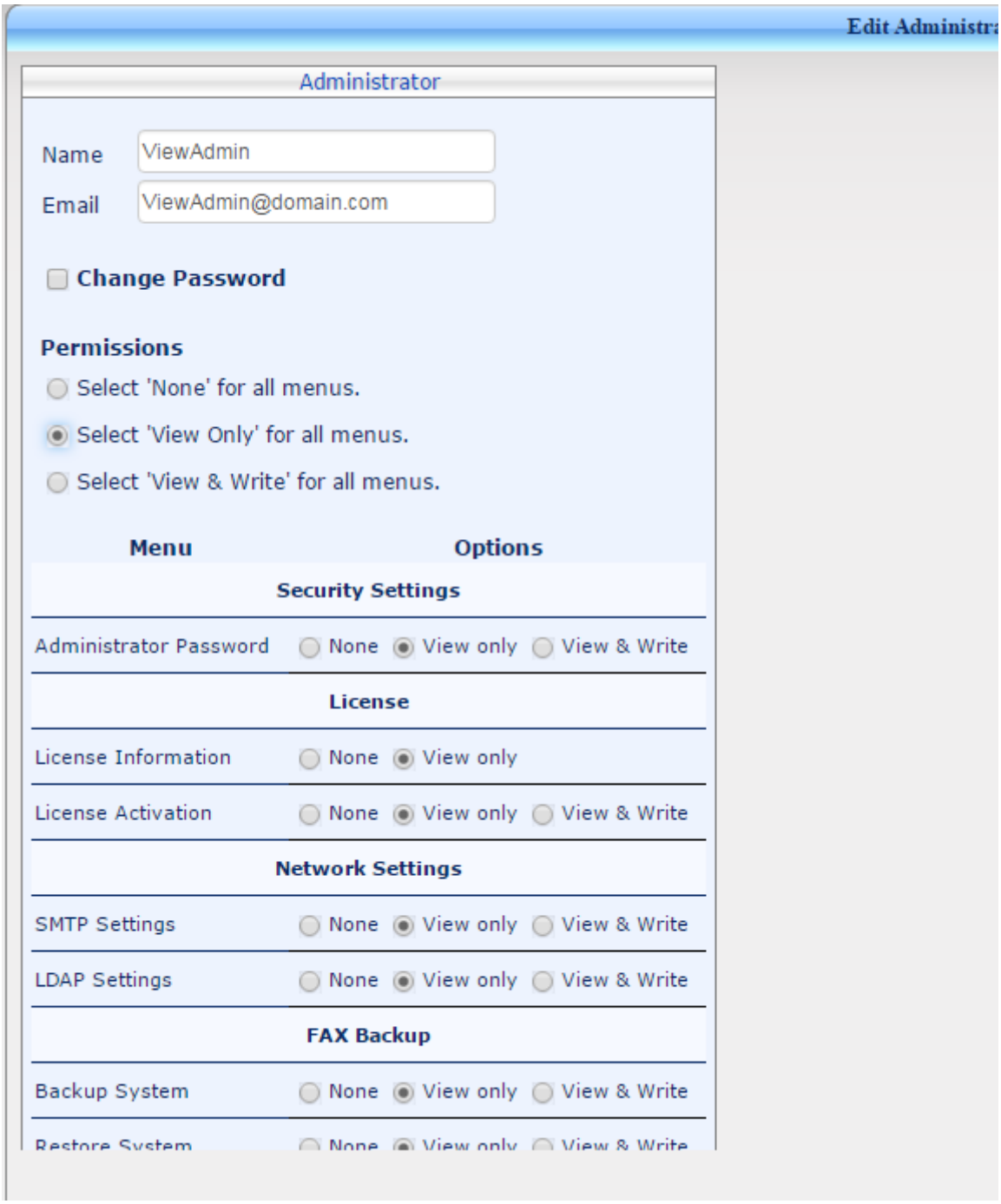
The page displays all the administrators that are defined in the system with the administrator's Username and description.

- Click the Edit button to edit specific administrator settings.
- Click the Delete button to delete the specific administrator.

➢ **To create a new Administrator:**

1. In the Navigation pane, click **Add new administrator**; the following screen is displayed.

Figure 3-3: Administrator Security Settings



2. In the 'Name' field, enter the Administrator username.
3. In the 'Description' field, enter the Administrator description.
4. In the 'New Password' field, enter the Administrator password. Then re-enter the password in the 'Re-type New Password' field.

5. Set the desired permission (None, View Only or View & Write) per operation.

Tip: You can use the one of the three radio buttons in the Permission section to select all options with initial same permissions.

6. Click the **Submit** button.

Note: Only the System Administrator (By the name of “Admin”) can create new delegated administrators.

3.2 Enabling the Server's License Features

This section shows how to view and activate the server's license. When the application is shipped pre-installed on an AudioCodes gateway, the application license is already activated. When the application is installed on a customer server, the license can only be activated after the installation. To obtain a permanent license, the application system ID must be provided. The application system ID is the Client to Vendor (*.c2v) file.

Note: The application license is associated with the installed system's serial number. An installed and licensed application system must not be cloned to a different Virtual Machine (VM) instance. Cloning it will disable the application license. Moving the VM to another virtual system that uses different hardware is also considered a clone. When moving the OS to another virtual machine (e.g. for maintenance), there's an option to install an external license server (not virtual). For more information, contact AudioCodes support.

The application can be activated with a temporary license for a period of 90 days for two fax ports and two Auto Attendant ports. The temporary license can be activated only once and can be used for evaluation purposes or for using the system until the permanent license is activated.

➢ **To view system license information:**

1. Click the **Configuration** tab in the navigation pane and under **License**, click **License Information**.

Figure 3-4: License Information

FAX License Information	
Max Fax In Users	10
Max Fax In Ports	2
Max Fax Out Ports	2
Max Fax Out Users	10
Expiration date	01/01/2030
Days Left	5692
Type	expiration

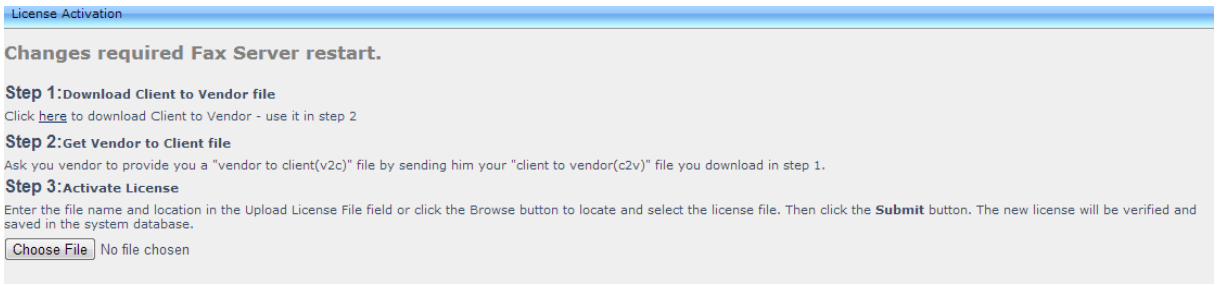
Attendant License Information	
License version	1
Number of ports	5
HASP Key ID	266326907008
Expiration date	01/01/2030
Days Left	5692
Type	expiration

You can extend system capabilities by uploading a new license. First make sure you have the new license file. The server license is a Vendor to Client (*.v2c) file.

➢ **To load a new license file:**

1. Access the License Activation page (**Configuration** > **License** > **License Activation**).

Figure 3-5: License Activation



2. If you already have the new license file (Vendor to Client *.v2c), skip to **Step 3**.
3. Under **Step 1** in the screen above, click the **here** link and then save the **Client to Vendor** file to your PC.
4. Send the *.C2V* file with the application purchase order (PO) number to the following e-mail address: SPS_License@audiocodes.com.
5. AudioCodes will generate a valid license according to your order and will send it to you via an e-mail reply. The license is a **Vendor to Client** (*.V2C)* file.
6. When you receive a valid Application License Key (Vendor to Client file) from AudioCodes:
   a. Navigate to the License Activation page (**Configuration** tab > **License** menu > **License Activation**).
   b. Load the **Vendor to Client** file that you received from AudioCodes.
7. Click **Submit**.
8. After the license is applied, restart the Fax Server and Fax Converter services.

3.3 Configuring Network Settings

This section shows how to configure SMTP and Lightweight Directory Access Protocol (LDAP), an application protocol for accessing and maintaining distributed directory information services over an IP network.

3.3.1 Configuring SMTP Settings

The Fax Server uses standard SMTP to send fax emails to users. To allow the Fax Server to send emails and to allow the mail server to get incoming email from the Fax Server, the enterprise's mail server SMTP address must be defined in both directions.

This section shows how to configure SMTP settings in both directions (Fax-to-Mail and Mail-to-Fax) so SMTP authentication is enabled.

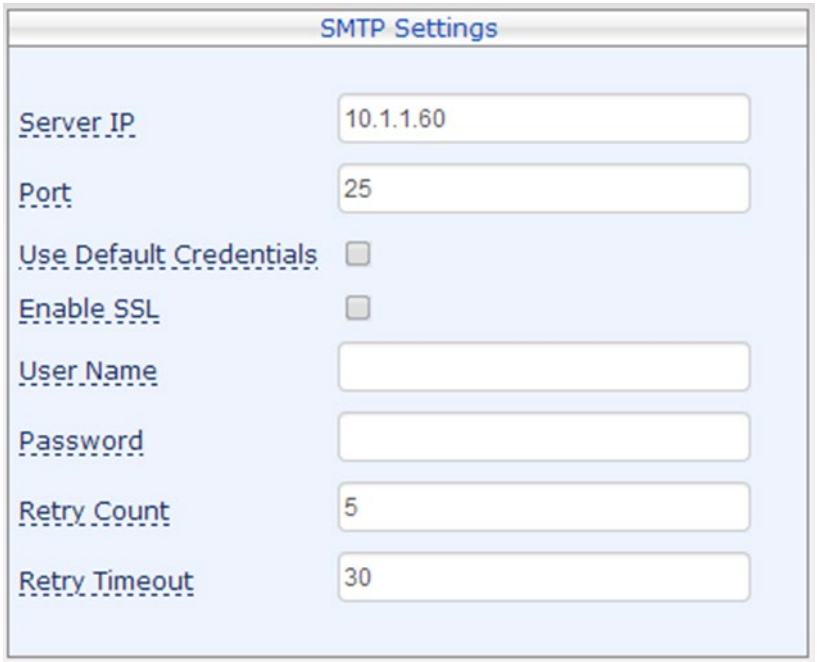
3.3.1.1 Fax-to-Mail Settings

This section describes how to configure SMTP Fax-to-Mail settings.

➢ **To configure SMTP settings for Fax-to-Mail:**

1. Access the SMTP Settings page (**Configuration** > **Network Settings** > **SMTP Settings**).

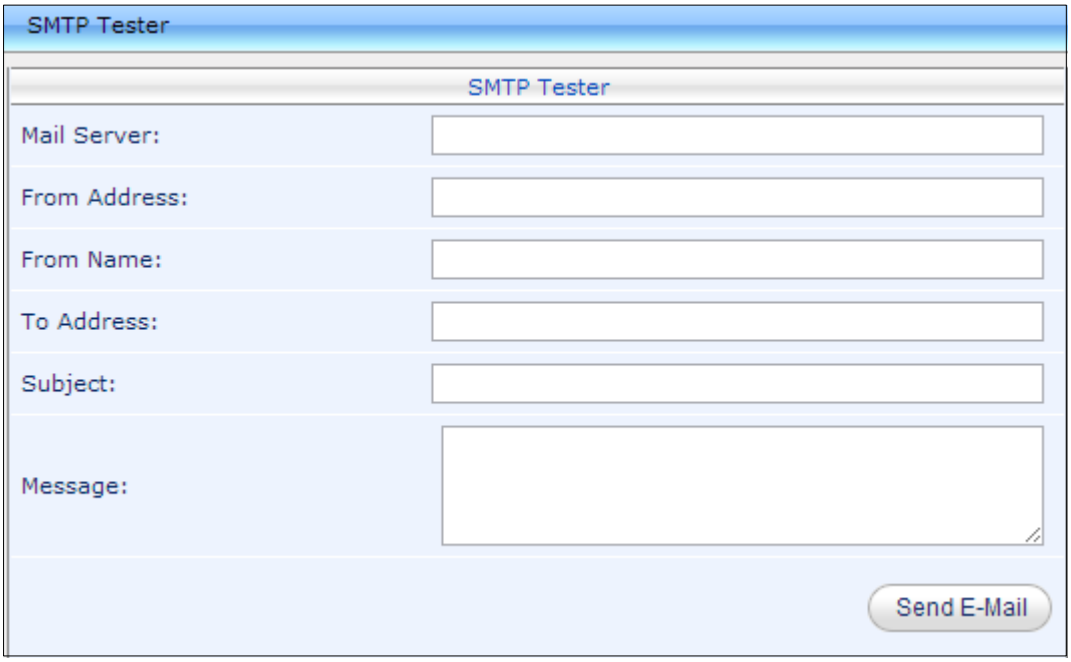
Figure 3-6: SMTP Settings



2. In the 'Server IP' field, enter the enterprise's mail server IP address.
3. In the **Port** field, enter the SMTP's port number (usually 25).
4. To use default credentials, check the 'Use Default Credentials' box.
5. To enable SSL, check the 'Enable SSL' box.
6. If a secured SMTP connection is required, enter the SMTP user name and password in the 'User Name' and 'Password' fields.
7. In the 'Retry Count' field, enter the number of times the application should retry to send e-mails.
8. In the 'Retry Timeout' field, enter the timeout after which to stop retrying sending the e-mail. The retry mechanism is specified in seconds. The default is 30 seconds.

9. To test the SMTP settings, click the **here** link; the SMTP Tester page opens.

Figure 3-7: SMTP Tester



10. Configure the e-mail information and click **Send E-Mail**. Make sure the e-mail was received.

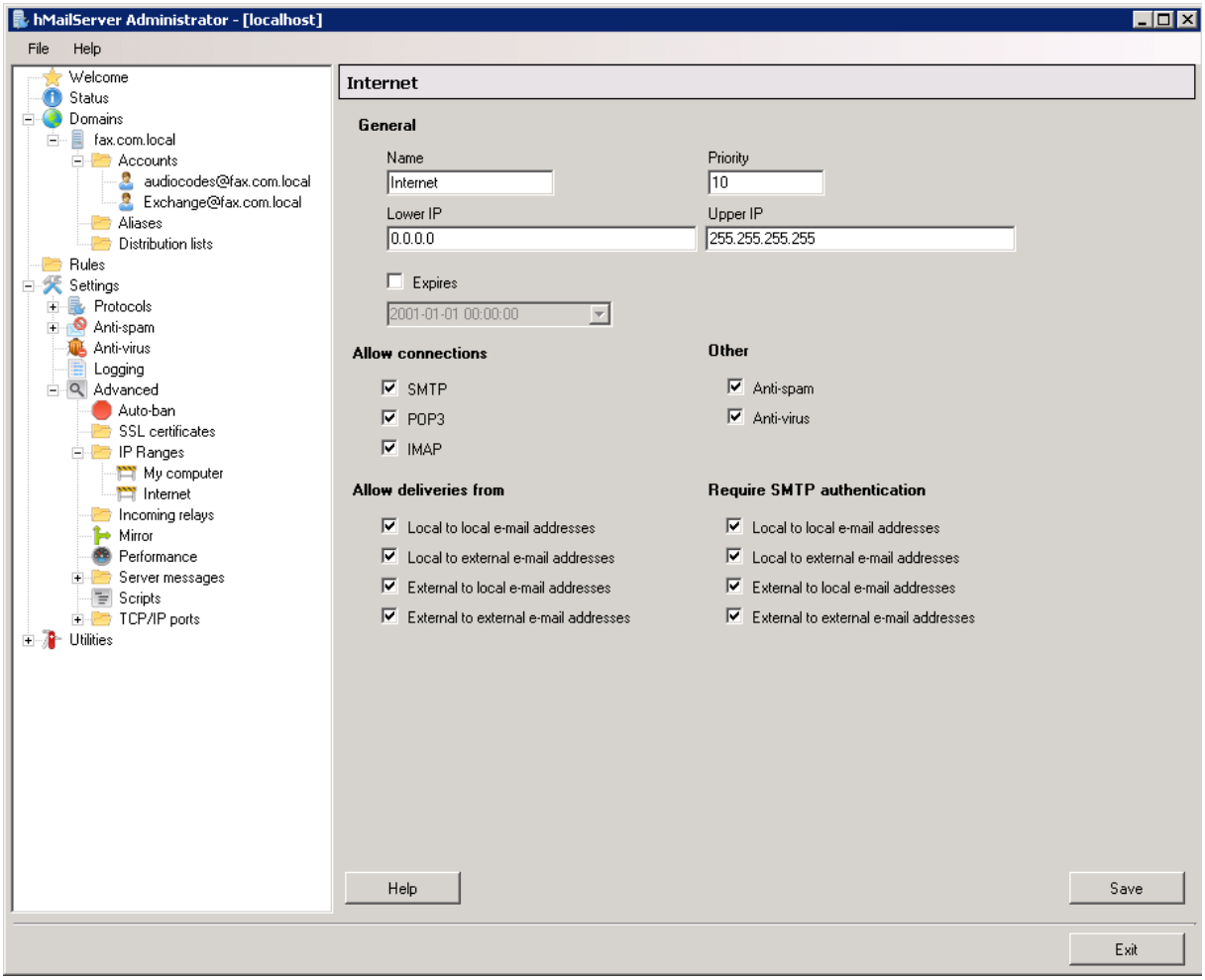
3.3.1.2 Mail-to-Fax Settings

This section describes how to configure SMTP Mail-to-Fax settings. After a regular setup, no additional configuration is required. Additional configuration is only required in order to perform specific tasks, such as to change fax domain, configure SMTP security,

➢ **To configure SMTP settings for Mail-to-Fax to perform SMTP authentication:**

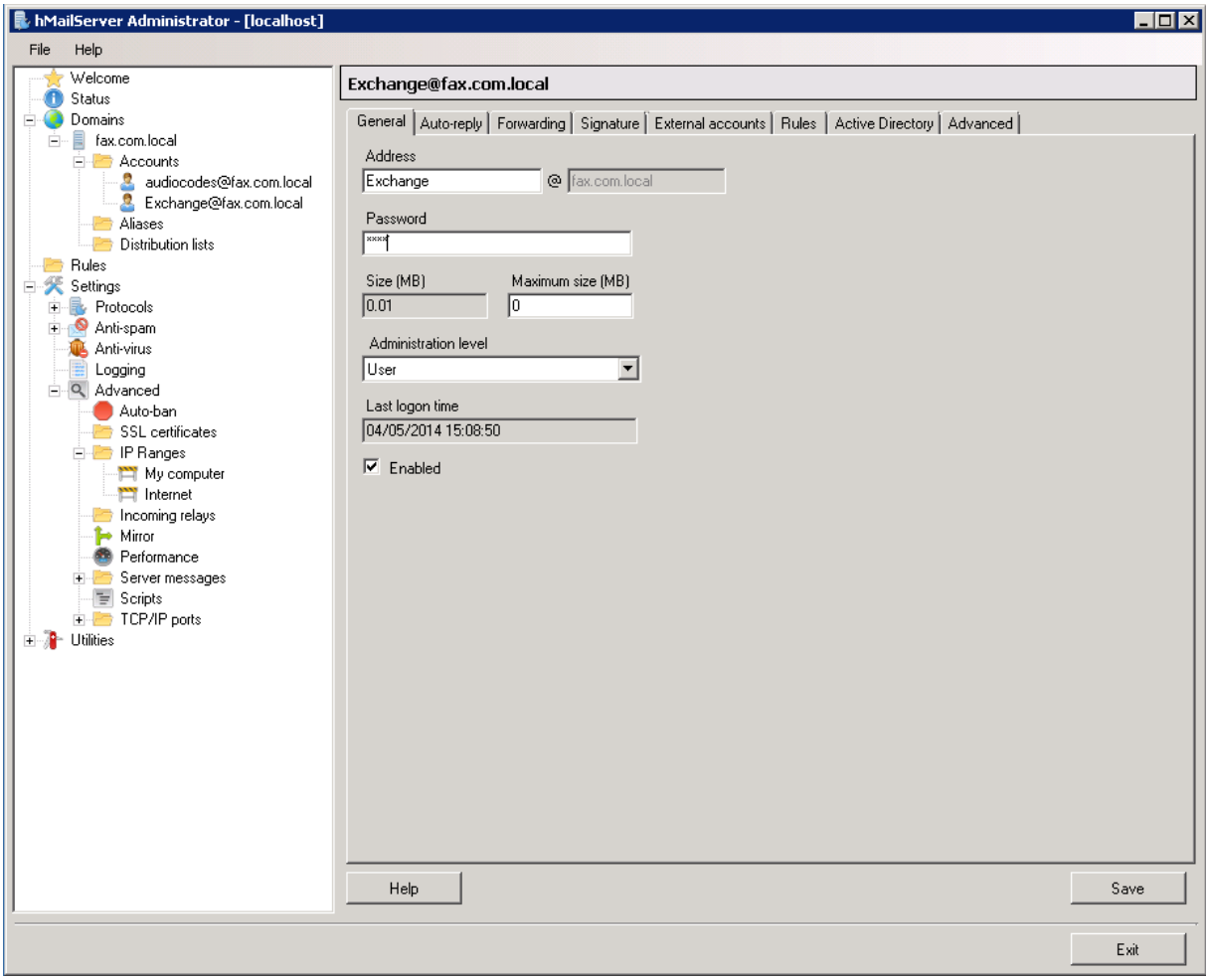
1. First access the Fax Server via remote desktop, and then access the hMailServer (**Start** > **All Programs** > **hMailServer**).
2. In the hMailServer Administrator window that opens, click **Settings** > **Advanced** > **IP ranges > Internet**.

Figure 3-8: hMailServer Administrator



3. Check the **External to local e-mail addresses** option under Require SMTP authentication.
4. Click **Save**.
5. In the tree, click **Domains** > **Accounts**, and then click the **General** tab.

Figure 3-9: hMailServer Administrator - Domains > Accounts > General tab



6. In the 'Address' field, enter the account's name to assign to the Mail-to-Fax user. In this example it's **Exchange**.
7. In the 'Password' field, enter the password to assign to this account.
8. Click **Save**.

Note: Notify your user that when using the Fax-to-Mail application they must use this account's name and password to send Mail-to-Fax.

3.3.2 Configuring LDAP Settings

The Fax Server uses the enterprise's Active Directory record to determine the owner of an incoming fax. The Fax Server queries the enterprise's Active Directory using LDAP. For each received fax, the Fax service tries to find the user's email address in the enterprise's directory according to the dialed number.

Note: The Fax Server first tries to find the user's email in the Fax Server predefined table (see Section 4.1.4 on page 36). If no match is found, it tries to search for a match in the Active Directory.

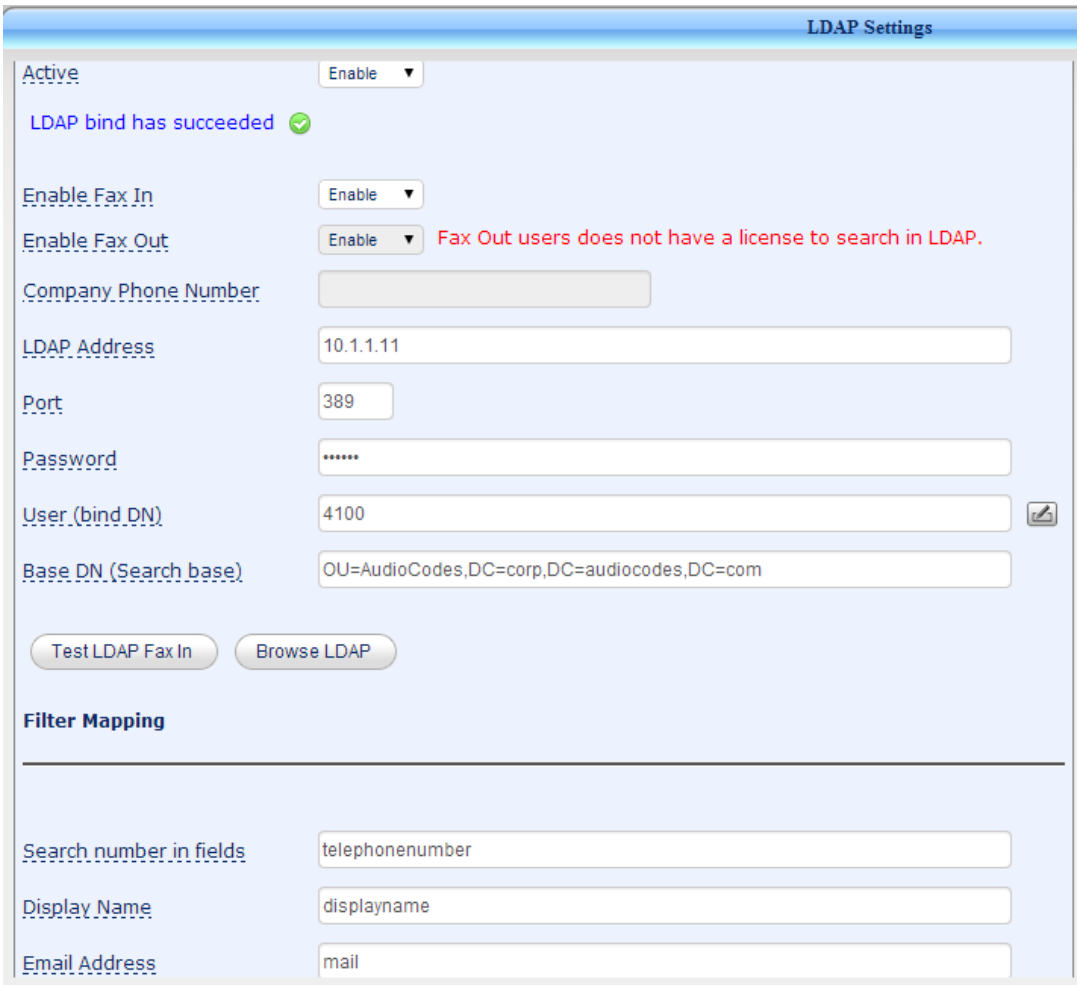
Before you start configuring LDAP settings, make sure you have an LDAP user account with read permission having access to all users in the enterprise. Make sure the LDAP user used has a fixed password that does not occasionally change.

Note: If the Fax Server is unable to query the Active Directory, incoming faxes may not reach their destination.

➢ **To configure LDAP settings:**

1. Access the LDAP Settings page (**Configuration** > **Network Settings** > **LDAP Settings**).

Figure 3-10: LDAP Settings



2. Configure the parameters using the descriptions in the table below as reference, and then click **Submit**.

Table 3-1: LDAP Settings

Parameter	Description
Active	From the drop-down menu select **Enable**.
Enable Fax In	From the drop-down menu select **Enable** to allow LDAP search for users for Fax In operation.
Enable Fax Out	From the drop-down menu select **Enable** to allow LADAP search for users for Fax Out operation.
Company Phone Number	The company's default fax number that will be assigned for Fax Out operations.
LDAP Address	Defines the IP address or URL of the LDAP server. For LDAPS use ldaps://<ip address>, (e.g. ldaps://10.1.1.11)
Port	Defines the LDAP service port. The default is 389. For LDAPS use the default port 636 To search in the Global Catalog, use the following ports: 3268, and 3269 for LDAPS.
Password	Defines the password of the search requester.
User (bind DN)	Defines the user name used for the LDAP search request.
Base DN (Search base)	Defines the start access point on the active directory tree structure.

3. To test LDAP connectivity and to test that you configured LDAP search settings correctly, click the **Test LDAP** button, enter the user number, and see if the fax finds the user.
4. To browse the LDAP, click **Browse LDAP**.

Note: The application supports the following LDAP connectivity modes:

- Anonymous
- Simple
- Secure LDAP (LDAPS)

➢ **To configure LDAP Filter Mapping:**

1. Configure LDAP Filter Mapping parameters using the descriptions in the table below as reference.

Table 3-2: LDAP Filter Mapping

Parameter	Description
Search number in fields	Defines in which field to look for the number of the fax recipient (usually configured to **telephonenumber**)
Display Name	Defines the field that contains the name of the fax recipient (usually configured to **displayname**)
Email Address	Defines the fax recipient's email address (usually configured to **mail**)

3.4 Backing up and Restoring the Application's Configuration Settings

The application provides a quick and easy way to back up and restore configurations. It's advisable to perform a backup before making any major changes, when the application is functioning correctly. Backups provide you with a safety net.

The backup mechanism backs up all your application settings, including architecture, users, administrators, and configuration. It's advisable to store the backup file in a safe place.

The system supports a separate backup tool for the Fax Application and for the Auto Attendant application.

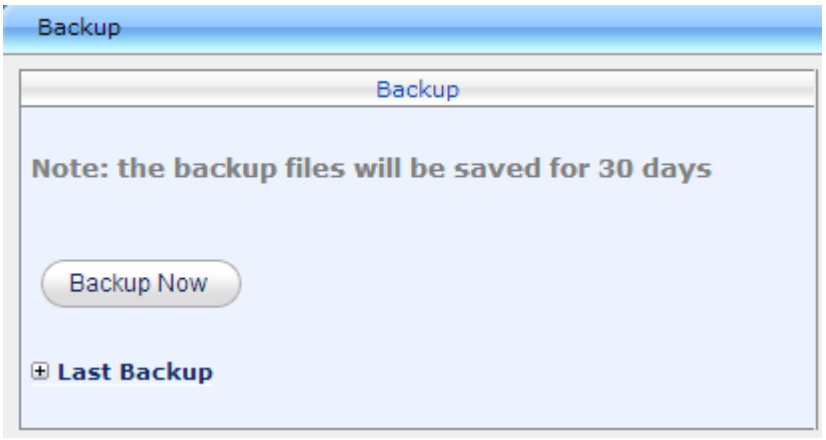
Note:

- The application automatically makes a backup once a day.
- The application holds backup files for 30 days.
- Older backup files are automatically deleted from the application.

➢ **To perform a fax application backup:**

1. Access the Backup page (**Configuration** > **Fax Backup** > **Backup**).

Figure 3-11: Backup

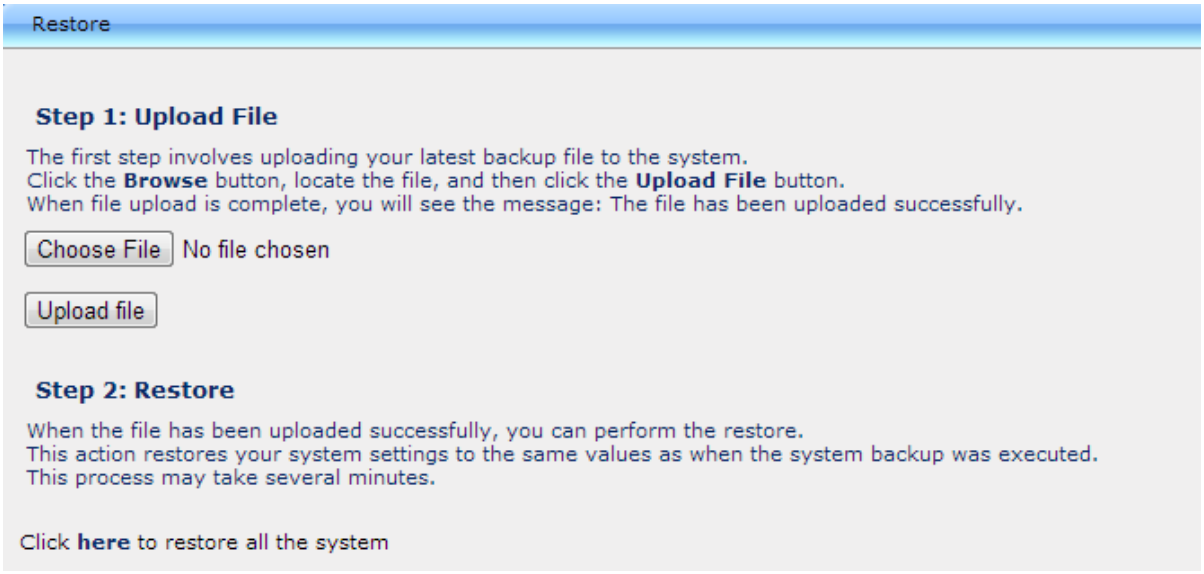


2. Click the **Backup Now** button.

➢ **To perform a Fax Application Restore:**

1. Access the Restore page (**Configuration** > **Fax Backup** > **Restore**).

Figure 3-12: Restore



2. Click **Choose File** to locate your backup file.
3. Click **Upload File** to upload your backup file.
4. Click **here** to restore the system.

3.5 Backing up Auto Attendant's Configuration Settings

The application provides a quick and easy way to back up your Auto Attendant configurations and to restore them. It's advisable to perform a backup before making any major changes, when the application is functioning correctly. Backups provide you with a safety net.

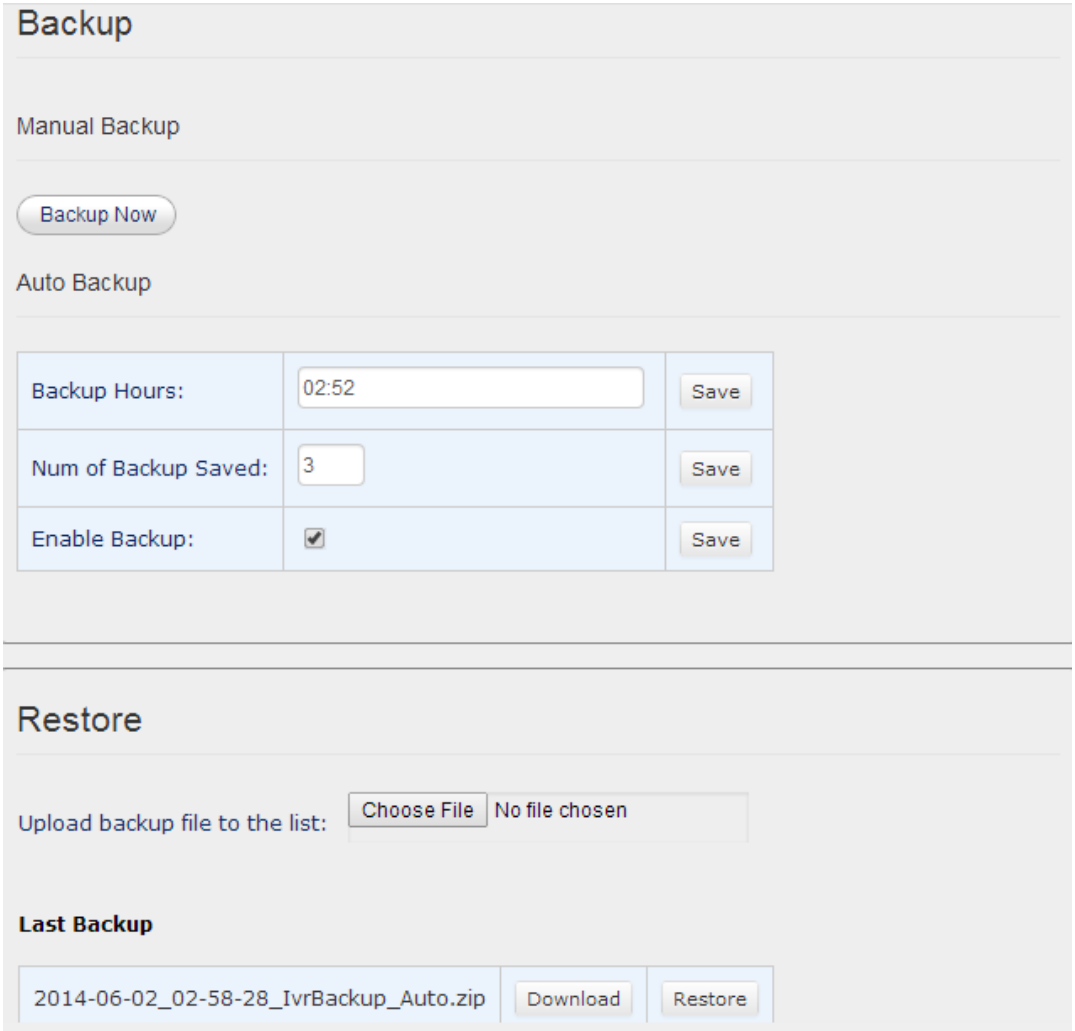
The backup mechanism backs up all your Auto Attendant settings, including IVR and ACD settings, and prompts. It's advisable to store the backup file in a safe place.

Note: If you back up a configuration and no changes to the configuration have been made since the previously backed up configuration, then one of the identical backups is automatically deleted and therefore not counted in the number of backups to save.

➢ **To perform an Auto Attendant backup:**

1. Access the Backup page (**Configuration** > **Auto Attendant Backup** > **Backup / Restore**).

Figure 3-13: Backup



2. To manually back up your configuration now, click the **Backup Now** button.
3. To set the Auto Backup parameters, enter in 'Backup Hours' the time you want the system to make a daily backup, enter in 'Num of Backup Saved' the number of backups you want to save, and check the 'Enable Backup' box.

➢ **To perform an Auto Attendant restore:**

- Upload the backup file by clicking the **Choose File** button

  -OR-

- Download the last backup file by clicking the **Download** button of the requested file.

4 Managing the Application

This section shows how to manage the application. The navigation tree under the **Management** tab enables administrators to easily manage general service settings and application users. Management menu options include:

- System Settings (see Section 4.1 below)
- Fax In (Fax to Mail) Settings (see Section 4.2)
- Fax Out (Mail to Fax) Settings (see Section 4.3)
- Auto Attendant (see Section 4.4)
- Automatic Call Distribution (ACD) (see Section 4.5)

Colored icons displayed in the fields:

 = restart the Email Server after modifying this parameter.

 = restart the Application after modifying this parameter.

4.1 Modifying System Settings

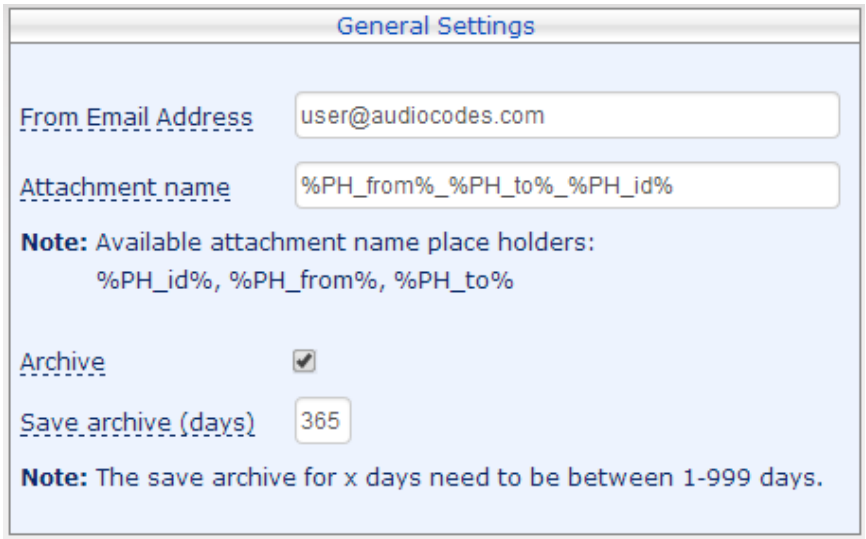
This section shows how to modify the System Settings, i.e., General (System) Settings and Advanced (System) Settings.

4.1.1 Modifying General Settings

➢ **To modify General Settings:**

1. Access the General Settings page (**Management** > **System Settings** > **General Settings**).

Figure 4-1: General Settings



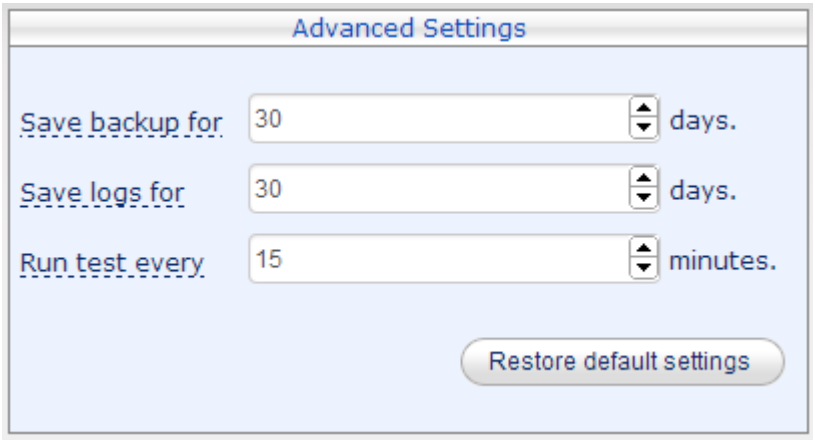
2. In the 'From Email Address' field, enter the email address that the fax recipient will see.
3. In the 'Attachment name' field, enter the name of the attachment that the fax recipient will see.
4. Select the 'Archive' option for the system to archive outgoing and incoming faxes.
5. In the 'Save archive (days)' field, enter the number of days you want the system to save the archive for.
6. Click **Submit**.

4.1.2 Modifying Advanced Settings

➢ **To modify Advanced Settings:**

1. Access the Advanced Settings page (**Management** > **System Settings** > **Advanced Settings**).

Figure 4-2: Advanced Settings



2. You can modify the following Advanced Settings:
   a. In the 'Save backup for' field, enter the number of days you want the system to save the fax application backup files for.
   b. In the 'Save logs for' field, enter the number of days you want the system to save the services logs for.
   c. In the 'Run test every' field, enter how often (in minutes) you want the system to perform a self-test.
3. To restore default settings, click the **Restore default settings** button.

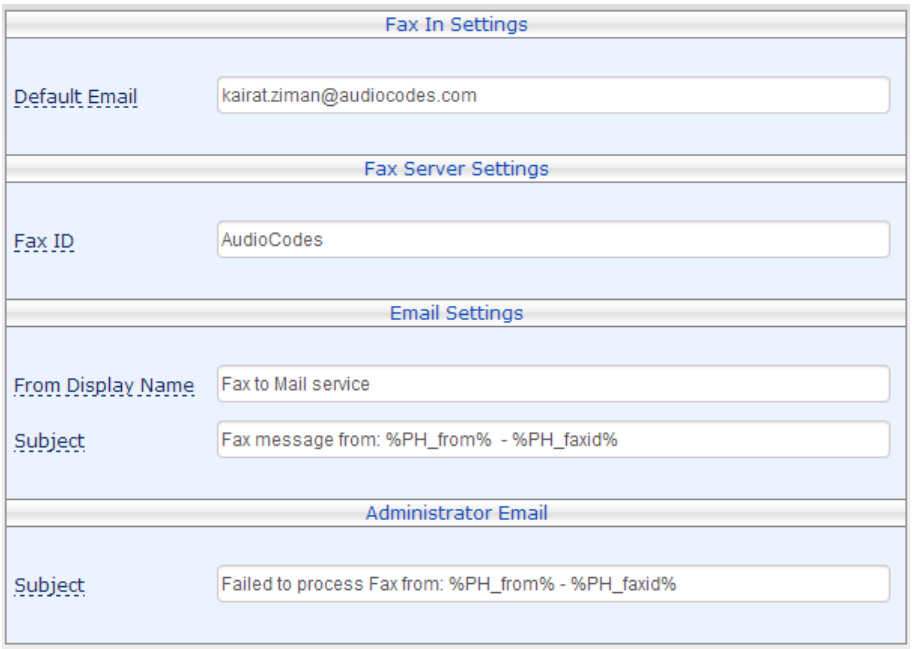
4.1.3 Modifying Fax In Settings

This section shows how to modify fax-in settings.

➢ **To modify Fax In Settings:**

1. Access the Fax In Settings page (**Management** > **System Settings** > **Fax In Settings**).

Figure 4-3: Fax in Settings



2. In the 'Default Email' field, enter a default email address. The Fax To Mail will use this e-mail address as the default destination when the application cannot determine where to send a specific incoming fax.
3. In the 'Fax ID' field, enter the fax ID that the fax sender will view on their fax machine as the fax number destination.

Note: The Fax Server uses the following two Email Settings to send fax emails to users.

4. In the 'From Display Name' field, enter the name that the fax recipient will see.
5. In the 'Subject' field, enter the subject that the fax recipient will see.

Note: The Fax Server uses the following two Administrator Email settings to display a message if fax processing fails.

6. In the 'Subject' field, enter the message you want displayed to the fax recipient if there's a failure.
7. Click the **Submit** button.

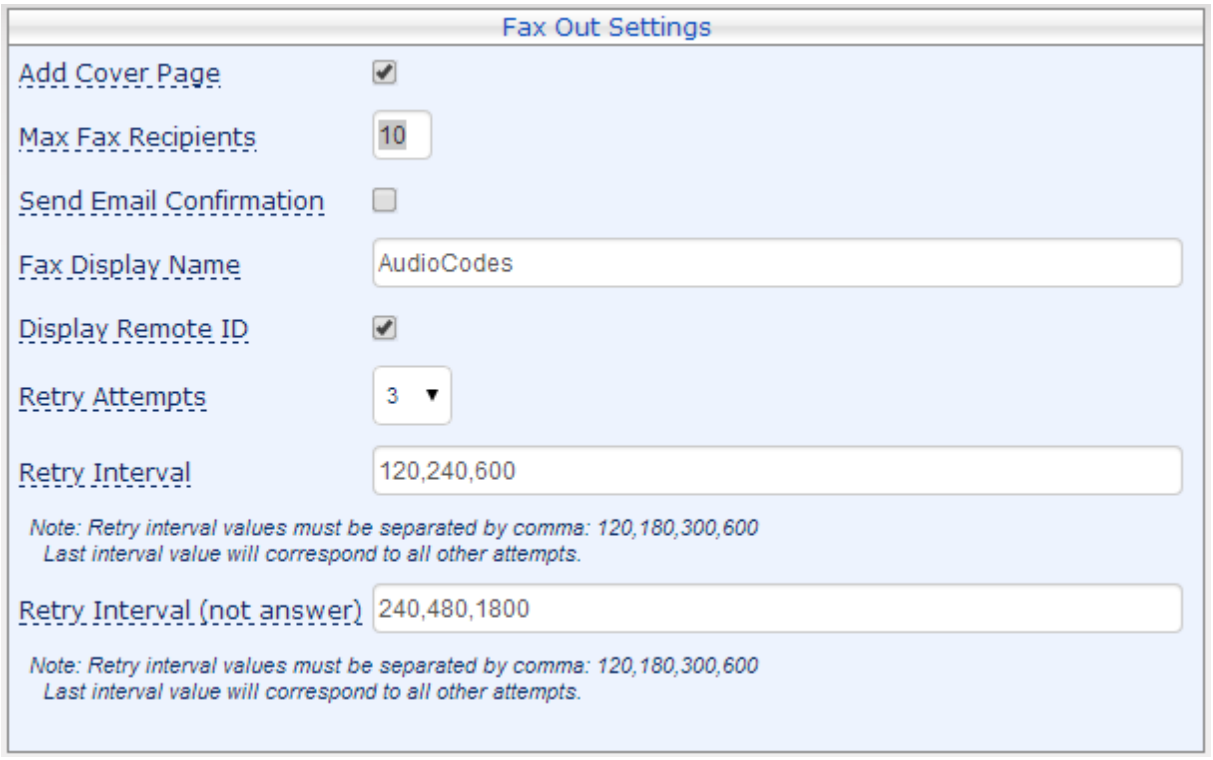
4.1.4 Modifying Fax Out (Mail to Fax) Settings

This section shows how to modify fax-out settings.

➢ **To modify Fax Out Settings:**

1. Access the Fax Out Settings page (**Management** > **System Settings** > **Fax Out Settings**).

Figure 4-4: Fax Out Settings



2. Configure the parameters using Table 4-1 as reference.

Table 4-1: Fax Out Settings – Advanced Settings

Parameter	Description
Add Cover Page	Select the option to add the default cover page template to the fax.
Max Fax Recipients	Maximum number of fax recipients for the Fax Out operation.
Send Email Confirmation	Select this option to allow the Fax Out application to send an automatic email confirmation notifying the user that the Fax Out request was received by the server and that it will be processed.
Fax Display name	The name that will be displayed on sent faxes.
Display Remote ID	Select the option to display the remote ID of the fax out device in the email.
Retry Attempts	The number of attempts to send a fax.
Retry Interval	The time interval in seconds between consecutive attempts to send a fax. The time intervals must be separated by commas. The last time interval corresponds to all intervals of the send attempts that follow up to the number of Retry Interval. For example, if Retry Attempts=5, and Retry Interval=120,240,600, then the application tries to send the fax 5 times. After the first attempt, the application waits for 120 seconds and then makes the second attempt. After the second attempt the application waits for 240 seconds and then makes the third attempt. Then, for the fourth and fifth attempts, the interval is 600 seconds.
Retry Interval (no answer)	The time interval in seconds between consecutive attempts to send a fax if the receiving fax doesn't answer. The time intervals must be separated by commas. The last time interval corresponds to all intervals of the send attempts that follow up to the number of Retry Interval.

3. Click **Submit**.

Tip: Users can override system cover page settings and opt for a self-created cover page to be sent as the first page of the outgoing fax. Any file attachment with a name containing the word *coverpage* (e.g., *coverpage.txt* or *coverpage.doc* will used as the first page of the fax and the system cover page will not be used for the fax operation.

4.2 Modifying Fax In (Fax To Mail) Settings

The Fax Server lets you add predefined Fax In (Fax to Mail) entries. These override the LDAP query mechanism for finding user destination.

Example:

A predefined Fax In entry is defined as follows:

Phone Number: **1234567**

Email address: User1@company.com

If an incoming fax call is sent to **1234567**, Fax to Mail does not try to search for the destination address of this number in the enterprise's Active Directory but rather automatically sends the fax to User1@company.com.

You can manually or by importing a file, create a 'Phone number to Email Address' and a 'Phone number to Display Name' conversion table.

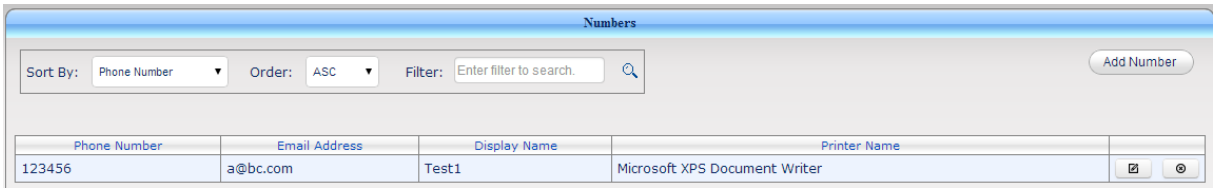
4.2.1 Modifying Numbers

You can modify fax numbers.

➢ **To modify fax numbers:**

1. Access the Numbers page (**Management** > **Fax In** > **Numbers**).

Figure 4-5: Numbers



2. To sort the list of Numbers by a specific parameter, click the arrow in the 'Sort By' field, and select the required parameter: Phone Number, Email Address, Display Name, or Printer Name.
3. To sort by Order, select ASC (Ascending) or DESC (Descending) in the 'Order' field.
4. To modify a fax number, click  and edit the required parameters displayed in Figure 4-6 using Table 4-2 below as reference.

Figure 4-6: Modify Number

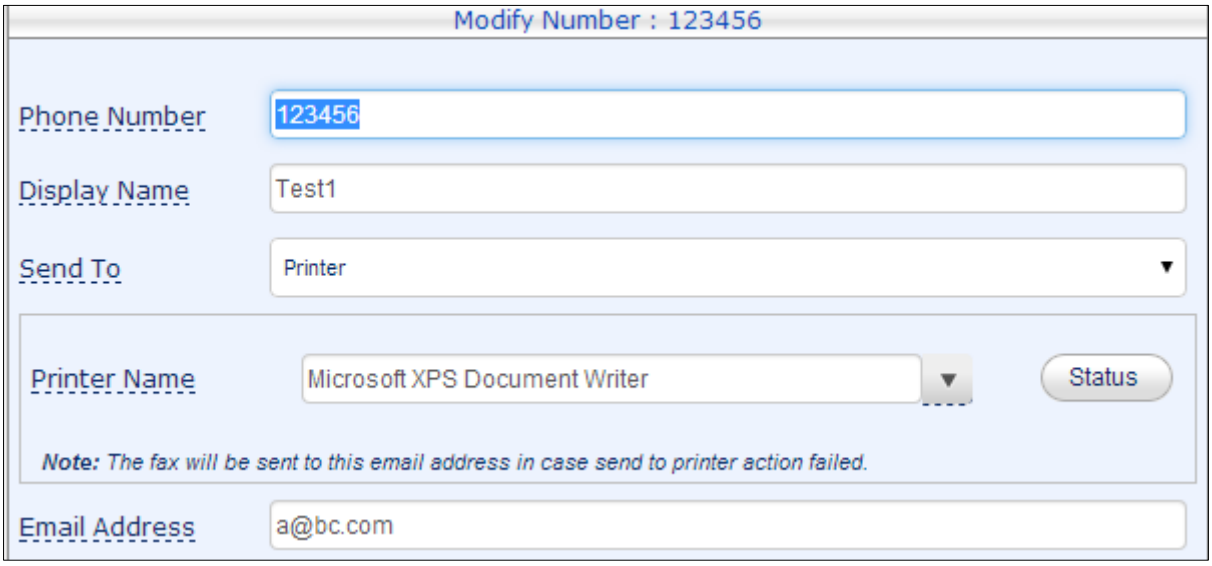
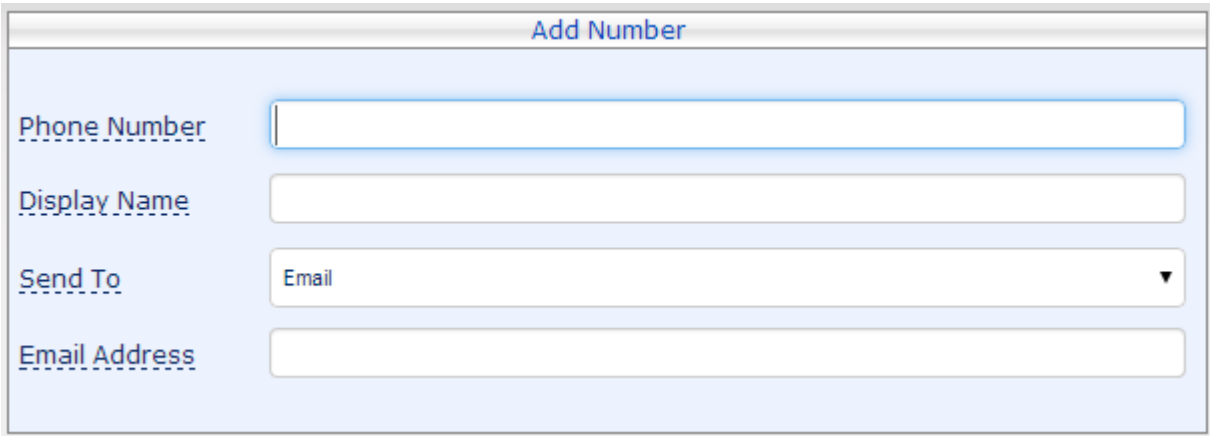


Table 4-2: Modify Number Parameter Descriptions

Parameter	Description
Phone Number	The phone number.
Display Name	The name displayed.
Send To	Select from the dropdown where to send the fax: Email or Printer.
Printer Name	If you select to send the fax to printer, enter the printer name or select the printer from the pop-down list.
Status	Click the **Status** button to see the status of the selected printer.
Email Address	The email address of the fax recipient.

5. To delete a fax number, click  .
6. To add a new fax number, click **Add Number**:

Figure 4-7: Add Number



7. Enter the 'Phone Number', 'Display Name', 'Send To', and 'Email Address', fields.
8. Click **Submit**.

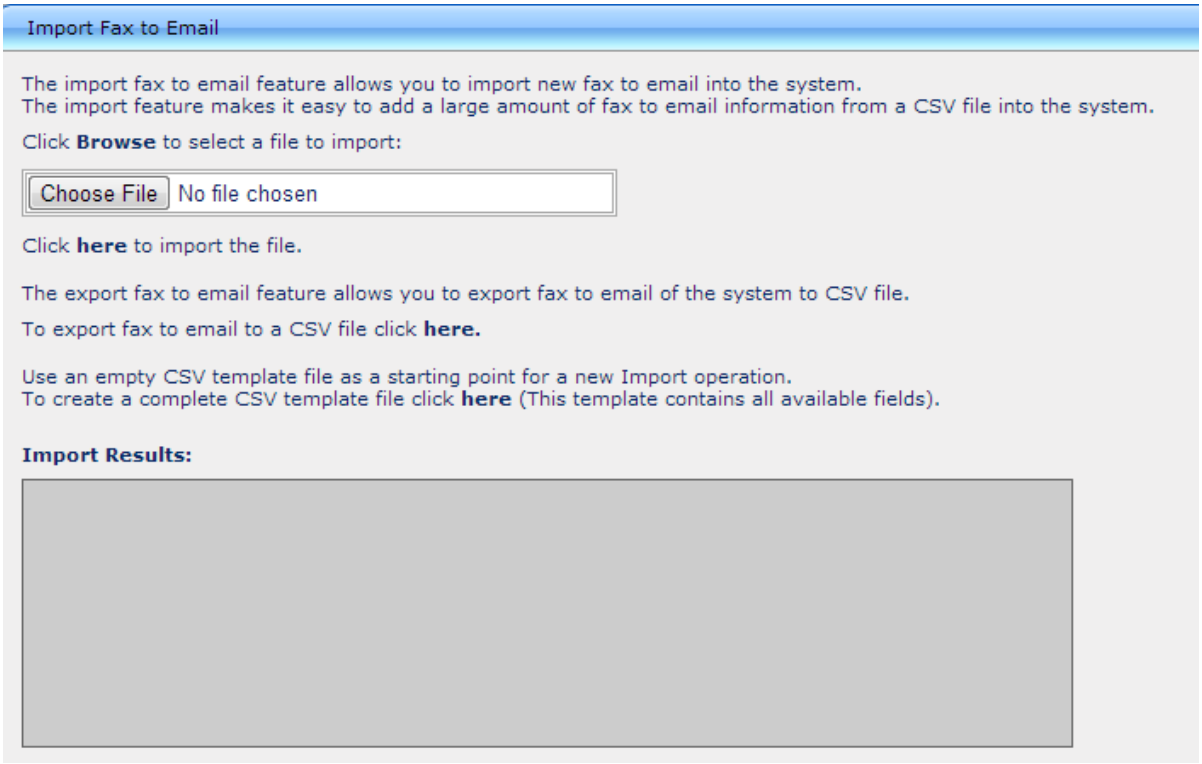
4.2.2 Importing Fax To Mail Numbers

You can import large numbers of predefined Fax to Email entries into the application using the Import Numbers feature. The feature uses a csv (Comma Separated Value) file format that can be edited using Notepad or Excel. For the complete csv file format, click the **here** link in the sentence **To create a complete CSV template file…**shown in the figure below.

➢ **To import a large number of Fax To Mail numbers:**

1. Access the Import Fax to Email Numbers File page (**Management** > **Fax In** > **Import Numbers**).

Figure 4-8: Import Fax to Email Numbers



2. Click the **Choose File** button, and then select the file to import.
3. Click **here** to import the file.
4. To export to a CSV file, click the second **here**.

4.3 Managing Fax Out (Mail to Fax) Service

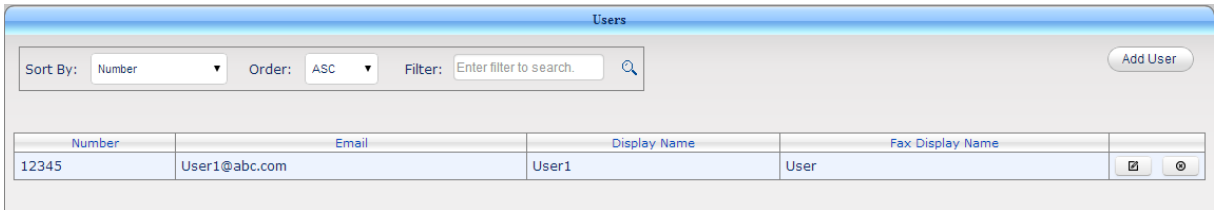
The navigation tree under the **Management** tab lets administrators easily manage Mail To Fax users, the gateways through which the outgoing faxes will be routed, and the rules for routing these outgoing faxes.

4.3.1 Managing Fax Out Users

➢ **To manage Mail To Fax users:**

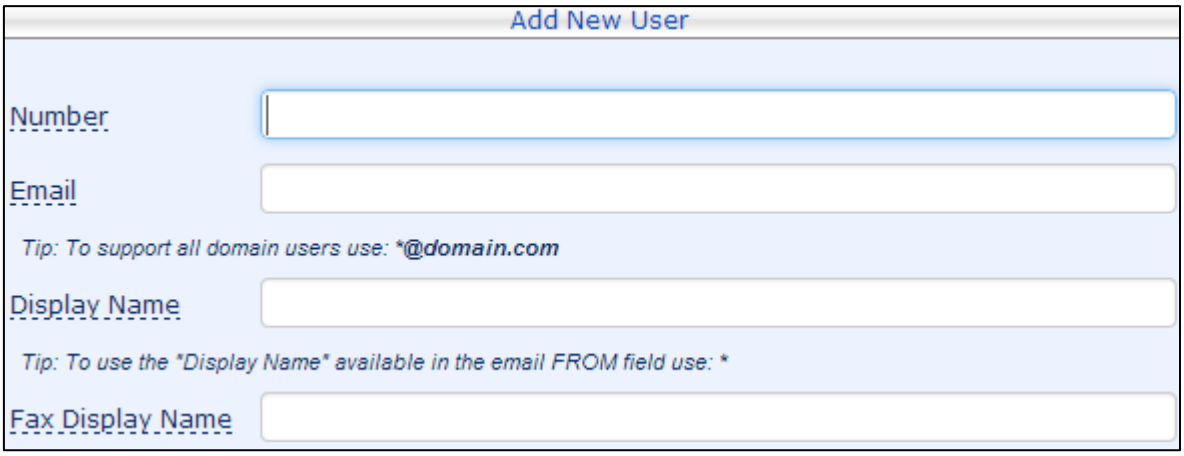
1. Access the Mail To Fax users page (**Management** > **Fax Out** > **Users**).

Figure 4-9: Mail to Fax Users



2. To modify or delete a user, click either  or  accordingly, and edit the required parameters.
3. To add a new user, click **Add User**.

Figure 4-10: Add New User



4. Configure the parameters using the table below as reference.

Table 4-3: Add New User - Parameters

Parameter	Description
Number	Enter the user's phone number.
Email	Enter the user's unique email address. To support all domain users use: ***@domain.com**
Display Name	Enter user display name. To use the "Display Name" available in the email FROM field, use: *
Fax Display Name	Enter the user's fax display name.

5. Click **Submit**.

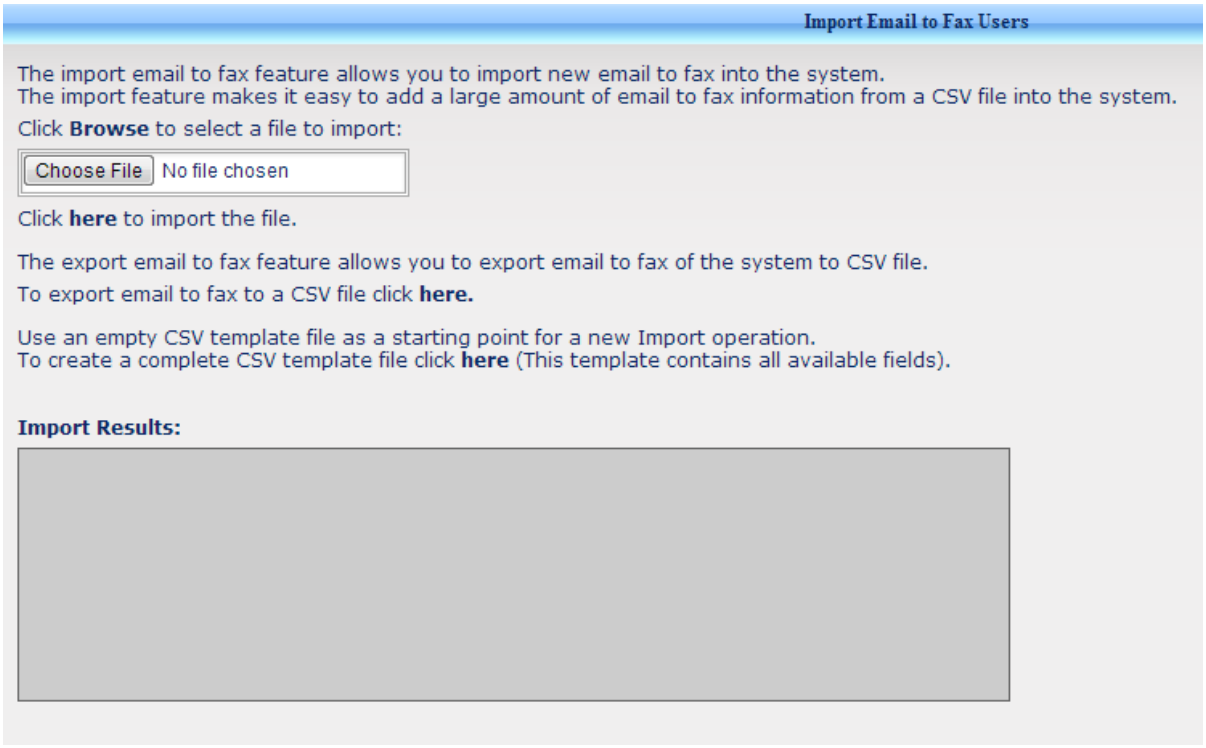
4.3.2 Importing Mail To Fax Users

You can import Mail To Fax users.

➢ **To import Mail To Fax users:**

1. Access the Mail To Fax import users page (**Management** > **Mail To Fax** > **Import Users)**.

Figure 4-11: Import Email to Fax Users



2. Click the **Choose File** button and select the file to import.
3. Click **here** to import the file.
4. To export email to fax to a CSV file, click the second **here**.
5. To create a complete CSV template file, click the third **here**.

4.3.3 Managing Mail to Fax Gateways

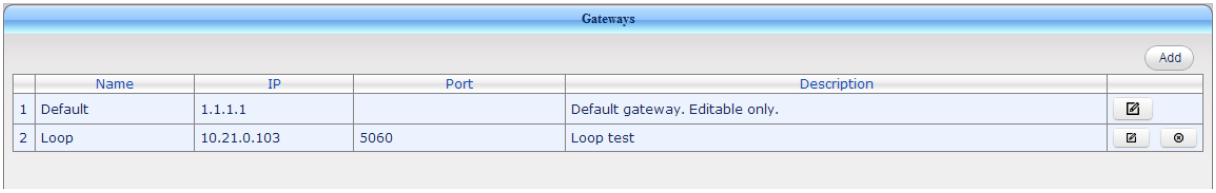
After the system prepares the fax content for the Fax Out operation, it directs it to a correct AudioCodes Gateway/E-SBC. The gateway will then transmit the fax to the required destination.

The Fax application will determine the Gateway according to the destination Fax Outgoing Rules (see Section 0 on page 44).

➢ **To manage Mail To Fax Gateways:**

1. Access the Mail To Fax Gateways page (**Management** > **Fax Out** > **Gateways)**.

Figure 4-12: Gateways

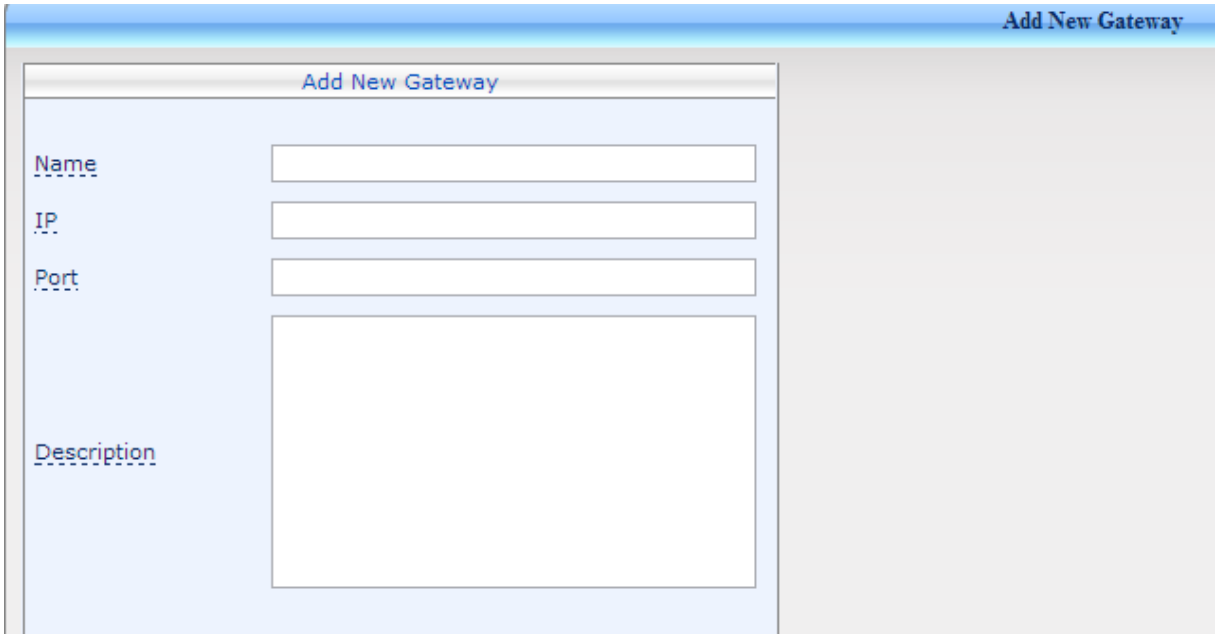


2. To modify or delete a gateway, click or accordingly, and edit the required parameters.

Note: The Default Gateway cannot be deleted and can be used as the default Gateway entry in cases where the system includes only one Gateway address.

3. To add a new gateway, click **Add**.

Figure 4-13: Add New Gateway



4. Configure the parameters using the table below as reference.

Table 4-4: Add New Gateway - Parameters

Parameter	Description
Name	Enter a unique name for the gateway.
IP	Enter a unique IP address for the gateway.
Port	Enter the gateway's port number.
Description	Enter a description for the gateway.

5. Click **Submit**.

4.3.4 Managing Fax Out Outgoing Rules

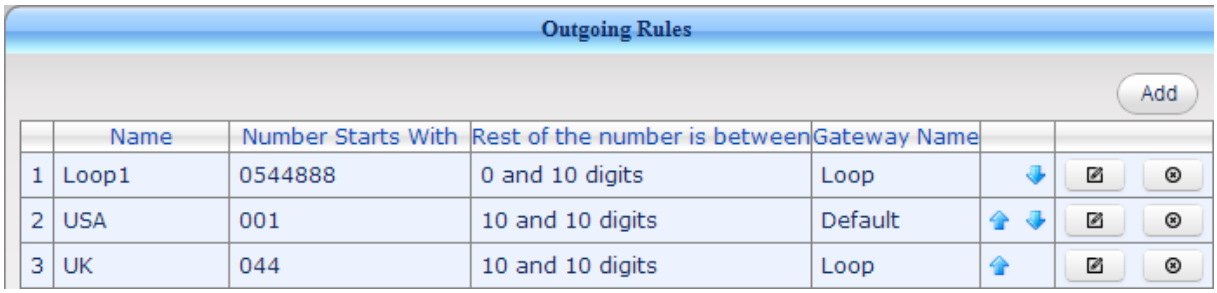
The Outgoing Rules define the way the system recognizes and directs the users' numbers to the required gateway.

Using multiple rules definitions pointing to different Gateways, the enterprise can define Least Cost Routing (LCR) rules based on contrary codes for example.

➢ **To manage Mail Out Outgoing Rules:**

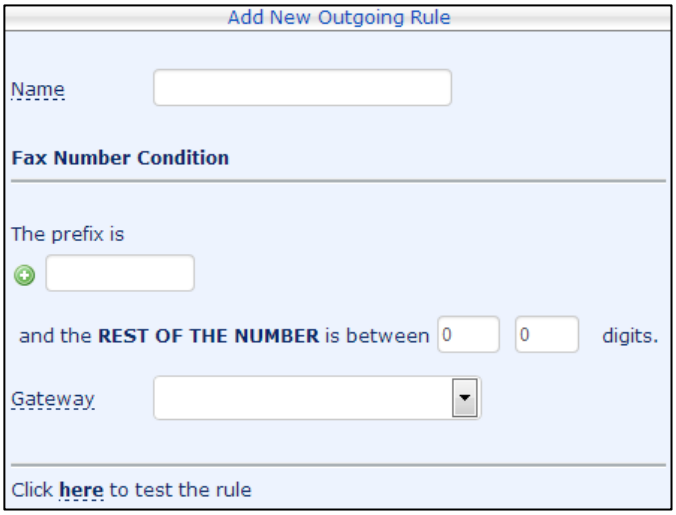
1. Access the Mail To Fax Outgoing Rules page (**Management** > **Mail To Fax** > **Outgoing Rules**).

Figure 4-14: Add New Gateway



2. To modify or delete Outgoing Rules, click or accordingly, and edit the required parameters.
3. To change the search order of an Outgoing Rule, click either to increment the rule's priority, or to decrement the rule's priority.
4. To add a new outgoing rule, click **Add**.

Figure 4-15: Add New Outgoing Rule



5. Configure the parameters using the table below as reference.

Table 4-5: Add New Outgoing Rule - Parameters

Parameter	Description
Name	Enter a unique name for the Outgoing Rule.
The prefix is	Enter the fax destination prefix this rule is relevant to. You can add multiple prefixes using the **+** button.
REST OF THE NUMBER	The number of digits after the 'Prefix' parameter defined previously.

Parameter	Description
Gateway	Select the gateway to which the outgoing fax will be routed.
Rule Test	After clicking **here**, a Rule Test page appears. Enter the fax number you want to test, and click **Test**. The system checks if this fax number exists in its data base.

6. Click **Submit**.

4.4 Managing Auto Attendant

This section shows how to manage the Auto Attendant application. The navigation tree under the **Management** tab lets administrators easily manage Auto Attendant IVR (Interactive Voice Response) and Automatic Call Distribution (ACD) settings.

4.4.1 Overview of IVR

IVR is used to obtain information from callers, play company announcements, and navigate callers to the appropriate user / departments.

You can specify question-and-answer pairs that you use for call navigation.

Depending on the caller's response, the caller either hears a follow-up question or is routed to the appropriate user / departments.

IVR lets callers easily navigate to a specific user, usually using DTMF or using Auto Attendant's ACD feature to navigate to a system-managed agent according to ACD settings and agent availability.

Auto Attendant can contain numerous IVR menus for different company requirements, such as a different IVR per branch, per department, per language, per time of day and holidays, etc.

Auto Attendant lets the administrator build IVR menus using a graphical tool, and see all IVR nodes - including nodes interconnection - as a map.

Each IVR node represents an IVR action such as Disconnect, Menu, Play prompt, transfer, ACD, etc.

The IVR consists of these elements:

- General Settings
- Prompts
- Music On Hold
- Business Hours
- Holidays
- IVRs

The sections below provide a description of each element.

4.4.2 Modifying General Settings

Use the General Settings screen to set Auto Attendant's various default parameters.

Note: Most General Settings are already defined with default values so it isn't necessary to change.

Some General Settings can be overridden and changed per different IVR tree or specific IVR node.

➢ **To modify General Settings:**

1. Access the General Settings page (**Management** > **Auto Attendant** > **General Settings**).

Figure 4-16: General Settings

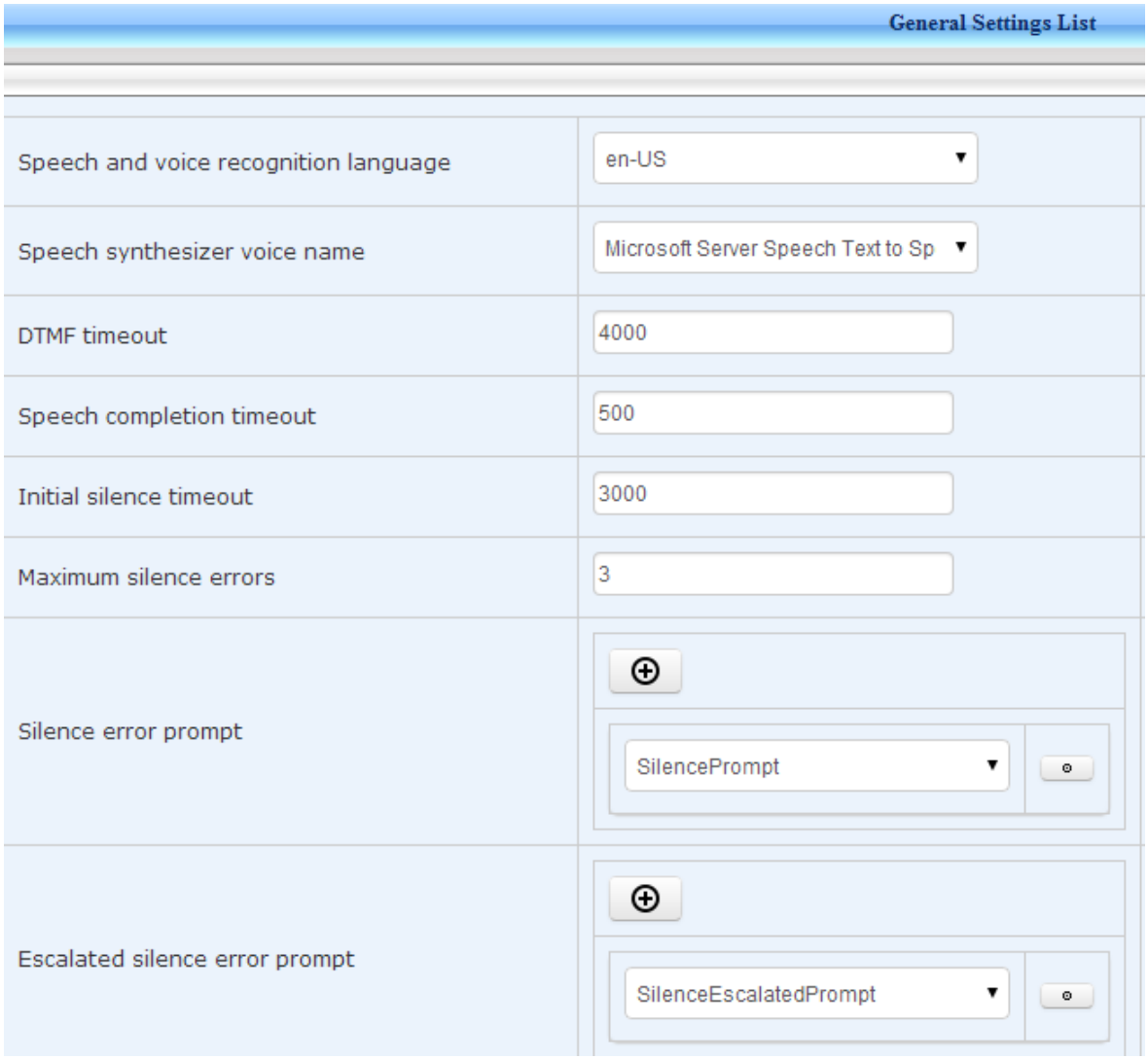
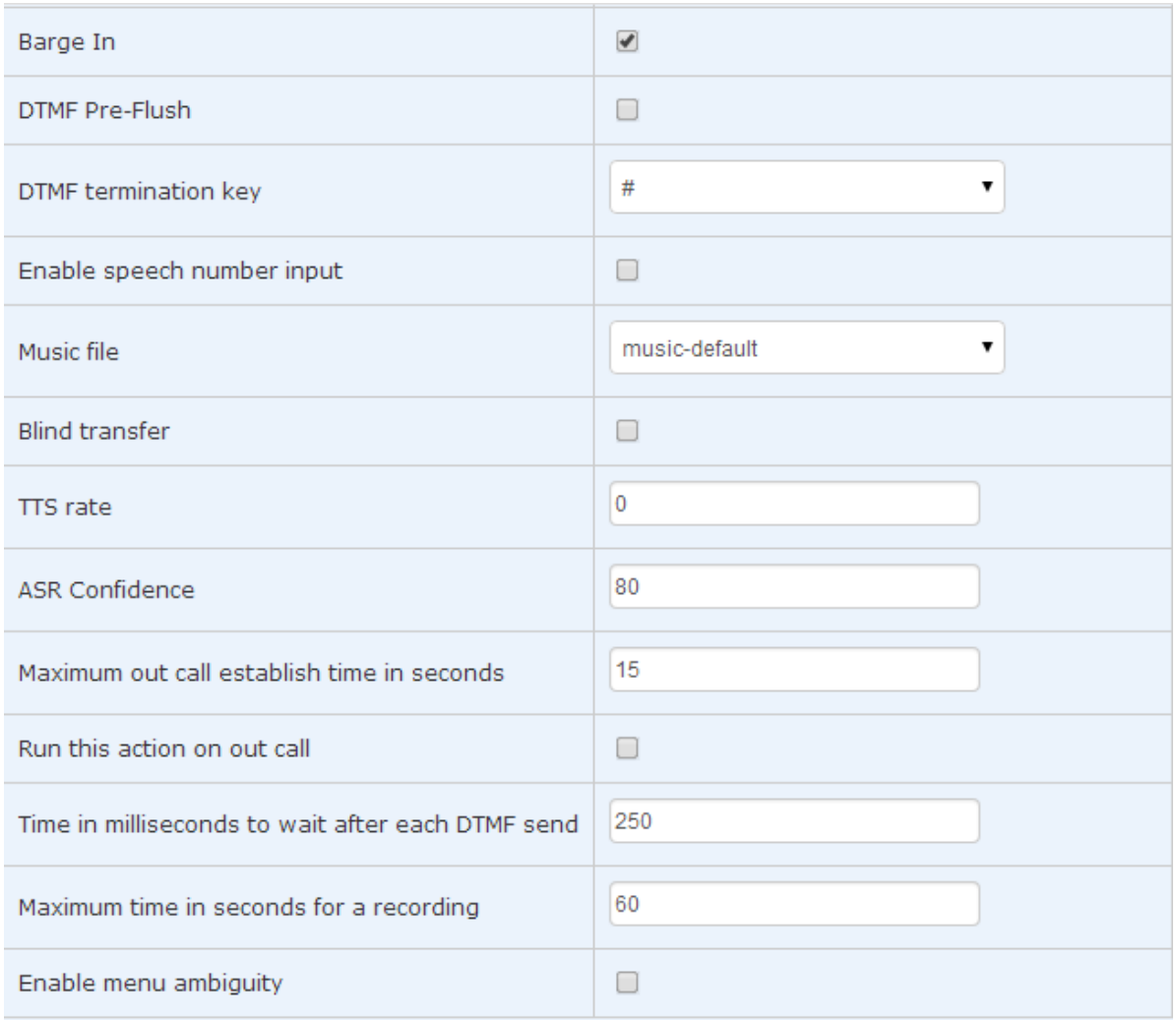


Figure 4-17: General Settings (Cont'd.)



2. Configure the parameters required, using Table 4-6 as reference.

Table 4-6: General Settings

Parameter	Description
Speech and voice recognition language	Select the speech and voice recognition language. If empty, then 'en-US' will be used, if it's installed. Otherwise the first installed language will be used. To add supported language packages, see the *Auto Attendant Installation Guide*.
Speech synthesizer voice name	Select the speech synthesizer voice name. If empty, then the first installed voice for configured language will be used.
DTMF timeout	Enter the maximum time to wait between DTMF tones before terminating recognition. The value is in milliseconds.
Speech completion timeout	Enter the length of silence required following user speech, before the speech recognizer finalizes a result. The value is in milliseconds.
Initial silence timeout	Enter the maximum time to wait for initial user input. If this time is exceeded then the silence error counter is incremented. The value is in milliseconds.
Maximum silence errors	Enter the maximum number of silence errors (no input from the caller) allowed.

Parameter	Description
Silence error prompt	Select the prompts to be played after silence error.
Escalated silence error prompt	Select the prompts to be played after maximum allowed silence errors.
Maximum recognition errors	The maximum number of recognition errors allowed.
Recognition error prompt	The prompts to be played after recognition error.
Escalated recognition error prompt	The prompts to be played after maximum allowed recognition errors.
Barge In	This option determines whether or not the prompt can be interrupted by the user. When selected, recognition begins with the start of the prompt playback. When cleared, recognition begins after the prompt has finished playing.
DTMF Pre-Flush	This option determines whether or not the DTMF buffer is flushed before recognition starts. When selected, any buffered digits are lost. When cleared, users can type ahead.
DTMF termination key	Enter a DTMF key that will terminate DTMF recognition immediately, e.g., ***** or **#**
Enable speech number input	Select this option to allow speech recognition for menu number input, in addition to DTMF input. If selected, then the numbers can be voiced by pronouncing each digit. Note that expressing the whole number is not supported. For example, if the number required is '142', then 'one four two' is accepted but 'one hundred forty two' is not accepted.
Music file	Enter the name of the music file played in various IVR scenarios, such as call transfer.
Blind transfer	Select this option to activate blind (unattended) transfer, otherwise the transfer is attended. Note that if the transfer is blind, then the IVR doesn't wait for the transfer result so transfer failures can't be handled.
TTS rate	Enter the speaking rate of the Text-To-Speech (Speech Synthesizer), from -10 through to 10.
ASR Confidence	Speech recognition confidence. The speech recognition engine accepts phrases with confidence scores above or equal to this threshold, and rejects phrases with confidence scores below this threshold. A value in the range of 0-100 sets the phrase confidence rejection threshold to the specified value. A value of -1 causes the engine to use its default value.
Maximum call establish time	Enter the maximum time, in seconds, to establish a new outgoing call.
Run this action on out calls	Run this action on the outgoing call.
Time in milliseconds to wait after each DTMF send	This time is in addition to delay time defined in the DTMF tones string.

Parameter	Description
Maximum time in seconds for a recording	Maximum time in seconds for a recording.
Enable menu ambiguity	If selected, then a number input can begin with one of the menu choice values. This implies that a menu choice is not identified immediately (the IVR can't know if input **1** is a menu choice of the beginning of the **123** number).

3. After modifying a parameter, a **Save** button appears to the right of the modified parameter. To save the modification, click it.

4.4.3 Modifying Prompts

Use the Prompts screen to create a new prompt, edit or delete an existing prompt. A prompt is the message played to the caller while the IVR system waits for the caller's next input. A prompt can be a voice recorder file or a Text To Speech (TTS) sentence. It's always recommended to use pre-recorded voice files as the sound is superior to a TTS announcement generated by the Auto Attendant machine.

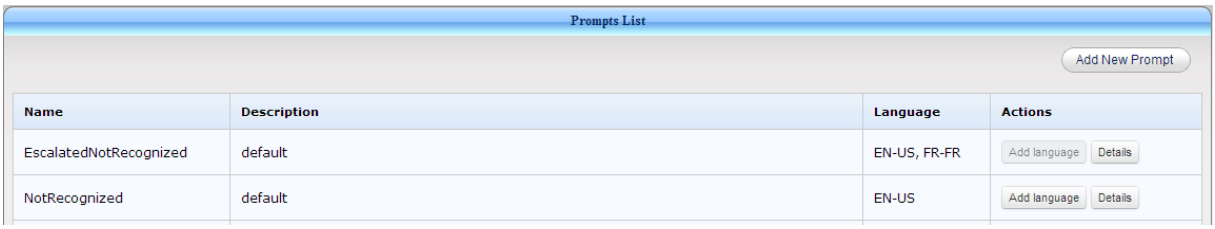
Note: The Prompts format should have these parameters:

- WAV files
- Sample rate: 8000Hz
- Bits per sample: 16
- Channels: Mono

➢ **To modify prompts:**

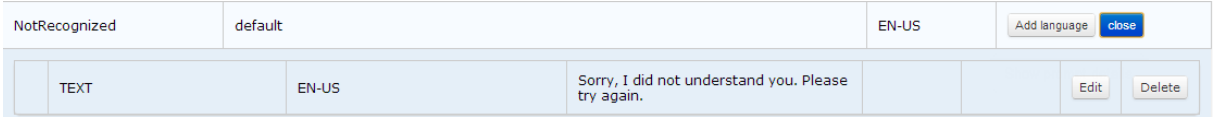
1. Access the Prompts List page (**Management** > **Auto Attendant** > **Prompts**).

Figure 4-18: Prompts List



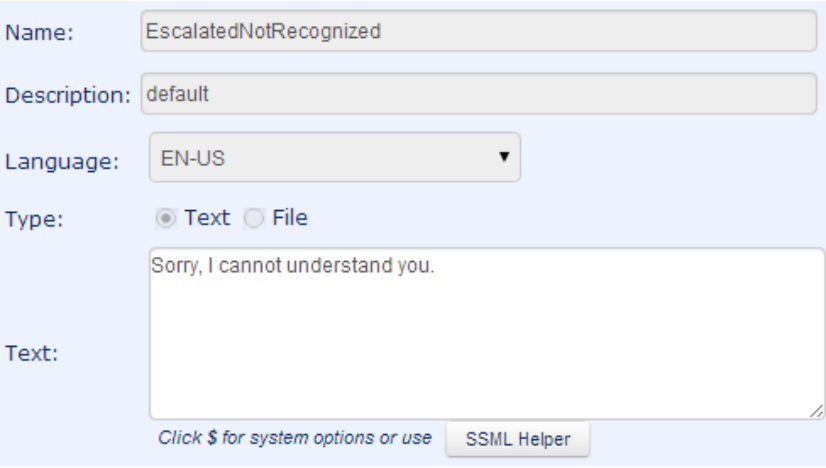
2. To edit a Prompt's parameters, click **Details**; additional details are displayed depending on the prompt type – Text or WAV file.
   a. Text

Figure 4-19: Prompt Type – Text File



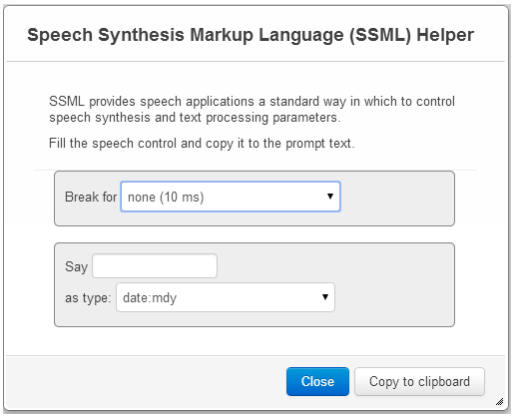
   b. To edit the text file, click **Edit**.

Figure 4-20: Prompt Type – Text File - Edit



c. Modify the parameters required using the table below as reference.

Table 4-7: Prompt Type – Text File – Edit Parameters

Parameter	Description
Name	Enter a descriptive name for the prompt.
Description	Enter a description for the prompt.
Language	Select the language that you want to use for text-to-speech.
Type	Select the type of the prompt's source: text file or a WAV file. • For Text – enter the requested text. • For File - Select the file to be uploaded.
Text	Enter the requested text.
File	Upload the prompt file.
SSML Helper	Speech Synthesis Markup Language. SSML provides speech applications a standard way in which to control speech synthesis and text processing parameters. Click the **SSML Helper** button. Using SSML allows TTS to sound more natural.  Configure the parameters as described below, click **Copy to clipboard**, and then copy it to the prompt **Text** field (shown in Figure 4-20 above).

3. Click **Submit**.
4. To delete a Text or WAV prompt, click **Delete** and confirm the action in the Delete Prompt page that opens.

4.4.4 Modifying Music- On-Hold

Use the Music On Hold screen to create a new Music On Hold entry, edit, or delete an existing Music On Hold entry.

Music On Hold is the music or announcement that the caller hears while waiting in the ACD Queue until the call is transferred to the agent. Music On Hold is the music played to the caller when the Auto Attendant system places the caller on hold.

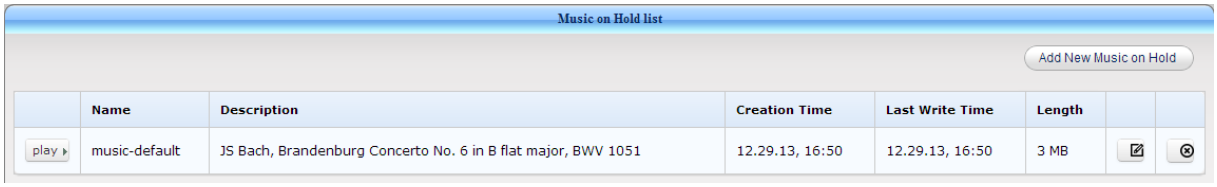
Note: The Music- On- Hold format should have these parameters:

- WMA files
- Bits per sample: 16
- Channels: Mono

➢ **To modify Music On Hold:**

1. Access the Music On Hold List page (**Management** > **Auto Attendant** > **Music On Hold**).

Figure 4-21: Music on Hold



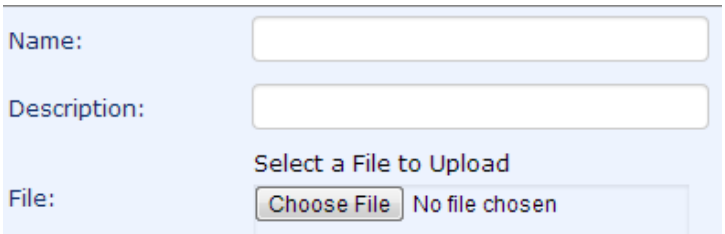
2. To edit the parameters of a Music On Hold entry, click and modify the parameters required.

3. To delete a Music On Hold entry, click and confirm the delete action in the Delete Music On Hold page that opens.

➢ **To add a new Prompt:**

1. Access the Add Music On Hold page by clicking the **Add New Music On Hold** button.

Figure 4-22: Add Music on Hold



2. Modify the parameters required using the table below as reference.

Table 4-8: Music on Hold - Parameters

Parameter	Description
Name	Enter a descriptive name for the Music On Hold.
Description	Enter a description of the Music On Hold.
File	Select the file to be uploaded.

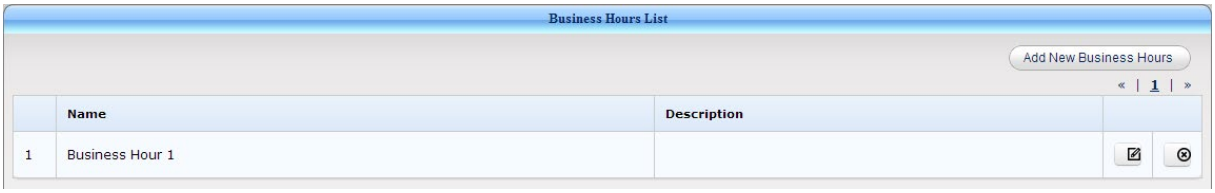
4.4.5 Modifying Business Hours

Use the Business Hour screen to create a new Business Hour, edit, or delete an existing Business Hour rule. Business Hours define the working days and hours. A Business Hours collection consists of the ranges of times for each day of the week. Different sets of Business Hours can be used for different IVR and ACD definitions.

➢ **To modify Business Hours:**

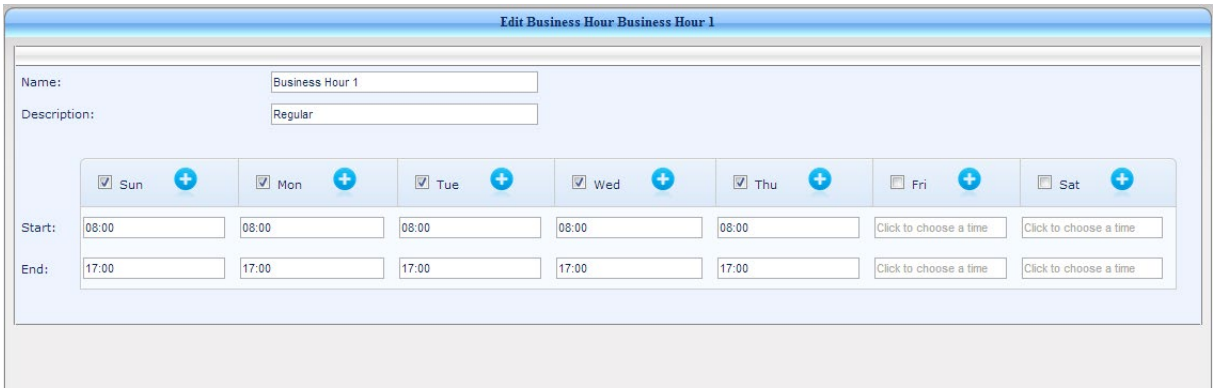
1. Access the Business Hours List page (**Management** > **Auto Attendant** > **Business Hours**).

Figure 4-23: Business Hours List



2. To edit the parameters of a Music On Hold, click  and modify the parameters required.
3. To delete a Business Hour, click  and confirm the delete action in the Delete Business Hours page that opens.
4. To add a Business Hour, click **Add New Business Hours**; the Edit Business Hour page opens.

Figure 4-24: Edit Business Hour



5. Modify the parameters required using the table below as reference.

Table 4-9: Edit Business Hour - Parameters

Parameter	Description
Name	Enter a descriptive name for the Business Hour.
Description	Enter a description for the Business Hour.
Start	Enter the 'Start' time for each day. Express time as 24-hour time notation, for example, 20:00=8:00 P.M.
End	Enter the 'End' time for each day. Express time as 24-hour time notation, for example, 20:00=8:00 P.M.

6. Click **Submit**.

Note: You can use the icon to add an additional time frame to a specific day. E.g., Monday: 08:00-12:00 and 14:00:-20:00 are working hours.

4.4.6 Modifying Holidays

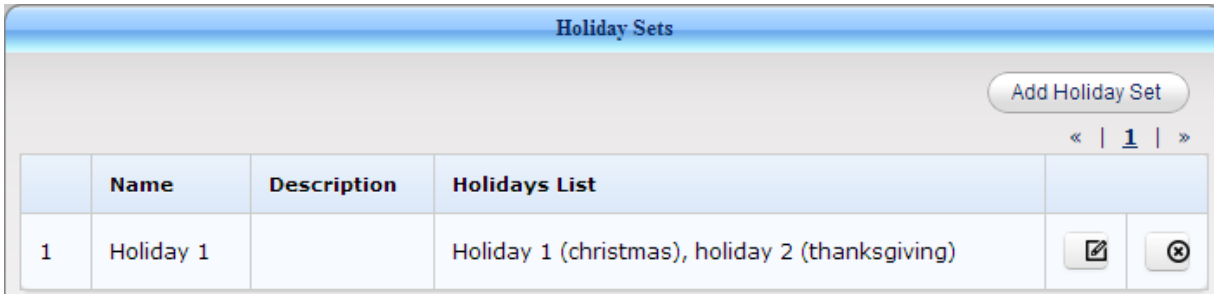
Use the Holidays screen to create a new Holiday, edit, or delete an existing Holiday. Holidays define the days on which the company does not work and whose employees are therefore not available to take calls. Holiday sets are collections of holidays.

Holidays define a set of dates representing collections of holidays. Holidays settings are used by the IVR and ACD settings to activate a different ACD Flow of IVR for holidays.

➢ **To modify holidays:**

1. Access the Holiday Sets page (**Management** > **Auto Attendant** > **Holidays**).

Figure 4-25: Holiday Sets

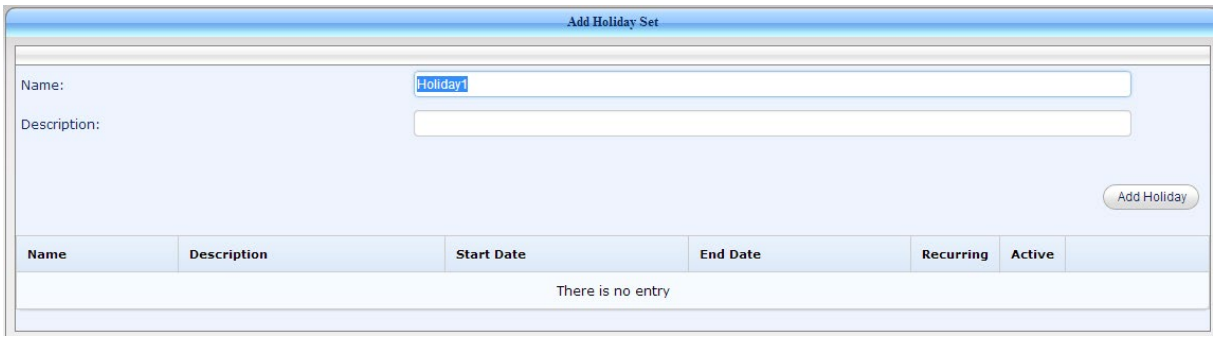


2. To edit a Holiday, click of the specific Holiday and edit the required parameters.
3. To delete a Holiday, click and confirm the delete action in the Delete Holiday page that opens.

➢ **To add a new Holiday:**

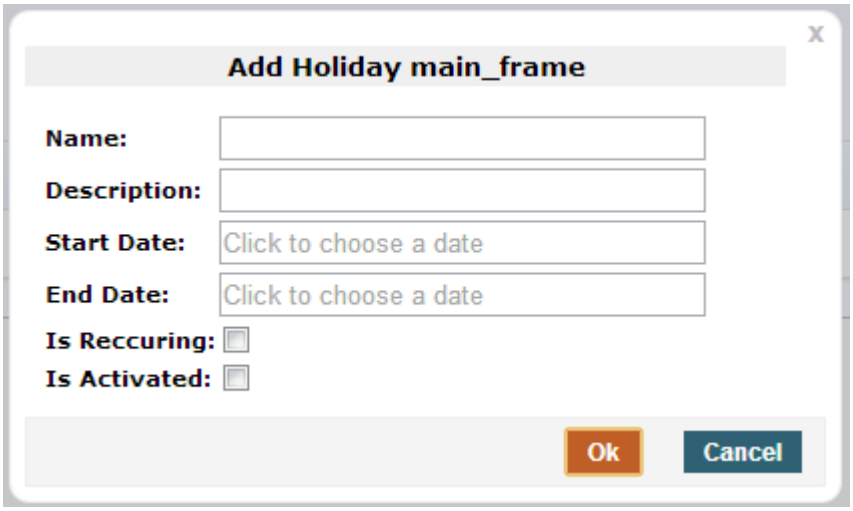
1. Access the Add Holiday page by clicking the **Add New Holiday Set** button.

Figure 4-26: Add Holiday Set



2. Enter the 'Name' and a 'Description' of the new Holiday.
3. Click **Add New Data**.

Figure 4-27: Add Holiday



4. Configure the parameters using the table below as reference.

Bench 4-10: Holiday - Parameters

Parameter	Description
Name	Enter a descriptive name for the Holiday.
Description	Enter a description for the queue.
Start Date	Enter the start date and time of the Holiday.
End Date	Enter the end date and time of the Holiday.
Is Recurring	Select this option if the Holiday is recurring.
Is Activated	Select this option to activate the Holiday.

5. Click **OK**, and then click **Submit**.

4.4.7 Modifying IVR Endpoints

The IVR endpoint is a Skype for Business endpoint number created by the Skype for Business administrator. It is used by Skype for Business to send calls to Auto Attendant. Each SIP URI or Line URI is associated with a different Auto Attendant IVR tree.

Use the IVR Endpoints List screen to edit and delete Skype for Business Endpoints for the IVR.

➢ **To modify an IVR endpoint:**

1. Access the IVR Endpoints List page (**Management** > **Auto Attendant** > **IVR Endpoints**).

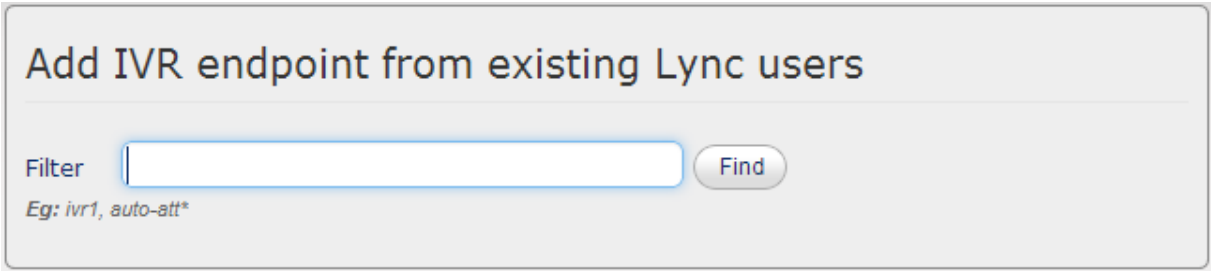
Figure 4-28: IVR Endpoints List

2. To delete an IVR Endpoint, click  and confirm the delete action in the Delete IVR Endpoint page that opens.

➢ **To add a new IVR Endpoint:**

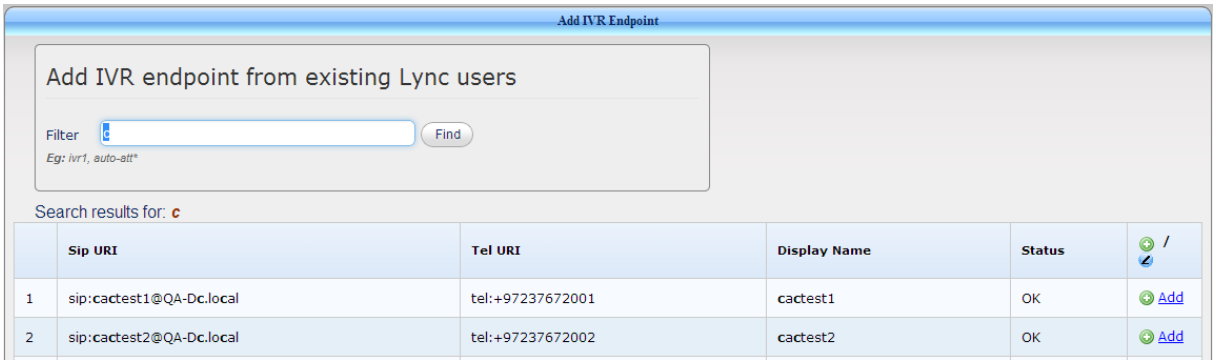
1. Access the Add IVR Endpoint page by clicking the **Add New IVR Endpoint** button.

Figure 4-29: Add IVR Endpoint



2. To search for an existing Skype for Business user, enter a letter(s) in the 'Filter' field and click **Find**.

Figure 4-30: Add IVR Endpoint – Filter and Find



3. To add a specific user to the IVR Endpoints list, click  or **Add**.
4. In the User Details screen that opens, click **Submit**.

Note: An IVR endpoint can be either a Skype for Business user endpoint or a common area phone. The benefit of using the common area phone is that it is sometimes easier for an organization to create. For more details on how to create the common area phone endpoint, see the *Fax Server & Auto Attendant IVR Installation Guide*.

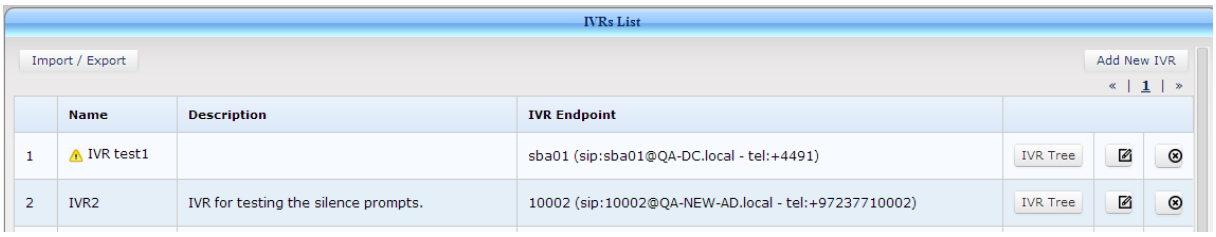
4.4.8 Modifying IVRs

Use the IVRs screen to create a new IVR, edit, or delete an existing IVR. The IVR process originates in an incoming call event, performs various actions, and transits to a new state depending on user input or other external input.

➢ **To modify IVRs:**

1. Access the IVRs List page (**Management** > **Auto Attendant** > **IVRs**).

Figure 4-31: IVRs List



The IVR status is displayed by optional icons on the left side of the IVR's Name. The possible icons are:

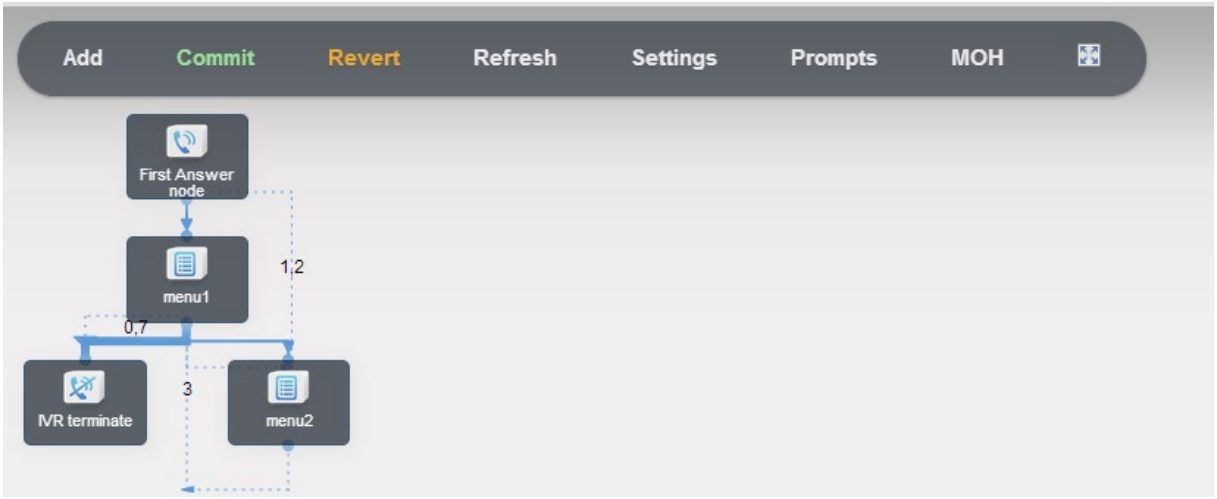
 The system failed to log in to this user's Skype for Business endpoint

 IVR is not committed to the server and IVR changes will not take effect

 IVR is disabled

2. To edit an IVR, either directly access the IVR tree of the required IVR, or access the Edit IVR screen and then continue via the **Manage IVR Flow** button, or Import/Export an IVR.
3. To directly edit an IVR, click the **IVR Tree** button adjacent to the specific IVR (see Figure 4-30).

Figure 4-32: Edit an IVR

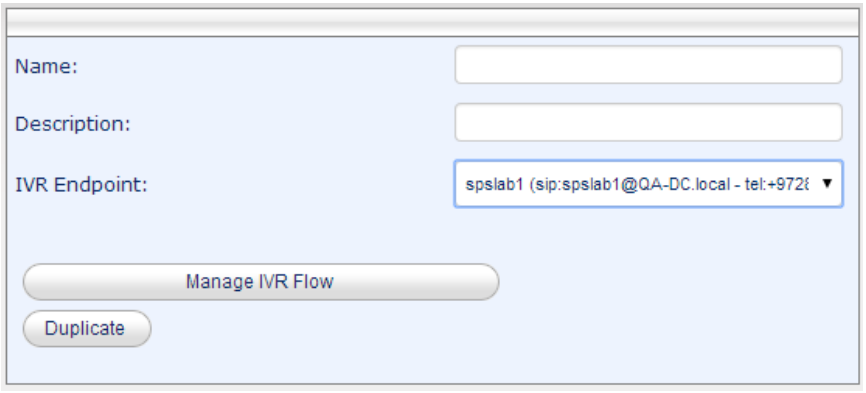


4. To modify the IVR tree, see below.

➢ **To add a new IVR:**

1. Access the Add IVR page by clicking the **Add New IVR** button.

Figure 4-33: Add New IVR



2. Enter the parameters using the table below as reference.

Table 4-11: Add New IVR - Parameters

Parameter	Description
Name	Enter a descriptive name for the IVR.
Description	Enter a description for the IVR.
IVR Endpoint	Select the required SIP URI from the drop-down list. SIP URI is a Skype for Business Endpoint or a number used as the access number to the IVR, i.e., each call destination to the SIP URI is answered by this IVR tree definition. SIP URI end points are named by Skype for Business and can be created and managed by the IVR Endpoint screen. For detailed information on the IVR Endpoint Tool, see Section 4.4.7, Modifying IVR Endpoints.
Manage IVR Flow	Click this button to access the IVR tree.
Duplicate	Click this button to duplicate the existing IVR tree, and then manage the IVR Flow according to your requirements. The button is useful for modifying a complex IVR tree instead of starting a new IVR tree from nothing.

3. Click **Submit**.

➢ **To modify an IVR:**

1. To edit an IVR via the Edit IVR screen, click of the specific IVR and modify the required parameters.
2. Click **Submit**.
3. To delete an IVR, click and confirm the delete action in the delete IVR page that opens.

➢ **To import/export an IVR:**

1. To import or export an IVR, click **Import / Export**. Follow the directions in Section 4.6 on page 95.

4.4.8.1 Modifying the IVR Tree

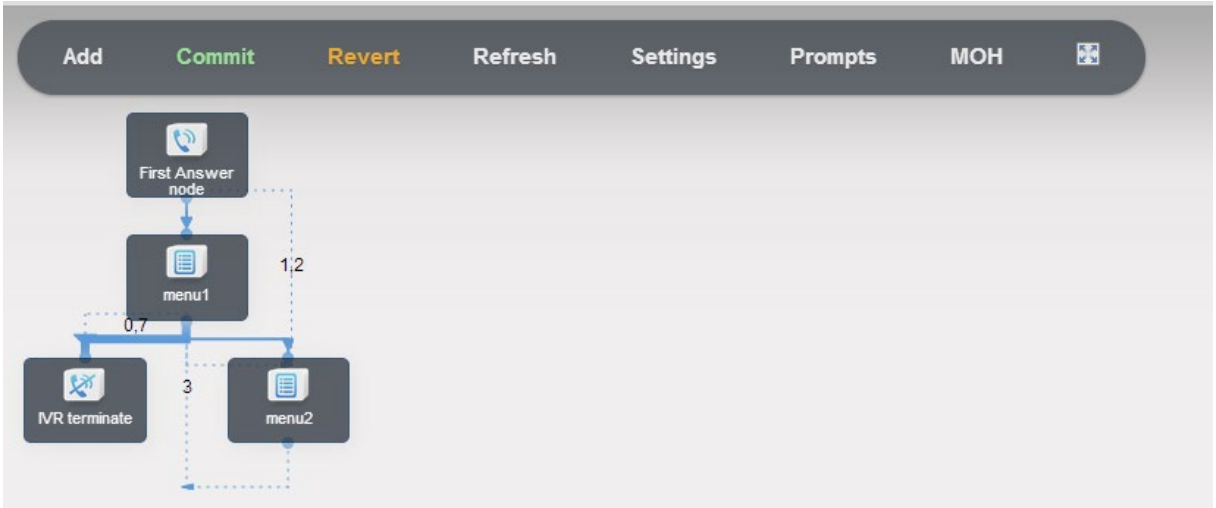
The IVR process originates with an incoming call event, performs various actions, and transits to a new state depending on user input or other external input. Each IVR process is associated with a single unique SIP URI and phone number. It is made up of building blocks named IVR nodes. The IVR process begins at the **First Answer node**. Transitions to other IVR nodes are performed either by fixed transition, predefined in IVR, for example, *always play a prompt after answering call*, or dynamically, according to user input or external events, for example, *ask the user to choose between several options and transit to the next node accordingly*.

An IVR node defines a single IVR operation such as 'answer call', 'play prompt', etc. Each IVR node is characterized by a set of properties: Unique ID, Operation type ('answer call', 'play prompt', etc.), and a map of Configuration Data for the specific node (both *mandatory data*, such as the prompt to play, and *optional data*, such as various timeouts).

The IVR process can be configured and edited by the IVR Tree Tool which is part of the Auto Attendant Application Web Administration.

To access the IVR Tree Tool, click **IVR Tree** of the specific IVR, or click **Manage IVR Flow**:

Figure 4-34: IVR Tree Tool



The IVR Tree Tool displays tabs that let you quickly access tree options, described in the following sections.

Note: The IVR designer can move IVR nodes onscreen using drag and drop for better and easier views of the IVR flow.

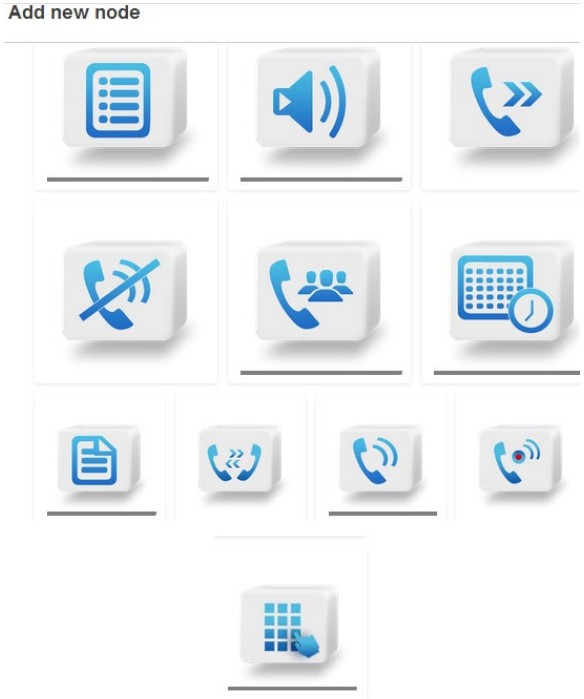
4.4.8.2 Adding a New IVR Node

You can add a new IVR node.

➢ **To add a new IVR Node:**

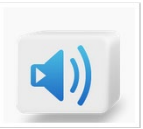
1. Access the Add New Node page by clicking the **Add** tab.

Figure 4-35: Add New IVR Node



2. Click the requested nodes.

Table 4-12: Add New IVR Node

Icon	Action Type	Description
	Menu	IVR menu. Plays a prompt and recognizes user input which can be a single DTMF digit, a single spoken word, or a number input.
	Play Prompt	Plays a prompt.
	Transfer	Transfers a call.
	Disconnect	Disconnects the call.
	ACD	Activates Automatic Call Distribution (ACD).

Icon	Action Type	Description
	Holidays and Business Hours	Checks if the organization is on holiday or if it's outside business hours.
	Advanced Script	Advanced JAVA script procedure.
	Connect Calls	Connects the original incoming call with the new outgoing call.
	Callout	Initiates an outgoing call.
	Record	Enables recording input voice that can be used in the same IVR session as a special prompt.
	Send DTMF	Sends DTMF tones.

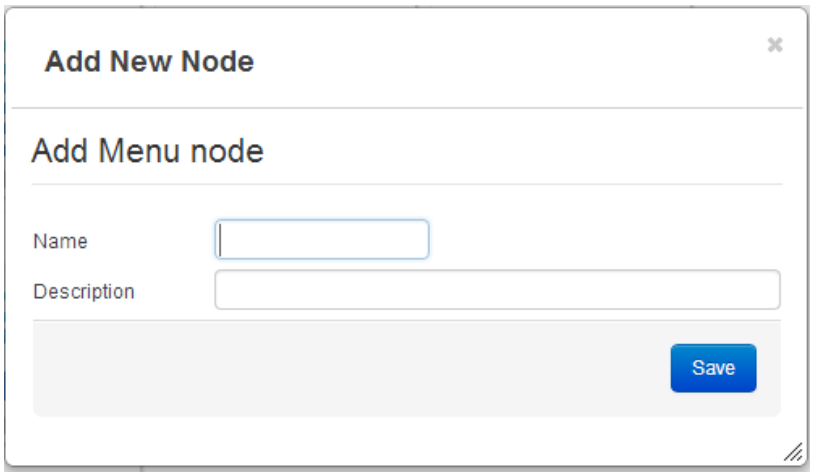
4.4.8.2.1 Adding a Menu Node

This IVR node plays a prompt, gets input from the user by DTMF or by speech, and transfers the caller to another IVR action.

➢ **To add a Menu Node:**

1. Click the **Menu** icon.

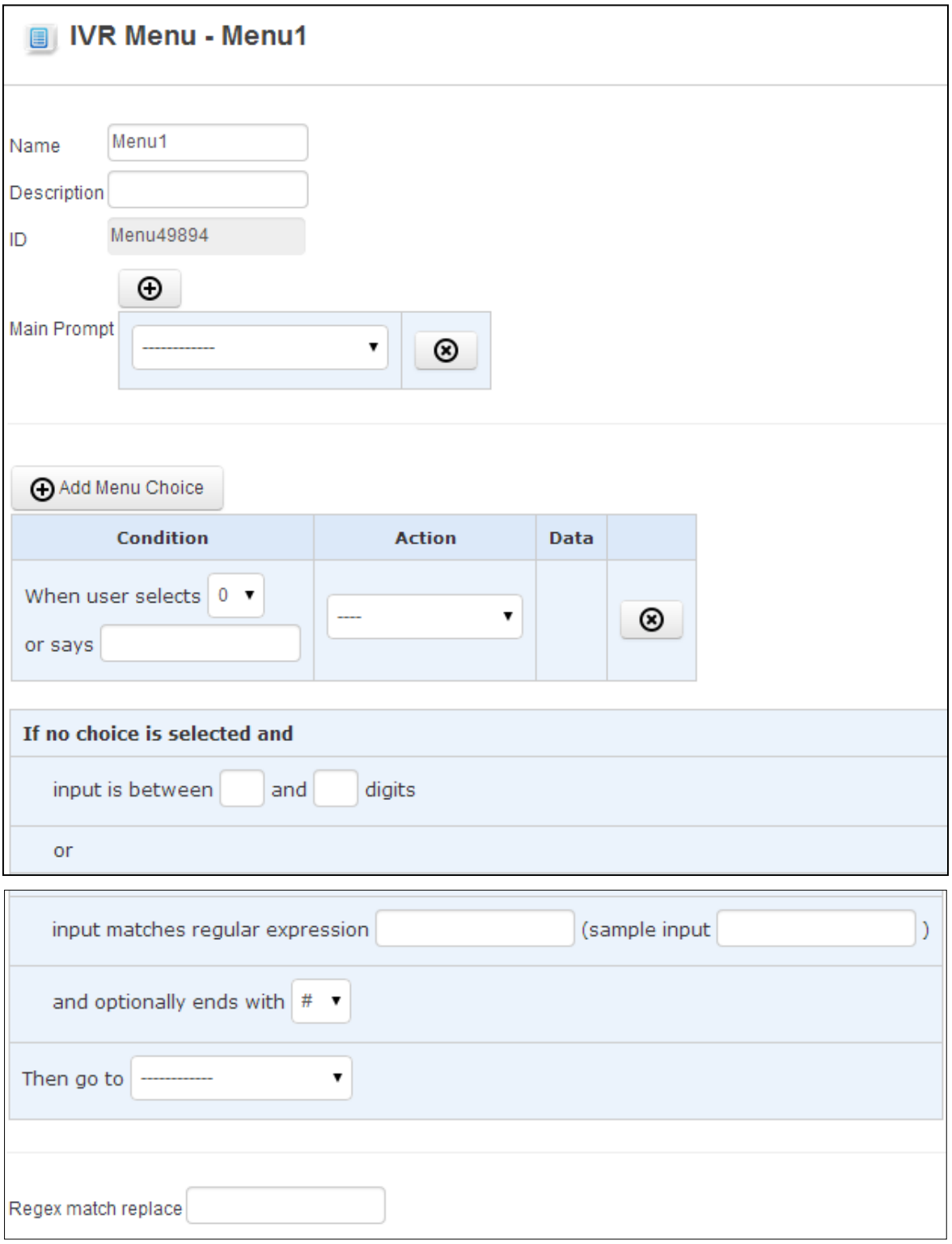
Figure 4-36: Add Menu Node

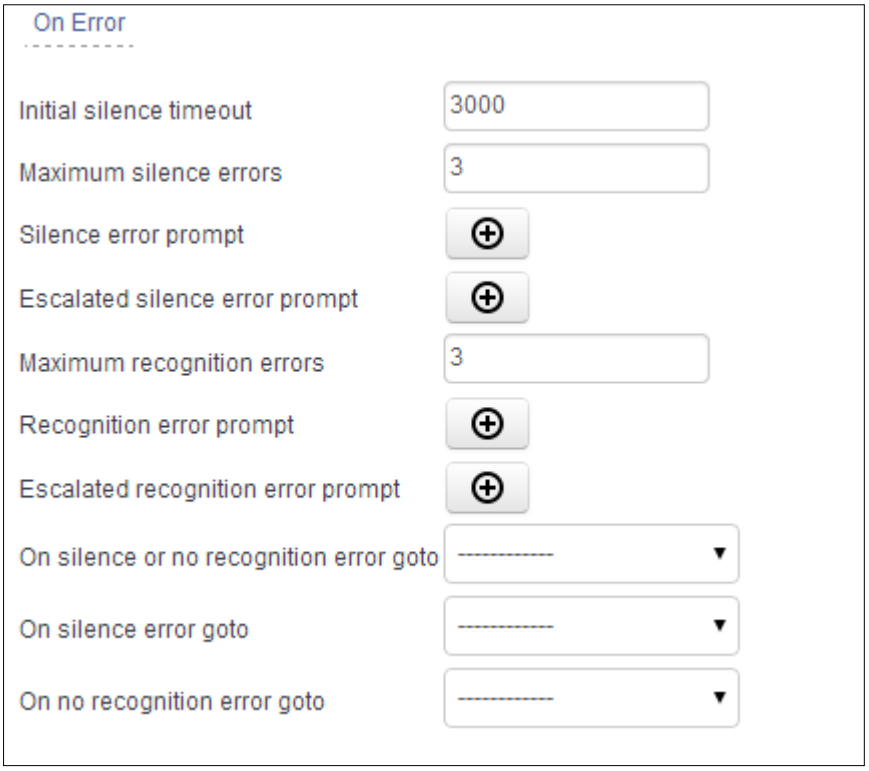


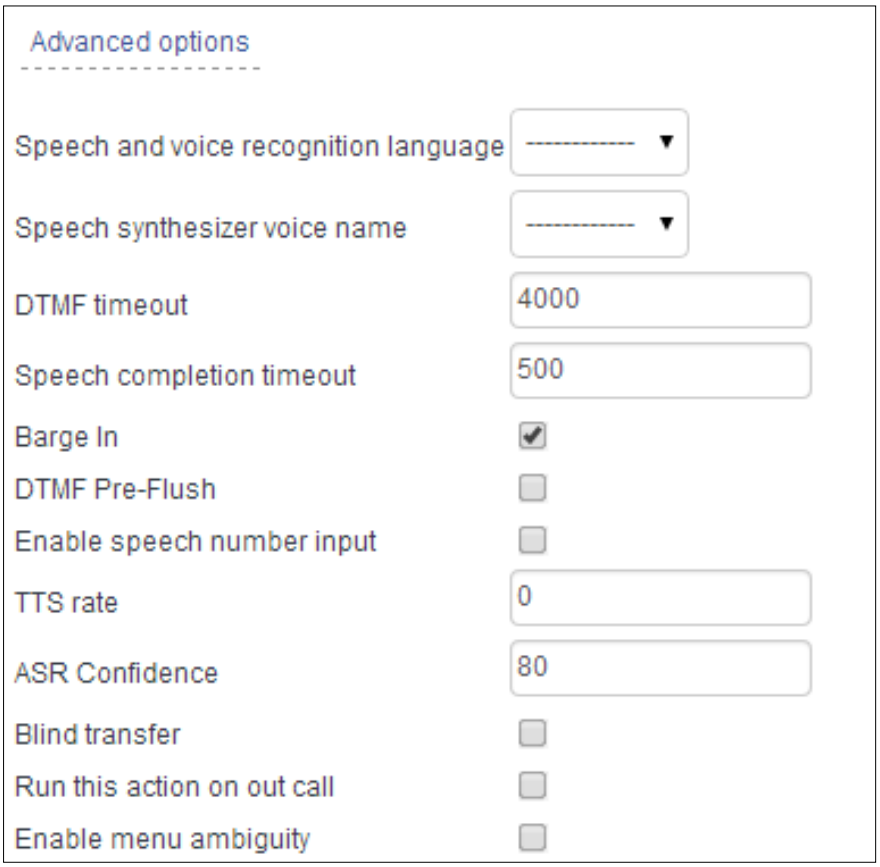
2. In the 'Name' field, enter a name for the menu.
3. In the 'Description' field, enter a description for the menu.

4. Click **Save**; the screen shown in Figure 4-37 is displayed.

Figure 4-37: IVR Menu







5. Modify the parameters required using Table 4-13 as reference.

Table 4-13: IVR Menu - Parameters

Parameter	Description
Name	Enter a name for the menu.
Description	Enter a description for the menu.
Main Prompt	Click the  icon and select the prompt to play from the drop-down list. This prompt will be played at the beginning of the menu action.
Add Menu Choice	Click the  icon and select/configure the following parameters: ▪ **Condition** ✓ **When user selects** – Select a digit from the drop-down menu. This is the button the caller is asked to push on his phone (1 to 0, *,#). After recognizing this digit, the IVR feature performs accordingly. ✓ **Or says** – Enter a name/word. After recognizing this name/word, the IVR feature performs accordingly. ▪ **Action** Select an action from the drop-down menu. After the IVR feature recognizes either the digit or the name/word the user enters, it will perform the selected action. ▪ **Data** This field changes according to the Action selected as follows: ✓ **GOTO node** - select the node the system should go to. Optional parameters can be used in the 'Result Value' and 'Result Name' fields. ✓ **GOTO ACD** - select the ACD the system should go to. ✓ **Transfer to** - the SIP URI or phone number to which the IVR system will transfer the caller after recognizing the caller's input. For example, if the caller enters **1** and Next ID is sip:john@domain or tel:12345, then the IVR system will transfer the call to John's extension. ✓ **Transfer (return if fail) to** - same as above and if fails to transfer, then return the caller to the same menu. ✓ **Play prompt (disconnect)** - select the prompt to be played and disconnect. ✓ **Play prompt (return)** - select the prompt to be played and return the caller to the same menu. ✓ **Change Language –** select the language to be used and the next note to go to.
If no choice is selected and	
Input is between	Select the minimum number of digits the system expects the caller to enter.
and	Select the maximum number of digits the system expects the caller to enter.
Or input matches regular expression	Enter a regular expression for the digits the system expects the caller to enter.
(sample input)	To test the regular expression entered above, enter the digits.
And optionally ends with	Select a symbol from the drop-down menu.

Parameter	Description
Regex match replace	The number input with all regex matches replaced with this specified string. If not specified, then the number input is not modified. The replaced result is set to the 'ResultSemantics' session variable. For example, for a given number input regex '^4(\d3))$' and an input of '4123' with a replacement of '8$1', the 'ResultText' will be set to '4123' and the 'ResultSemantics' will be set to '8123'.
On Error:	
Initial silence timeout	Enter the length of time within which if the user does not provide input, it's considered as the initial silence of the user. Value is in milliseconds.
Maximum silence errors	The number of times no input is allowed.
Silence error prompt	The prompt to be played when the user does not provide any input within a specified length of time (SilenceTimeOut). Click  and select the prompt to play from the drop-down list.
Escalated silence error prompt	The prompt to be played after the maximum allowed number of attempts of silence (MaximumSilence). Click  and select the prompt to play from the drop-down list.
Maximum recognition errors	The maximum number of recognition errors allowed.
Recognition errors prompt	The prompt to be played after first recognition error. Click  and select the prompt to play from the drop-down list.
Escalated recognition error prompt	The prompt to be played after maximum allowed recognition errors.
On silence or no recognition error goto	The NextID value in case neither SilenceErrorNextid nor NoRecognitionErrorNextid are defined.
On silence error goto	The node the system should go to in case of MaximumSilence errors.
On no recognition error goto	The NextID value if a MaximumRecognition error occurs.
Advanced Options	
Speech and voice recognition language	Speech and voice recognition language. If empty, then 'en-US' will be used, if it's installed. Otherwise, the first installed language will be used.
Speech synthesizer voice name	Speech synthesizer voice name. If empty, then the first installed voice for configured language will be used.
DTMF timeout	The maximum time to wait between DTMF tones before terminating recognition. The value is in milliseconds.
Speech completion timeout	The length of silence required, following user speech, before the speech recognizer finalizes a result. Value is in milliseconds.
Barge In	Determines whether this prompt can be recognized by the user. When selected, recognition begins with the start of the prompt playback. When cleared, recognition begins after the prompt has finished playing.

Parameter	Description
DTMF Pre-Flush	Determines whether the DTMF buffer is flushed before recognition starts. When selected, buffered digits are lost. When cleared, the user can go ahead and press DTMF keys.
Enable speech number input	Determines whether to allow speech user input for menu number input, in addition to DTMF input. If selected, then the menu number input can be spoken by pronouncing each digit. Note that voicing the whole number is not supported. For example, if the number required is **142**, then 'one four two' is accepted but 'one hundred and forty two' is not accepted.
TTS rate	The speaking rate of the TTS (speech synthesizer).
ASR Confidence	Speech recognition confidence. The speech recognition engine accepts phrases with confidence scores above or equal to this threshold, and rejects phrases with confidence scores below this threshold. A value in the range of 0-100 sets the phrase confidence rejection threshold to the specified value. A value of -1 causes the engine to use its default value.
Blind transfer	Select this option to activate blind (unattended) transfer (otherwise the transfer is attended). Note that if the transfer is blind, then the IVR doesn't wait for the transfer result and therefore transfer failures can't be handled.
Run this action on out call	Run this action on the outgoing call instead of the incoming call.
Enable menu ambiguity	If selected, then a number input can begin with one of the menu choice values. This implies that a menu choice is not identified immediately (the IVR can't know if input **1** is a menu choice or the beginning of the number **123**).

6. Click **Save**.

Note: In some fields of this and other nodes (e.g. 'Or says' in the Menu node), you can enter one of several variables. To access these variables, type **$**; a drop-down list opens containing the values detailed in the table below.

Table 4-14: $ Values - Descriptions

$ Value	Description
Input result	Menu input result.
Associated value	Semantic value associated with the input. For example, if you entered **John** in the **Semantic choice** value of the Menu node, the call will be transferred to John's extension.
Raw input result	Menu raw input result.
Associated friendly name	Defines a user-friendly name associated with input.
Call Start Time	Indicates the time the call was received.
Caller URI	Defines the caller URI.
Caller Phone Number	The caller's phone number.
Caller Phone URI	The caller's phone URI.
Caller Display Name	The caller's display name.
Callee URI	The callee's URI.
Callee Phone URI	The callee's phone URI.
Callee Display Name	The callee's display name.
Call Accept Time	The time the call was answered.
Record File Name	The record file name that can be used as a prompt name.

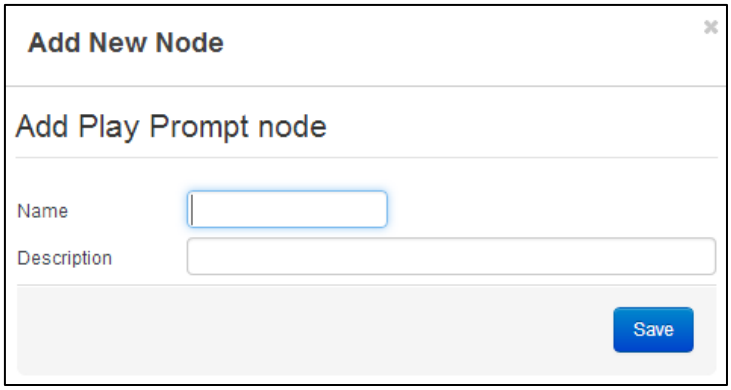
4.4.8.2.2 Adding a Play Prompt Node

The Play Prompt node plays a prompt to the user and continues to another IVR action.

➢ **To add a Play Prompt Node:**

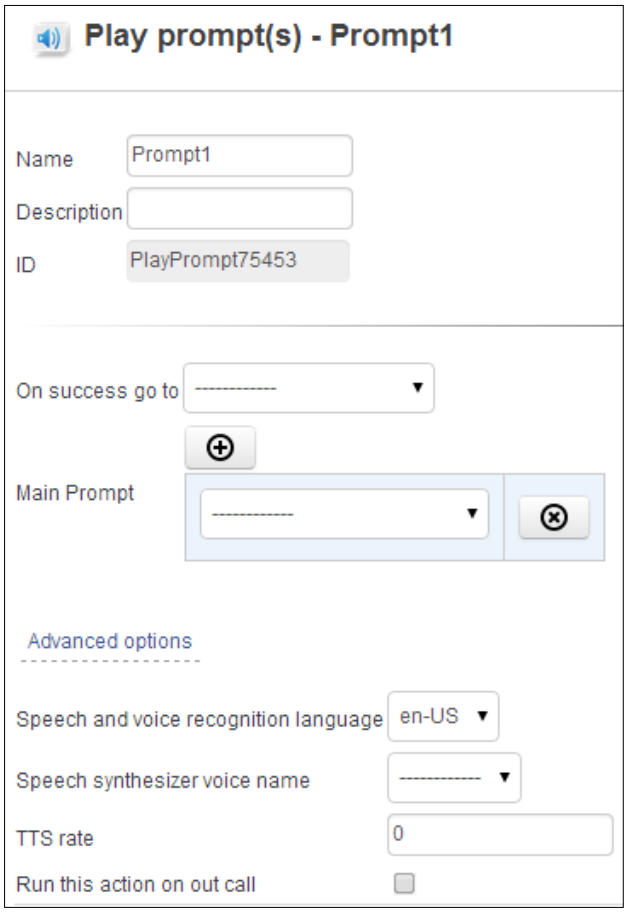
1. Click the **Prompt** icon.

Figure 4-38: Add New Play Prompt Node



2. In the 'Name' field, enter a name for the prompt.
3. In the 'Description' field, enter a description for the prompt.
4. Click **Save**.

Figure 4-39: Add New Play Prompt Node



5. Modify the parameters required using the table below as reference.

Table 4-15: New Play Prompt Node - Parameters

Parameter	Description
Name	Enter a name for the prompt.
Description	Enter a description for the prompt.
On success goto	After playing the prompt, the system goes to the next IVR Node (perform the next action) selected from the drop-down menu.
Main Prompt	Click ⊕ and select the prompt to play from the drop-down. You can add multiple prompts.
Speech and voice recognition language	Speech and voice recognition language. If empty, then 'en-US' will be used, if it's installed. If not, the first installed language will be used.
Speech synthesizer voice name	Speech synthesizer voice name. If empty, the first installed voice for configured language will be used.
TTS rate	The speaking rate of the TTS (speech synthesizer).
Run this action on out call	Runs this action on the outgoing call.

6. Click **Save**.

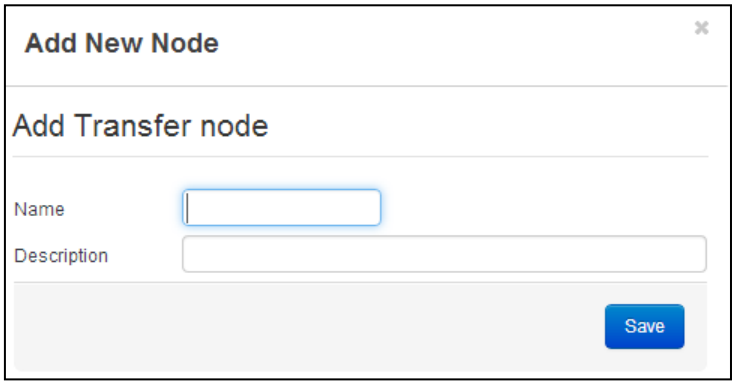
4.4.8.2.3 Adding a Transfer Node

The Transfer node transfers the caller to a different user.

➢ **To add a Transfer Node:**

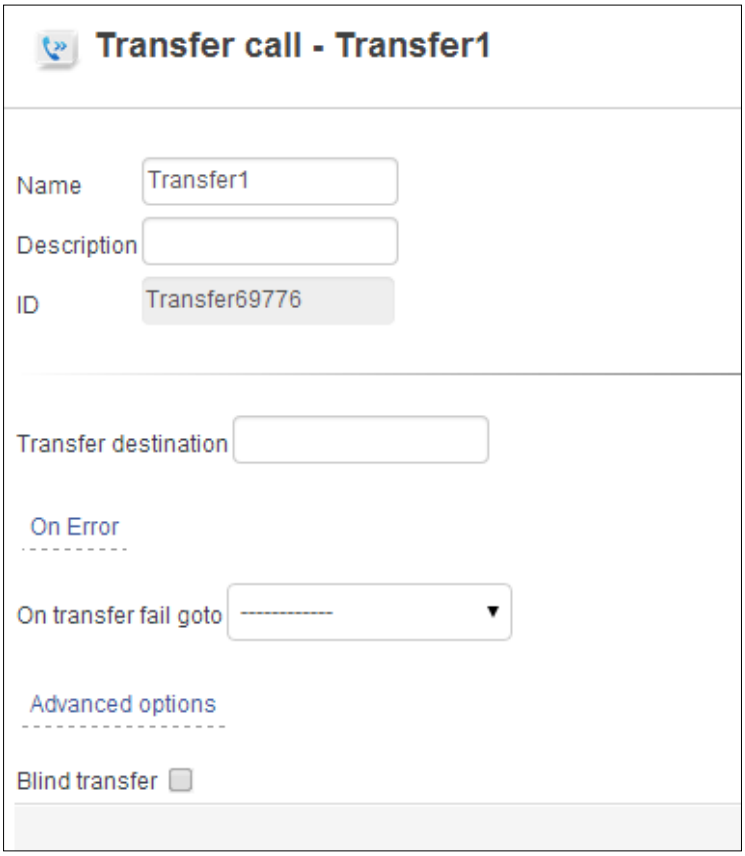
1. Click the **Transfer** icon.

Figure 4-40: Add New Transfer Node



2. In the 'Name' field, enter a name for the transfer.
3. In the 'Description' field, enter a description for the transfer.
4. Click **Save**.

Figure 4-41: Transfer Call



5. Modify the parameters required using the table below as reference.

Table 4-16: Transfer Call - Parameters

Parameter	Description
Name	Enter a name for the transfer.
Description	Enter a description for the transfer.
Transfer destination	The URI destination of the call to transfer. The value must be a valid SIP URI in a format of sip:user@domain or “tel:12345”. You can enter in this field a variable named **ResultSemantics** that points to a destination that was predefined in the Semantic choice value of the Menu node. To get to this variable, enter **$** in the 'Transfer URI' field and select **ResultSemantics** from the page that opens. For example, if you entered **John** in the **Semantic choice** value of the Menu node, the call will be transferred to John’s extension.
On transfer fail goto	Next IVR tree ID if there's a transfer failure.
Blind transfer	Select this option to enable Blind Transfer.

6. Click **Save**.

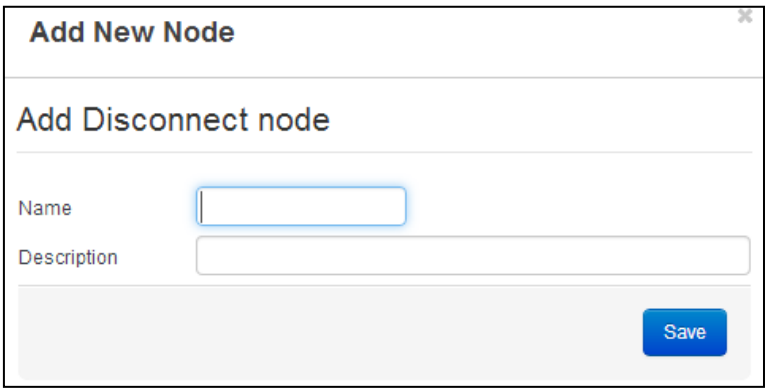
4.4.8.2.4 Adding a Disconnect Node

The Disconnect node disconnects the call.

➢ **To add a Disconnect Node:**

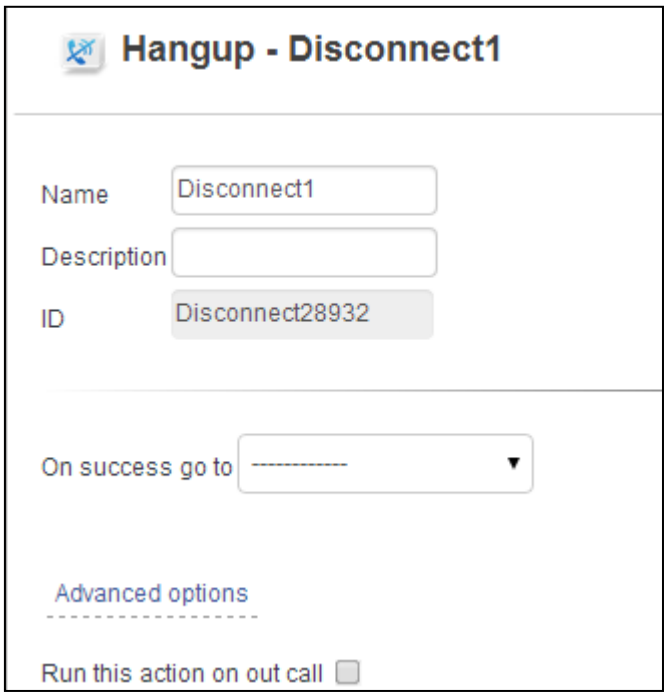
1. Click the **Disconnect** icon.

Figure 4-42: Add New Disconnect Node



2. In the 'Name' field, enter a name for the Disconnect.
3. In the 'Description' field, enter a description for the Disconnect.
4. Click **Save**.

Figure 4-43: Add New Disconnect Node - Hangup



5. Modify the parameters required using the table below as reference.

Table 4-17: Add New Disconnect Node - Parameters

Parameter	Description
Name	Enter a name for the Disconnect
Description	Enter a description for the Disconnect
On success go to	The NexID value for IVR actions.
Run this action on out call	Run this action on the outgoing call.

6. Click **Save**.

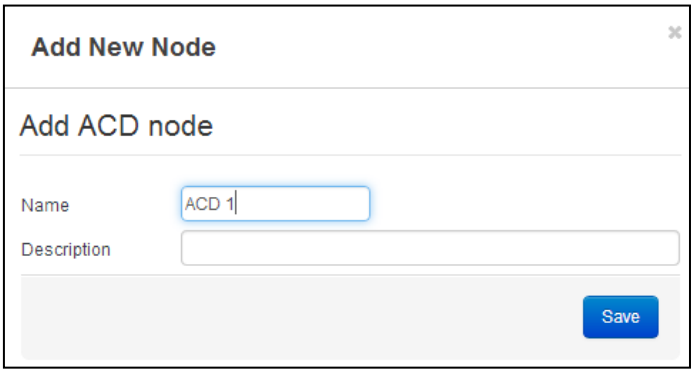
4.4.8.2.5 Adding an ACD Node

The ACD node sends the caller to an ACD flow.

➢ **To add an ACD Node:**

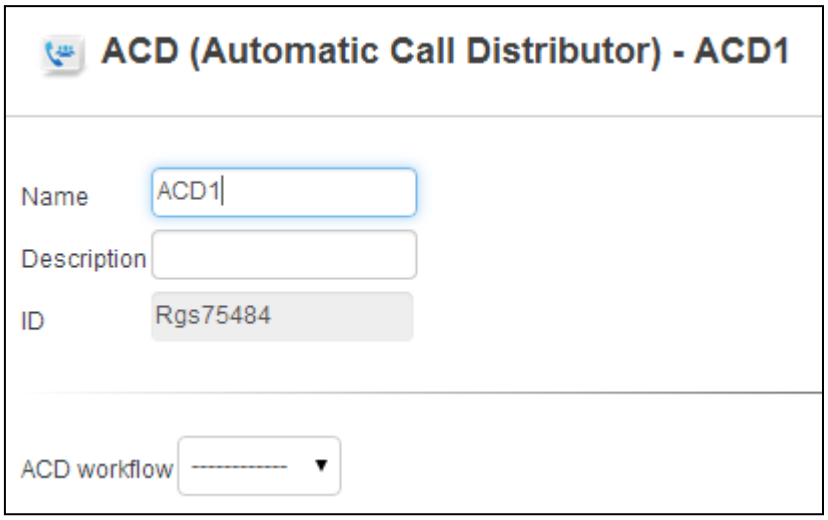
1. Click the **ACD** icon.

Figure 4-44: Add New ACD Node



2. In the 'Name' field, enter a name for the ACD node.
3. In the 'Description' field, enter a description for the ACD.
4. Click **Save**.

Figure 4-45: ACD



Modify the parameters required using the table below as reference.

Table 4-18: New ACD Parameters

Parameter	Description
Name	Enter a name for the ACD.
Description	Enter a description for the ACD.
ACD workflow	Enter the name of the requested ACD Flow. This ACD Flow needs to be defined in the ACD Flow under Automatic Call Distribution.

5. Click **Save**.

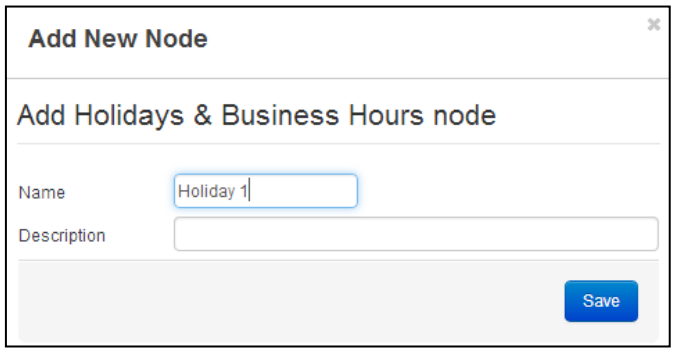
4.4.8.2.6 Adding a Holidays and Business Hours Node

This node sends the caller to a different IVR call flow according to the company's holidays or business working hours definitions. For example, if a caller reaches the company on a holiday or outside working hours, they'll be answered by a different IVR call flow than when calling during working hours.

➢ **To add a Holidays and Business Hours Node:**

1. Click the **Holidays and Business Hours** icon.

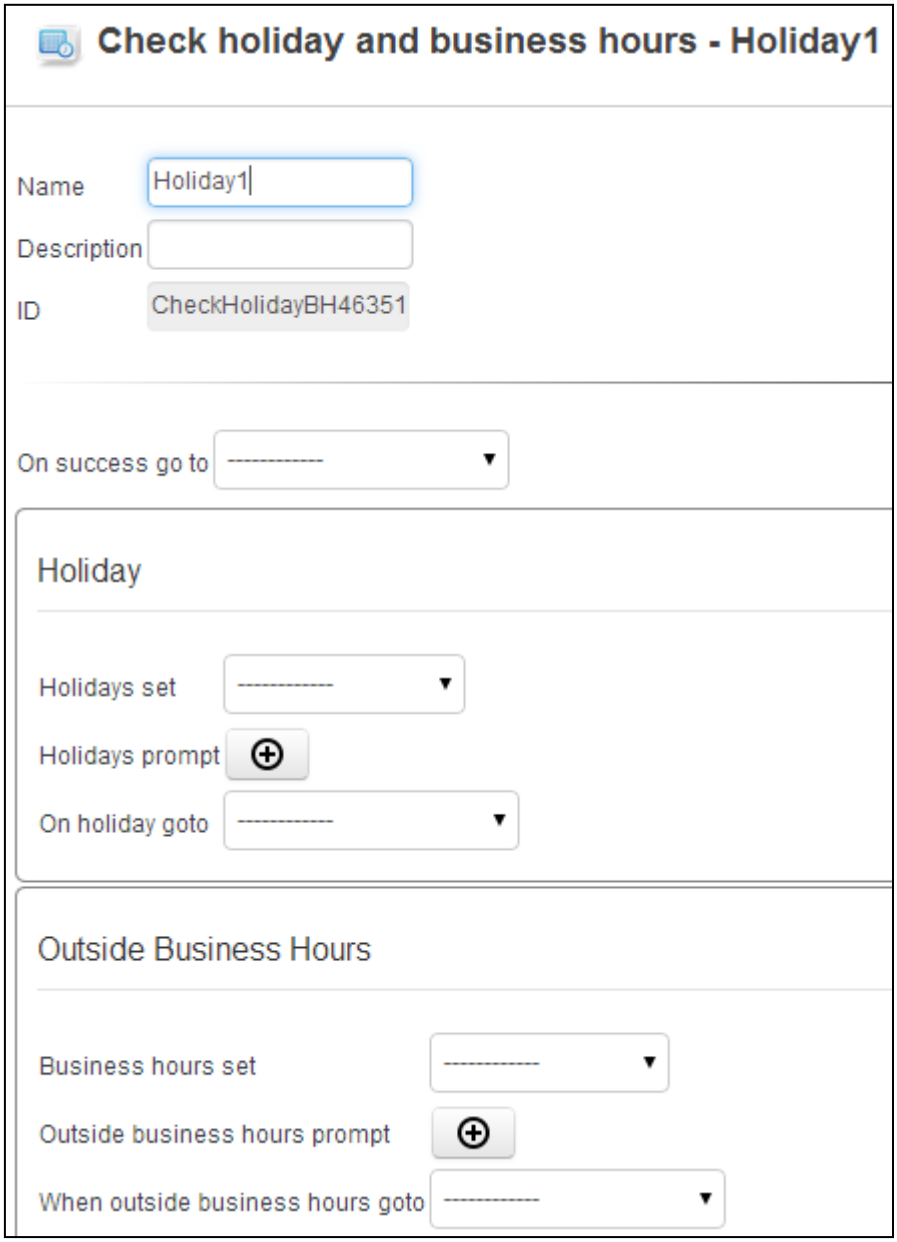
Figure 4-46: Add a New Holidays & Business Hours Node

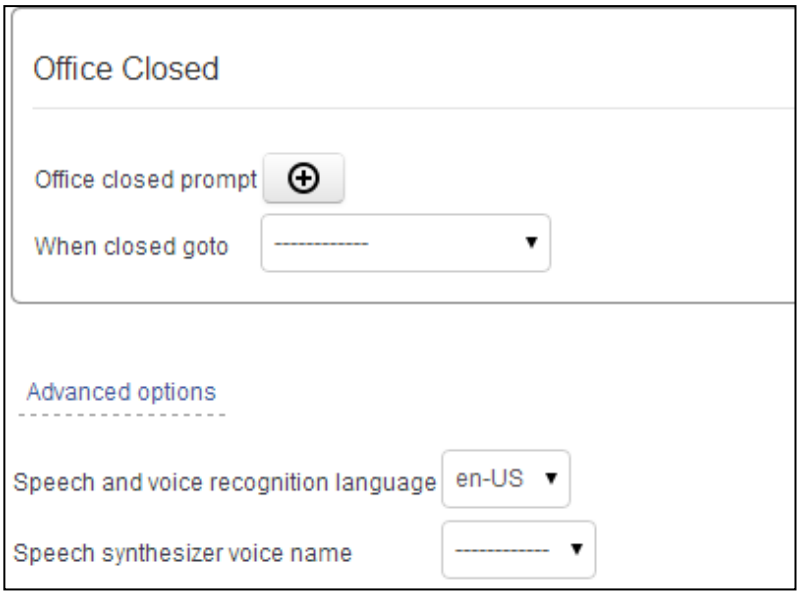


2. In the 'Name' field, enter a name for the node.

3. In the 'Description' field, Enter a description for the node.
4. Click **Save**.

Figure 4-47: Check Holidays & Business Hours





5. Modify the parameters required using the table below as reference.

Table 4-19: Holidays and Business Hours - Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.
On success goto	The Next ID value for the next IVR action if the call is during business hours. Select from the drop-down menu.
Holiday	
Holidays Set	The ID value of the holiday table.
Holidays prompt	The prompt that will be played when on holiday (it overwrite Office Closed Prompt in case it defined)
On Holiday goto	Next node if on holiday (it overwrites Office Closed goto in case it defined).
Outside Business Hours	
Business Hours set	The ID value of the Business Hours table.
Outside Business hours prompt	The prompt that will be played outside business hours (it overwrite Office Closed Prompt in case it defined).
When outside business hours goto	Next node if outside business hours (it overwrite Office Closed goto in case it defined).
Office Closed	
Office Closed Prompt	The prompt that will be played when the office is closed due to a holiday or when it's outside business hours, and no specific prompt was defined in Holidays prompt or Outside Business hours prompt.
When closed goto	Next node when the office is closed due to a holiday or when it's outside business hours, and no specific next node was defined in On Holiday goto or When outside business hours goto.

Parameter	Description
Speech and voice recognition language	Speech and voice recognition language. If empty, then 'en-US' will be used, if it's installed. If not, the first installed language will be used.
Speech synthesizer voice name	Speech synthesizer voice name. The default value is the first installed voice for the configured language.

6. Click **Save**.

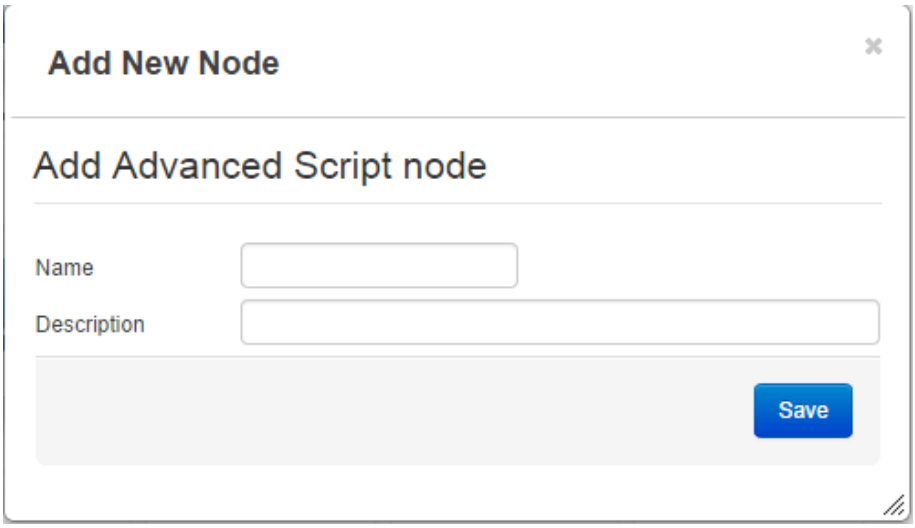
4.4.8.2.7 Adding an Advanced Script Node

This node is for advanced users with knowledge of and experience with Java scripts. It gives these users the ability to run scripts to make the IVR perform as required.

➢ **To add an Advanced Script Node:**

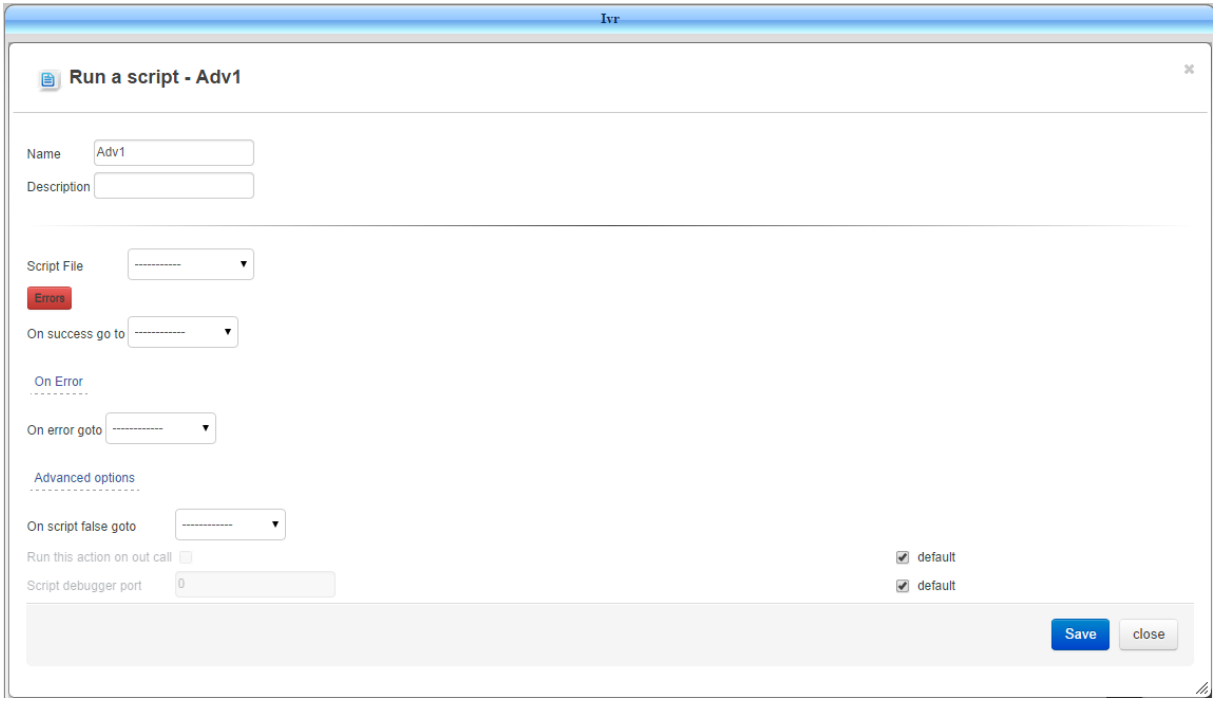
1. Click the **Advanced Script** icon.

Figure 4-48: Add a New Advanced Script Node



2. In the 'Name' field, enter a name for the node.
3. In the 'Description' field, enter a description for the node, and then click **Save**.

Figure 4-49: Run a Script



4. Modify the parameters required using the table below as reference.

Table 4-20: Run a Script - Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.
Script File	From the dropdown, select the Java script you require. The IVR offers different types of Java scripts with built-in examples. You can write your own script to make the IVR perform specific actions you require.
On success go to	From the dropdown, select the next IVR action's ID value.
On Error	
On error goto	From the dropdown, select the next node if an error occurs in the current node.
Advanced Options	
On script false goto	From the dropdown, select the next node if the specified condition is met.

5. Click **Save**.

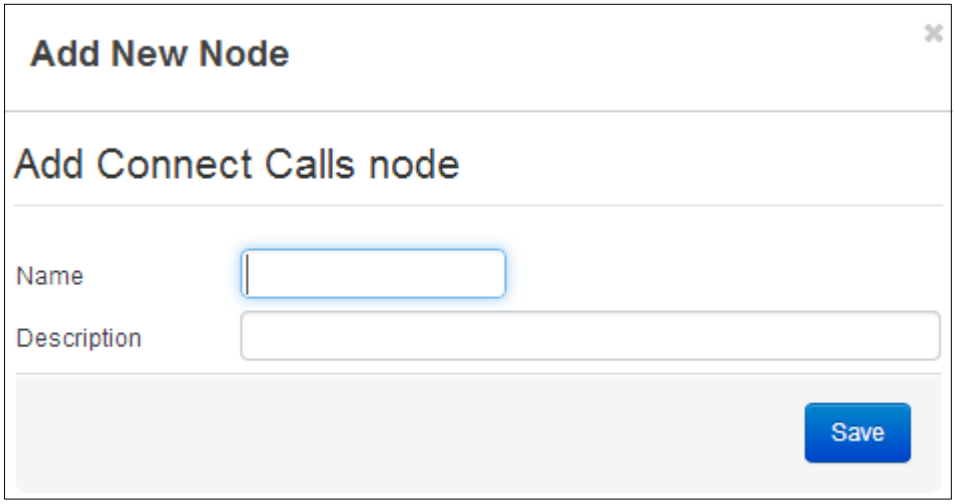
4.4.8.2.8 Adding a Connect Calls Node

The Connect Calls node connects the incoming call with the outgoing call. The incoming call is the call that started this specific IVR process. The outgoing call is a call that can optionally be initiated as part of the IVR CALLOUT node.

➢ **To add a Connect Calls Node:**

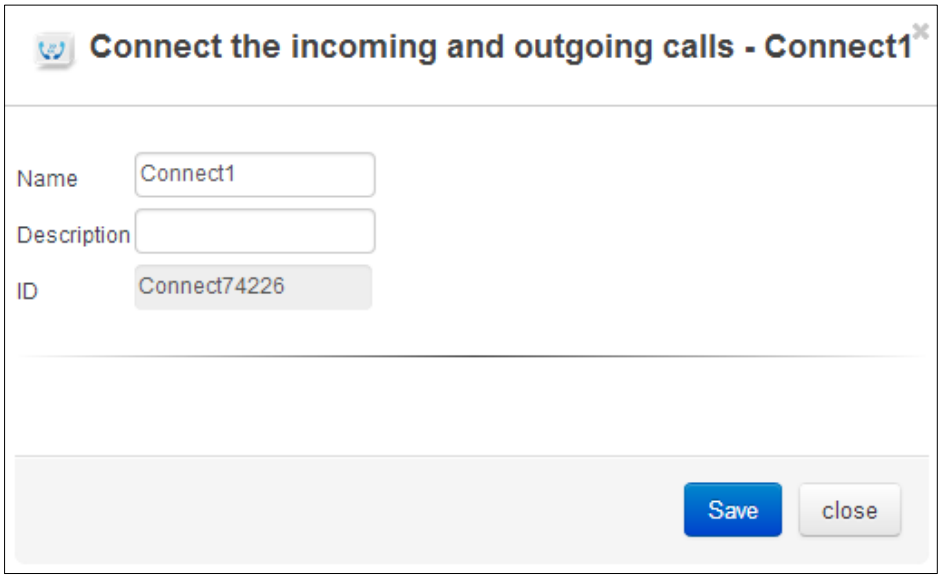
1. Click the **Connect Calls** icon.

Figure 4-50: Add a Connect Calls Node



2. In the 'Name' field, enter a name for the node.
3. In the 'Description' field, enter a description for the node and click **Save**.

Figure 4-51: Connect the Incoming and Outgoing Calls



4. Modify the parameters required using Table 4-21 as reference.

Table 4-21: Connect Calls - Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.

5. Click **Save**.

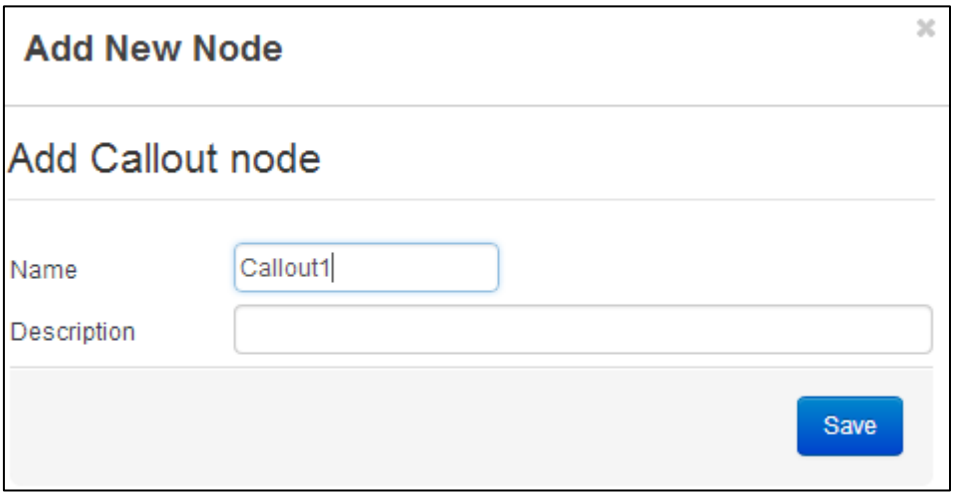
4.4.8.2.9 Adding a Callout Node

This node initiates an outgoing call as part of the IVR process. Once successful, there are two different calls associated with the same call session – an incoming call and an outgoing call. Note that the two calls are not connected at this stage and run as separate calls. They're connected only after 'Connect Calls' node is activated.

➢ **To add a Callout Node:**

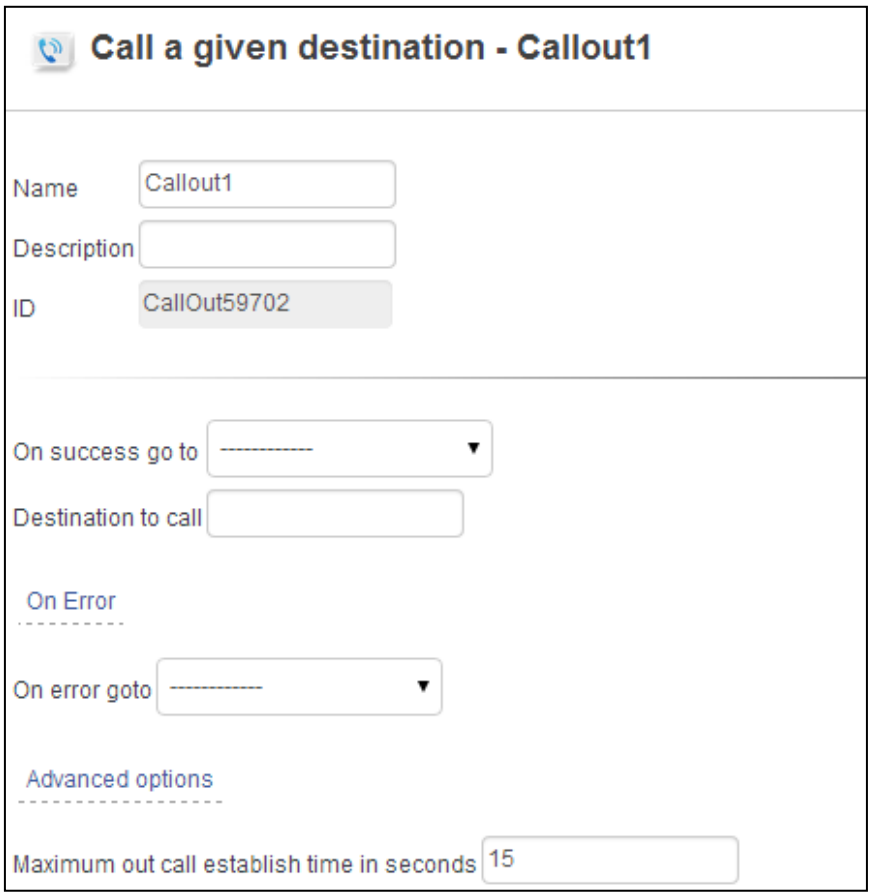
1. Click the **Callout** icon.

Figure 4-52: Add a New Callout Node



2. In the 'Name' field, enter a name for the node.
3. In the 'Description' field, Enter a description for the node and click **Save**.

Figure 4-53: Call a Given Destination



4. Modify the parameters required using the table below as reference.

Table 4-22: Call a Given Destination - Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.
On success go to	The Next ID value for the next IVR action. Select from the drop-down menu.
Destination to call	Destination to call. The format is SIP URI, TEL URI, or a phone number.
On Error	
On error goto	Next node if an error occurs in the current node.
Advanced Options	
Maximum out call establish time in seconds	Maximum time, in seconds, to establish a new outgoing call.

5. Click **Save**.

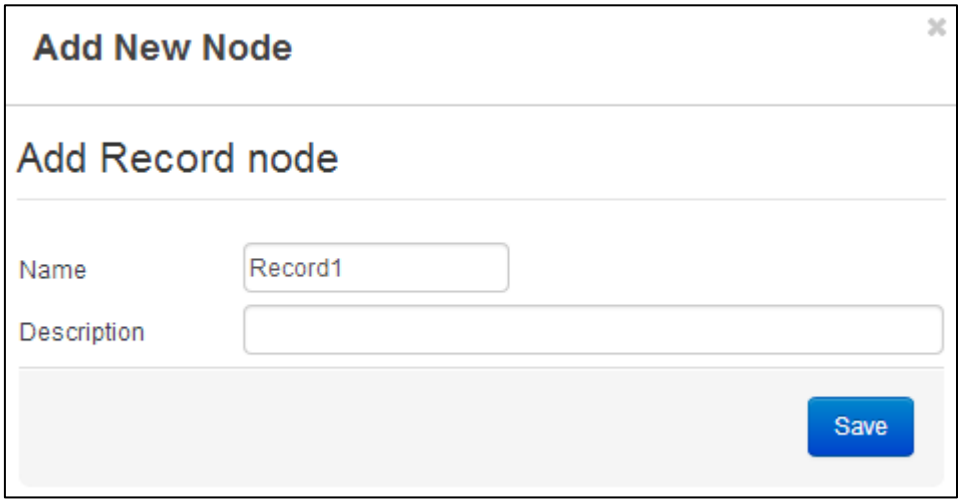
4.4.8.2.10 Adding a Record Node

The Record node enables recording of input voice of the incoming call. The recording can only be used in the same IVR session as a special prompt. The recorded file name is accessible via the session variable ${RecordFileName} and can be used later with Play Prompt node.

➢ **To add a Record Node:**

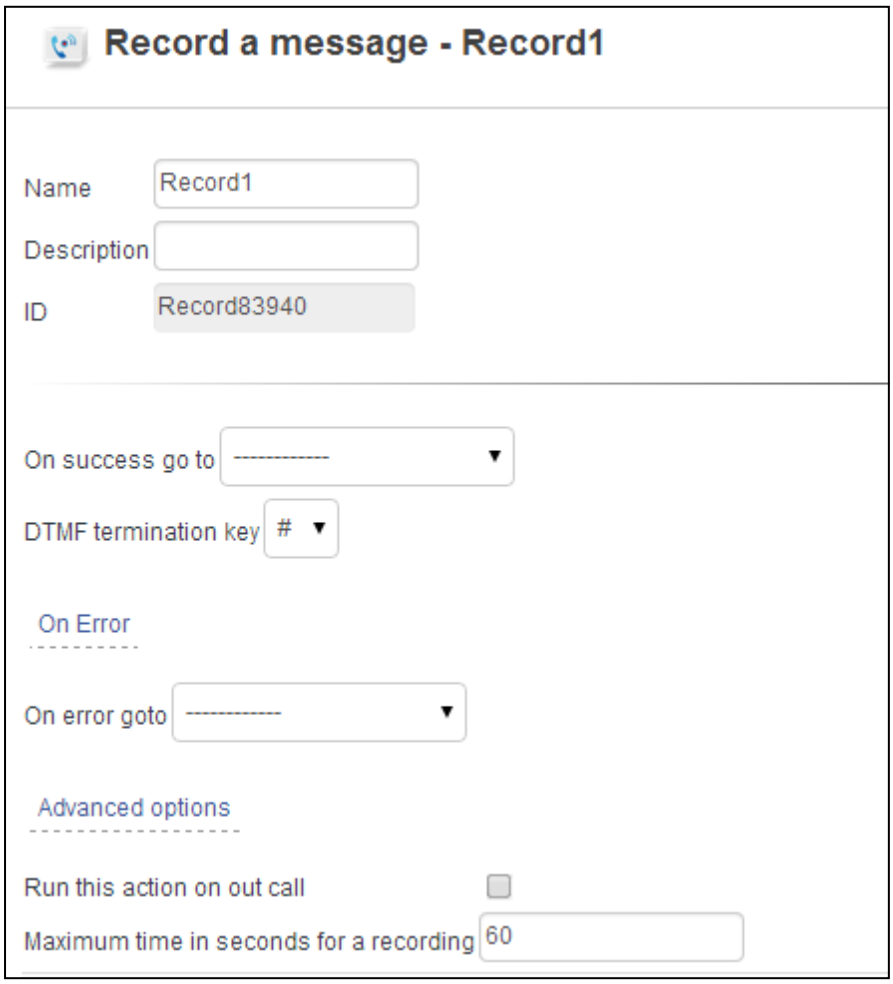
1. Click the **Record** icon.

Figure 4-54: Add a New Record Node



2. In the 'Name' field, enter a name for the node.
3. In the 'Description' field, enter a description for the node.
4. Click **Save**.

Figure 4-55: Record a Message



5. Modify the parameters required using Table 4-23 as reference.

Table 4-23: Record a Message Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.
On success go to	The Next ID value for the next IVR action. Select from the drop-down menu.
DTMF termination key	A DTMF key that will terminate DTMF recognition immediately.
On Error	
On error goto	Next node if an error occurs in current node.
Advanced Options	
Run this action on out call	Run this action on the outgoing call.
Maximum time in seconds for a recording	Maximum time in seconds for a recording.

6. Click **Save**.

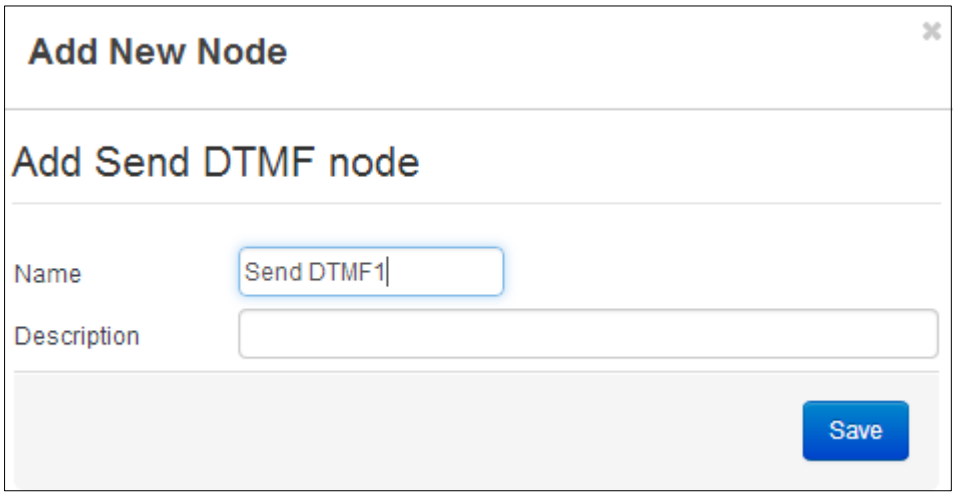
4.4.8.2.11 Adding a Send DTMF Node

The Send DTMF node allows the IVR feature to send DTMF tones to a destination.

➢ **To add a Send DTMF Node:**

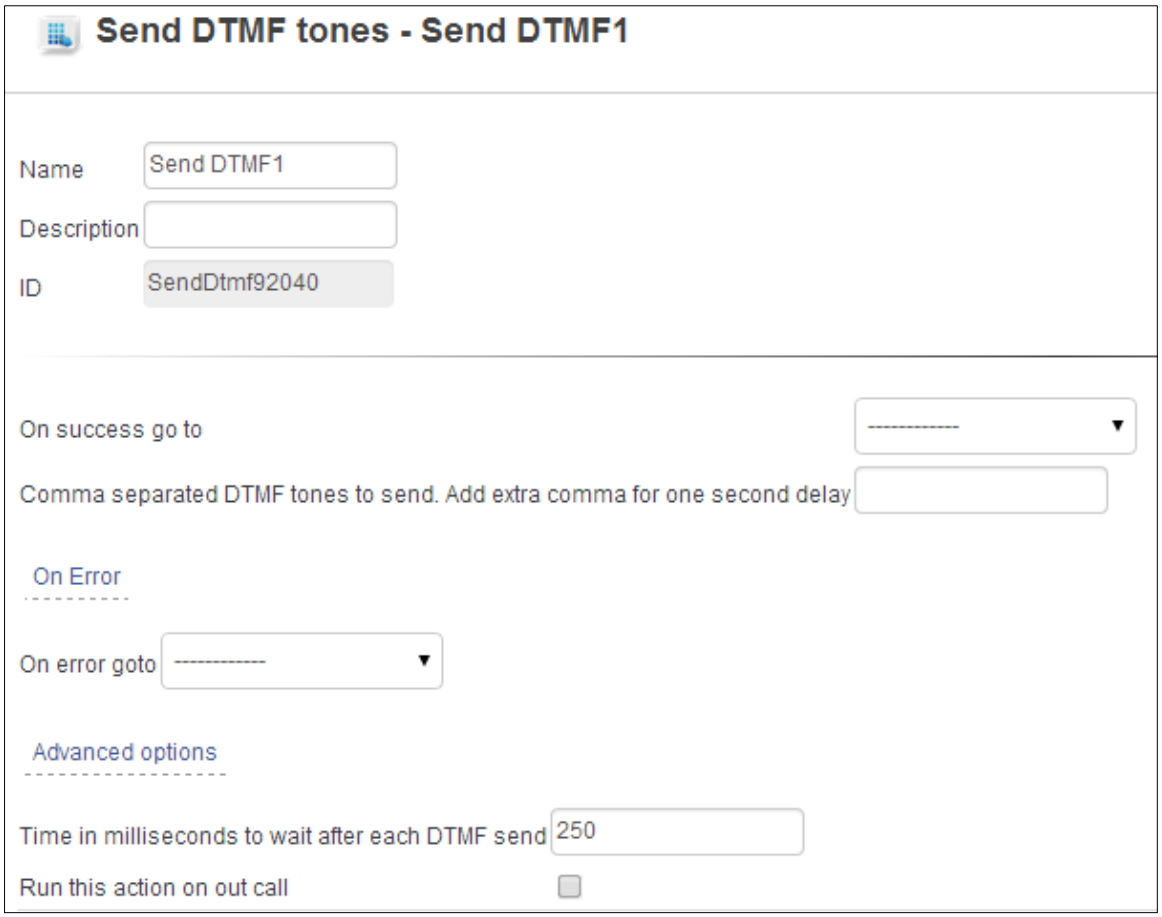
1. Click the **Send DTMF** icon.

Figure 4-56: Add a New Send DTMF Node



2. In the 'Name' field, enter a name for the node.
3. In the 'Description' field, enter a description for the node and click **Save**.

Figure 4-57: Send DTMF Tones



4. Modify the parameters required using the table below as reference.

Figure 4-58: Send DTMF Tones – Parameters

Parameter	Description
Name	Enter a name for the node.
Description	Enter a description for the node.
On success go to	The Next ID value for the next IVR action. Select from the drop-down menu.
Comma separated DTMF tones to send. Add extra comma for one second delay	Comma separated DTMF tones to send. Add extra comma for one second delay. For example, '1,,,2,3' will send '1', wait for two seconds, send '2', and send '3'.
On Error	
On error goto	Next node if an error occurs in current node.
Advanced Options	
Time in milliseconds to wait after each DTMF send	Time in milliseconds to wait after each DTMF send. This time is in addition to the delay time defined in the DTMF tones string.
Run this action on out call	Run this action on the outgoing call

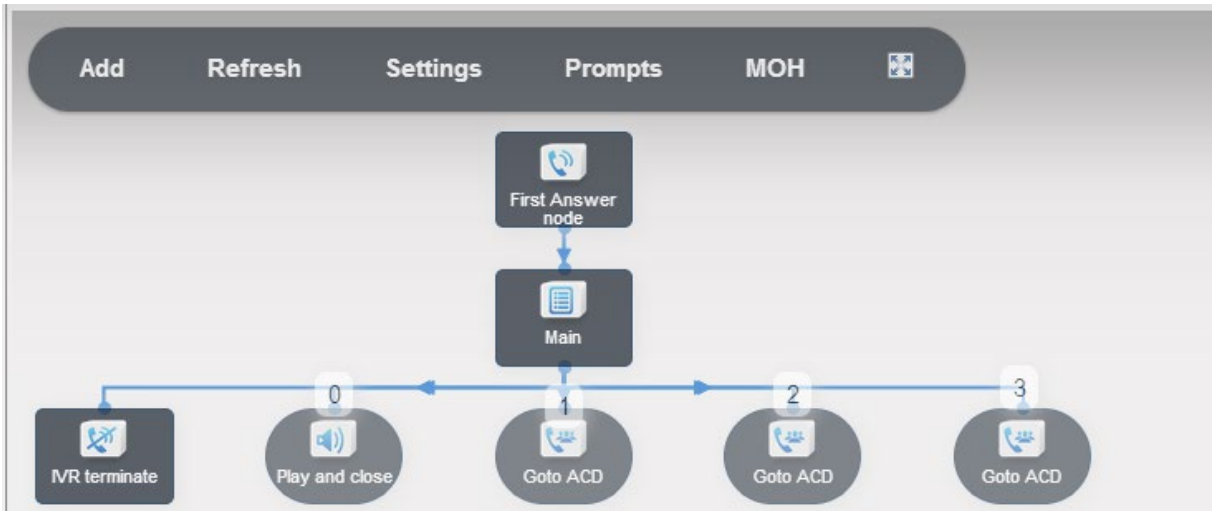
5. Click **Save**.

4.4.8.2.12 Virtual (Auto) Nodes

Virtual node is a node that the menu automatically points to and which the administrator cannot add manually, for example, auto transfer, auto play prompt, etc. Virtual nodes are displayed as faded rounded nodes in the tree, as shown in Figure 4-59.

Note: You cannot add, delete or edit these nodes.

Figure 4-59: Virtual Nodes



4.4.8.3 Committing Modifications

Use the **Commit** tab in the IVR Tree Tool shown in Figure 4-34 for the system to deploy all your changes and settings.

4.4.8.4 Reverting to the Pre-Commit Configuration

Use the **Revert** tab in the IVR Tree Tool shown in Figure 4-34 for the system to return to the settings and configuration set at the last **Commit**.

4.4.8.5 Refreshing the IVR Display

Use the **Refresh** tab in the IVR Tree Tool shown in Figure 4-34 to refresh the IVR display.

4.4.8.6 Overriding Default Auto Attendant General Settings

Use the **Settings** tab in the IVR Tree Tool shown in Figure 4-34 to override the default Auto Attendant General Settings for the specific IVR tree. These parameters override the parameters that were defined in 'General Settings' under 'Auto Attendant'. For detailed descriptions of the parameters, see Section 4.4.2 on page 47.

4.4.8.7 Managing Prompts

Use the **Prompts** tab in the IVR Tree Tool shown in Figure 4-34 to modify the prompts parameters. These prompts are the same prompts that were defined in 'Prompt' under 'Auto Attendant'. For detailed descriptions of the parameters, see Section 4.4.3 on page 50.

4.4.8.8 Managing MOH

Use the **MOH** tab in the IVR Tree Tool shown in Figure 4-34 to modify the Music On Hold parameters. These parameters are the same parameters that were defined in 'Music On Hold' under 'Auto Attendant'. For detailed descriptions of the parameters, see Section 4.4.4 on page 52.

4.4.8.9 Displaying Full Screen

Use the  tab in the IVR Tree Tool shown in Figure 4-34 to display the IVR application in full screen mode.

4.5 Managing ACD

4.5.1 ACD Overview

An ACD is a simple or a complex hunt group that plays a greeting to callers, and then places the call in a queue searches for the first available agent to answer this call.

An ACD may have different routing settings for working hours, non-working hours, and holidays. Different ACDs may implement different agent search methods and actions to take once an agent is unavailable.

An ACD must contain the following:

- Agents
- Groups
- Queues
- ACD Flows

4.5.1.1 Agents

An agent is the person that answers the call at the end of the Response Group process. The agent can be a salesperson or a member of the customer support team; an entity that eventually talks with the call initiator. An agent can be an existing Skype for Business user or any external number. ACD calls a Skype for Business agent only if their presence is 'Available' or 'Inactive', unless the 'Ignore presence' was selected.
ACD will always call external phone numbers.

An agent is part of an Agent Group.

4.5.1.2 Groups

An Agent Group is a group of agents that are assigned to this group according to a specified order. The Group also defines the agents routing method, time, etc.

4.5.1.3 Queues

Queues hold callers until an agent answers the call. A queue routes the call to a group (or multiple groups) of agents. The group matches the caller to an agent using a variety of methods such as longest idle routing or round robin routing.

4.5.1.4 ACD Flows

An ACD Flow defines the behavior of a call from the time the phone rings to the time somebody answers the call. The ACD Flow specifies the queue to use for holding the call. An ACD Flow also defines settings such as a welcome message, music on hold, different actions to perform outside business hours and over holidays.

Note: You must create agent, groups, and queues before creating an ACD Flow that uses them.

4.5.1.5 ACD Flow Process

Following is an example of an ACD Flow process.

1. [Optional] The caller is greeted by a message.
2. The holiday and business hours logic runs (holidays take precedence over business hours). The result depends on the day and time of day.
   a. If the business is closed, the caller hears an optional message before the application transfers the caller to a configured target or disconnects the call.
   b. If the business is open, the caller goes to the next step of the ACD Flow.
3. The caller is put in the appropriate queue.
4. The caller listens to music while waiting for the Match Making process to locate an available agent.
   a. After an agent is located, the ACD Flow component attempts to transfer the call to that agent. If the transfer fails, the Match Making component searches for a new agent. The caller remains on hold with music playing while waiting to be connected to another agent.
   b. If a queue timeout or a queue overflow occurs, the ACD Flow transfers the caller to a target or disconnects the call, depending on how the administrator configured the queue. If the transfer to the target fails, the call is disconnected.
5. The ACD Flow is ended. The media connection is ended.

At any time during the preceding process, the caller can disconnect the call. In this case, the ACD Flow is automatically ended.

4.5.2 Modifying Agents

Use Agents to create a new agent, edit, or delete an existing agent.

➢ **To modify Agents:**

1. Access the Agents List (**Management** > **Automatic Call Distribution** > **Agents**).

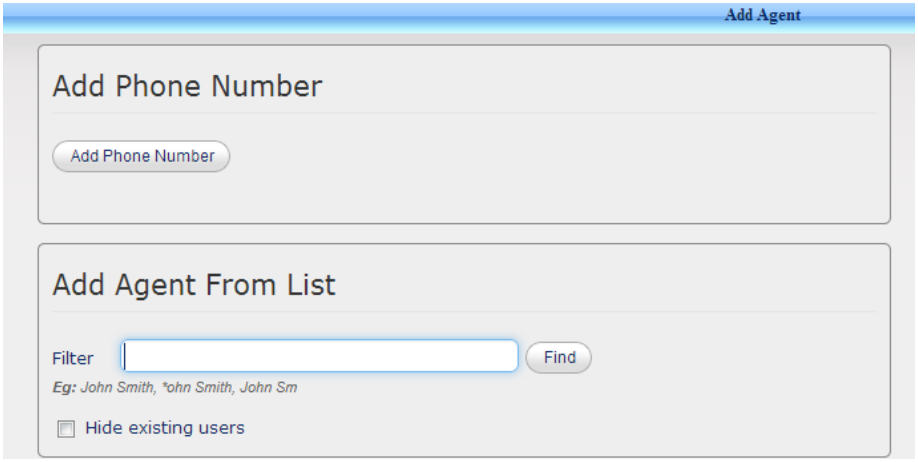
Figure 4-60: Agents List

2. To edit the parameters of an Agent, click  and modify the parameters required.
3. To delete an Agent, click  and confirm the delete action in the Delete Agent page that opens.

➢ **To add a new Agent:**

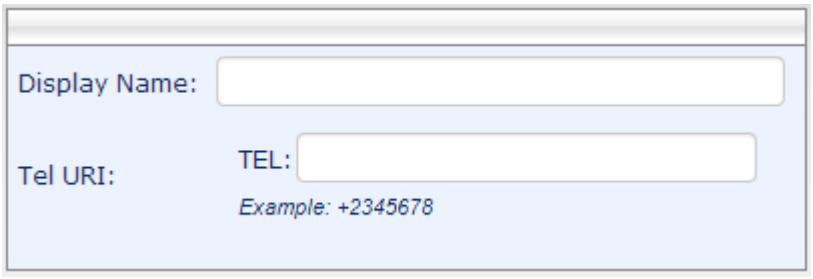
1. Access the Add Agent page by clicking the **Add New Agent** button.

Figure 4-61: Add Agent



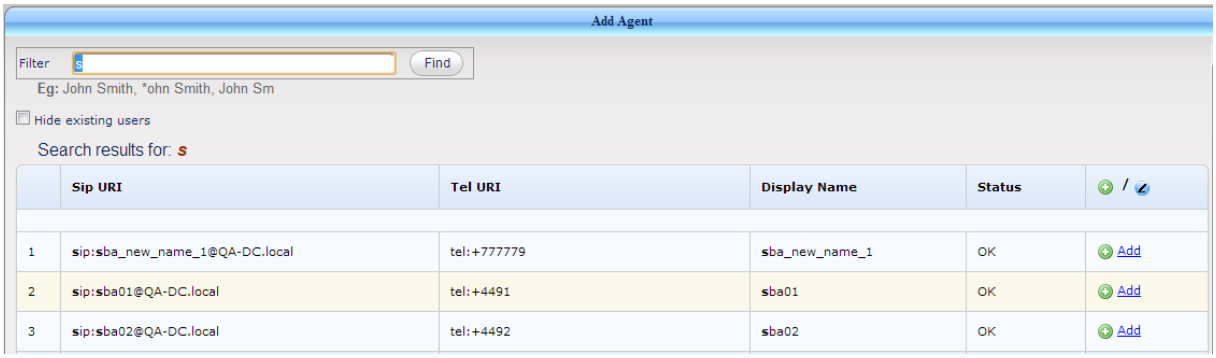
2. To add a phone number, click **Add Phone Number** and enter the 'Display Name' and 'Tel URI'. Use this format for the Tel URI: tel:+972312345

Figure 4-62: Add Phone Number



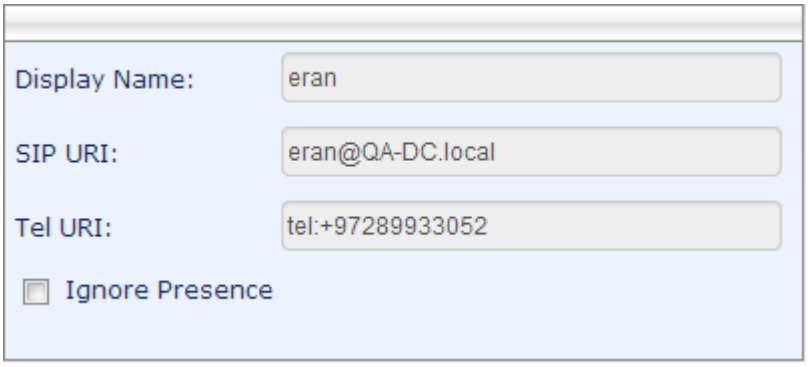
3. To add an agent from a list, enter the full or partial name of the Skype for Business user you're seeking, and click **Find**.

Figure 4-63: Add an Agent from a List - Find



4. To add an Agent from the table, click or **Add**. In the Add Agent page that opens with the selected Agent, click **Submit**.

Figure 4-64: Add Agent from Table



5. Select the 'Ignore Presence' option to allow call routing to this agent by ignoring agent's availability (i.e., transfer calls even if the agent is busy or in **Away** mode).

4.5.3 Modifying Groups

Use Groups to create a new agent, edit, or delete an existing agent.

➢ **To modify Groups:**

1. Access the Groups List page (**Management** > **Automatic Call Distribution** > **Groups**).

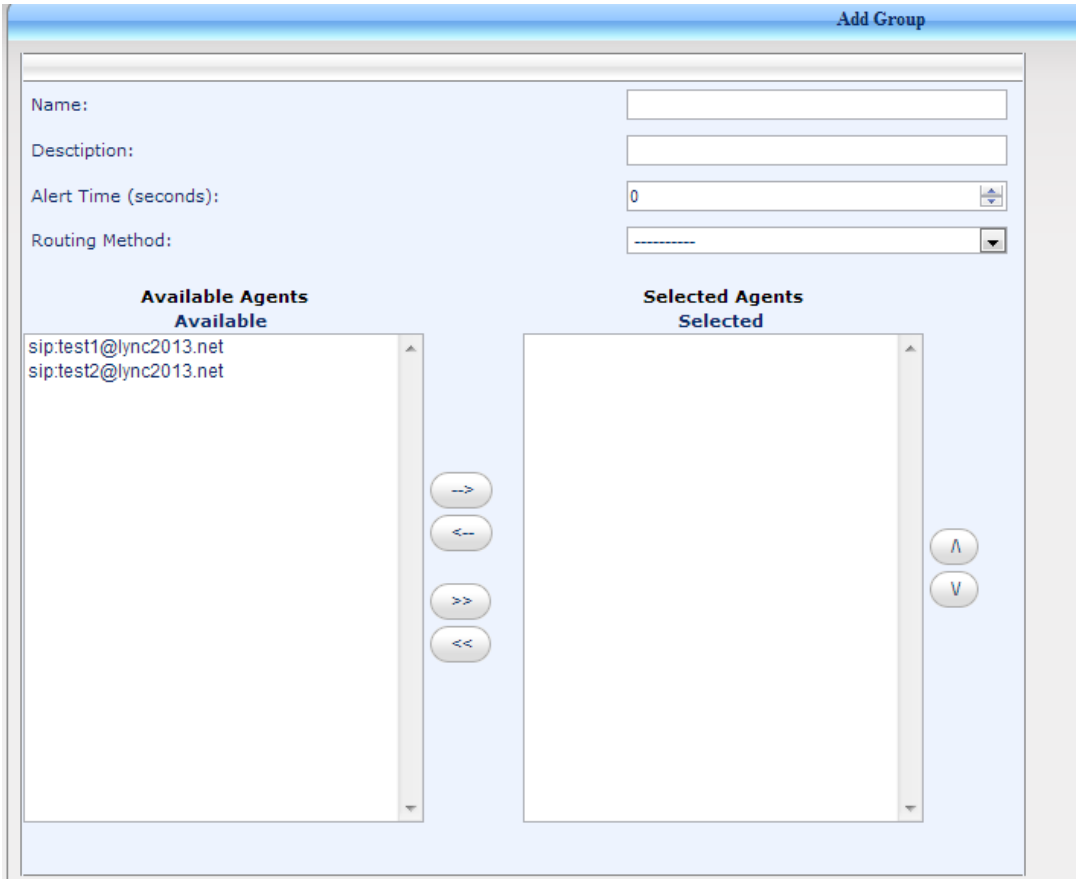
Figure 4-65: Groups List

2. To edit the parameters of a group, click and modify the parameters required.
3. To delete a Group, click and confirm the delete action in the Delete Group page that opens.

➢ **To add a new Group:**

1. Access the Add Group page by clicking the **Add New Group** button.

Figure 4-66: Add New Group



2. Enter the required parameters using the table below as reference.

Table 4-24: New Group - Parameters

Parameter	Description
Name	Enter an identifying name for the agent group.
Description	Enter a description for the group.
Alert time (seconds)	Specify the number of seconds to ring an agent before offering the call to the next available agent.
Routing method	Select the method for routing calls to agents in the group as follows: • **Serial** - to offer a new call to the agents in the order in which they are listed in the Agent list. • **Parallel** - to offer a new call to all available agents at the same time. The call is sent to the first agent who accepts it. • **Round robin** - to offer a new call to each agent in turn. • **Longest idle** - to offer a new call first to the agent who has been idle the longest.

3. Click **Submit**.
4. To modify Agents assigned to the Group, move the required Agents from the 'Available Agents' column on the left to the 'Selected Agents' column on the right. Use the arrow buttons for moving Agents from left to right and/or from right to left.
5. Click **Submit**.

4.5.4 Modifying Queues

Use the Queues List page to create a new Queue, edit, or delete an existing Queue.

➢ **To modify Queues:**

1. Access the Queues List page (**Management** > **Automatic Call Distribution** > **Queues**).

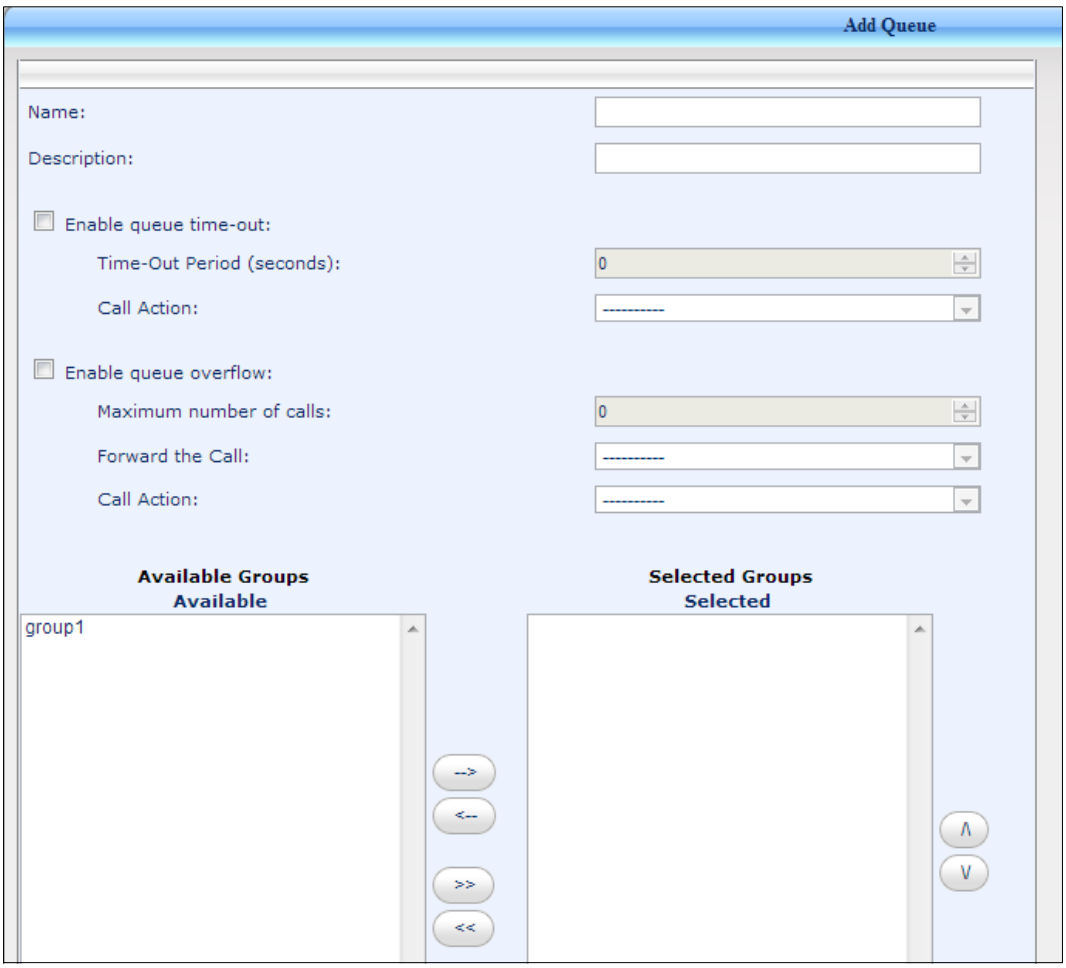
Figure 4-67: Queues List

2. To edit the parameters of a Queue, click  and modify the required parameters.
3. To delete a Queue, click  and confirm the delete action in the Delete Queue page that opens.

➢ **To add a Queue:**

1. Click **Add New Queue**.

Figure 4-68: Queues



2. Modify the parameters required using the table below as reference.

Table 4-25: Queues - Parameters

Parameter	Description
Name	Enter an identifying name for the queue
Description	Enter a description for the queue
Enable queue time-out	Check this box to specify a maximum period of time for a caller to wait on hold before an agent answers the call, and then do the following:
Time-out period (seconds)	Specify the maximum number of seconds a caller waits for an agent to answer the call.
Call Action	Select the action that occurs when a call times out as follows: - Disconnect to disconnect the call after the timeout. - Forward to voice mail to forward the call to voice mail, and then in the SIP address field, enter a voice mail address in the SIP format. - Forward to telephone number to forward the call to another telephone number, and then in the SIP address field, type the telephone number in the right format (for example, sip:+142555501@abc.com). - Forward to SIP address to forward the call to another user, and then in the SIP address field, type the URI for the user in the SIP format. - Forward to another queue to forward the call to another queue, and then select the queue that you want to use.
Enable queue overflow	Check this box to specify a maximum number of calls that the queue can hold.
Maximum number of calls	Select the maximum number of calls that you want the queue to hold.
Forward the Call	Select which call to forward when the queue is full: Newest call, or Oldest call.
Call Action	Select the action that occurs when the overflow threshold is met: • Disconnect - to disconnect the call after the timeout. • Forward to voice mail - to forward the call to voice mail, and then in the SIP address field, enter a voice mail address in the SIP format. • Forward to telephone number - to forward the call to another telephone number, and then in the SIP address field, type the telephone number in the right format (for example, sip:+142555501@abc.com). • Forward to - SIP address to forward the call to another user, and then in the SIP address field, type the URI for the user in the SIP format. • Forward to another queue - to forward the call to another queue, and then select the queue that you want to use.

3. Click **Submit**.

4.5.5 Modifying ACD Flows

Use the ACD Flows screen to create a new ACD Flow, edit, or delete an existing ACD Flow. An ACD Flow defines the behavior of a call from the time that the phone rings to the time that someone answers the call. The ACD Flow specifies the queue to use for holding the call, and specifies the routing method to use for hunt groups or the questions and answers to use for interactive response groups. An ACD Flow also defines settings such as a welcome message, music on hold, business hours, and holidays.

➢ To modify ACD Flow:

1. Access the ACD Flow List page (**Management** > **Automatic Call Distribution** > **ACD Flows**).

Figure 4-69: ACD Flows

2. To delete an ACD Flow, click  and confirm the delete action in the Delete ACD Flow Group page that opens.
3. To edit an ACD Flow, click  of the specific ACD Flow.
4. Modify the parameters required using the tables below as reference. The parameters are grouped under four tabs: **General Settings**, **Outside of Business hours**, **Holiday**, and **Queue**.
5. Click the **General Settings** tab.

Figure 4-70: Edit ACD Flow – General Settings

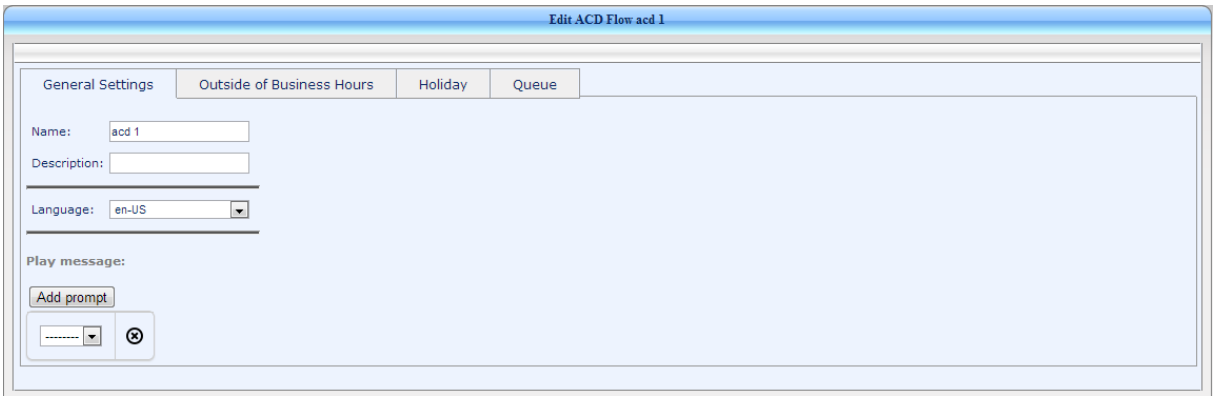


Table 4-26: ACD Flow – General Settings

Parameter	Description
Name	Enter a descriptive name for the ACD Flow.
Description	Enter a description for the ACD Flow.
Language	Select the language that you want to use for text-to-speech.
Play prompt	From the pull-down menu, select a prompt to be played once the caller enters the queue.

6. Click the **Outside of Business Hours** tab:

Figure 4-71: Edit ACD Flow – Outside of Business Hours tab

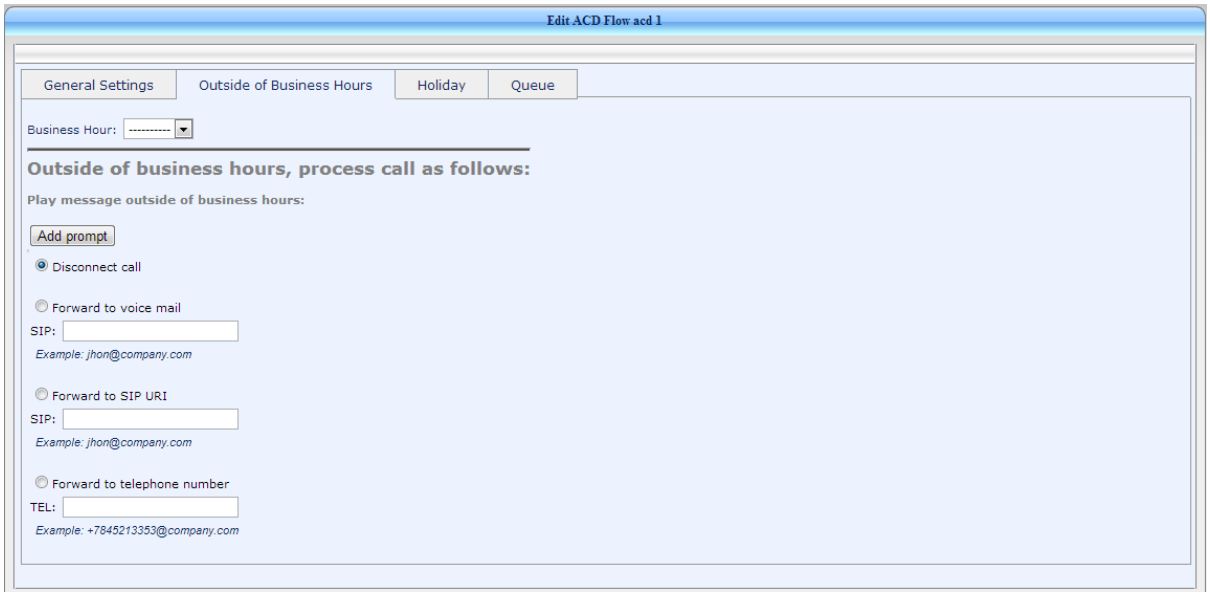


Table 4-27: ACD Flow – Outside of Business Hours Parameters

Parameter	Description
Business hour	From the drop-down list, select the schedule you want to use.
Add prompt	To play a message outside of business hours, click **Add prompt** and then select the Prompt from the drop-down list
Specify how to handle calls after the message is played:	
Disconnect	Disconnect the call.
Forward to voice mail	Forward the call to voice mail, and then type the voice mail SIP address.
Forward to SIP URI	Forward the call to another user, and then type the user SIP address.
Forward to telephone number	Forward the call to another telephone number, and then type the telephone number.

7. Click the **Holiday** tab:

Figure 4-72: Edit ACD Flow – Holiday tab

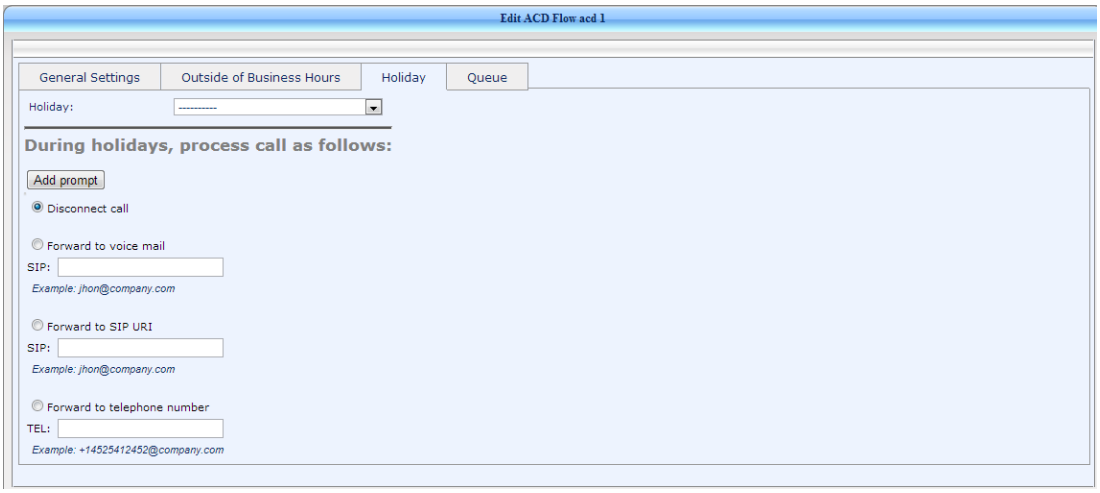


Table 4-28: ACD Flow – Holiday Parameters

Parameter	Description
Holiday	Select a holiday from the drop-down list.
Add prompt	To play a message on Holiday, click **Add prompt** and then select the Prompt from the drop-down list.
Specify how to handle calls after the message is played:	
Disconnect	Disconnect the call.
Forward to voice mail	Forward the call to voice mail, and then type the voice mail SIP address.
Forward to SIP URI	Forward the call to another user, and then type the user SIP address.
Forward to telephone number	Forward the call to another telephone number, and then type the telephone number.

8. Click the **Queue** tab.

Figure 4-73: Edit ACD Flow – Queue Tab

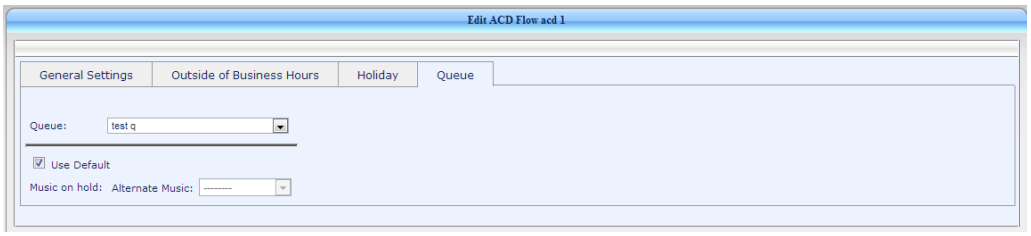


Table 4-29: ACD Flow – Queue Parameters

Parameter	Description
Queue	Select the Queue from this drop-down list. This Queue will receive the calls until an agent becomes available.
Use Default	Select this option to use the default system Music on Hold.
Music on hold: Alternate music	Select the music the caller hears while waiting on hold.

9. Click **Submit**.

4.6 Generic SIP Support

By default, the AA IVR application is connected to the Skype for Business (SfB). The AA IVR application is registering to the SfB and incoming calls are sent from the SfB to the AA IVR application.

SIP Interfaces are used for customers that want or need to connect the AA IVR application directly to the Gateway/SBC. In this mode the AA IVR should be configured to listen for incoming calls coming from GW/SBC entity.

This section describes the SIP interfaces and Proxy SIP Trunk management.

4.6.1 Call Flow

- An incoming call is received at the IVR **listening SIP interface**.
- The incoming call is dispatched to an IVR flow based on the IVR flow with matching **accept call to that number.** If no matching IVR flow is found, then call is rejected.
- For initiating outgoing calls, for example calling an ACD agent, a **proxy SIP trunk** is required. A **primary** and a **backup** trunk can be defined. If both are defined then IVR monitors the trunks using SIP OPTIONS, and will use the primary if it's up, otherwise it will use the backup.

Notes:

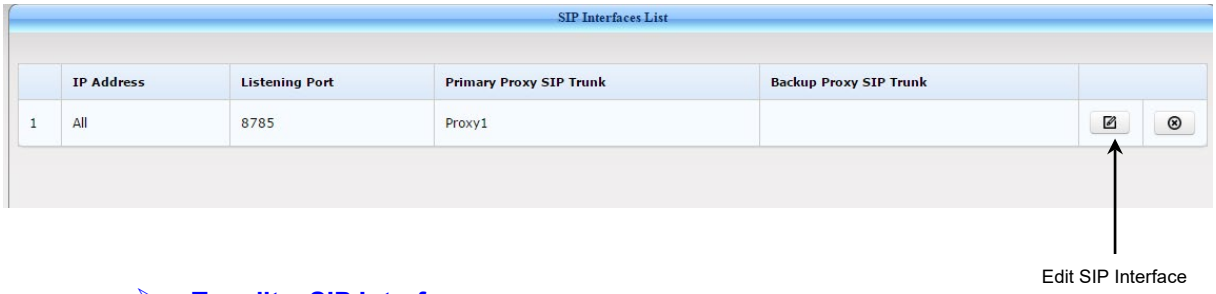
- IVR can support both a Lync environment and a generic SIP interface environment at the same time. However, **these two environments are completely separate and cannot be connected**. For example, it is not possible to call an IVR from a generic SIP side and be transferred to a destination on the Lync side.
- Presence monitoring is not available for generic SIP as it is for Lync. Therefore, ACD will always call all ACD agents that are currently not in another ACD call.
- ACD agents must be defined as phone numbers, and cannot be selected from existing users.
- IVR endpoints are not used with generic SIP interfaces. Instead, phone number(s) must be assigned to the ACD flow.
- To setup the generic SIP support, it is recommended first to define the SIP Trunk and then the SIP interface.

4.6.2 SIP Interface Managing

➢ **To manage a SIP Interface:**

1. On the IVR 'Management' tab, under 'SIP Interface', select **SIP Interface**.
2. Click **Add New SIP Interface**. The following screen appears after adding a new SIP interface.

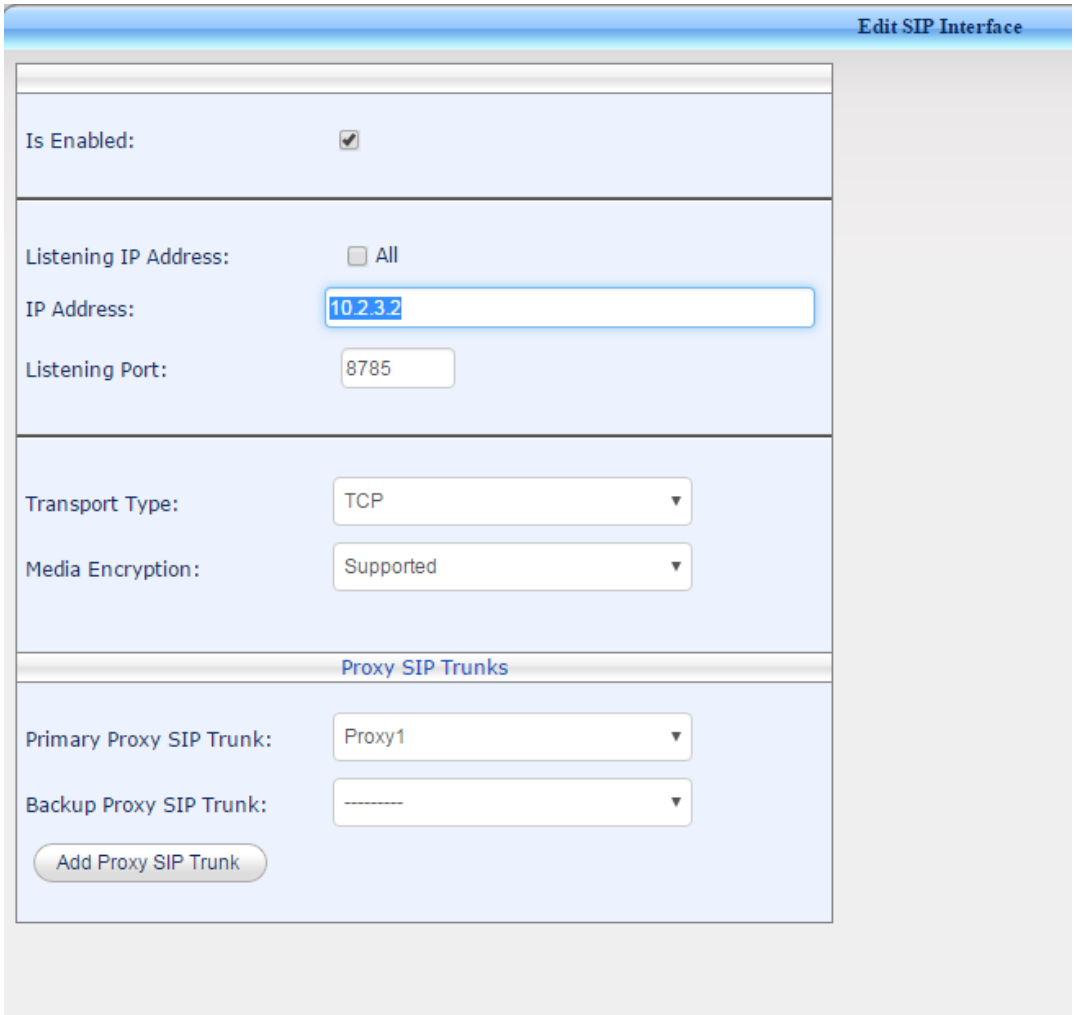
Figure 4-74: SIP Interfaces List



➢ **To edit a SIP Interface:**

1. On the previous screen, click the **Edit SIP Interface** icon; the following screen appears.

Figure 4-75: Edit SIP Interface



2. Select the 'Is Enabled' check box, to enable AA IVR receiving incoming calls for generic SIP interfaces.

3. Select the 'Listening IP Address' field with the All check box, or specify the local AA IP address to listen for incoming calls.
4. Set the Listening Port for incoming calls.
5. From the Transport Type drop-down list, select TCP or TLS.

Notes:

- For SIP TLS configuration you must first create and assign certificates for the IVR machine and SIP interface. The subject of these certificates must be the DNS FQDN name of the corresponding entities.
- These two sides must be configured to trust each other's certificate.
- The IVR machine certificate must be added to the 'Personal' > 'Certificates' folder of the Windows certificates.
- Once TLS is chosen, a drop-down list of Windows personal certificates appears with list of installed certificates. Choose the matching certificate.

6. From the 'Media Encryption' drop-down list, select **RTP/SRTP**.
7. From the 'Primary Proxy SIP Trunk' drop-down list and optionally from the 'Backup Proxy SIP Trunk' drop-down list, select the appropriate options or add a new Proxy SIP Trunk by clicking on the **Add Proxy SIP Trunk** button.

Note: A backup SIP trunk for outgoing calls can be defined. Once defined, IVR will monitor the primary proxy, using SIP OPTIONS, and if the primary is down IVR will use the backup SIP trunk for outgoing calls.

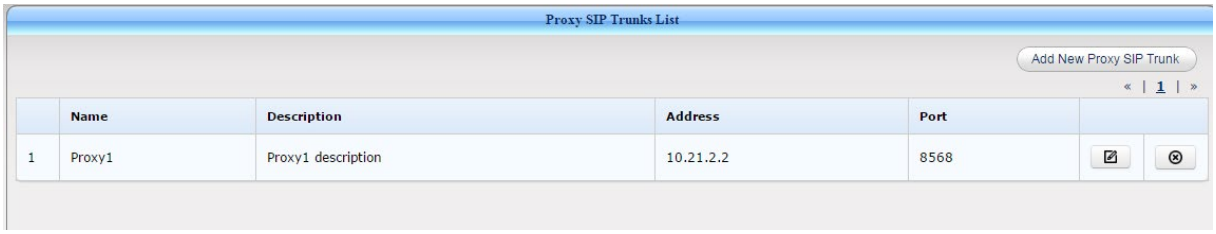
8. Click **Submit**; the generic SIP interface is created and can be used by the IVR.

4.6.3 Adding a Proxy SIP Trunk

➢ **To add a Proxy SIP Trunk:**

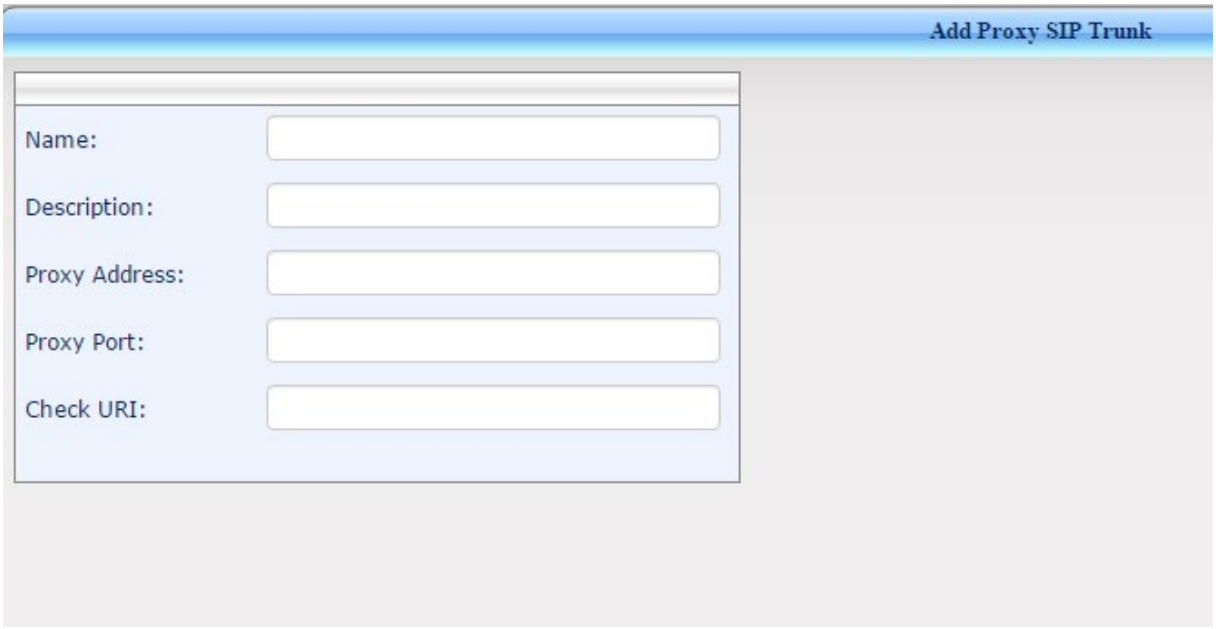
1. On the IVR 'Management' tab, under 'SIP Interface', select **Proxy SIP Trunks**.

Figure 4-76: Proxy SIP Trunks List



2. Click **Add New Proxy SIP Trunk**; the following screen appears.

Figure 4-77: Add Proxy SIP Trunk



3. Enter the name and description of the Proxy SIP Trunk.
4. Enter the Proxy Address and Proxy Port number.

Note: If TLS is used, the SIP Trunk Proxy address should be set to a DNS FQDN name, and not an IP address. This address should be the certificate subject assigned to the other side and used in its TLS connection with the IVR.

5. Enter a value for 'Check URI' which is used by the IVR for checking the SIP Trunk liveness using the SIP OPTION message.
6. Click **Submit**.

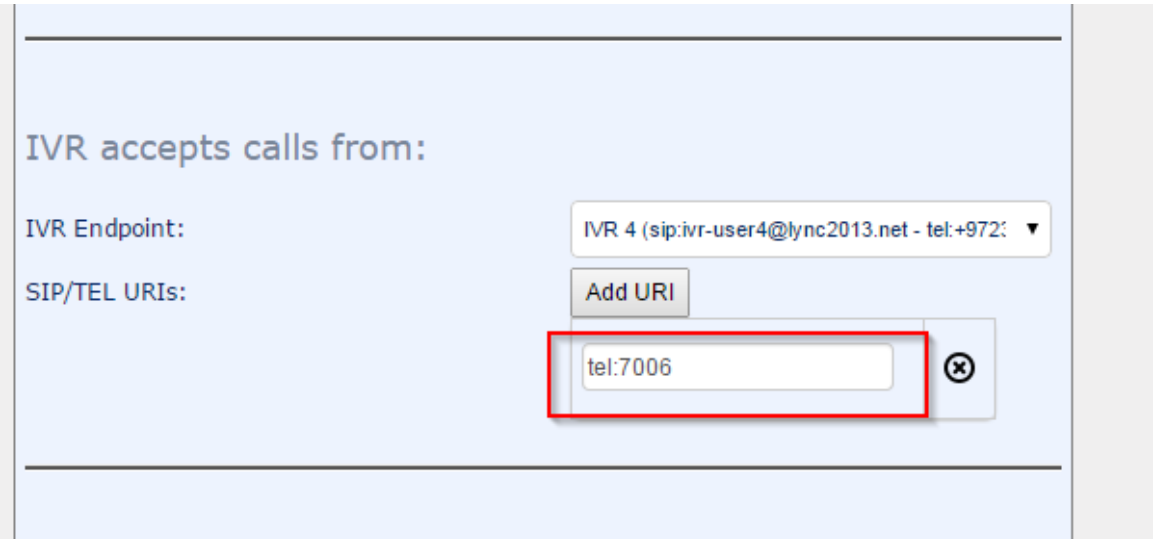
4.6.4 Assigning IVR Flows to Generic SIP Environment

IVR flows must be assigned a phone number or SIP URI, unlike the Lync environment where an existing IVR endpoint is assigned to an IVR flow.

This phone number or SIP URI is used to dispatch incoming calls to IVR flows, or reject the call if an IVR cannot be found.

Note:. Multiple phone numbers can be assigned to the same IVR flow if needed.

Figure 4-78: IVR Accepts Calls From



Note: This example shows that the same IVR flow can accept calls from both generic SIP side and from an IVR endpoint of the Lync side.

4.7 Managing Importing

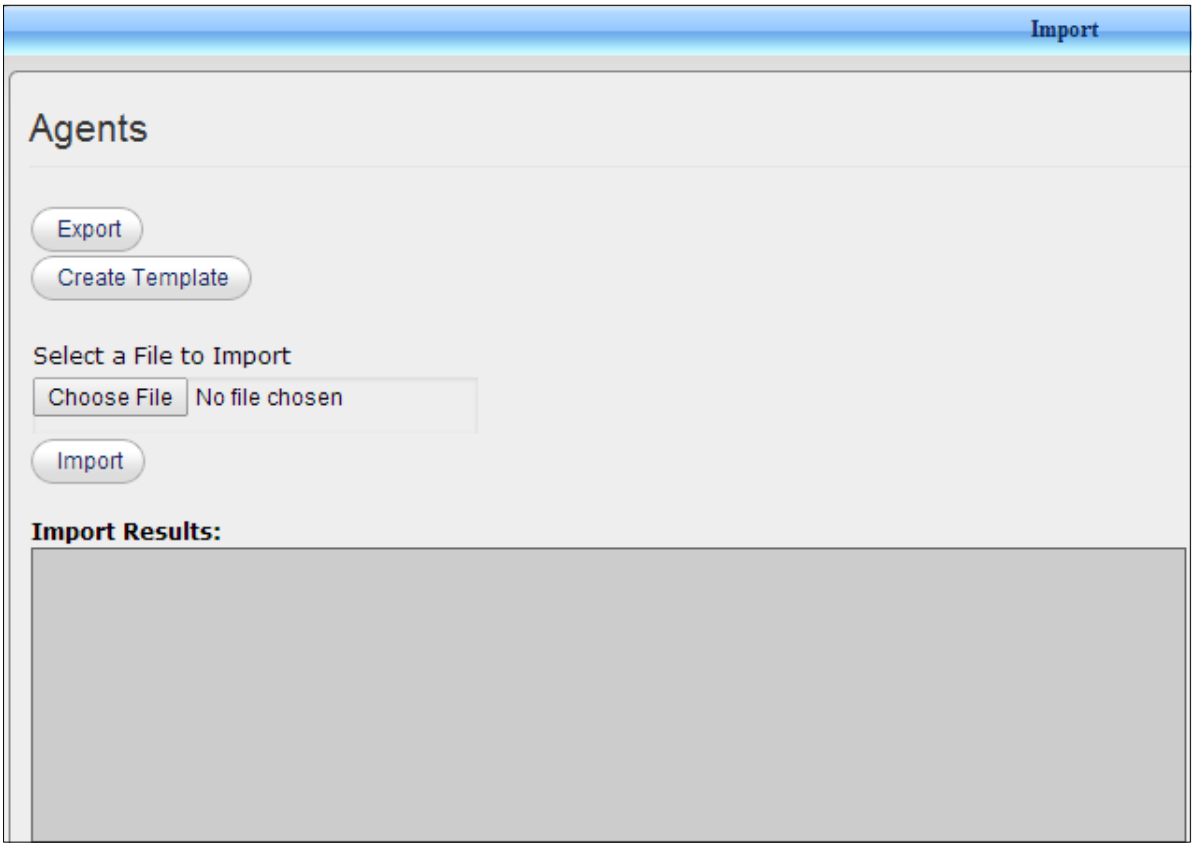
4.7.1 Importing / Exporting ACD and IVR Entities

Use the Import / Export screen to import and/or export the ACD and IVR entities - Agents, Groups, Queues, ACD Flows, IVRs, IVR Endpoints, Prompts, MOHs, Business Hours, and Holidays.

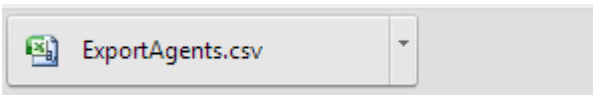
➢ **To import / export Agents:**

1. Access the Import page (**Management** > **Automatic Call Distribution** > **Import** > **Import / Export**).

Figure 4-79: Import



2. To export the Agents list to a CSV file, click the **Export** button; the following *ExportAgents.csv* file appears on the page.



3. Click it to display the CSV file in Excel.
4. To create an Agents template, click the **Create Template** button; an *AgentsTemplate.csv* file is created. Use this file to create and edit Agents.
5. To export an Agents file, click the **Choose File** button. Select the CSV file you want to import, and click the **Import** button; the Import Results pane displays the results of the import.

- **To import / export Groups:**

  Follow the same procedure as for Agents. See above.

- **To import / export Queues:**

  Follow the same procedure as for Agents. See above.

- **To import / export ACD Flows:**

  Follow the same procedure as for Agents. See above.

- **To import / export IVRs:**

  Follow the same procedure as for Agents. See above.

- **To import / export IVR Endpoints:**

  Follow the same procedure as for Agents. See above.

- **To import / export Prompts:**

  Follow the same procedure as for Agents. See above.

- **To import / export MOHs:**

  Follow the same procedure as for Agents. See above.

- **To import / export Business Hours:**

  Follow the same procedure as for Agents. See above.

- **To import / export Holidays:**

  Follow the same procedure as for Agents. See above.

4.7.2 Loading Samples

Use the Load Samples screen to load a given sample. A sample can include Agents, Groups, Queues, ACD Flows, IVRs, IVR Endpoints, Prompts, MOHs, Business Hours, and Holidays.

IVR samples are predefined IVR menus shipped with the system. Using the samples is a good way to get started after installing Auto Attendant.

➢ **To load a sample:**

1. Access the Load Sample page (**Management** > **Automatic Call Distribution** > **Import > Load Sample)**.

Figure 4-80: Load Sample

2. Click the **Load sample to the system** button adjacent to the sample you want to load.

5 Diagnosing Application and Determining Status

The Status and Diagnostics navigation tree lets administrators view the current status of the Fax Server and Auto Attendant, and access archived log files and alarms.

If an issue with a specific application feature is encountered, the Status and Diagnostics functionality can be used to assess the issue and assist Technical Support to troubleshoot it.

5.1 Using Logs to Troubleshoot Issues

Each process in the application generates log files that can be used to troubleshoot and resolve problems.

- Only qualified technicians should use the log files.
- Old log files are automatically deleted from the application to maintain sufficient disk space.
- Log files are plain text files that can be viewed in any text editor.
- Each row in the log file contains the action, exact time and date, severity level, and description.

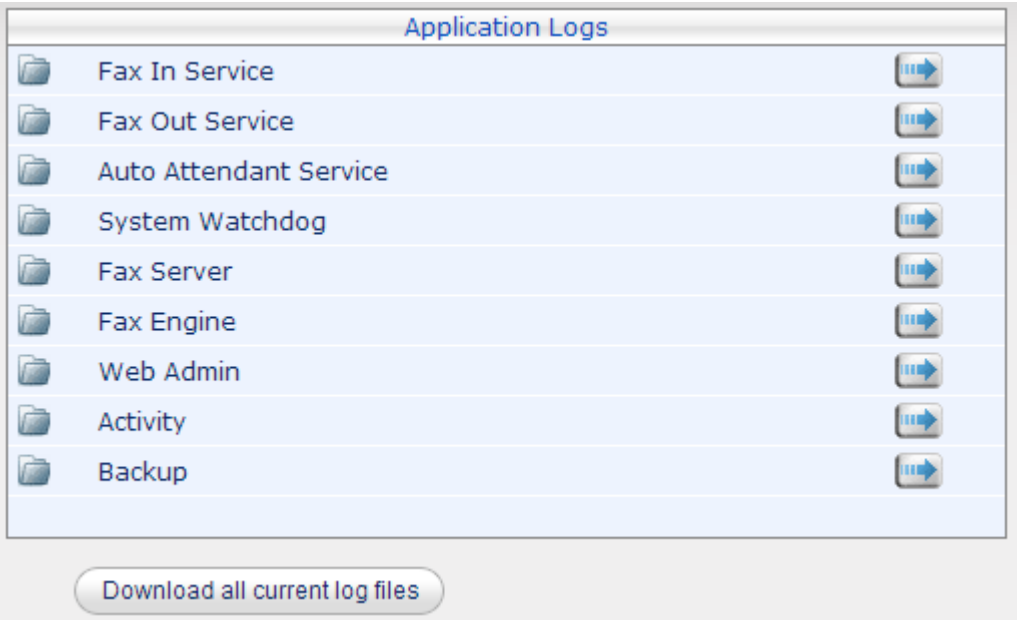
5.1.1 Viewing Logs

The Application Logs page provides access to the application log files running, including that of the Application Web Administration.

➢ **To view Application Logs:**

1. Access the Application Logs page (**Status & Diagnostics** > **Logs** > **Application Logs**).

Figure 5-1: Application Logs



The page displays all applications running in the system.

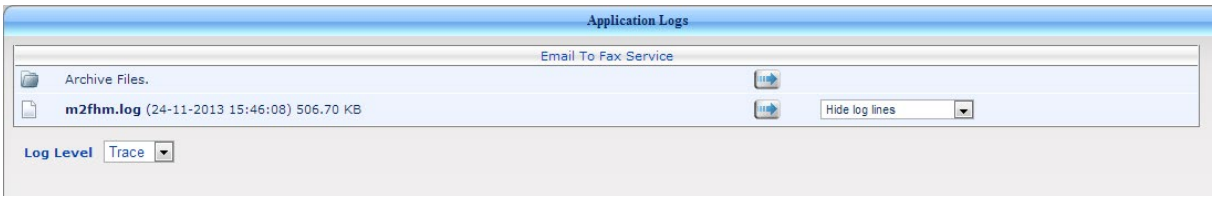
2. Click the button adjacent to the application whose logs you want to access, e.g., Email To Fax Service.

The table below describes each application service:

Table 5-1: Application Services

Service	Description
Fax In Service	Includes the logs of the fax to email service.
Fax Out Service	Includes the logs of the email to fax service.
Auto Attendant Service	Includes the logs of the Auto Attendant service.
System Watchdog	Includes the logs of the system watchdog.
Fax Server	Includes the logs of the fax server.
Fax Engine	Includes the logs of the fax engine application.
Web Admin	Includes the logs of the Application Web Administration.
Activity	Includes records of any changes made to the Application system from the Application Web Administration.
Backup	Includes logs from the backup application.

Figure 5-2: Application Logs – Email Service



The page lists all log files associated with the selected application (Email To Fax Service, in this example).

3. To open a specific log file, select the number of log lines you want to see and click the button adjacent to the required log file.
4. To open old log files, click the button adjacent to the **Archive Files** folder.
5. To save a file, click **Save**.

Tip: You can download all the latest application log files in a single operation using the **Download all current log files** button. The output file is a zip file of all applications' latest log files.

5.1.1.1 Changing the Fax Engine Log level

In some cases, detailed logs from the Fax engine need to be collected, which requires setting the fax engine log level to debug to collect these log files.

➢ **To change the Fax Engine Log level:**

1. Open the file named 'Logger.cfg' which is located at the following path:
   ```
   \Commetrex\otf\Config
   ```
2. Change the parameter 'LOG_TYPE from 'Log_OTF_All' to 'Log_OTF_Debug'.
3. Restart the service named faxserver (or BladeWare).
4. Perform the fax calls.
5. Zip the entire Logs folder: \Commetrex\otf\bin\Logs and save on your local machine.
6. Revert the parameter 'Log_OTF_Debug' back to 'Log_OTF_All' and restart the faxserver service again.

5.2 Viewing Received Faxes and Mails

The Application Administrator's Tool lets you view the received faxes and mails.

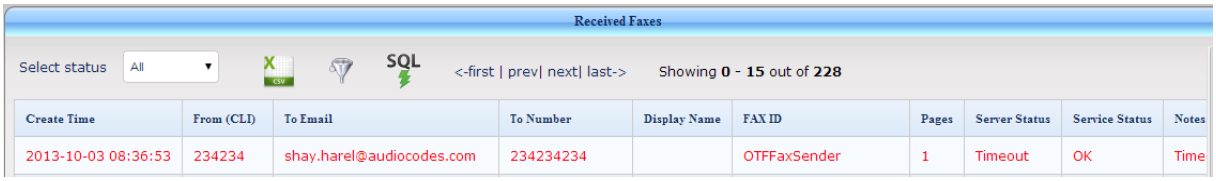
5.2.1 Viewing Received Faxes

The Application lets you view a detailed list of all received faxes and to download a selected fax.

➢ **To view received faxes:**

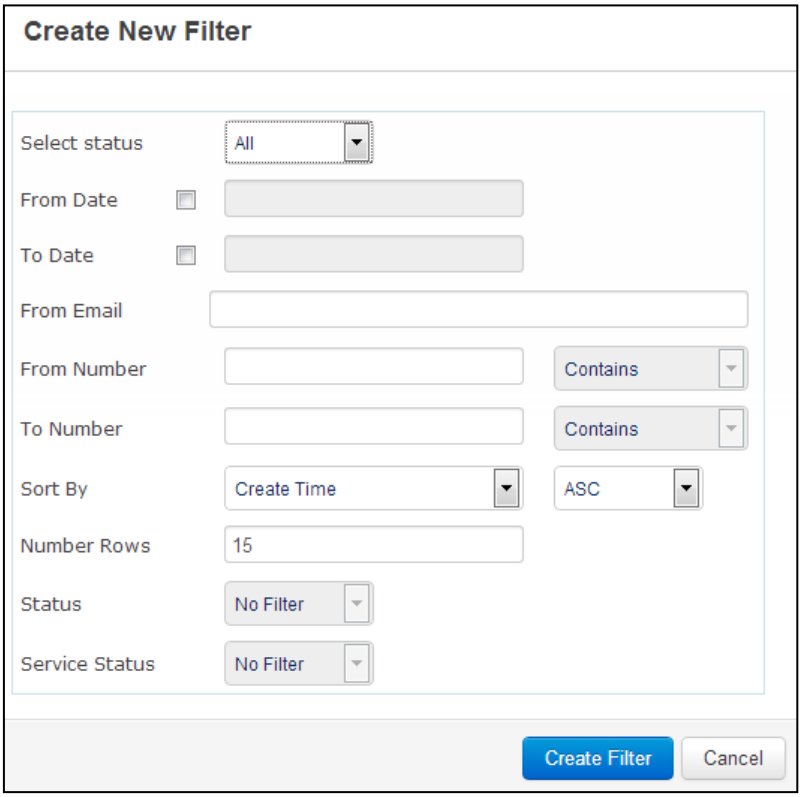
1. Access the Received Faxes page (**Status & Diagnostics** > **Call Logs** > **Received Faxes**).

Figure 5-3: Received Faxes



2. To download a selected fax, click the fax's icon.
3. To scroll between multiple pages, click **first, prev, next** or **last** at the bottom of the Received Faxes page.
4. To export the Received Faxes to a csv file, click the icon.
5. To filter search results according to your requirements, click the icon:

Figure 5-4: Received Faxes – Filter Search Results



6. Configure the parameters using the table below as reference.

Table 5-2: Received Faxes Filter - Parameters

Service	Description
Select Status	Select the status of the faxes to be filtered: All, Successful, or Failed.
From Date	Check this box to set the start date from which faxes will be filtered, and enter the date.
To Date	Check this box to set the date until which faxes will be filtered.
From Email	The Email address the fax was sent from.
From Number	The phone number the faxes were received from. You can further filter the phone number according to one of the following possible criteria: Contains – The phone number contains the digit(s) entered Exact – The phone numbers matches fully the number entered Begins with – The phone number begins with the digit(s) entered Ends with – The phone number ends with the digit(s) entered Advanced options – Use the syntax displayed
To Number	The destination fax number.
Sort by	Sort the faxes according to one of the following possible criteria: • Create time • From Email • To number • From Number • Display Name • Pages • Service Status • Server Status • Notes • Download You can sort the result in ASCending order or DESCending order
Number Rows	The number of rows to be displayed in the table
Status	Application status

7. To run the last filtered query, click the SQL icon.
8. Click **Create Filter**.

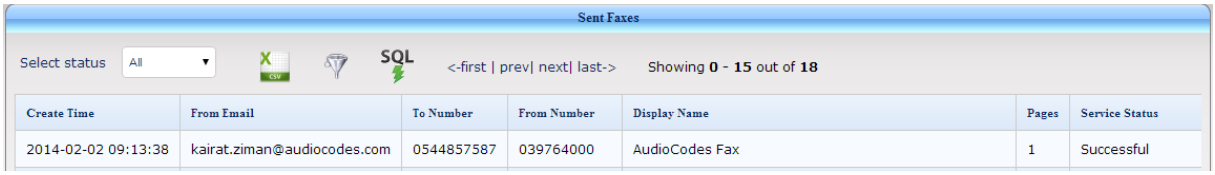
5.2.2 Viewing Sent Faxes

You can view a detailed list of all sent faxes and download a selected fax.

➢ **To view received Mails:**

1. Access the Sent Faxes page (**Status & Diagnostics** > **Call Logs** > **Sent Faxes**).

Figure 5-5: Sent Faxes



2. To download a selected fax, click the fax's icon.
3. To scroll between multiple pages, click **first, prev, next** or **last** at the bottom of the Sent Faxes page.
4. To export the sent faxes to a CSV file, click the icon.
5. To filter search results according to your requirements, click the icon and follow the instructions under Section 5.2.1, Viewing Received Faxes, on page 106.
6. To run the last filtered query, click the icon.

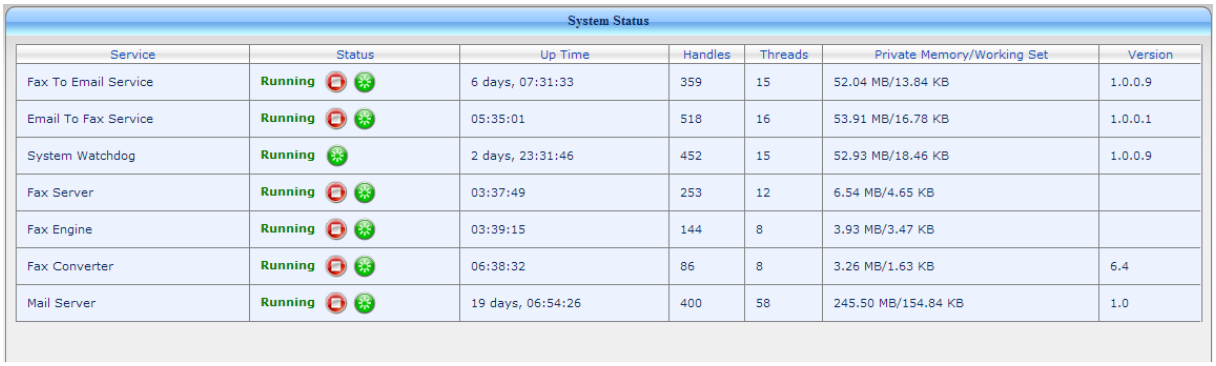
5.3 Viewing Application System Status

You can view the status of services and applications, the last test calls, and make a test call.

➢ **To view system status:**

1. Access the System Status page (**Status & Diagnostics** > **System Status** > **System Status**).

Figure 5-6: System Status



The System Status page lists all services. The page enables stopping/starting each service. Each service displays these attributes:

Table 5-3: Service Status

Attribute	Description
Service	Defines the service application name.
Status	Defines the current status of the process: Running or Stopped.
Up Time	Defines the time the service was started.
Handles	Defines the handles count used by the service.
Threads	Defines the threads count used by the service.
Private Memory / Working Set	Defines the memory usage used by the service.
Version	Defines the version of the service.

The page includes **Stop/Start/Restart** buttons to quickly control a service.

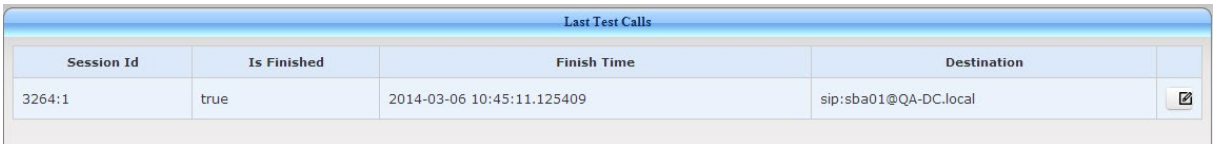
- Use the **Stop** button to stop a service.
- Use the **Start** button to start a service
- Use the **Restart** button to restart a service.

Note: The Fax System Watchdog service cannot be stopped.

➢ **To view last test calls:**

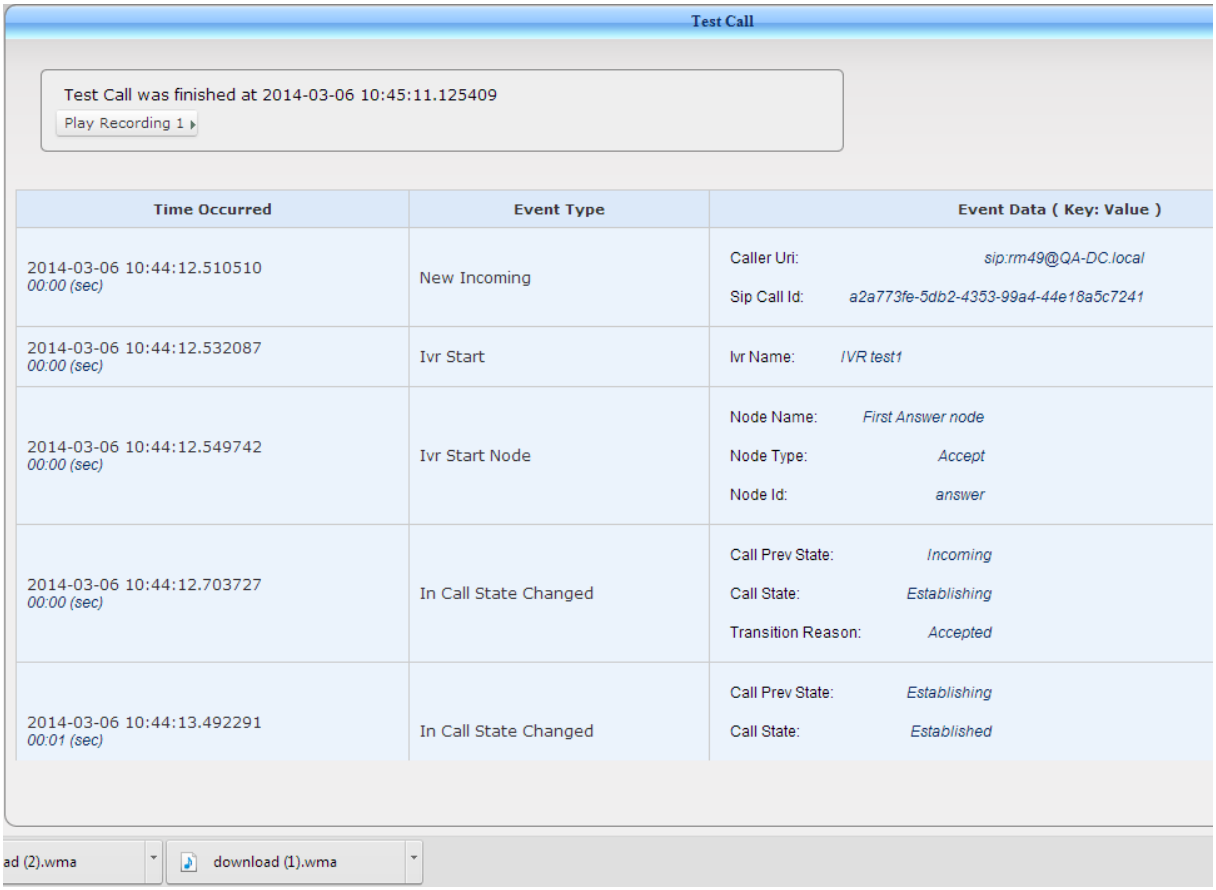
1. Access the Last Test Calls page (**Status & Diagnostics** > **System Status** > **Last Test Calls**).

Figure 5-7: Last Test Calls



2. To view details of last calls, click the  icon.

Figure 5-8: Test Call - Details

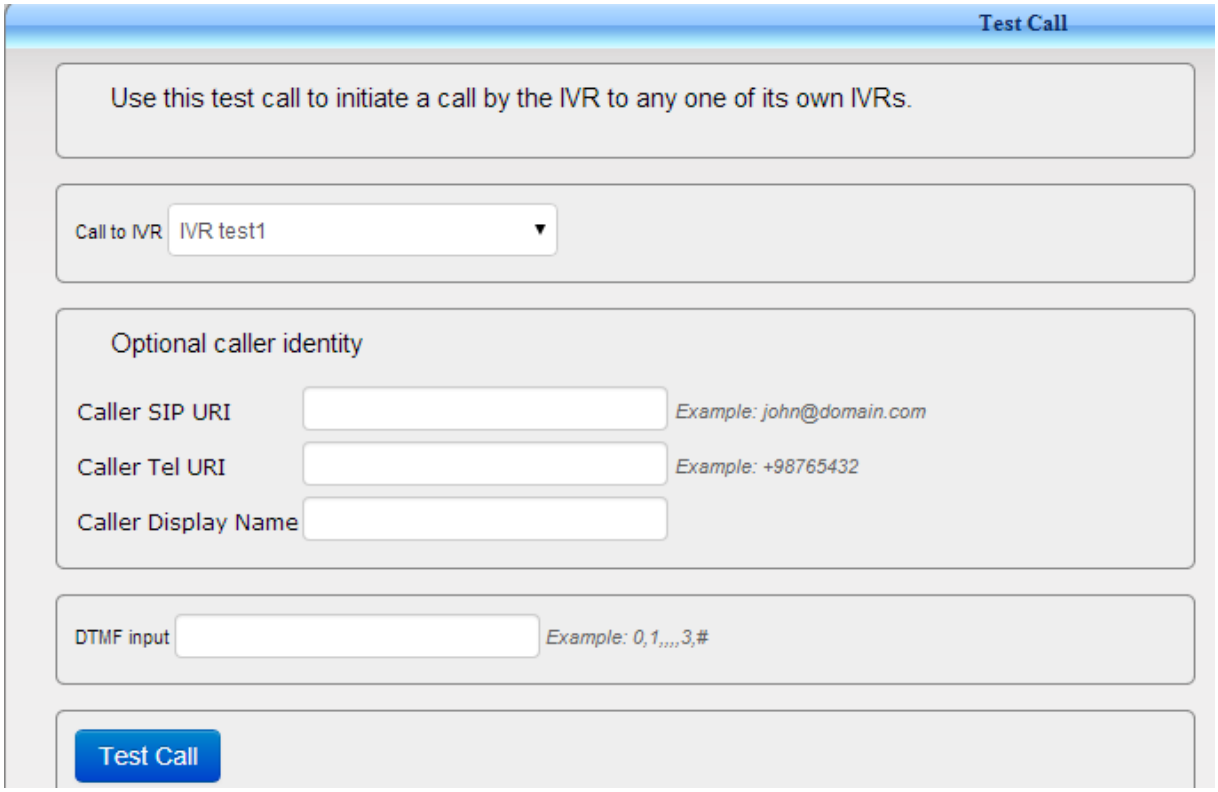


3. To play the test call recording, click the **Play Recording** button and then click the minimized **download.wma** window located in the page's lower left corner.

➢ **To make a test call:**

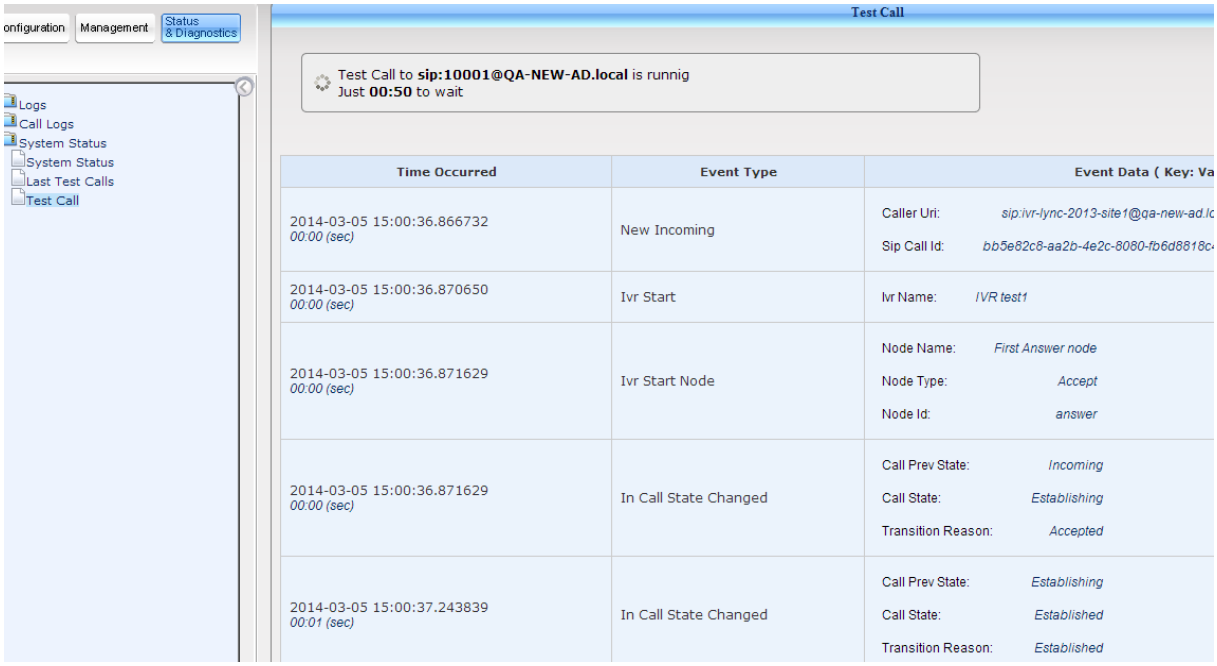
1. Access the Test Call page (**Status & Diagnostics** > **System Status** > **Test Call**).

Figure 5-9: Test Call



2. From the 'Call to IVR' drop-down menu, select the IVR to call to.
3. Optionally, enter the caller's identity by defining the caller's 'SIP URI', 'Tel URI', and 'Display Name' fields.
4. Optionally, enter optional comma-separated DTMF inputs to send to the IVR.
   Each input will automatically be sent whenever IVR expects DTMF input.
   You may add additional commas to delay input by one second each.
   For example, '3,55#' will wait for first menu input, send '3', wait for second menu input, and then send '55#'.
   '3,,,,55#' will wait for first menu input, send '3', wait for second menu input, wait three seconds, and then send '55#'.
5. Click the **Test Call** button; the Test Call results are displayed, as shown in Figure 5-10.

Figure 5-10: Test Call Results



6 Adding a New Language Pack

The IVR installation includes only an EN-US language pack. To add a new language pack, install the required language from the 'Microsoft Speech Platform - Runtime Languages'.

➢ **To add a new language pack:**

- Follow the instructions at http://www.microsoft.com/en-us/download/details.aspx?id=27224

To add a language to Auto Attendant, you must install both a SR (Speech Recognition) language and a TTS (Text To Speech) language.

For example, to add Italian you must install both MSSpeech_SR_it-IT_TELE.msi and MSSpeech_TTS_it-IT_Lucia.msi.

Note:

- The installation process does not notify you that the installation succeeded.
- You must restart Auto Attendant after installation.

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7 Fax and IVR Software Upgrade

You can simply run the latest Fax and IVR setup file (like when installing the software for the first time). Select the component to upgrade (Fax or IVR and which type of IVR) according to your current system setup).

For the Fax Server, the wizard prompts for a local user or domain user – enter the same user/password that is used when installing the Fax Server for the first time.

For each component, you are prompted that it is already installed and you need to confirm the upgrade to the new version.

7.1 Before Running Upgrade

Before running the upgrade you must backup the current installation.

➢ **To create a backup:**

1. In case you are running on a virtual machine, take a snapshot; you will be able to roll back if required.
2. Download the latest backup file **Configuration > Fax Backup** and **Configuration > Auto Attended Backup**.
3. The upgrade does not remove user's data base settings; however, you can save it for backup from c:\F2MAdmin\db\sqlite\f2e.db3.
4. In case Neevia converter is updated, you must re-enter the license. Before selecting to upgrade this component, validate that you have the correct license key. If you don't have it, contact your Support person.

7.2 Running Upgrade

This section describes the upgrade procedure.

➢ **To run the upgrade:**

1. Login with user that has local Administrator credentials.
2. stop the following services:

```
First stop Fax To Mail Watchdog

Then stop
Fax To Mail (stop it before hMailServer service)
Fax_Receiver (stop it before Bladware service)
Mail To Fax (stop it before hMailServer service)
Apache2.4
Bladeware
DcStart
hMailServer
```

- During the Fax components upgrade, you are prompted to assign user and password for fax system services. Assign the same user that was used for the initial installation of the Fax Server.

Note: Don't choose the option to create a new user unless you can't remember the user/password of the original installation user.

Figure 7-1: Windows Account for Fax Services

3. Run the setup with Administrator credentials (right click on fax_att_setup.exe -> Run as Administrator).
4. Check the services that you wish to upgrade: *Fax Server* and/or *Auto Attendant* and then click **Run**.
5. Approve all notification messages during the upgrade procedure.

   Time zone configuration

   Known issue: call log time is not according to server time zone.
   To fix it need to open *C:\php_56\php.ini* and assign the time zone name

Figure 7-2: Call Log Time Zone

```
924  [Date]
925  ; Defines the default timezone used by the date functions
926  ; http://php.net/date.timezone
927  date.timezone = 'Europe/Helsinki'
```

Supported time zones:

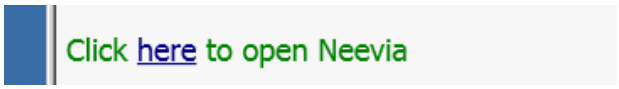
- 'Pacific/Miway': "(GMT-11:00) Midway Island"
- 'US/Samoa': "(GMT-11:00) Samoa"
- 'US/Hawaii': "(GMT-10:00) Hawaii"
- 'US/Alaska': "(GMT-09:00) Alaska"
- 'US/Pacific': "(GMT-08:00) Pacific Time (US & Canada)"
- 'America/Tijuana': "(GMT-08:00) Tijuana"
- 'US/Arizona': "(GMT-07:00) Arizona"
- 'US/Mountain': "(GMT-07:00) Mountain Time (US & Canada)"
- 'America/Chihuahua': "(GMT-07:00) Chihuahua"
- 'America/Mazatlan': "(GMT-07:00) Mazatlan"
- 'America/Mexico_City': "(GMT-06:00) Mexico City"
- 'America/Monterrey': "(GMT-06:00) Monterrey"
- 'Canada/Saskatchewan': "(GMT-06:00) Saskatchewan"
- 'US/Central': "(GMT-06:00) Central Time (US & Canada)"
- 'US/Eastern': "(GMT-05:00) Eastern Time (US & Canada)"
- 'US/East-Indiana': "(GMT-05:00) Indiana (East)"
- 'America/Bogota': "(GMT-05:00) Bogota"

- 'America/Lima': "(GMT-05:00) Lima"
- 'America/Caracas': "(GMT-04:30) Caracas"
- 'Canada/Atlantic': "(GMT-04:00) Atlantic Time (Canada)"
- 'America/La_Paz': "(GMT-04:00) La Paz"
- 'America/Santiago': "(GMT-04:00) Santiago"
- 'Canada/Newfoundland': "(GMT-03:30) Newfoundland"
- 'America/Buenos_Aires': "(GMT-03:00) Buenos Aires"
- 'Greenland': "(GMT-03:00) Greenland"
- 'Atlantic/Stanley': "(GMT-02:00) Stanley"
- 'Atlantic/Azores': "(GMT-01:00) Azores"
- 'Atlantic/Cape_Verde': "(GMT-01:00) Cape Verde Is."
- 'Africa/Casablanca': "(GMT) Casablanca"
- 'Europe/Dublin': "(GMT) Dublin"
- 'Europe/Lisbon': "(GMT) Lisbon"
- 'Europe/London': "(GMT) London"
- 'Africa/Monrovia': "(GMT) Monrovia"
- Europe/Amsterdam': "(GMT+01:00) Amsterdam"
- 'Europe/Belgrade': "(GMT+01:00) Belgrade"
- 'Europe/Berlin': "(GMT+01:00) Berlin"
- 'Europe/Bratislava': "(GMT+01:00) Bratislava"
- 'Europe/Brussels': "(GMT+01:00) Brussels"
- 'Europe/Budapest': "(GMT+01:00) Budapest"
- 'Europe/Copenhagen': "(GMT+01:00) Copenhagen"
- 'Europe/Ljubljana': "(GMT+01:00) Ljubljana"
- 'Europe/Madrid': "(GMT+01:00) Madrid"
- 'Europe/Paris': "(GMT+01:00) Paris"
- 'Europe/Prague': "(GMT+01:00) Prague"
- 'Europe/Rome': "(GMT+01:00) Rome"
- 'Europe/Sarajevo': "(GMT+01:00) Sarajevo"
- 'Europe/Skopje': "(GMT+01:00) Skopje"
- 'Europe/Stockholm': "(GMT+01:00) Stockholm"
- 'Europe/Vienna': "(GMT+01:00) Vienna"
- 'Europe/Warsaw': "(GMT+01:00) Warsaw"
- 'Europe/Zagreb': "(GMT+01:00) Zagreb"
- 'Europe/Athens': "(GMT+02:00) Athens"
- 'Europe/Bucharest': "(GMT+02:00) Bucharest"
- 'Africa/Cairo': "(GMT+02:00) Cairo"
- 'Africa/Harare': "(GMT+02:00) Harare"
- 'Europe/Helsinki': "(GMT+02:00) Helsinki"
- 'Europe/Istanbul': "(GMT+02:00) Istanbul"
- 'Asia/Jerusalem': "(GMT+02:00) Jerusalem"
- 'Europe/Kiev': "(GMT+02:00) Kyiv"
- 'Europe/Minsk': "(GMT+02:00) Minsk"
- 'Europe/Riga': "(GMT+02:00) Riga"
- 'Europe/Sofia': "(GMT+02:00) Sofia"

- 'Europe/Tallinn': "(GMT+02:00) Tallinn"
- 'Europe/Vilnius': "(GMT+02:00) Vilnius"
- 'Asia/Baghdad': "(GMT+03:00) Baghdad"
- 'Asia/Kuwait': "(GMT+03:00) Kuwait"
- 'Africa/Nairobi': "(GMT+03:00) Nairobi"
- 'Asia/Riyadh': "(GMT+03:00) Riyadh"
- 'Europe/Moscow': "(GMT+03:00) Moscow"
- 'Asia/Tehran': "(GMT+03:30) Tehran"
- 'Asia/Baku': "(GMT+04:00) Baku"
- 'Europe/Volgograd': "(GMT+04:00) Volgograd"
- 'Asia/Muscat': "(GMT+04:00) Muscat"
- 'Asia/Tbilisi': "(GMT+04:00) Tbilisi"
- 'Asia/Yerevan': "(GMT+04:00) Yerevan"
- 'Asia/Kabul': "(GMT+04:30) Kabul"
- 'Asia/Karachi': "(GMT+05:00) Karachi"
- 'Asia/Tashkent': "(GMT+05:00) Tashkent"
- 'Asia/Kolkata': "(GMT+05:30) Kolkata"
- 'Asia/Kathmandu': "(GMT+05:45) Kathmandu"
- 'Asia/Yekaterinburg': "(GMT+06:00) Ekaterinburg"
- 'Asia/Almaty': "(GMT+06:00) Almaty"
- 'Asia/Dhaka': "(GMT+06:00) Dhaka"
- 'Asia/Novosibirsk': "(GMT+07:00) Novosibirsk"
- 'Asia/Bangkok': "(GMT+07:00) Bangkok"
- 'Asia/Jakarta': "(GMT+07:00) Jakarta"
- 'Asia/Krasnoyarsk': "(GMT+08:00) Krasnoyarsk"
- 'Asia/Chongqing': "(GMT+08:00) Chongqing"
- 'Asia/Hong_Kong': "(GMT+08:00) Hong Kong"
- 'Asia/Kuala_Lumpur': "(GMT+08:00) Kuala Lumpur"
- 'Australia/Perth': "(GMT+08:00) Perth"
- 'Asia/Singapore': "(GMT+08:00) Singapore"
- 'Asia/Taipei': "(GMT+08:00) Taipei"
- 'Asia/Ulaanbaatar': "(GMT+08:00) Ulaan Bataar"
- 'Asia/Urumqi': "(GMT+08:00) Urumqi"
- 'Asia/Irkutsk': "(GMT+09:00) Irkutsk"
- 'Asia/Seoul': "(GMT+09:00) Seoul"
- 'Asia/Tokyo': "(GMT+09:00) Tokyo"
- 'Australia/Adelaide': "(GMT+09:30) Adelaide"
- 'Australia/Darwin': "(GMT+09:30) Darwin"
- 'Asia/Yakutsk': "(GMT+10:00) Yakutsk"
- 'Australia/Brisbane': "(GMT+10:00) Brisbane"
- 'Australia/Canberra': "(GMT+10:00) Canberra"
- 'Pacific/Guam': "(GMT+10:00) Guam"
- 'Australia/Hobart': "(GMT+10:00) Hobart"
- 'Australia/Melbourne': "(GMT+10:00) Melbourne"
- 'Pacific/Port_Moresby': "(GMT+10:00) Port Moresby"

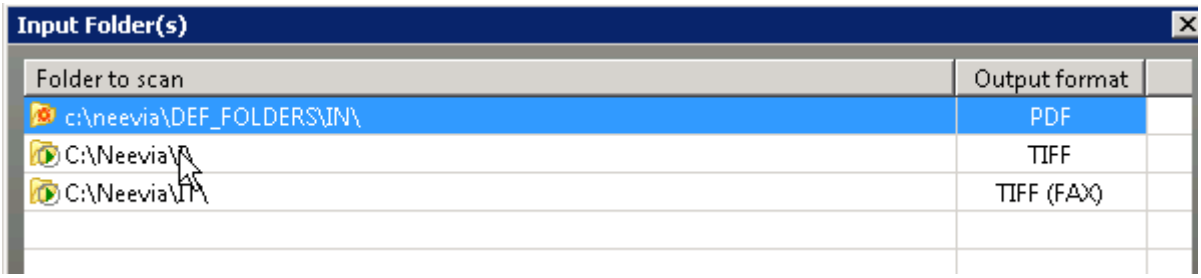
- 'Australia/Sydney': "(GMT+10:00) Sydney"
- 'Asia/Vladivostok': "(GMT+11:00) Vladivostok"
- 'Asia/Magadan': "(GMT+12:00) Magadan"
- 'Pacific/Auckland': "(GMT+12:00) Auckland"
- 'Pacific/Fiji': "(GMT+12:00) Fiji")

6. Neevia converter configuration (skip if Neevia was not updated).
7. When the wizard finishes, click the following link to open Neevia.



8. Open Settings > Folders:
   a. If the folder to scan Windows contains *C:\Neevia\I* and *C:\Neevia\IT* folders, proceed to Step 9.

Figure 7-3: Input Folders



   b. If the folders do not exist, import them using this configuration import script:

```
Settings >Folders > Add folder > Import >
C:\F2MAdmin\install > import_1.cfg
Settings >Folders > Add folder > Import >
C:\F2MAdmin\install > import_2.cfg
```

9. Assign the license that you backed up in Step 3:

   On Neevia > Help > About > Register:

```
User Name: Audiocodes
Company: Audiocodes
Serial Number:
```

10. G.711 support: The system supports T.38 (default) or G.711. The codecs cannot work together on the same system.
    a. Open the Registry Editor: *Run -> regedit*
    b. Find the following key:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\Fax_Receiver\Parameters
```

    c. Assign the following value:

```
Application = C:\Program Files
(x86)\Commetrex\otf\bin\faxserver -c 4 -p 9435 -f 5 -o
mulaw -a mulaw
```

    The default T3.8 value is:

```
Application=C:\Program Files
(x86)\Commetrex\otf\bin\faxserver -c 4 -p 9435 -f 5
```

11. Restart the Fax server, and then log on as the same local user used in this upgrade procedure installation; the fax system configuration script runs.
12. Please wait until the script finishes running (i.e., system is ready).

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