VOIPNOW

PROFESSIONAL 2

4PSA VoipNow® 2.0.3

Interactive Voice Response (IVR)
Extension Type Guide

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Preface

Who Should Read This Guide

This Interactive Voice Response (IVR) Extension Type Guide must be read by all the 4PSA VoipNow users that own an IVR Extension.

Chapter 1
Edit Your Contact Information

> ⚠️ Caution
>
> After the first install, you will be required to fill in your contact information from the **Extension's Account Details** page. You will not be able to access and manage the application until all the required details are set up in the system.

In order to update your contact information, click the ![icon] Edit extension icon available in the ![icon] Home section, which can be accessed from the left navigation panel.

4PSA VoipNow allows you to update your account information:

- Update your contact information
- Change your login password

You can modify the following contact details:

- Company name
- Contact name
- Password – Use this text box to change the password for the reseller account.

> ⚠ Caution
>
> Based on the chosen password strength set up by the system administrator, you are not allowed to fill in dictionary words or passwords containing only digits or sequences of more than three identical characters.
>
> All security levels ask for a minimum five characters long password.

- Confirm Password
- Phone
- Fax
- Email – The email address where 4PSA VoipNow can send you notifications about events that occur in the system.

> ⚠ Caution
>
> The system can send automatic notifications when predefined events occur. In order to change your notification preferences, as well as the email templates used for sending these notifications, click the **Email templates** icon located in the `Tools` area.

- Address
- City
- State/Province
- Postal/ZIP code
- Country
- Region - The regions of a country are listed in alphabetical order. The one selected by default is the first one on the list.
- Timezone - The time zone selected by default is one you have previously set up from Unified Communications >> Interface Preferences page.

Click the OK button to submit the data. When all the required information has been filled in and you choose not to change it, the Cancel button will return you to the previous page without any modification.

Chapter 2
Manage the Application

My Interface Settings

4PSA VoipNow allows you to customize the application's default look and settings in the My Interface Settings page. Here you can define the interface language, the application's skin, the number of rows in the records list for the logged in user (reseller in your case) and several other options.

To access this page, you can either click the My interface link from the right corner of the top frame, either on the My interface button located in the `Unified Communications settings` area of the Unified Communications page.

You can adjust the following preferences based on your needs:

- Rows in table – Use this text box to set the number of rows that will be displayed in your interface. It can be any number between 1 and 9999, the default value being 50.
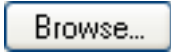
- Expanded alerts - Use this text box to set the number of alerts displayed in the user context. It can be any number between 1 and 10, the default value being 3.
- Interface skin – Use this drop-down list to choose the skin used by the logged in user interface.
- System language – Use this drop-down list to choose the language used by the logged in user interface.

> ⚠ Caution
>
> 4PSA VoipNow does not allow you to use language packs that were created for earlier versions of the interface. The following warning message is displayed:
>
> Impossible to switch to preferred interface language {outdated language}, because an outdated language pack is installed on the system. Please contact your provider to correct this situation.
>
> Only the system administrator can fix this problem.

- Display tool tip – Use this check box to enable/ disable application tool tips displayed on mouse over images/ icons.
- Display context help – Use this check box to enable/ disable context help, displayed in the top area of the page, under the title.
- Program logo – Choose the logo that will be displayed at the top of the user's interfaces. Fill in the text box with the location of the file on your computer or use the [Browse…] button to locate the file.

> ⚠ Caution
>
> It is recommended to use an image file in a GIF, JPEG, or PNG format with a height of 50 pixels.

- Logo URL – The logo file has a hyperlink attached to it. Use this text box to fill in the destination of this hyperlink. It can be your business website for example.

Click OK to save your changes. Click Cancel to go back to the previous page without updating the preferences. The Default button overwrites your own account settings with the default settings.

Restore Dismissed Alerts

Alerts present on any page in the application can be hidden by pressing the Dismiss alert link. These settings are only available for the logged in user.

To restore all the dismissed alerts, click the ![icon] Restore dismissed alerts button available in the `Tools` area.

Set up an Access Policy

4PSA VoipNow allows you to set up an access policy for the extension account. To enter the Access policy page, click the ![icon] Access icon available in the `Unified Communications settings` area of the ![icon] Unified Communications page.

There are two types of access policies:

- Deny - When this policy is configured, the extension is not allowed to log in to the 4PSA VoipNow interface if his computer's IP is listed on the deny list. All the other IPs that are not included in the deny list can access the interface with the extension account.

- Allow - When this policy is configured, the extension can login to the 4PSA VoipNow interface only if his computer's IP address is listed in the allow list. All the other IPs that are not included in the allow list cannot access the interface with the extension account.

> **Note**
>
> You cannot set up both types of policies at the same time.

View the Networks List

In the Network Access Policy page you can see a list with all the allowed and denied networks available in the system. The following information is available:

- N - The network's order number.

- A - The network's permission:

  ○ ![icon] - Allowed

  ○ ![icon] - Denied

- P - Use these icons to change the position of a certain network inside the list:

  ○ ▲ Up

  ○ ▼ Down

> **Note**
>
> When you change the order, 4PSA VoipNow displays the number of changes you have performed to remind you to save them before navigating away from the page. In the top left corner of the network list 4PSA VoipNow displays {x} `changes pending in the rules order`.
>
> Click the ✅ <u>Apply changes</u> link to save the changes you have performed in the network list.

- IP - The network's IP address.
- Mask - The network's subnet mask.

Searching the Network List

When the network list is too long and you are searching for a specific one, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the 🔍 button or the `Search` label to display only the desired networks.

- Show all – Click this 📄 button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

Add Allowed or Denied Network

In order to add allowed or denied networks, follow these steps:

- Click the Access icon. A new page where you can enter the subnet or IP addresses to which you want to allow/ deny access opens.

- Subnet or IP address - Use the drop-down list to specify if you want to allow or to deny access for the subnet or IP address filled in the first text box. Use the second text box to specify the position of the address inside the networks list.

- Use the buttons to add several subnet or IP addresses at the same time.

- Click Ok to add the IP(s) to the allow/ deny list. Click Cancel to go back to the previous page.

Remove a Network

To remove a network, select its corresponding check box and then click the Remove selected link. You will be asked to confirm the removal.

Chapter 3
View Account Overview

You can view the details of your account in the Home section, which can be accessed from the left navigation panel. There, in the Account overview section, 4PSA VoipNow displays the following information:

- Extension type – The type of the extension, in this case IVR.

- Public phone number(s) – If one or more public phone numbers are assigned to the extension, they will be displayed here with their corresponding monthly costs (e.g. 49932040495 (10.1 USD)). Otherwise, 4PSA VoipNow displays '-'.

- Extension internal number – The phone number assigned when the extension was added to the system.

- Calls cost for {month} – The the calls' cost in the current month, showing both the total costs for incoming external calls and for outgoing external calls.

- Outgoing time spent on {month} – The outgoing calls' total duration of the total number of calls in the current month.

- Incoming time spent on {month} – The incoming calls' total duration of the total number of calls in the current month.

- Number of sound files – The total number of sound files, the disk space used and the percent of available disk space.

- Number of music on hold files - The total number of music on hold files, the disk space used and the percent of available disk space.

Chapter 4
Manage Unified Communications Features

From this page you can manage your sessions and your access policies or you can customize your interface.

To access this page, click the Unified Communications link from the left navigation panel.

Manage Sessions

View the Sessions List

In order to view the sessions list, click the Unified Communications link

available in the left navigation panel. Then click the Sessions button. This link will open the Manage Sessions page, where you can view a list of all the sessions. Multiple operations can be performed on the sessions:

- Search the existing sessions
- Delete sessions

  4PSA VoipNow displays the following information about each session:

- T – The type of the user that logged in the system displayed using an icon:

  ◦ Admin

  ◦ Reseller

  ◦ Client

  ◦ Extension

- Login – The user name of the person who logged in to the system.
- IP - The IP of the machine after which the user logged in the system.

> **Note**
>
> If the user logged in from the VoipNow4Plesk module, the IP of the respective Plesk server will be displayed here.

- Logon time - The time when the user logged in to the system.

Searching the Sessions List

When the sessions list is too long and you are searching for specific sessions, you can use the following features:

- Search – Use the text box to specify the words you are looking for. Click on the button or the `Search` label to display only the sessions that match your search criteria.

- Show all – Click this button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The sessions list can be filtered by login name, IP and log in time. To do so, click on a table header link. The order criteria is marked by the highlighted

table header and the arrow indicates how the sessions list was sorted. The sort direction can be changed by another click on that header.

Remove a Session

To remove registered sessions, follow these steps:

1. Choose the sessions you want to remove by selecting their corresponding check boxes in the Manage Sessions page.

2. Click the ✖ Remove selected link.

3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

Login History

You are able to see a detailed history of the login sessions by clicking the 🔑 Login history button located in the `Tools` section of the Session Management page.

The following information is available:

- T - The user's level is shown using an icon:
  - 👤 Admin
  - 👤 Reseller
  - 👤 Client
  - 📟 Extension
  - 👤 Unknown level
- O - The icon in this column shows if the respective user is logged in or not. The icon can be:
  - 👤 User is online
  - 👤 User is offline
- Username - The user name of the persons who logged in to the system.
- Number of logins - The number of login sessions establish by the respective user.

- First login - The date and time when the user logged in for the first time.
- Last login - The date and time when the user last logged in.

Searching the Login History List

When the login history list is too long and you are searching for specific sessions, you can use the following features:

- Search - Use the text box to specify the words you are looking for. Then click the 🔍 button or the `Search` label to display only the records that match your search criteria.

- Show all - Click the 📄 button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The login history list can be filtered by user name, number of logins, first login date and last login time. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the login history list was sorted. The sort direction can be changed by another click on that header.

Clear Logs

You are able to clear logs according to two criteria:

- Clear logs starting from {date} to {date} - You can choose to clear the logs from a distinct period of time. Click the 📅 Calendar icon to specify the start and end date of the time interval.

- Clear logs older than - You can choose to clear logs older than a specified number of days / weeks / years. Select the time unit from the drop-down list and specify the number of time units in the text box.

Login History of a Specific Account

You are able to see the login history of a specific account by clicking the respective user name in the login history list. The page containing the login history of a specific account displays the following information:

- Login time - The date and time when the user logged in.
- IP address - The IP address the user logged in from.

> **Note**
>
> If the user logged in from the VoipNow4Plesk module, the IP of the respective Plesk server will be displayed here.

- Hostname - The hostname where the user logged in from.
- L - This column shows whether the user logged in from the interface or by using API:
    ◦ Control panel log in
    ◦ CallAPI log in

Searching the Account's Login History List

When the account's login history list is too long and you are searching for a specific record in the list, you can use the following features:

- Search - Use the text box to specify the words you are looking for. Then click the button or the `Search` label to display only the records that match your search criteria.
- Show all - Click the button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The account's login history list can be filtered by login time, IP address, host name and login type. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the account's login history list was sorted. The sort direction can be changed by another click on that header.

Clear Logs for an Account

The procedure is identical to the one described in the Clear Logs section.

Failed Logins

You can see a list of the failed login attempts by pressing the Failed logins button in the `Tools` section of the Sessions Management page.

The following information is available:

- L - This column shows whether the user logged in from the interface or by using API.
- Login time - The date and time of the login attempt.
- Username - The user name used for the login attempt.
- Message - The reason for which the login attempt failed.
- IP Address - The IP address of the user who attempted to log in.

> **Note**
>
> If the user logged in from the VoipNow4Plesk module, the IP of the respective Plesk server will be displayed here.

- Hostname - The hostname of the user who attempted to login.

Searching the Failed Login History List

When the failed login history list is too long and you are searching for specific records, you can use the following features:

- Search - Use the text box to specify the words you are looking for. Then click the 🔍 button or the `Search` label to display only the records that match your search criteria.

- Show all - Click the 📄 button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The failed login history list can be filtered by login time, user name, message, IP address and hostname. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the failed login history list was sorted. The sort direction can be changed by another click on that header.

Clear Logs

The procedure is identical to the one described in the Clear Logs section.

Manage Your IVR Extension

Interactive Voice Response (IVR) Setup

In order to edit your extension's settings, click the 📦 Home link available

in the left navigation panel and than the 🔊 IVR setup icon located in the

Tools area. In the newly opened page, click the 🔊 Edit IVR icon.

4PSA VoipNow displays the following options:

- Name – Use this text box to provide a descriptive name for the IVR

- Clone IVR settings from – In case you want to replicate all the settings of an existing IVR, use this drop-down list to select the name of the IVR you want to copy.

> **Note**
>
> Please check the IVR Report for structural errors after cloning an IVR.
>
> If you clone an IVR extension that belongs to a reseller, for use with another reseller, problems may arise: in case of an option transferring the call to an extension number, the system will not copy that extension number. Similarly in the case of options implying transfers to extensions in certain time intervals - the time intervals will not be copied.
>
> For more information on the report please read View the IVR Structural Report section.

- **Default music on hold folder** – Use the icon to view available folders and all the music on hold files inside the chosen folder. A pop-up window that displays a list of all the available sounds matching the text filled in the text box. The following information is available:

    - **P** - Click the icon to play or to download the sound.
    - **Name** - The name of the sound file. Click the link in order to select this sound.
    - **Folder** - This column displays the file's folder location.

    If you are searching for a particular sound, you can use the available controls.

    In order to display all the sounds available in the system for all the events, click the Display all link located under the search controls.

    You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

- **Timeout** – Use this text box to limit the time interval that an IVR caller can remain inactive when the IVR waits for his input. The allowed values range from 2 to 60 seconds. The default value is 8 seconds.

- **IVR session lifetime** – Use this text box to limit the total time interval that an IVR caller can spend in the IVR menu. The allowed values range from 10 to 86400 seconds. The default value is 1800 seconds.

- **If lifetime expires** - Choose the action that will occur when IVR lifetime expires. The available options are:

    - **Hangup** - The call will be terminated.

◦ Transfer to extension - Extension to transfer call when IVR lifetime expires. Clicking the icon will open a pop-up window that displays a list of all the available extensions. The following information is available:

- T - This icon displays the extension type:

  - Phone terminal

  - Queue

  - Interactive Voice Response (IVR)

  - Voicemail center

  - Conference

  - Callback

  - Calling card

  - Intercom/ Paging

- S - This icon displays the extension's status:

  - Enabled

  - Disabled

- Extension - The name of the extension.

  Click the link to select it as a welcome extension.

- Extension number - The extension number.

If the extensions list is too long, you can use the available controls to search for a specific one.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

◦ Play sound - Choose a sound that will be played for the caller when IVR lifetime expires. Use the icon to view available sound files or write the address of the file in the text box. A pop-up window that displays a list of all the available sounds matching the text filled in the text box. The following information is available:

- P - Click the icon to play or to download the sound.

- Name - The name of the sound file. Click the link in order to select this sound.

- Folder - This column displays the file's folder location.

If you are searching for a particular sound, you can use the available controls.

In order to display all the sounds available in the system for all the events, click the Display all link located under the search controls.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

- Description – Use this text area to associate some notes about the purpose and content of the IVR.

⚠ Caution

This page only creates a type IVR extension, but does not define its functionality. For more information on how to design the behaviour of an IVR, see Design an IVR's Behavior .

Design an IVR's Behavior

4PSA VoipNow separates the IVR creation from the designing of the IVR's behavior. To define the IVR menu and the caller's possibilities to interact with

the system, click the IVR setup icon located in the `Tools` area. The IVR Management page opens, allowing you to perform the following operations:

- Manage IVR contexts
- Manage options and actions associated with the contexts
- Generate IVRs
- Test IVR
- View and correct IVR structural errors
- View and edit IVR schemas

Edit an IVR

In order to edit an IVR's details, follow the next steps:

1. Click the ![icon] Edit IVR icon available in the `Tools` area.

2. In the new opened page, you can find the following customizable details:

   - Edit IVR
     - Name
     - Default music on hold folder
     - Timeout
     - IVR session lifetime
     - Entry context
     - If lifetime expires
     - Description

     For more details on how to customize the IVR, see the [IVR Setup](#) section.

IVR Components

In 4PSA VoipNow, an IVR is made up of a group of contexts. There are two types of contexts: `regular` and `entry`. A regular context is a container for one or more options, each of them consisting of a sequence of actions. An entry context is the context where the caller is directed when the IVR answers a call.

> **Note**
>
> There can be only one entry context for an IVR. The entry context must have one or more actions defined for its `start` option (the option that is executed automatically without caller intervention).

Add a New Context

1. In the `Tools` area, click the ![icon] Add context button.

2. In the new opened page, use the available controls to configure the basic settings of the context:

   - Name – Fill in this text box with a descriptive name for the new context.

   - This is the entry context – Enable this check box if you want to set the new context as the entry context for the IVR.

3. Click OK to create the context. Click Cancel to abandon the operation and return to the previous page.

Add Options and Actions

1. In the `Contexts` area, click the name of the context to which you want to add options.

2. In the new opened page, 4PSA VoipNow lists all the possible options. For each option, 4PSA VoipNow displays the following information:

   - A – This column displays:

     ◦ if the option contains actions.

     ◦ if the option is empty.

   - Option – This column displays the names of the available options:

     ◦ `start` – The sequence of actions executed when the caller reaches the context.

     ◦ `timeout` – The sequence of actions executed when the caller remains inactive during the timeout time interval defined for the IVR.

     ◦ `invalid` – The sequence of actions executed when the caller presses a key (0–9, *, #) which has no action associated with it.

     ◦ `0-9, *, #` – The sequence of actions executed when the caller presses the corresponding key on his phone pad.

   - Actions – The number of actions defined for the option.

   - Created – The date when the first action was activated for the option.

3. To activate an option you must define the sequence of actions associated with it. To do this, click the name of the option. A new page opens, allowing you to add a sequence of actions.

4. The controls on this page are grouped into several sections:

- Add action – Use this section to choose the action you want to add to the chosen option.

  ◦ Action – Use this drop-down list to select one of the available actions.

  ◦ Description – The description of the selected action.

  ◦ Add in position – Use this text box to specify the sequence of actions associated to the option.

- Action details – The content of this section depends on the action selected in the Add action section:

  ◦ Alter callerID name with recorded variable – Choose one of the available actions (`Prepend, Append, Replace`) to modify the callerID name by using the contents of a variable.

  ◦ Alter callerID name with recorded variable – Choose one of the available actions (`Prepend, Append, Replace`) to modify the callerID name by using the contents of a variable.

  `{action} CallerID name with recorded value {variable}` – Use the drop-down list to select the action and the text box to fill in the name of the variable you want to use.

  ◦ Alter callerID name with value – Choose one of the available actions (`Prepend, Append, Replace`) to modify the callerID name by using a static value.

  `{action} CallerID name with value {number}` – Use the drop-down list to select the action and the text box to fill in the value you want to use.

  ◦ Alter callerID with recorded variable – Choose one of the available actions (`Prepend, Append, Replace`) to modify the callerID by using the contents of a variable.

  `{action} CallerID with recorded value {variable}` – Use the drop-down list to select the action and the text box to fill in the name of the variable you want to use.

  > **Note**
  >
  > In 4PSA VoipNow 2.0.3 when a call is made to a public phone number and you want to know on which DID number that call reached the IVR, you can use the IVR_NUMBER.CALLEDDID variable to store the DID number that was called. This variable can be used in any other action

> that makes use of variables, for example: `Alter callerID` and `Jump to context`.

◦ Alter callerID with value – Choose one of the available actions (`Prepend`, `Append`, `Replace`) to modify the callerID by using a static value.

  `{action} CallerID with value {number}` – Use the drop-down list to select the action and the text box to fill in the value you want to use.

◦ CallerID based jump - Jumps to another context based on the received call's callerID.

  `If callerID is {relation} {number} Jump to context {context} at option {option} Else jump to context {context} at option {option}` – Use the drop-down lists to select the destination of the jump (context and option). Use the other controls to define the condition of the jump. See the example below:

Action details

If Caller-ID Name is	equal to ▾	555122498
Jump to context	context10 ▾	at option start ▾
Else jump to context	context11 ▾	at option start ▾

Example of a valid 'CallerID based jump' action

◦ CallerID name based jump - Jumps to another context based on the received call's callerID name.

  `If callerID name is {relation} {number} Jump to context {context} at option {option} Else jump to context {context} at option {option}` – Use the drop-down lists to select the destination of the jump (context and option). Use the other controls to define the condition of the jump. See the example below:

Action details

If Caller-ID Name is	equal to ▾	John Smith
Jump to context	context10 ▾	at option start ▾
Else jump to context	context11 ▾	at option start ▾

Example of a valid 'CallerID name based jump' action

◦ Digit to string association – Replaces the contents of a variable with a string.

`Associate variable {variable} with string {string}` – Use the two text box to fill in the name of the variable and the string to be used.

◦ Hangup after for X seconds – Terminates the call after a given time period.

`Hangup after {x} seconds` – Use the text box to specify the time interval after which the call will be terminated.

◦ Jump to context – Jumps to another context based on the evaluation of a given condition.

`Jump to context {context} at option {option} if {variable} {relation} than {number}` – Use the drop-down lists to select the destination of the jump (context and option). Use the other controls to define the condition of the jump. See the example below:

Example of a valid 'Jump to context' action

◦ Play directory – Transfers the call to one of the extensions in the company directory. The caller selects the destination extension through the phone keypad.

◦ Play recorded variable – Plays one or more sound files to communicate the contents of a variable.

`Play recorded value {variable} as {style}` – Use the text box to fill in the name of the variable and the drop-down lists to select how the value will be pronounced. Use the `{style}` drop-down list to choose if the value will be pronounced as individual digits, as a number or as phonetics.

◦ Play sound file – Plays a given sound file for the caller.

`Play in {style} the sound {folder} {sound}` - Use the `{style}` drop-down list to select if the sound file will be played in background or in foreground. Use the `{sound}` icon to select the sound file from the pop up window that will be displayed.

◦ Play value – Plays one or more sound files to communicate a given value.

`Play value {number} as {style}` — Use the text box to fill in the value. Use the `{style}` drop-down list to choose if the value will be pronounced as individual digits, as a number or as phonetics.

◦ Record digits to variable — Saves the digits typed by the caller on his phone keypad into a given variable.

`Record {number of digits} to variable {variable}` — Use the `number of digits}` text box to specify the number of digits expected for the caller input. Use the `{variable}` text box to fill in the name of the variable where the input will be stored.

`Stop recording after {x} seconds of inactivity` — Use the text box to specify. The allowed values range from 1 to 9. The default value is 5 seconds.

`Play before starting recording {sounds}` — This option allows you to play a sound file before recording the caller's input.

◦ Set language to chosen language — Sets the language of the call. All the sounds will be played to the caller in the selected language.

`Set language to code {language}` — Use the drop-down list to select the language.

◦ Set language to recorded variable { language} — Sets the language of the call by using the contents of a given variable. All the sounds will be played to the caller in the selected language.

`Set language to recorded value {variable}` — Use the text box to fill in the name of the variable that contains the code of the language.

◦ Time interval based call transfer — Based on the time interval when the call is received, it transfers the call to another extension on the client account.

`If in {time interval} transfer to {extension}, else transfer to {extension}` — Use the drop-down lists to select the time interval and the destination extensions.

◦ Time interval based jump — Jumps to another context based on the time interval when the call is received.

`If in {time interval} jump to {context} at option {option}, else jump to {context} at option {option}` — Use the drop-down lists to select the time interval, the destination contexts and options.

◦ Transfer to extension — Transfers the call to another extension on the client account.

`Transfer to extension {extension}` – Use the drop-down list to select the destination extensions.

> **Note**
>
> The extensions that are disabled are displayed in grey colour in the drop-down list.

`Play sound {folder} {sound} before transferring` – Use this option if you want to play a sound file before transferring the call to another extension.

◦ Transfer to number from variable {variable} – Use the text box to fill in the name of the variable that contains the number provided by the caller.

`Allow transfers to external numbers` - Select this check box to enable transfers to external numbers.

◦ Text to speech – Plays a custom text to the caller.

`Text to speech {text} with voice {voice}` – Use the text box to fill in the text you want to play for the caller; you can also use SSML tags to control how the text is read (for more information, see Using the Text To Speech Feature). Use the drop-down list to choose the voice that will pronounce the text.

> **Note**
>
> This action is available only if these conditions are fulfilled:
>
> ▪ The IVR has the **Maximum concurrent text to speech** option set to a value greater than 0.
>
> ▪ The **Maximum concurrent text to speech** option was enabled from the Unified Communications >> **System Preferences** page.
>
> ▪ There is at least one Cepstral voice engine installed on your server.
>
> ▪ There is at least one voice support license and one concurrency port license installed on your server (licenses can be purchased from the 4PSA store).
>
> More details about the Cepstral engine installation can be found in the 4PSA VoipNow release notes.

◦ Wait for X seconds – Used to introduce a delay between two actions.

`Wait for {x} seconds` — Use the text box to specify the delay. The allowed values range from 0 to 600 seconds.

- Actions — In this section you can view the actions that have been added for the option and change the order in which they are executed.

To move a certain action to a higher position, click the ▲ up arrow. To move it to a lower position, click the ▼ down arrow.

In order to save the chosen order, click the Apply the changes button.

5. Choose the action you want to add from the Add action section. Define its details and click OK to add it to the context. Click Cancel to reset the controls on the page.

6. Repeat Step 5 until the desired sequence of actions is complete.

Generate the IVR

After you have created your contexts, options and actions it is time to put it all together and physically generate the IVR. To do this, click the Generate IVR link located in the upper right corner of the IVR Management page.

> **Note**
>
> The Generate IVR link becomes visible each time you modify the IVR version that you have previously generated.

Edit an IVR Context

1. In the Contexts table, click the name of the context you wish to modify.
2. In the new opened page, use the available controls to:
   - Change the name of the context — To do this, use the Name text box and click the OK button to save your changes. Click Cancel to go back to the previous page.
   - Set the context as an `entry` or a `regular` context — To do this, use the This is the entry context text box and click the OK button to save your changes. Click Cancel to go back to the previous page.
   - Edit the options and actions associated with the context — For more information, see next section.

Edit Options and Actions

1. In the Context options table click the name of the option you want to edit.

2. A new page opens, allowing you to edit the sequence of actions. You can perform the following changes:

- `Change the order of the actions` — To do this, use the available ▲ up and ▼ down arrows available in the P column. Then click the ✅ Apply changes link to save your changes.

> **Note**
>
> The number of unsaved changes performed on the list is displayed on the left side of the table: `{x} pending changes in rules order`. The counter is increased for each rule with a different position than the initial one.

- `Change the details of an action` — To do this, click the name of the chosen action. In the newly opened page use the available controls to edit the settings of the action as explained in the Add options and actions section, Step 4.

> **Note**
>
> To replace an action simply use the **Action** drop-down list to select a new one.

Remove an Action

To remove actions from the system, follow the next steps:

1. Choose the actions you want to delete by selecting their corresponding check boxes.

2. Click the ❌ Remove selected link.

3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

Regenerate the IVR

After you have edited your contexts, options and actions you must re-generate the IVR. To do this, click the Generate IVR link that can be found in the upper right corner of the IVR Management page.

> **Note**
>
> The Generate IVR link is visible only if you have modified the IVR that you generated previously.

Remove a Context

To remove contexts from the system, follow the next steps:

1. Choose the contexts you want to delete by selecting their corresponding check boxes.

2. Click the Remove selected link.

3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

View the IVR Schema

4PSA VoipNow can generate a graphical representation of the IVR context and the links between them (i.e. actions of type 'Jump to context' and 'Time interval based jump').

View the IVR Structural Report

When trying to generate an IVR, 4PSA VoipNow checks for structural inconsistencies and errors. In case it finds any, it displays warning or error messages in the IVR Management page.

In case structural inconsistencies are found, 4PSA VoipNow allows you to view and correct their causes. To view the causes you have two options:

- In the warning message that appears, click the available link.

-

  In the IVR Management page, click the button.

In the report page, 4PSA VoipNow display the contexts, options and actions where the inconsistencies are located. It also provides links to easily access the pages where you can correct these inconsistencies.

Error Types

4PSA VoipNow check for the following structural errors:

- The IVR does not have an entry context.
- The IVR's entry context does not have actions defined for the start option.

> **Note**
> The IVR cannot be generated when structural errors are found.

4PSA VoipNow checks for the following structural inconsistencies:

- The IVR uses `Time interval based call transfer` and `Transfer to extension` action types that use destination extensions which no longer exist in the system.

- The IVR uses `Time interval based jump` and `Jump to context` action types that use destination contexts that no longer exist.

- The IVR uses actions that play sounds that no longer exist in the system.

If the structure of the IVR is correct, the page displays the following message: `This IVR has no structural errors`.

Test the IVR

4PSA VoipNow gives you the possibility to verify a new created IVR or an older IVR that you have modified before making it public.

When you use the test function after modifying an IVR, 4PSA VoipNow will create a duplicate IVR which you can verify over the phone. If you accept the modifications and generate the IVR, 4PSA VoipNow will overwrite the old IVR. This way your changes will be saved. In case you find any inconsistencies and you want to make further changes or corrections, you must not generate the modified IVR.

To test an IVR you have to follow these steps:

1. Click the IVR Setup icon available in the `Tools` area.

2. Make the desired modifications (e.g. creating new contexts etc.)

3. Click the Test IVR link placed in the top right corner of the screen.

   A message with instructions will be displayed on the top of the page:

   `Pick up the phone and dial *48{extno} from your phone in order to test this IVR.`

   > **Note**
   >
   > Here, `(extno)` stands for the short phone number of the IVR extension.

   `When you want to go live with this IVR, press the 'Generate IVR' button.`

If you want to modify the IVR, make changes to the IVR design in web interface and press the 'Test IVR' button again.

Chapter 6
Edit Your Extension's Permissions and Phone Numbers

To modify the permissions and phone numbers of your extension, follow these steps:

1. Click the Extension permissions and phone numbers icon available in the `Tools` area.

2. A new page opens, allowing you to modify the following fields:

   • Permissions

     ◦ Sound management – This option allows the extension to manage sound files, folders, and languages.

   • Limits

     ◦ Maximum disk space for sound files – Use the available text box to specify the maximum storage space reserved for the sounds created

by the extension user. If you do not want to limit the disk space, select the `Unlimited` check box.

◦ **Maximum disk space for music on hold files** – Use the available text box to specify the maximum storage space reserved for the music on hold files. If you do not want to limit the disk space, select the `Unlimited` check box.

◦ **Maximum concurrent text to speech** – Use the available text box to limit the number of calls that are allowed to use the text to speech application at the same time. If you do not want to limit the extension, select the `Unlimited` check box.

> 📝 **Note**
>
> This line is available only if the **Allow text to speech** option was enabled from the 📟 Unified Communications >> **System Preferences** page.
>
> In order to use the text to speech functions, you must make sure that:
>
> - There is at least one Cepstral voice engine installed on your server.
>
> - There is at least one voice support license and one concurrency port license installed on your server (licenses can be purchased from the 4PSA store).
>
> More details about the Cepstral engine installation can be found in the 4PSA VoipNow release notes.

◦ **Account expiration date** – To specify the date when the extension account becomes invalid, deselect the `Unlimited` check box and provide a date using the text box or the available 📅 calendar button.

3. Click OK to save the changes to the account. Click Cancel to return to the previous page without saving the changes.

Chapter 7
View Your Personal Charging Plan

4PSA VoipNow allows you to view detailed information about your account's current charging plan. To access this information, click the Home link available in the left navigation panel and than the Charging plans icon situated in the `Tools` area.

Depending on the charging plan type (prepaid or postpaid) and its settings, you can view one or more of the following sections:

- Charging plan description
  - Charging plan name – The descriptive name of the charging plan.
  - Charging plan type – The type of the charging plan: prepaid or postpaid.
  - Allow incoming calls - Yes – 4PSA VoipNow displays this information only if your extension can receive calls from extensions that belong to the system as well as from extensions outside the system.

◦ Allow outgoing external calls - Yes – 4PSA VoipNow displays this information only if your extension can make calls to destinations outside the system.

◦ Allow outgoing local calls - Yes – 4PSA VoipNow displays this information only if your extension can call other extensions on the same client account.

◦ Allow outgoing extended local calls - Yes – 4PSA VoipNow displays this information only if your extension can call other extensions in the system (not on the same client account).

◦ Remaining incoming calls credit – The amount currently available for incoming calls.

> **Note**
>
> This information is available only for `prepaid` charging plans.

◦ Remaining outgoing calls credit – The amount currently available for outgoing calls.

> **Note**
>
> This information is available only for `prepaid` charging plans.

◦ Number of recharges

> **Note**
>
> This information is available only for `prepaid` charging plans.

◦ Incoming money limit – The supplementary credit for external incoming calls.

> **Note**
>
> This information is available only for `postpaid` charging plans.

◦ Outgoing money limit – The supplementary credit for external outgoing calls.

> **Note**
>
> This information is available only for `postpaid` charging plans.

- External outgoing limits – Number of outgoing minutes available, per time interval. The number of outgoing minutes is displayed for each time interval included in the charging plan in the format:

{m} minutes limit in time interval {T}

The number of remaining minutes in current month is also displayed in format:

{m} minutes limit in over usage. {m} minutes and 0 seconds remaining in {m} remaining in {month}

> **Note**
>
> This information is available only for `postpaid` charging plans.
>
> 4PSA VoipNow displays this section only if the extensions on the client account can make calls to destinations outside the system.

- Outgoing calls charges – These are the charges applied to conversations after the user has exceeded the number of available minutes.

  ◦ Calls are charged indivisible for the first {T} seconds and then every {T} seconds - For the first {T} seconds the call is taxed as one minute; afterwards, taxing is done every {T} seconds.

  ◦ Local calls are charged {money unit} / second – The fee charged for calls between extensions on the same client account.

  > **Note**
  >
  > 4PSA VoipNow displays this information only if the extensions can call locally.

  ◦ Extended local calls are charged {money unit} / second – The fee charged for calls between extensions belonging to different client accounts from the system.

  > **Note**
  >
  > 4PSA VoipNow displays this information only if the extensions can call locally to extensions on different client accounts.

If the charges for external calls are computed using a fixed prices method, 4PSA VoipNow displays the costs for each time interval in the following format:

  ◦ Calls made in time interval {T} are charged with {money unit} / second – The price charged for external calls made in time interval {T}.

4PSA VoipNow displays the costs for the calls outside the time intervals specified above:

- ◦ Calls made outside these time intervals are charged {money unit} / second – The price charged for external calls made outside time interval {T}.

• External incoming calls charges – These charges apply to calls received from outside the system.

> **Note**
>
> 4PSA VoipNow displays this information only if the extensions are allowed to receive external calls.

Chapter 8
View Your Charging Limits History

4PSA VoipNow allows you to view detailed information about a extension's

charging limits. To access this information, click the Charging limits icon available in the `Tools` area.

The charging limits history table contains the following columns:

- Incoming money limit – Displays the supplementary credit for external incoming calls.

- Outgoing money limit – Displays the supplementary credit for external outgoing calls.

- Over usage minutes – Displays the supplementary over usage minutes limit.

- Every month – Displays the time frame for the charging limits: current month or monthly.

- Order number – Displays the number of the request for allocating the new charging limits.

- Date added – Displays the date when the charging limits were enforced.

Chapter 9
View Extension's Charging Credits History

4PSA VoipNow allows you to view detailed information about the history of recharges for the extension's charging credit. To access this information, click the

Charging credits icon available in the `Tools` area.

The charging credits history table contains the following columns:

- **Incoming calls credit** – Displays the supplementary credit for incoming calls.

- **Outgoing calls credit** – Displays the supplementary credit for outgoing calls.

- **Order number** – Displays the number of the request for allocating the new charging credits.

- **Date added** – Displays the date when the charging credits were enforced.

Chapter 10
Manage Your Time Intervals

View Time Intervals

Time intervals are used to match calls to a certain period of time. This can be done for charging reasons or in order to filter incoming/ external calls. In the Time Interval Management page, you can view a list of all the available time intervals added to the system.

To access this page, click the Home link in the left navigation panel. Next, click the Time intervals icon available in the `Tools` area. Multiple operations can be performed:

- Add a new time interval

- Searching the time intervals list

- Edit an existing time interval

- Delete time intervals

4PSA VoipNow displays the following information about each time interval:

- T – The method used to define the time interval:
    - Individual days method
    - Interval method
- Name – The time interval's descriptive name. Click this link to edit the time interval's information.
- Intervals - The number of different time intervals defined for the specific time interval block. Click the number displayed to see further information regarding the time intervals:
    - Hours - The hours used as the time interval limits.
    - Week days - The days used as the time interval limits.
    - Days of the month - The month period to which the time interval applies.
    - Month - The month to which the time interval applies.
- Created – The date when the time interval was created.

> **Note**
>
> There is one default time interval for each user in the system named `Full month` that covers the entire month.

Searching the Intervals List

When the time intervals list is too long and you are searching for a specific one, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the button or the `Search` label to display only the time intervals whose name contain that text.
- Show all – Click this button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The time intervals list can be filtered by name and creation date. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the time intervals list was sorted. The sort direction can be changed by another click on that header.

Add a New Time Interval

Time intervals are used on call filtering, call routing, charging plans, etc. Whenever a new account is created, the extension must have a charging plan associated to this account. The extension can be charged differently based on the call time interval.

To add a new time interval, click the Home link in the left navigation panel. Next, click the Time intervals icon available in the `Tools` area and follow the next steps:

1. In the Time Interval Management page, click the Add time intervals icon.

2. A new page opens, allowing you to enter information about the new time interval:

   - The Time interval definition area has two fields which represent the generic description of the time interval block:
     ◦ Name – Use the text box to fill in a descriptive name which will help identifying the time interval.
     ◦ Matching algorithm – A time interval block can be described in two ways:
       ▪ Individual days – This method allows 4PSA VoipNow to match the same time interval in different days. See the example below.
       ▪ Interval – This method allows 4PSA VoipNow to match a continuous time interval that extends over several days. See the example below.
     ◦ Timezone – Use the drop-down list to select the time zone in which your time interval is defined. The default value is `server_default`.

     > **Note**
     >
     > This information is also displayed in the list of time intervals, next to the name of the time interval.

> In the description of a charging plan, this information is listed in the `Outgoing calls charges` area.

- The Matching intervals area allows you to enter multiple time intervals in order to have a more complex and comprehensive overview of the calls. Here you can enter the following parameters:

  ◦ Start at hour and End at hour – Use the available text boxes to specify the limits of the time slot.

  ◦ Start weekday and End weekday – Use these drop-down lists to select the days of the week that define the time slot.

  ◦ Start day of month and End day of month – Use these drop-down lists to select the days of the month that define the time slot.

  ◦ Month - Use this drop-down list to select the month that defines the time slot.

3. Use the ⊟ ⊞ buttons to add several time intervals at the same time:

  - ⊟ removes the corresponding `Time interval`.

  - ⊞ adds another `Time interval`.

4. Click OK to add the new time interval(s). Click Cancel to go back to the previous page without adding the interval(s).

Note

You can enter up to **ten** different time intervals to a single time interval block.

Example of a time interval defined in individual days

In the below time interval, 4PSA VoipNow matches the calls made or received between 8:00 – 20:00 hours, on Monday, Tuesday, Wednesday, Thursday and Friday between 1 and 31 of every month.

Time interval definition

Name *   Individual

Matching algorithm   Individual days ▾

Matching intervals

Start at hour *   08 : 00

End at hour *   20 : 00

Start weekday   Monday ▾

End weekday   Friday ▾

Start day of the month   1 ▾

End day of the month   31 ▾

Month   -- ▾

A time interval defined in individual days

Example of a contiguous time interval

In the below time interval, 4PSA VoipNow matches the calls made or received between Monday, 8:00 and Friday, 20:00, between 1 and 31 of every month.

A continuous time interval

Example of a time interval block with two different time intervals defined for individual time frames

In the below time interval block, 4PSA VoipNow matches the calls made or received between 8:00 - 18:00 hours on Monday, Tuesday, Wednesday, Thursday and Friday, every month between 1 and 31, as well as the calls made or received between 18:01 - 07:59 hours on Monday, Tuesday, Wednesday, Thursday and Friday, every month between 1 and 31.

Time interval definition

Name *	Different time intervals
Matching algorithm	Interval

Matching intervals

Start at hour *	08 : 00
End at hour *	18 : 00
Start weekday	Monday
End weekday	Friday
Start day of the month	1
End day of the month	31
Month	--

Start at hour *	18 : 01
End at hour *	07 : 59
Start weekday	Monday
End weekday	Friday
Start day of the month	1
End day of the month	31
Month	--

A time interval block with two different time intervals

Edit a Time Interval

To edit the properties of a time interval, click the 🕐 Time intervals icon available in the `Tools`area and follow these steps:

1. In the time interval list, click the name of the time interval you want to change.

2. A new page where you can rename the time interval and modify its start/end hours, days, dates will open. You can also change the matching algorithm.

> **Note**
>
> For more information on the fields in these sections, read the Add Time Intervals section.

3. Click OK to save the changes you have made to the time interval. Click Cancel to return to the previous page without saving the changes.

Remove a Time Interval

To remove a time interval, click the Time intervals icon available in the `Tools` area and follow the next steps:

1. Choose the time intervals you want to remove by selecting their corresponding check boxes.

2. Click the ✖ Remove selected link.

3. You will be asked to confirm the removal. If you want to proceed with the removal, click OK. Otherwise, click Cancel.

Chapter 11
Manage Your Extension's Call Rules

Manage Your Extension's Incoming Call Rules

Incoming Call Rules Overview

4PSA VoipNow allows you to filter an extension's incoming calls. As a result, when a caller is trying to reach the extension, 4PSA VoipNow can perform a set of predefined actions. For example, let's assume that from 9:00 to 17:00 the extension owner is working and he is waiting for an important. All he has to do is to define a rule that will transfer all the calls from his personal extension to other one to which he can answer.

To access this option, click the Incoming call rules icon available in the `Tools` area.

In the Edit Information on the Incoming Call Rules page, you can view a list of the incoming call rules available in the extension account. The following operations can be performed:

- Add new incoming call rules

- Change the priorities of the rules

- Delete existing incoming call rules

    4PSA VoipNow displays the following information about each existing call rule:

- No – The position of the rule inside the group

- S – The status of the rule is displayed using an icon:

    ◦ Enabled

    ◦ Disabled

    Click the icon to change the status of the rule.

    > **Note**
    >
    > After you add a new rule, 4PSA VoipNow automatically sets its status as enabled. To disable the rule, click the corresponding icon.

- P – Use the available up and down arrows icons to change the position of the rule in the group.

    > **Note**
    >
    > Any change made is countered in the left side of the list table: `{x} changes pending in the rules order`. The counter is increased for each rule with a different position than the initial one.

- Action – The action performed when the caller's number matches the rule. The possible actions are:

    ◦ Busy - 4PSA VoipNow plays a "busy signal" to let the caller know that the number he is trying to reach is engaged in another call.

    ◦ Congestion – 4PSA VoipNow plays a "fast busy signal" (known in telephony as a "congestion tone") to let the caller know that the call was unsuccessful.

    ◦ Hang up – 4PSA VoipNow hangs up the incoming call.

    ◦ Transfer to internal – 4PSA VoipNow transfers the call to another extension on the same client account if the called extension has assigned to it a charging plan that allows calls to internal destinations and Multi-

user aware permission enabled. This calls will be charged to the called extension.

◦ Transfer to external – 4PSA VoipNow transfers the call to an external destination if the called extension has assigned to it a charging plan that allows calls to external destinations. This calls will be charged to the called extension.

◦ Follow me to - 4PSA VoipNow routes the call simultaneously to all the extensions or the external destinations specified by the user. If the call is answered by another extension than the initial one, the call will be charged like a transfer between those two destinations.

> **Note**
>
> If the user has specified two or more external destinations in the 'Follow me to' rule, these destinations are called simultaneously using the first outgoing call rule defined for each of them. If in the first attempt the call fails, a second attempt is made. To initiate the second attempt the system searches for a routing rule which has not been used in the first attempt. If at least one such rule is found, all the destinations are called again. The rules used in the second attempt are:
>
> - **Rules that have not been used in the first attempt** – in the case of destinations for which there is at least one unused routing rule remaining after the first attempt. For a destination that falls into this category, the rule employed in the second attempt is the first unused rule on the list of routing rules defined for that particular destination.
>
> - **Rules which have already been used in the first attempt** - in the case of destinations for which unused routing rules are not available. For a destination that falls into this category, the rule employed in the second attempt is the first one available on the list of routing rules defined for that particular destination.
>
> In case the second attempt is not successful, the system tries to initiate a third attempt using the algorithm described above (for the second attempt). There are two possibilities:
>
> - If there are no unused rules available for any destination, the system stops trying to contact the external destinations defined in the 'Follow me to' rule and thus the call has failed.
>
> - If there is at least one outgoing call rule which has not been used in the second attempt, the condition to initiate the third attempt is met and the whole procedure is started once more.

> The attempts to contact the external destinations defined in the 'Follow me to' rule continue until all the outgoing call rules (for all the destinations) have been employed at least one time.

- Number check — 4PSA VoipNow can apply the rule to the calls that match or do not match the phone number specified by the rule. The two possible values of this field are:

  ◦ Matches — The incoming call matches the number.

  ◦ Does not match — The incoming call doesn't match the number.

  ◦ Is anonymous — The incoming call does not have caller-ID information.

- In time interval — The time interval when the rule will be executed.

- To extension — In case the action is `Transfer`, this column displays an extension user name and number where the call will be redirected.

  In case the action is `Transfer to external`, this column displays an external phone number where the call will be redirected.

- Key - The text box displays the key that can be used to enable/disable the routing rule from the phone terminal pad by dialing *74{key}. You can use this text box to update the key: edit the current key and click the Apply changes link available in the right side of the table.

Add an Incoming Call Rule

To add new incoming call rules, click the Incoming call rules icon available in the `Tools` area.

In the `Add incoming call rules` section you can find buttons, text boxes, and drop-down lists allowing you to define one or more incoming rules. The following steps should be followed:

1. Use the first drop-down list to choose the action that will be performed if the number is matched. The available actions are:

   - Busy — 4PSA VoipNow plays a "busy signal" to let the caller know that the number he is trying to reach is engaged in another call.

   - Congestion — 4PSA VoipNow plays a "fast busy signal" (known in telephony as a "congestion tone") to let the caller know that the call was unsuccessful.

   - Hang up — 4PSA VoipNow hangs up the incoming call.

- Transfer to internal – 4PSA VoipNow transfers the call to another extension on the same client account.

- Transfer to external – If the extension has assigned a charging plan that allows calls to external destinations, calls can be diverted to this destination. The called extension will be charged for these calls.

- Follow me to - 4PSA VoipNow transfers the call when the extension user switches terminals.

2. Use the second drop-down list to choose whether the action will be performed for incoming calls that match or do not match the expression you will specify later at `Step 3`.

- Matches – The incoming call matches the number.

- Does not match – The incoming call doesn't match the number.

- Is anonymous – The incoming call does not have caller-ID information.

> ⚠ Caution
>
> Number matching is based on caller-ID. If the remote party does not send a caller-ID, no matching can be performed; however you can use the `Is anonymous` option to route anonymous calls.
>
> Pay attention to the `number` entry. You can specify the number as a combination of the digits 0-9 and the characters '+', 'X', 'Z', 'N', '[', ']', '.', '*' .
>
> The number entry supports the Asterisk number matching. You can enter an expression that matches multiple numbers. Remember that:
>
> X - matches any digit from 0-9
>
> Z - matches any digit form 1-9
>
> N - matches any digit from 2-9
>
> [] - matches any digit or letter in the brackets
>
> . - matches one or more characters
>
> * - matches 0, 1 or any number of the previous expression
>
> For example:
>
> - Number 0. will match any number starting with 0.
>
> - Number 1X[123]N will match any number starting with 1, followed by any digit between 0 and 9, followed by 1,2 or 3 and followed by any digit between 2 and 9.

3. Use the first text box to specify the extension number or a regular expression that matches the incoming call.

4. Use the third drop-down list to choose the time interval when the calls must be checked.

5. Use the **Add in position** text box to specify the rule's order in the list.

> ⚠ Caution
>
> The rule's position in the group is very important because it defines the order in which 4PSA VoipNow verifies the call rules in case of an incoming call.
>
> The checking is made in order and all rules are final (meaning that the program stops checking when the first rule is matched).

6. Use the **With key** text box to specify a key that can be used to enable/ disable the routing rule from the phone terminal pad by dialing *74 {key}.

7. The **Set call priority, Transfer to internal, Transfer to external** and **Transfer on event** actions have additional parameters.

   - When you select the **Set call priority** action, 4PSA VoipNow displays an additional text box. Use it to fill in the priority that will be assigned to the call before entering the queue.

   - When you select the **Transfer to internal** action, 4PSA VoipNow displays an additional drop-down list. Use it to select the final extension destination of the call.

   - When you select the **Transfer to external** action, 4PSA VoipNow displays an additional field. Use it to enter the number where you want the call diverted.

   - When you select the **Transfer on event** action, 4PSA VoipNow displays several additional fields:

     ◦ Use the first drop-down list to select the event when the transfer will be performed.

     ◦ Use the second drop-down list to choose whether the call will be transferred to an internal or external number. The external transfer option is available if the extension's charging plan allows calls to external destinations.

     ◦ Use the last control (drop-down list or text box) to specify the final destination of the call.

   The example below means that if a call from number 555122 arrives at 13:30, the call is transferred to extension 0006.

Example of a valid incoming rule

8. Use the ⊟ ⊞ buttons to add several new call rules at the same time:

   - Click the ⊞ button to add a new set of buttons, text boxes, and drop-down lists allowing you to create an additional rule.

   - Click the ⊟ button to delete its corresponding rule.

9. Click OK to add the new rule(s) to the list. Click Cancel to go back to the previous page without changing the incoming rules.

Change the Incoming Call Rules Order

The rule's position in the group is very important because it defines the order in which 4PSA VoipNow verifies the existing rules in case of an incoming call. The program verifies the conditions of the rules and stops checking when it finds the first rule whose conditions are true.

To change the rule's order, click the Incoming call rules icon available in the `Tools` area.

1. In the call rules list, to move a certain rule to a higher position, click the ▲ up arrow. To move a certain rule to a lower position, click the ▼ down arrow.

   > **Note**
   >
   > When you change the order of the call rules in the list, 4PSA VoipNow displays the number of changes you have performed to remind you to save them before navigating away from the page. In the top left corner of the call list 4PSA VoipNow displays {x} changes pending in the rules order.

2. Click the ✅ Apply changes link to save the changes you have made on the list of call rules.

Remove an Incoming Call Rule

To remove call rules, click the Incoming call rules icon available in the `Tools` area and follow the next steps:

1. Choose the rules that you want to delete by selecting their corresponding check boxes.

2. Click the ✖ <u>Remove selected</u> link.

3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

⚠️ Caution

There is an implicit rule that accepts **ALL** the calls from **ALL** the destinations in **ANY** time interval that is not shown!

Manage Your Extension's Outgoing Call Rules

4PSA VoipNow allows extensions to block certain outgoing calls, based on the time interval when the call was dialed and the caller-ID of the system user that dialed the number.

Outgoing Call Rules Overview

To access the outgoing call rules option, click the Outgoing call rules icon available in the `Tools` area.

In the Edit the Outgoing Call Rules page, you can view a list of the outgoing call rules available in the extension account. The following operations can be performed:

- Add new outgoing call rules
- Change the priorities of the rules
- Delete existing outgoing call rules

4PSA VoipNow displays the following information about each group:

- S – The status of the group is displayed using an icon:

- ○ ✅ Enabled

- ○ ❌ Disabled

Click this icon to change the status of the group.

- Name – The descriptive name of the outgoing routing rules group. Click this link to edit the group's details.

- Action – The measures taken by the application against a certain phone number.

- Number - The phone number affected by the chosen action.

- In time interval – The time frame in which the rule is applied.

Add an Outgoing Call Rule

To add new outgoing call rules, click the Outgoing call rules icon available in the `Tools` area.

In the Add new outgoing routing rules section you can find buttons, text boxes, and drop-down lists that allow you to define one or more routing rules for outgoing calls. The following steps should be followed:

1. The first drop-down list displays the available actions. 4PSA VoipNow blocks the call to that number if the number is matched.

2. Use the number text box to match the number dialed by the extension user.

> ⚠ Caution
>
> Pay attention to the **number** entry. The number supports the Asterisk number matching system. You can enter an expression that matches multiple numbers. Remember that:
>
> X - matches any digit from 0-9
>
> Z - matches any digit form 1-9
>
> N - matches any digit from 2-9
>
> [] - matches any digit or letter in the brackets
>
> . - matches one or more characters
>
> * - matches 0, 1 or any number of the previous expression
>
> For example:

- Number 0. will match any number starting with 0.

- Number 1X[123]N will match any number starting with 1, followed by any digit between 0 and 9, followed by 1,2 or 3 and followed by any digit between 2 and 9.

3. Use the third drop-down list labeled if in time interval to select the time interval that this rule will be applied to.

> ⚠ Caution
>
> The `Block` rule is final. This means that when the rule is matched, other rules are no longer checked.

4. Click OK to add the new routing group to the system. Click Cancel to go back to the previous page without adding the rule group.

Remove an Outgoing Call Rule

To remove call rules, click the Outgoing call rules icon available in the `Tools` area and follow the next steps:

1. Choose the rules that you want to delete by selecting their corresponding check boxes.

2. Click the ✖ Remove selected link.

3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

Chapter 12
Manage Your Phone Numbers Collections

The phone numbers collections can be used for screening the outgoing calls of a phone terminal extension.

View the Phone Numbers Collections

To access this page, click the Phone number collections icon available in the `Tools` area.

The Phone Numbers Collections page displays a list of all phone numbers that are assigned to categories. The following information is available:

- Number - The screening number. Click it to modify its settings.
- Category - The category the screening number belongs to.
- Tag - Identification tags.
- Owner - The category's owner.

Searching the Phone Numbers Collection

When the phone numbers collection is too long and you are searching for a specific number, you can use the following features:

- Search – Fill in the number you are looking for in the text box. Click the 🔍 button or the `Search` label to display only the names that match the searching criteria.

- Show all – Click this 📄 button or the `Show all` label to display the entire list.

Even if you navigate to other pages, the search criteria will be retained until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

Also, use the View numbers in category drop-down list to see all the numbers belonging to a certain category.

Add a New Collection Number

To add a new number to a certain collection, follow these steps:

1. Click the 📞 Add number icon, located in the `Tools` area of the Phone Numbers Collections management page.

   > **Note**
   >
   > In order to add numbers, at least one category must be defined. For more information on adding a new category, see the Add a Phone Number Category section.

2. These numbers can be imported from a file or manually added from the web interface. The information is grouped into two sections:

   - Import collection numbers - Use this sections if you wish to manually import the numbers from a file.

     ◦ Import numbers from file - Select this check box to add the collection numbers from an existing file. If this option is disabled, so are the next two fields.

- Import file - Use this text box or the [Browse...] button to specify the location of the file containing the collection numbers.

  ◦ Field separator - Use this text box to specify the field separator character. The default value is ','.

> **Note**
>
> The uploaded file entries must be in the following format:
>
> `{phone number},{category_name}`

- Add collection numbers - Use this section if you want to manually add the collection numbers. If you have previously selected the **Import numbers from file** check box, this section will be disabled.

  ◦ Number - Use this text box to fill in the collection number.

  ◦ Category - Use the drop-down list to select one of the available phone numbers collections.

  You can add/ remove several numbers by using the [+] [−] icons.

3. Click OK to add the new number(s). Click Cancel to go back to the previous page without adding any numbers.

Edit a Collection Number

If you want to edit an existing phone number, follow these steps:

1. In the Phone Number Collections management page, choose the desired number and click on it.

2. In the new opened page, the information is grouped into two sections:

   - Import collection numbers

   - Modify collection number

> **Note**
>
> For more details on how to edit a collection number, see the Add a New Collection Number section.

3. Click OK to save the changes. Click Cancel to go back to the previous page without saving anything.

Remove a Collection Number

To remove collections numbers from the system, follow these steps:

1. Choose the numbers you want to delete by selecting their corresponding check boxes in the Phone Numbers Collections management page.

2. Click the ❌ <u>Remove selected</u> link.

3. You will be asked to confirm the removal. To do so, click OK. If you do not want to delete the numbers, click Cancel.

Manage Phone Number Categories

The phone number categories are number collections used for screening purposes.

View the Phone Number Categories

In order to view the list of all the phone numbers categories in the system, click the [icon] Categories icon, available in the `Tools` area of the Phone Numbers Collections management page.

4PSA VoipNow displays the following information about each category:

- Category - The category's descriptive name. Click the link to edit the category's properties.

- Tag - Identification tags.

- Inheritance level - The phone number category's visibility.

Searching the Phone Number Categories

When the phone number categories list is too long and you are searching for specific category, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the 🔍 button or the `Search` label to display only the categories that match your search criteria.

- Show all – Click this 📋 button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The phone number categories list can be filtered by category name, tag and inheritance level. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the reseller list was sorted. The sort direction can be changed by another click on that header.

Add a Phone Number Category

To add a new phone number category, follow the next steps:

1. Click the Categories icon, located in the `Tools` area of the Phone Numbers Collections management page.

2. Fill in the details required in the Add new category section:

   - Category - The name of the category.

   - Tag - The identification tag.

   - Inheritance level - Use this drop-down list to specify the category's visibility:

     ◦ 0 — The category is visible only to the extension user. Always, inheritance level 0 represents the logged in user. For each child user, the level is incremented with 1.

   - Description - Use this text area to associate some notes about the purpose and content of the category.

   You can add/ remove several categories by using the icons.

3. Click OK to add the new category(s). Click Cancel to go back to the previous page without adding any categories.

   ### Edit a Phone Number Category

   If you want to edit an existing phone number category, follow these steps:

1. In the Categories management page, choose the desired category and click on its name.

2. In the new opened page, you will be able to edit the information grouped into one section:

- Modify category

> **Note**
>
> For more details on how to edit a category, see the Add a Phone Number Category section.

3. Click OK to save the changes. Click Cancel to go back to the previous page without saving anything.

Remove a Phone Number Category

To remove phone numbers categories from the system, follow these steps:

1. Choose the categories you want to delete by selecting their corresponding check boxes in the Categories management page.

2. Click the ✖ Remove selected link.

3. You will be asked to confirm the removal. To do so, click OK. If you do not want to delete the numbers, click Cancel.

Export a Phone Number Collection

In 4PSA VoipNow you can export all the phone numbers available in the collection in `.csv` format for sharing them among 4PSA VoipNow servers or for backup purposes.

Click the Export numbers link placed above the Collection numbers table, then save the `.csv` file to the desired location.

Chapter 13
Manage Your Sounds

There are two types of sounds: `music on hold` and `announcements` sounds.

Music on hold sound files are played when a caller is on hold waiting for someone to answer his call. These sounds files are not language specific because they are usually melodies. Music on hold files can only be uploaded and not recorded over the phone.

An announcement sound is played when the user is notified on an event or when information is requested from the user. These sounds have different files for different languages, allowing the user to listen to the sound version specific to his language preferences. If the files in the requested language do not exist, than the default sounds will be played. This type of sound can be either uploaded or recorded over the phone.

A system sound is a sound that can be seen by all users registered in the system, regardless of their level. Lower level users, like resellers and clients can also define shared sounds, but these can be seen only by the users belonging to their account. Non-system or non-shared sounds can only be used by the user that created them.

Once a system sound is added, it cannot be removed from the system. System sound files can be overwritten by replacing their content with a different sound. Sound files can be deleted or changed only by the user who added them.

View the Sounds List

Note

The **Sounds** section is available only if the **Sound Management** permission has been activated for your account. If this permission hasn't been activated, you will not be able to see the **Sounds** icon in the `Tools` area.

In the Sound Management page, you can view a list of the sounds available in the system.

To access this page, click the Home link situated in the left navigation panel. In the new opened page, click the Sounds icon available in the `Tools` area.

You can perform multiple operations:

- Add and delete sounds from the system
- Search for specific sounds in the system
- Organize sound files by using sound languages and folders

4PSA VoipNow displays the following information about each sound:

- S – The sound status is displayed using an icon:
  - Enabled
  - Disabled

  Click the icon to change the sound's status.
- T – The type of the sound is displayed using an icon:
  - specifies a `Shared sound` (available to all accounts belonging to the same user)
  - specifies a `User sound` (available to the user who created it only)
- M – This field describes the purpose of the file by using an icon:

○ ![icon] specifies an `Announcement` sound

○ ![icon] specifies a `Music on hold` sound

- Name – The name of the sound. Click this link to edit the sound.

- Folder – The folder where the sound is located in the system.

- Languages – The number of languages for which this sound is defined.

> ![note icon] **Note**
>
> If the sound is used as `Music on hold`, this field displays '-'.

- Updated – The date when the sound was last modified.

Searching the Sounds List

When the sound list is too long and you are searching for specific sounds, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the ![search icon] button or the `Search` label to display only the sounds whose name or folder contain that text.

- Show all – Click this ![icon] button or the `Show all` label to display the entire list.

The search criteria will be retained even if you navigate to other pages until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The sounds list can be filtered by name, folder and update date. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the sounds list was sorted. The sort direction can be changed by another click on that header.

Add a New Sound

 Note

The **Sounds** section is available only if the **Sound Management** permission has been activated for your account. If this permission hasn't been activated, you will not be able to see the **Sounds** icon in the `Tools` area.

A new sound can be added only if there is at least one sound language available. On extension creation, the default sound language is added to the extension account. When there are no sound languages, click the Sound languages icon and follow the instructions in the [Add a New Language](#) section to add new languages.

To add a new sound, click the Sounds icon available in the Home page, in the `Tools` area and follow these steps:

1. Click the Add sound icon available in the `Tools` area.

2. A new page opens, allowing you to enter information about the new sound:

    • Sound form

        ◦ Name – The descriptive name for the sound.

        ◦ This is music on hold – Use this check box to specify the purpose of the sound. When this option is selected, the sound can be played to a caller that is on hold. Otherwise, the sound is used for announcement purposes only.

        ◦ This is a system sound – When this option is enabled, all the users in the system can see and use this sound file.

        ◦ Folder – Use this drop-down list to select the folder where the sound will be stored.

    If you are creating music on hold sounds (i.e. the check box This is music on hold is enabled), the following option is displayed:

        ◦ This is system music on hold – When this option is enabled, the Folder options is disabled and the sound is stored in `/Default` folder.

    • Record over the phone

- ◦ **I want to record sound over the phone** – When this option is enabled, 4PSA VoipNow gives you the possibility to record the sound file over the phone rather than uploading it.

- **Upload sound files**

  - ◦ **Filename** – Click the [Browse…] button to locate the sound file on your computer and upload it.

  > 📝 **Note**
  >
  > 4PSA VoipNow accepts the following extensions for sound files: `.mp3`, `.wav`, `.gsm` and `.raw`.

  If you are creating an announcement sound (i.e. the check box This is music on hold is not enabled), the following options are available:

  - ◦ **Language** – Use this drop-down list to specify the language of the sound file uploaded in the system.

  - ◦ **Default sound file** – When this option is enabled, this file is set as default for the sound. The default file is played for the callers with a phone language that is unavailable for the sound.

    For example, let's assume you have created a sound that announces callers that the extension user is on holiday. You have added versions of the announcement in English, French, and Dutch and set the English file as default. The English sound version will be played to any caller that has other phone language set.

  > 📝 **Note**
  >
  > Each sound object must have one default sound file associated. When uploading several sound files at the same time, make sure you select only one default file. Otherwise, 4PSA VoipNow will display an error message.

3. You can use the [–][+] buttons to remove/ add versions of the sound in different languages:

- [–] removes the `Upload sound` section.

- [+] adds another `Upload sound files` section.

4. Click OK to add the new sound. Click Cancel to go back to the previous page without adding the sound.

Edit Sound Information

To edit the information on an existing sound, click the Sounds icon available in the Home page, in the `Tools` area. In the new opened page, you can modify the sound's properties. For example, you can:

- Add and delete files containing versions of the sound for different languages
- Change the shared flag of an announcement sound

To edit the properties of a sound follow these steps:

1. Click the name of the sound you want to modify.
2. A new page opens, allowing you to change the details of the sound. The content of this page depends on the purpose of the sound: `announcement` or `music on hold`.

   If the sound is an `announcement` sound, the information is grouped in the following sections:
   - Sound properties - This section can not be modified.
   - Record sound file over the phone
     ◦ I want to record sound over the phone - Enable this option if you want to record the sound over the phone.
   - Upload sound files – Use this section to upload files containing versions of the sound in different languages.

   > **Note**
   >
   > When you upload a sound file associated with a language that already exists, 4PSA VoipNow replaces the old file with the new version. Before this operation is performed, 4PSA VoipNow asks you to confirm the replacement.

3. Use the buttons to remove/ add versions of the sound in different languages.

   If the sound is a `music on hold` sound, you can use the Upload sound files section to replace the current music on hold file.

4. Click OK to save your changes. Click Cancel to go back to the previous page without changing the sound.

To manage the existing sound files associated with an `announcement` sound, follow these steps:

1. Click the name of the sound you want to modify.
2. A new page opens, allowing you to view a detailed list of the existing files. In the `Existing sounds` section, 4PSA VoipNow displays the following information about each file:
   - Filename – The name of the file. Click this link to download it on your computer.
   - Sound file size – The file's size in Kb.
   - Folder – The folder where the file is located.
   - Language – The language associated with the sound file.

   > **Note**
   >
   > The default sound file of the sound object is displayed in **bold** format.

3. Click OK to save your changes. Click Cancel to go back to the previous page without changing the sound.

Remove a Sound

To remove a sound, click the 🏠 Home link available in the left navigation panel, than the 📢 Sounds icon and follow the next steps:

1. Choose the sounds you want to remove by selecting their corresponding check boxes.
2. Click the ❌ Remove selected link. A new page displaying the list of the sounds that will be deleted opens.
3. Review the list. If you want to proceed with the removal, select the `Confirm the removal` check box and click OK. Otherwise, click Cancel to return to the previous page without deleting anything.

> ⚠️ **Caution**
>
> You cannot remove sounds that are currently used.

You cannot remove a `music on hold` hold sound if the following conditions are met:

- The folder where the sound is located is used.
- The sound is the only one left in the folder.

Manage Sound Folders

> **Note**
>
> The **Sounds** section is available only if the **Sound Management** permission has been activated for your account. If this permission hasn't been activated, you will not be able to see the **Sounds** icon in the `Tools` area.

View the Folder List

In the Sound Folder Management page, you can view a list of the sound folders available in the system. Multiple operations can be performed:

- Add a new sound folder
- Delete sound folders and their content
- Search for specific folders

To access this page, click the Sounds icon available in the `Tools` area and than on the Folders icon.

4PSA VoipNow displays the following information about each folder:

- Folder name – The name of the sound folder.
- Sounds – The number of sounds stored in the folder. Click this link to open a new page listing these sounds.
- Created – The date when the folder was added to the system.

Searching the Folders List

When the time folder list is too long and you are searching for specific time intervals, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the 🔍 button or the `Search` label to display only the folders whose names contain the text.

- Show all – Click this 📄 button or the `Show all` label to display the entire list.

Even if you navigate to other pages, the search criteria will be retained until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The sound folders list can be filtered by folder name,sounds and creation date. To do so, click on a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the folder list was sorted. The sort direction can be changed by another click on that header.

Add a New Sound Folder

Each time you add new sound files in the system you choose the folder name where you want them to be stored. If you want to store a sound in a specific folder, other than the ones already existent, you can add a new sound folder before adding sound files.

To create a new sound folder, click the 📢 Sounds icon available in the

`Tools` area and than on the 📁 Folders icon and follow the next steps:

1.
   In the Sound Folder Management page, click on the 📁➕ Add folder icon.

2. A new page opens, allowing you to enter the name of the new folder. Use the available text box to name the new folder.

3.
   Use the ➖ ➕ buttons to add several folders at the same time:

   - ➕ adds a new folder input text box.

   - ➖ removes the corresponding text box.

4. Click OK to add the new sound folder(s). Click Cancel to go back to the previous page without adding the folder(s).

Remove a Sound Folder

To remove a sound folder, click the ![icon] Unified Communications link in the left navigation panel. Next, click the ![icon] Sounds icon, in the `Unified Communications settings` area. In the new opened page, click the ![icon] Folders icon in the `Tools` area and follow the next steps:

1. Choose the folders you want to delete by selecting their corresponding check boxes.

2. Click the ![icon] Remove selected link. A new page displaying the list of folders and the sounds located in the folders that will be deleted opens.

> **Note**
>
> When you delete a folder, you also delete all the sounds located in the folder.

3. Review the list. If you want to proceed with the removal, select the `Confirm the removal` check box and click OK. Otherwise click Cancel to return to the previous page without deleting anything.

> **Note**
>
> If the sounds inside the folder are currently used by extensions, these sounds cannot be deleted. The folder that contains them cannot be deleted either.

Manage Sound Languages

View the Language List

A sound file can be recorded in several languages so that the extension can listen to the specified announcement in his chosen language if available in the system. If the extension's language does not exist, then the announcement will be played in the default sound language.

In the Sound Language Management page, you can view a list of the languages available in the system. Multiple operations can be performed:

- View a detailed list of the system languages

- Add a new sound language
- Search for specific languages
- View the sounds that have files in different languages
- Delete sound languages from the system

To access this page, click the Sounds icon available in the `Tools` area and than on the Sound languages icon.

4PSA VoipNow displays the following information about each sound language:

- Language name – The name of the language.

> **Note**
>
> When there is no sound file associated with the language, you can click the language name to rename the language properties.

- Sound files – The number of sound files in this language. Click this link to view the list of sound files.
- Created – The date when the language was added to the system.

Searching the Languages List

When the language list is too long and you are searching for specific languages, you can use the following features:

- Search – Fill in the text you are looking for in the text box. Click the button or the `Search` label to display only the languages whose names contain that text.

- Show all – Click this button or the `Show all` label to display the entire list.

Even if you navigate to other pages, the search criteria will be retained until a new search is performed.

You can change the number of entries per page by clicking the 10, 25 and 100 links available in the right side of the table. The total number of records is shown in the left side.

The languages list can be filtered by name, sound files and creation date. To do so, click on a table header link. The order criteria is marked by the highlighted

table header and the arrow indicates how the languages list was sorted. The sort direction can be changed by another click on that header.

Add a New Language

To create a new language, click the Sounds icon available in the `Tools` area and than on the Sound languages icon and follow the next steps:

1. In the Sound Language Management page, click on the Add sound language icon.

2. A new page opens, allowing you to provide the name of the new sound language. Use the drop-down list to add one of the available languages to the system.

3. Use the buttons to add several languages at the same time:

   - adds another drop-down list so you can create another language.

   - removes the corresponding drop-down list.

4. Click OK to add the new sound language(s). Click Cancel to go back to the previous page without adding the language(s).

Edit Language Details

To change a language's details, click the Sounds icon available in the `Tools` area and than on the Sound languages icon and follow the next steps:

1. Click the name of the language you want to modify.

2. A new page in which you can use the `Name` drop-down list to choose another name for the language opens.

3. Click OK to save your changes. Click Cancel to return to the previous page without renaming the language.

Remove a Sound Language

To remove sound languages, click the Sounds icon available in the `Tools` area and than on the Sound languages icon and follow the next steps:

1. Choose the languages you want to delete by selecting their corresponding check boxes.

2. Click the ✖ <u>Remove selected</u> link. A new page displaying the list of languages and their associated sounds that will be deleted opens.

3. Review the list. If you want to proceed with the removal, select the `Confirm the removal` check box and click OK. Otherwise click Cancel to return to the previous page without deleting anything.

Chapter 14
View Your Call Costs

View Your Extension's Call Costs

4PSA VoipNow offers an easy way to keep track of the calls made by all the extensions in the system.

In the Call Report page, you can view a monthly report of all registered calls. You can also:

- Search for specific calls.
- Export the call list to a file in one of the available formats: Microsoft Excel or CSV.

To access this page, click the Call costs icon available in the `Tools` area.

4PSA VoipNow displays a table containing the calls registered in the current month. To view the calls from a previous month, use the drop-down list available in the page.

The table includes the following details about each call:

- F – The call flow is displayed using an icon:
  - Incoming call
  - Outgoing call
- T – The call type is displayed using one of the icons:
  - External call
  - Local call
  - Extended local call
- A – The application used by the call is displayed using an icon:
  - Dial
  - Voicemail center
  - Voicemail
  - IVR
  - Conference
  - Queue
  - Park
  - Unpark
  - Callback
  - Calling card
  - Fax
  - Intercom/paging
  - Supervising
- From – The number of the extension that initiated the call.
- To – The number of the extension that answered the call.
- Call started – The date and time when the call was initiated.

- Answered - The date and time when the call was answered.

- Call duration – The duration of the call.

- CallID – The unique number that Asterisk generated to identify the call.

- Client – The name of the client who owns the extension.

- Call cost – The cost of the call for the logged in user.

- Profit – The profit made by the logged in user from this call.

> ⚠ Caution
>
> It is highly advisable to hunt for the call costs that have a negative profit!

> 📒 Note
>
> You can filter the displayed columns by clicking the ⊞ **Show columns** button. After choosing the desired columns, click on **Apply** in order to save the changes. Likewise, if you cannot see some of the above columns, it is likely that they have been disabled using this control.

Searching the Calls List

To search the calls database, follow these steps:

1. 4PSA VoipNow automatically displays only the calls from the current month. If you want to view the call list for previous months, use the following options:

   - From number - Use this text box to fill in the number of the person who made the call.

   - To number - Use this text box to fill in the number of the person who answered the call.

   - Account name – Use this text box to fill in the account name (on reseller, client or extension levels) you are searching for.

   - Charging plan - Use this text box to fill in the charging plan name that generated the call cost you are searching for.

   - CallID – Use this text box to fill in the unique number that Asterisk generated to identify the call.

   - Through channel - Use this drop-down list to search only for the calls that were directed through a specific channel.

- Selected channel prefix- This value is available only for outgoing external calls. It contains the prefix of the dialed number that was matched with one of the area codes defined in the routing channel's costs.

- Call duration – Use this section to specify the call duration limits by filling in the fields from the rule:

  Higher than {x} seconds and/or lower than {y} seconds

- Call cost – Use this section to specify the call cost limits by filling in the fields from the rule:

  Higher than {x} and/or lower than {y}

- Profit – Use this section to specify the profit limits by filling in the fields from the rule:

  Higher than {x} and/or lower than {y}

- Call ended with – Use the drop-down list to filter calls that ended with:

  - `Answered`
  - `No answer`
  - `Busy`
  - `Failed`
  - `Unknown`
  - `Not allowed`

- Start search on {x} and end on {y} - Use these text boxes or click the 📅 calendar icon to specify the period you want to search.

- Display - Use these radio buttons to filter the search results:

  - All – Select this option to display all the call types in the list.
  - Incoming calls – Select this option to display only the calls that were received.
  - Outgoing calls – Select this option to display only the calls that were placed.

- Limit search by call context – Use these radio buttons to filter the search results:

  - All – Select this option to display all the calls.
  - Local calls – Select this option to display only the calls made to local numbers (between extensions belonging to the same client).

- ◦ Extended local calls – Select this option to display only the calls made to extended local numbers (between extensions belonging to different clients).

- ◦ External calls – Select this option to display only the calls received from outside the system or sent to external destinations.

- Limit search by application – Select these check boxes to filter the search results by the application used by Asterisk to handle the call:

  - ◦ Dial – Select this option to display the calls between two phone terminals.

  - ◦ Queue – Select this option to display the calls targeted at queue extensions.

  - ◦ Conference – Select this option to display the conference calls.

  - ◦ Voicemail – Select this option to display the calls that ended in the voice mailbox.

  - ◦ Voicemail center – Select this option to display the calls to a voicemail center extension type.

  - ◦ IVR – Select this option to display calls targeted at IVR extensions.

  - ◦ Park – Select this option to display calls that were parked.

  - ◦ Unpark – Select this option to display calls that were picked up form the parking lot.

  - ◦ Calling card - Select this option to display calls that were made using an extension of type calling card.

  - ◦ Intercom/paging - Select this option to display the calls made through an intercom/paging extension type.

  - ◦ Callback - Select this option to display calls that were made using an callback extension type.

  - ◦ Fax - Select this option to display incoming fax calls stored on the server.

  - ◦ Supervising - Select this option to display the supervised calls.

2. Click OK to display only the records that fit your search criteria.

Export Reports to an Easy-to-Edit Format

- Export to Excel – Click this link to export the call costs report to a Microsoft Excel file.

- Export to CSV - Click this link to export the call costs report to a `.csv` format file.

You have the possibility to customize the exported call cost report by choosing the columns you want to include in your report. To select the relevant columns that will appear in the exported report, click the `Show export` button in the upper right corner of the screen. Select the check boxes corresponding to the column names you want to export. Deselect the check boxes corresponding to the column names you want to leave out.

This is the list of all possible columns you can export in your customized report:

- Call flow - The direction of the call: incoming or outgoing.
- Call type - The received call's type
- Application - The application that answered the call. Any of the applications listed under Limit search by application (see above) can answer the call.
- To number - The phone number of the person who answered the call.
- From number - The phone number of the person who made the call.
- Call started - The date and time when the call started ringing on the destination phone.
- Call answered - The date and time when the call was answered. If the call was not answered, 4PSA VoipNow records the value: `0000-00-00 00:00:00`
- Call duration - The total length of the received call.
- Call disposition - The way the call was terminated: it was either answered, not answered, failed, etc
- Charging plan - The charging plan that generated the call cost.
- Call cost - The call's cost as charged by the channel.
- Money unit - The currency currently used for charging.
- Call ID - The unique ID of the call generated by 4PSA VoipNow.
- Transfer source - If the call was transferred to another extension, this column will list the source extension.
- Transfer destination - If the call was transferred to another extension, this column will list the destination extension.
- Initially called extension - If the call was picked up from another extension, this column will display the extension that was originally called.

- Callback caller-ID - If the caller used a callback extension to route its call to a remote destination, this column displays the authorized caller-ID (the number from which the user dialed the system).

- Calling card code - If the caller used a calling card to call a destination number, this column displays the code introduced to authenticate and charge the call.

Chapter 15
Manage Your Email Templates

Manage Email Notifications

4PSA VoipNow can send email notifications to its users when standard events occur. The text of the notifications can be customized. The system can be also setup to send only some notifications and only to certain users.

To access this page, click the Email templates icon located in the Tools area.

You can set the notification preferences for a series of events displayed on the first column.

> **Note**
>
> If you want all the email notifications from a specific category to be sent to a certain user, select the check box from the user's column header.

Therefore, you can enable email notifications for your own account. When a new account is created, it inherits the upper level account email notification options. Afterwards, the account owner can change these options in the same way in the Email Template Management page.

When an account is created, the new owner can receive a mail notifying him that the account was registered. This notification is made only if the upper level account owner has the notification enabled.

> **Note**
>
> The email notification will be sent to the email address specified in the account information.

Notification emails can also be sent to an email address specified in the `E-mail address` column. This email address can be different for each selected event.

The events that can trigger an email notification are displayed in the Email Template Management page:

- Extension email templates
  - Extension creation – This email notification is triggered by the creation of an extension account.
  - Extension expiration warning – The email notification triggered by this event is sent {x} days in advance, as specified in the Send expiration noticesfield.
  - Extension expired - The email notification triggered by this event is sent after the extension account has expired.
  - Extension charging limit warning – The email notification triggered by this event is sent when the available number of minutes is below {y} minutes or when the credit is below the {credit_limit}, as specified in the Send charging limit warnings when the account is below field.
  - Extension charging limit exceeded - The email notification triggered by this event is sent after the charging limit was exceeded.

  For the events in this field set, 4PSA VoipNow can deliver email alerts to the following users:
  - The client that owns the extension account
  - The extension account owner
  - A custom email address
- Unified Communications email templates

◦ Voicemail message notification - The email notification triggered by this event is sent after a voicemail message has been received.

◦ Fax message received - The email notification triggered by this event is sent after a fax message has been received.

◦ Sent fax accepted - The email notification triggered by this event is sent after a fax message has been accepted by the receiver.

◦ Sent fax not accepted - The email notification triggered by this event is sent if the receiver has not accepted the fax message.

◦ Fax delivery report - 4PSA VoipNow can send a delivery report for all the sent fax messages.

For the events in this field set, 4PSA VoipNow can deliver email alerts to the following users:

◦ The extension account owner

◦ A custom email address

• Security email templates

◦ Customer password forgotten notification – For this event, 4PSA VoipNow will send an email message containing a temporary password to the user who has forgotten his password and requested a new one. This password is valid only for the time period specified in the Login Preferences page, in the Expiration time for new password field.

In the Preferences section you can specify the conditions in which the warning emails will be sent:

• Send expiration notices {x} days in advance – Use this text box to specify how many days before the account expiration a notifications is dispatched to the users.

• Send charging limit warnings when the account is below {y} minutes or {credit_limit} {currency} – A charging limit warning is generated in one of the following cases:

◦ The minutes remaining in the Available external outgoing minutes plus the minutes remaining in the External outgoing over usage go below a certain limit.

Use the first text box to specify this minutes limit.

◦ The credit remaining in Limit for external outgoing calls goes below a certain limit.

Use the second text box to specify this money limit.

- The credit remaining in Limit for external incoming calls goes below a certain limit.

  The money limit you specified for external outgoing calls in the above text box, includes the external incoming calls money limit.

To enable notifications for users, follow the steps:

1. From the available check boxes, select the ones corresponding to the users you want to notify for that event.

2. Click OK to save your options. Click Cancel to return to the previous page without saving the changes you have made.

Customize the Email Content

To customize the subject and content of an email notification, follow these steps:

1. Click the icon corresponding to the chosen event.

2. A new page allowing you to edit the email subject and email body opens. Modify the text, keeping in mind the following rules:

   - You may use only plain text when writing the email subject and content. The email is also sent in plain text format.

   - You can include tags that will be automatically replaced by the system with the appropriate content. Examples:

     `[recipient_name]` is replaced with the name of the person receiving the notification.

3. Click OK to save the changes to the email. Click Cancel to return to the previous page without saving the changes.

Restore the Default Settings

To restore the default notification settings and email contents, click the Default button.

> **Note**
>
> When you click the **Default** button, 4PSA VoipNow will not overwrite the other email address destination.

Appendix A. Using the Text To Speech Feature

The text to speech feature allows you to convert written text into speech. 4PSA VoipNow uses the text to speech engine developed by Cepstral.

Controlling How the Text is Read

The Cepstral engine allows you to control the voice reading the text by specifying attributes such as rate, pitch and volume or by inserting pauses. This can be achieved by using a set of HTML-like tags; the tags make up the Speech Synthesis Markup Language (SSML).

This section offers a set of SSML examples that can be used with the Cepstral engine. For more detailed descriptions of the elements and attributes of the markup language, see the official W3C SSML Specifications: http://www.w3.org/TR/speech-synthesis/

Inserting silence/ pauses

You can insert pauses between words, sentences or paragraphs by using the `<break>` empty tag. To control the length of the break, you can use two attributes: `strength` and `time`.

"There is no `<break strength='none' />` pause here."

"This is a `<break strength='x-weak' />` pause between words."

"This is a `<break strength='weak' />` longer pause between words."

"This is a `<break strength='medium' />` pause between sentences."

"This is a `<break strength='strong' />` pause between paragraphs."

"This is a `<break strength='x-strong' />` longer pause between paragraphs."

"This is a `<break time='2s' />` two second pause."

"This is a `<break time='4500ms' />` 4.5 second pause."

"This is a `<break />` pause between sentences."

Controlling the Speech Rate

You can control the rate of the speech by using the `prosody` element and specifying a value for its `rate` attribute.

"I am now `<prosody rate='x-slow'>`speaking at half speed.`</prosody>`"

"I am now `<prosody rate='slow'>`speaking at 2/3 speed.`</prosody>`"

"I am now `<prosody  rate='medium'>`speaking at normal speed.`</prosody>`"

"I am now `<prosody rate='fast'>`speaking 33% faster.`</prosody>`"

"I am now `<prosody rate='x-fast'>`speaking twice as fast`</prosody>`"

"I am now `<prosody  rate='default'>`speaking at normal speed.`</prosody>`"

"I am now `<prosody rate='.42'>`speaking at 42% of normal speed.`</prosody>`"

"I am now `<prosody rate='2.8'>`speaking 2.8 times faster than normal`</prosody>`"

"I am now `<prosody  rate='-0.3'>`speaking 30% more slowly than normal.`</prosody>`"

"I am now `<prosody rate='+0.3'>`speaking 30% faster than normal.`</prosody>`"

Controlling the Voice Pitch

You can control the pitch of the speech by using the `prosody` element and specifying a value for its `pitch` attribute.

"`<prosody pitch='x-low'>`This is half-pitch`</prosody>`"

"`<prosody pitch='low'>`This is 3/4 pitch.`</prosody>`"

"`<prosody pitch='medium'>`This is normal pitch.`</prosody>`"

"`<prosody pitch='high'>`This is twice as high.`</prosody>`"

"`<prosody pitch='x-high'>`This is three times as high.`</prosody>`"

"`<prosody pitch='default'>`This is normal pitch.`</prosody>`"

"`<prosody pitch='-50%'>`This is 50% lower.`</prosody>`"

"`<prosody pitch='+50%'>`This is 50% higher.`</prosody>`"

"`<prosody pitch='-6st'>`This is six semitones lower.`</prosody>`"

"`<prosody pitch='+6st'>`This is six semitones higher.`</prosody>`"

"`<prosody  pitch='-25Hz'>`This has a pitch mean 25 Hertz lower.`</prosody>`"

"`<prosody  pitch='+25Hz'>`This has a pitch mean 25 Hertz higher.`</prosody>`"

"`<prosody pitch='75Hz'>`This has a pitch mean of 75 Hertz.`</prosody>`"

Controlling the Output Volume

You can control the volume of the speech by using the `prosody` element and specifying a value for its `volume` attribute.

"`<prosody volume='silent'>`This is silent.`</prosody>`"

"`<prosody volume='x-soft'>`This is 25% as loud.`</prosody>`"

"`<prosody volume='soft'>`This is 50% as loud.`</prosody>`"

"`<prosody volume='medium'>`This is the default volume.`</prosody>`"

"`<prosody volume='loud'>`This is 50% louder than normal.`</prosody>`"

"`<prosody  volume='x-loud'>`This is 100% louder than normal.`</prosody>`"

"`<prosody volume='default'>`This is the default volume.`</prosody>`"

"`<prosody volume='-33%'>`This is 33% softer than normal.`</prosody>`"

"`<prosody volume='+33%'>`This is 33% louder than normal.`</prosody>`"

"`<prosody volume='33%'>`This is 33% louder than normal.`</prosody>`"

"`<prosody volume='33'>`This is 33% of normal volume than normal.`</prosody>`"

Adding Emphasis to the Speech

You can control the stress placed on certain pieces of text by using the `emphasis` element and specifying a value for its `level` attribute.

> **Note**
>
> The nature of emphasis differs between languages, dialects or even voices. Languages indicate emphasis using a possible combination of pitch change, timing changes, loudness and other acoustic differences

"This is `<emphasis  level='moderate'>`stronger`</emphasis>` than the rest."

"This is `<emphasis level='strong'>` even stronger`</emphasis>` than the previous."

"This is `<emphasis level='none'>`the same as`</emphasis>` than the rest."

"This is `<emphasis level='none'>`the opposite of`</emphasis>` emphasis."

> **Note**
>
> The **none** level is used to prevent the synthesis processor from emphasizing words that it might typically emphasize.

Spelling Words Phonetically

The `phoneme` element provides a phonemic/phonetic pronunciation for the contained text. The `ph` attribute is a required attribute that specifies the phoneme/phone string.

"You say <phoneme ph='t ah0 m ey1 t ow0'>tomato</phoneme>, I say <phoneme ph='t ah0 m aa1 t ow0'>tomato</phoneme>"

For a complete list of available phonemes for your language, please see the Cepstral page Editing the Lexicon.