VOIPNOW®
PROFESSIONAL 2

4PSA VoipNow® 2.0.3

Client's Guide

For more information about 4PSA VoipNow, check:
http://www.voipnow.com

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Client's Guide

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For suggestions regarding this manual contact:

docs@4psa.com

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Preface

Who Should Read This Guide

This Client's Guide must be read by the 4PSA VoipNow clients.

Chapter 1

Edit Your Contact Information

Caution

After the first install, you will be required to fill in your contact information from the **Client'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 Edit client icon available in the [Extensions](#) 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, go to the Unified Communications >> **Email templates** page.

- 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 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 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 – Select this check box to enable/ disable application tool tips displayed on mouse over images/ icons.
- Display context help – Select 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 

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 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 client account.

To enter the Access policy page, click the Access icon available in the Unified Communications settings area of the Unified Communications page.

There are two types of access policies:

- Deny - When this policy is configured, the client 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 client account.
- Allow - When this policy is configured, the client 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 client 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:
  - - Allowed
  - - 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 Apply changes 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 networks 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.

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.

Manage Custom Buttons

4PSA VoipNow allows you to customize the functionality of the control panel by adding custom buttons linked to specific URLs.

In the **Custom buttons** page you can:

- View the list of custom buttons defined at system level
- Add new custom buttons to the system
- Edit the settings of the existing custom buttons
- Delete custom buttons from the system

To access this page, click the Unified Communications link in the left navigation panel. In the new opened page, click the **Custom buttons** icon available in the **Unified Communications settings** area.

View the Custom Buttons List

In the **Custom buttons** page you can view the following details about existing custom buttons:

- S – The icon displays the button's status::
  - Enabled
  - Disabled
- A – The button's availability is displayed using one of these icons:
  - Available only for the current user.
  - Available for the first inheritance level.
- L – The button's location:
  - shows that the button is displayed in the left panel.
  - shows that the button is placed in the right panel.
- I – The icon associated with the button.

> **Note**
>
> If the default icon is associated with the button, 4PSA VoipNow displays

- Label – The button's tag that will be displayed, allowing the user to click on it in order to access the specified location.
- URL – The URL linked with the button.
- Priority – A value that defines the order in which buttons are displayed in the interface.
- Display method - Shows the button's visibility.
- Display to owner - Shows if the button is visible to its owner account or not.

Add a New Custom Button

To add a new custom button, click the Unified Communications link in the left navigation panel. In the new opened page, click the Custom buttons icon available in the Unified Communications settings area and follow the next steps:

1. In the **Custom Buttons** page click the icon. A new page listing the parameters associated with the new button opens.

2. Use the following settings to define the button's look and behaviour:

   - **Code** - Use this text box to fill in an unique reference code which will represent this button's key. The code's minimum length is three characters.

     > **Note**
     >
     > The objects which have an unique reference code can be edited based upon this ID.

   - **Label** – Use the available text box to specify the button's tag. The user will be able to click on this link in order to access the specified location.

   - **Location** – Use this drop-down list to choose where the button will be displayed:

     - **Navigation panel** - The button will be displayed on the left panel, in the navigation panel.

     - **User's context** - The button will be displayed on the right panel, in the user's context.

   - **Default image for all skins** – When this option is enabled, 4PSA VoipNow displays a default icon for the button. If you deselect this check box, 4PSA VoipNow displays additional controls that allow you to load custom icons for the button:

     - Use the Browse... button to locate a graphic file on your computer.

     - Select the check box corresponding to the skin where the icon will be used.

     - Select the **All skins** check box if you want to use the same icon for all the 4PSA VoipNow skins installed on the server.

     - You can use the buttons to add icons for different skins at the same time.

     > **Note**
     >
     > The maximum file size for an icon is 10 KB.

- Include reseller ID – When this option is selected, 4PSA VoipNow appends the id of the currently selected reseller to the URL linked with the button.
- Include client ID – When this option is selected, 4PSA VoipNow appends the id of the currently selected client to the URL linked with the button.
- Include extension ID – When this option is selected, 4PSA VoipNow appends the id of the currently selected extension to the URL linked with the button.
- Include extension internal number – When this option is selected, 4PSA VoipNow appends the internal number of the currently selected extension to the URL linked with the button.
- Include extension public number – When this option is selected, 4PSA VoipNow appends the public phone number of the currently selected extension to the URL linked with the button.
- Include charging plan – When this option is selected, 4PSA VoipNow appends the id of the currently selected reseller to the URL linked with the button.
- Priority – The value in this text box defines the order in which the custom buttons are displayed in the interface.
- URL – Use this text box to fill in the URL that will opened when the button is clicked.
- Tool tip – Use this text box to specify a short description of the button's purpose.
- Display method - You can choose two methods:
    - Level inheritance
    - Level selection
- Inheritance level – Use this drop-down list to specify the button's visibility:
    - 0 – The button is visible only to the client.
    - 1 – The button is visible only to the client and extension users.
- Display on level - Use this drop-down list to specify the button's visibility:
    - EXTENSION - The button is visible only to the extension users.

> **Note**
>
> The main difference between the `Level inheritance` and the `Level selection` is the button's visibility. If you choose `Level selection`, the button will only be visible to the specified level, without having to be available to all the other upper levels.

- Also display on owner account - If checked, the button will be visible to its owner account and to the extension accounts.

> **Note**
>
> The `Also display on owner account` option is only available if the `Display method` is `Level selection`.

- Action – Use this drop-down list to choose if the URL will be opened in the:
  - Current window or
  - New window

3. Use the Custom button expiration date option to specify when the customer button becomes invalid by deselecting the Unlimited check box and providing a date using the text box or the available calendar button.
4. Click OK to create the button. Click Cancel to go back to the previous page without adding the button to the system.

Edit Custom Buttons

To edit the parameters associated with a custom button, click the name of the chosen button in the custom buttons list. In the new opened page, use the available controls to change the current settings. For more information see Add a New Custom Button.

Remove Custom Buttons

To remove custom buttons, go to the Unified Communications Features page, click the Custom buttons icon available in the Unified Communications options area and follow the next steps:

1. Choose the buttons 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, click OK. Otherwise, click Cancel.

Chapter 3

Manage Your Account

Manage Phone Number Collections

The phone number collections can be used for screening the outgoing calls of a phone terminal extension. For more information, please read the Manage Call Screening Preferences section.

View the Phone Number Collections

To access this page, click the Extensions link in the left navigation panel. In the new opened 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 on 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 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 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.

Manage Phone Number Categories

In order to add a screening number, at least one category must be defined.

View the Phone Number Categories

To access the Categories management page, click on the Categories icon, located in the Tools area of the Phone Numbers Collections management page.

The Categories page displays the existing categories. The following information is available:

- Category - The name of the category. Click on 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 the 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.

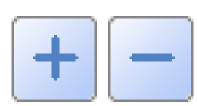
You can change the number of entries per page by clicking the [10](), [25]() and [100]() links available in the right side of the table. The total number of records is shown in the left side.

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 client user. Always, inheritance level 0 represents the logged in user. For each child user, the level is incremented with 1.
     - 1 – The category is visible to the client and his extension users.
   - 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.

Manage Your Outgoing Routing Rules

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

View Your Outgoing Routing Rules

To access your routing rules, click the [Extensions](#) link in the left navigation panel area and than the Outgoing routing groups icon available in the Tools area.

In the Outgoing Routing Groups Management page, you can view a list of the routing rule groups available in your account. The following operations can be performed:

- Add new routing groups
- Add new routing rules inside a group
- Replace existing routing groups
- Replace existing routing rules inside groups

4PSA VoipNow displays the following information on each group:

- S – This icon displays the group's status:
    - Enabled
    - Disabled

  Click on this icon to change the group's status.

> **Note**
>
> You cannot change the status of the groups that are currently included in charging plans.

- Name – The descriptive name of the outgoing routing rule group. Click this link to edit the group's details.
- Rules – The number of rules inside the rule group.
- Created – The date when the group was added to the system.

Searching the Routing Rules Groups List

When the routing rules group list is too long and you are searching for specific routing rules, 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 routing rules that match your search 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.

The routing rules group list can be filtered by name, rules, charging plan 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 routing rules group list was sorted. The sort direction can be changed by another click on that header.

Add an Outgoing Routing Rules Group

To add outgoing routing rules to the system, click the name of the client in the Client Management page, then click the Outgoing routing rules icon available in the Tools area and follow these steps:

1. Click the Add outgoing routing rules icon available in the Tools area.
2. A new page opens, allowing you to fill in details about the routing rules group. The information is displayed in several sections:
   - Routing group management
     - Name – Use this text box to give a descriptive name for the outgoing routing rule group.
   - Add new outgoing routing rules – In this 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 first drop-down list displays the available actions. On this level, 4PSA VoipNow blocks the call to that number if the number is matched. If you select this action, the following routing rule will be displayed:

     Block number {number_1} if in time interval {time_int} coming from {number_2}, where:

     - {number_1} - Use this text box to specify the number dialed by the extension user.

◦ {time_int} - Use this drop-down list to select the time interval when this rule will be applied.

◦ {number_2} - Use this text box to specify the number of the extension where the call originates.

Note

You can specify any combination of the digits 0-9 and the characters '.' , '*'.

The number entry supports the Asterisk number matching. You can enter a basic regular expression containing:

◦ 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 0, 1 or any number of the previous expression.

◦ . - matches one or more characters.

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.

Note

You can specify any combination of the digits 0-9 and the characters '.' , '*'.

The number entry supports the Asterisk number matching. You can enter a basic regular expression containing:

◦ any digit.

◦ ***** - Matches 0, 1 or any number of the previous expression.

◦ **.** - Matches one or more characters.

Caution

The **Block** rule is final. This means that when the rule is matched, other rules are no longer checked.

3. 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.

Edit a Routing Rule Group

To edit the properties of an outgoing routing rule group, click the name of the client in the Client Management page, then click the Outgoing routing rules icon available in the Tools area and follow these steps:

1. In the Outgoing Routing Rules Management page, click the name of the group.
2. A new page allowing you to modify the details of the group opens. The information is displayed in several sections:
   - Routing Group Management – Use this section to rename the group.
     - Name – Use this text box to give a descriptive name to the outgoing routing rule group.
     - Agree to replace existing routing rules – You can use this option to upload an XML file that was previously saved with the Save rules option.

       > **Caution**
       >
       > 4PSA VoipNow will delete from the database the selected group of rules and replace them with the uploaded rules.
       >
       > The group of rules in the XML file must have the **same name** as the group in the interface. Otherwise, 4PSA VoipNow will not delete the current rules and ignore the uploaded file.

     - Upload rules – When the option Agree to replace existing routing rules is enabled, you can use the Browse... button to locate the file containing the group of routing rules that you want to upload.
   - Add new outgoing routing rules – Use this section to add new rules to the group.
   - Existing rules – Use this section to review the existing rules, change their order in the group or remove rules from the group.

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

- S – This icon displays the rule's status:

- Enabled
- Disabled

Click on this icon to change the rule's status.

- Action – The action performed when 4PSA VoipNow matches the number dialed by the user.
- Number – The number chosen to match the number dialed by the extension user.
- In time interval – The time interval when the rule will be executed.
- Coming from – The number of the extension where the call originated.

Remove a Routing Rule from a Group

To remove routing rules from a group, follow the steps:

1. Choose the routing rules you want to delete by selecting their corresponding check box.
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.

Save Outgoing Routing Rule Groups

4PSA VoipNow gives you the possibility to back-up and restore your routing rules. You can export routing rules to XML files and download them to your computer. You can later upload these files to the 4PSA VoipNow rules database. You can save either individual groups or all groups available in the 4PSA VoipNow system.

To save a specific group from the system onto your computer:

1. In the Outgoing Routing Rules Management page, click the name of the group you want to save.
2. A new page listing all the rules available in the group opens. Click the Save rules link.

To save all the groups currently available in your database, in the Outgoing Routing Rules Management page click the Save rules link.

Remove an Outgoing Routing Rule Group

To remove routing rule groups from the system, click the Outgoing routing rules icon available in the Client Management page and follow the next steps:

1. Choose the groups 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.

> **Note**
>
> You cannot remove routing rule groups that are used in the client's charging plans.

CallAPI

CallAPI is a multi-threaded proxy server for 4PSA VoipNow. It is designed to handle the communication with the VoipNow servers and to act as a point of contact for applications. CallAPI supports multiple input/ output formats, including Standard, XML, CSV, and HTTP, HTTPS and SSL.

To access the CallAPI Preferences page, click the Extensions link available in the left navigation panel and than the CallAPI button from the Tools area.

The following information is available:

- Allow CallAPI access on client - Select this check box to allow the connections to CallAPI from the client's account.
- CallAPI password - Use the available text box to specify the password for total access to CallAPI.
- Confirm CallAPI password - Use the available text box to confirm the password for total access to CallAPI.
- Preferred CallAPI agent - Select the agent that you will use for Call API. Selecting a different agent than the one you use may lead to unexpected behavior. Select NONE if you intend to send direct commands to CallAPI

For more information about CallAPI, please read the 4PSA VoipNow CallAPI Guide.

Chapter 4

Manage Unified Communications Features

Most settings that change the system behaviour can be managed starting from this page.

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

Manage 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 Unified Communications link in the left navigation panel. Next, click the Time intervals icon available in the Unified Communications settings 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
  - Interval belonging to the owner user
- 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 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 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 Unified Communications link in the left Navigation panel. Next, click the Time intervals icon, in the Unified Communications settings area and follow the next steps:

1. In the Time Interval Management page, click on 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.

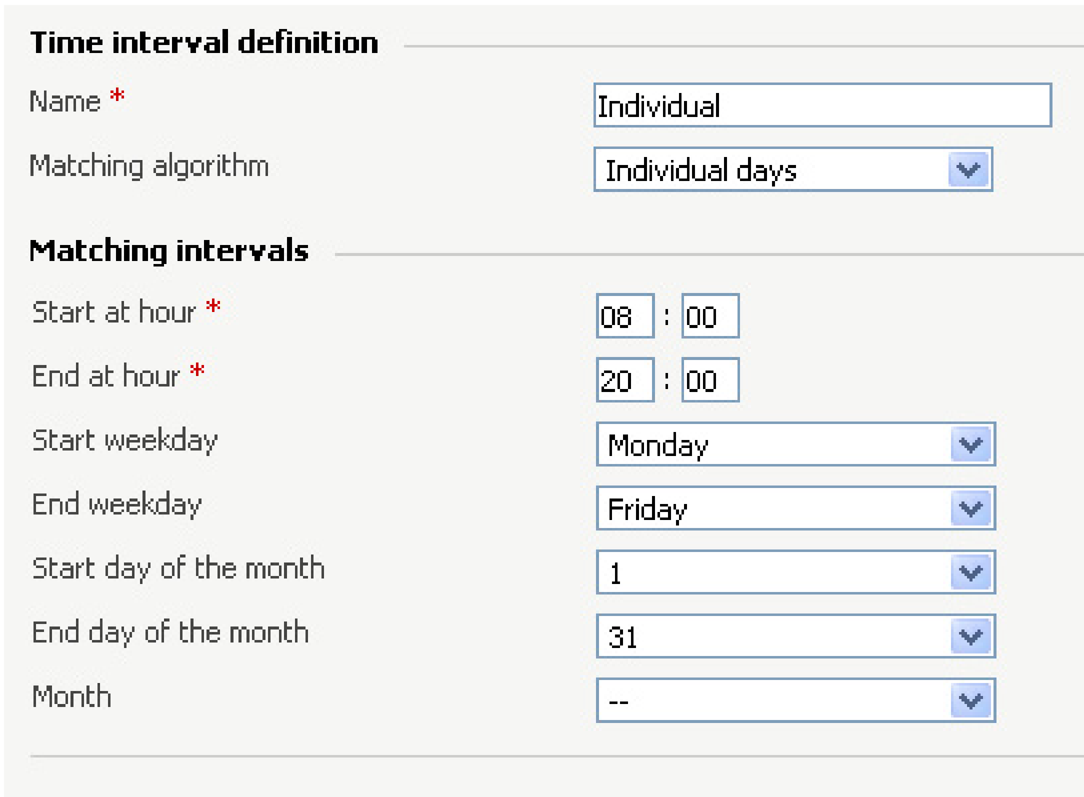
- The Matching intervals area allows you to enter multiple time intervals in order to have a more complex and comprehensive overview of the calls. Here you can enter the following parameters:
    - Start at hour and End at hour – Use the available text boxes to specify the limits of the time slot.
    - 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.

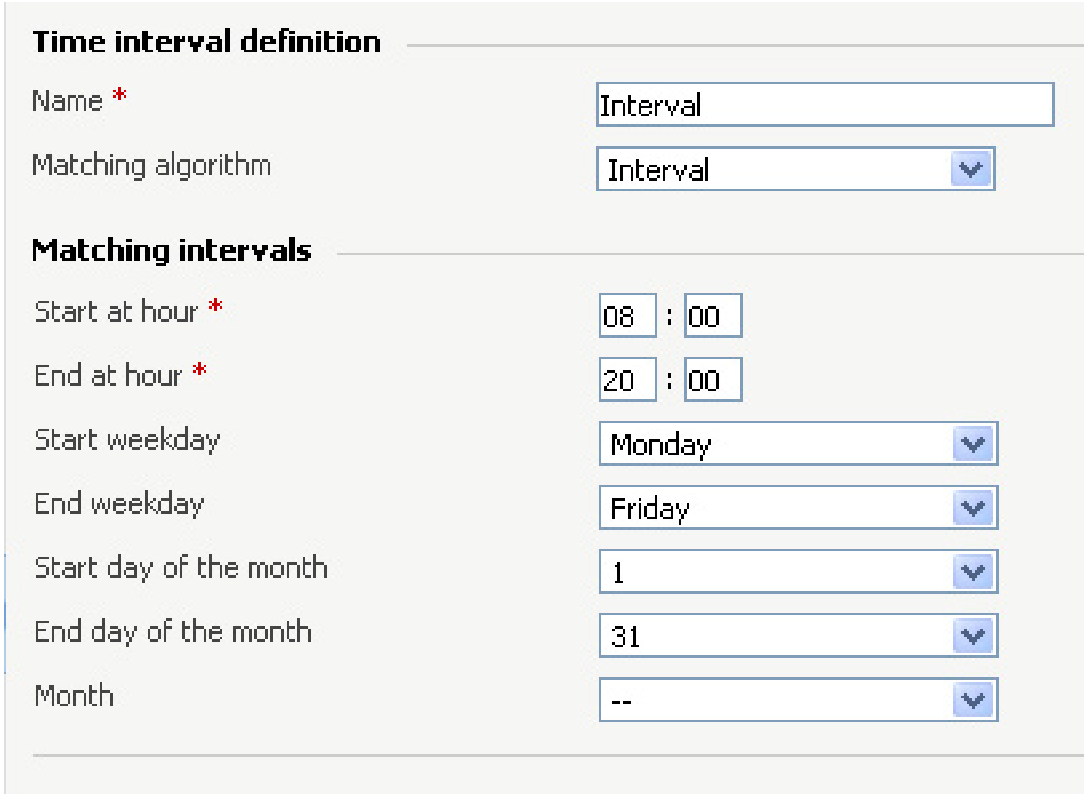
In the below time interval, 4PSA VoipNow matches the calls made or received between 8:00 – 20:00 hours, on Monday, Tuesday, Wednesday, Thursday and Friday between 1 and 31 of every month.



A time interval defined in individual days

Example of a contiguous time interval

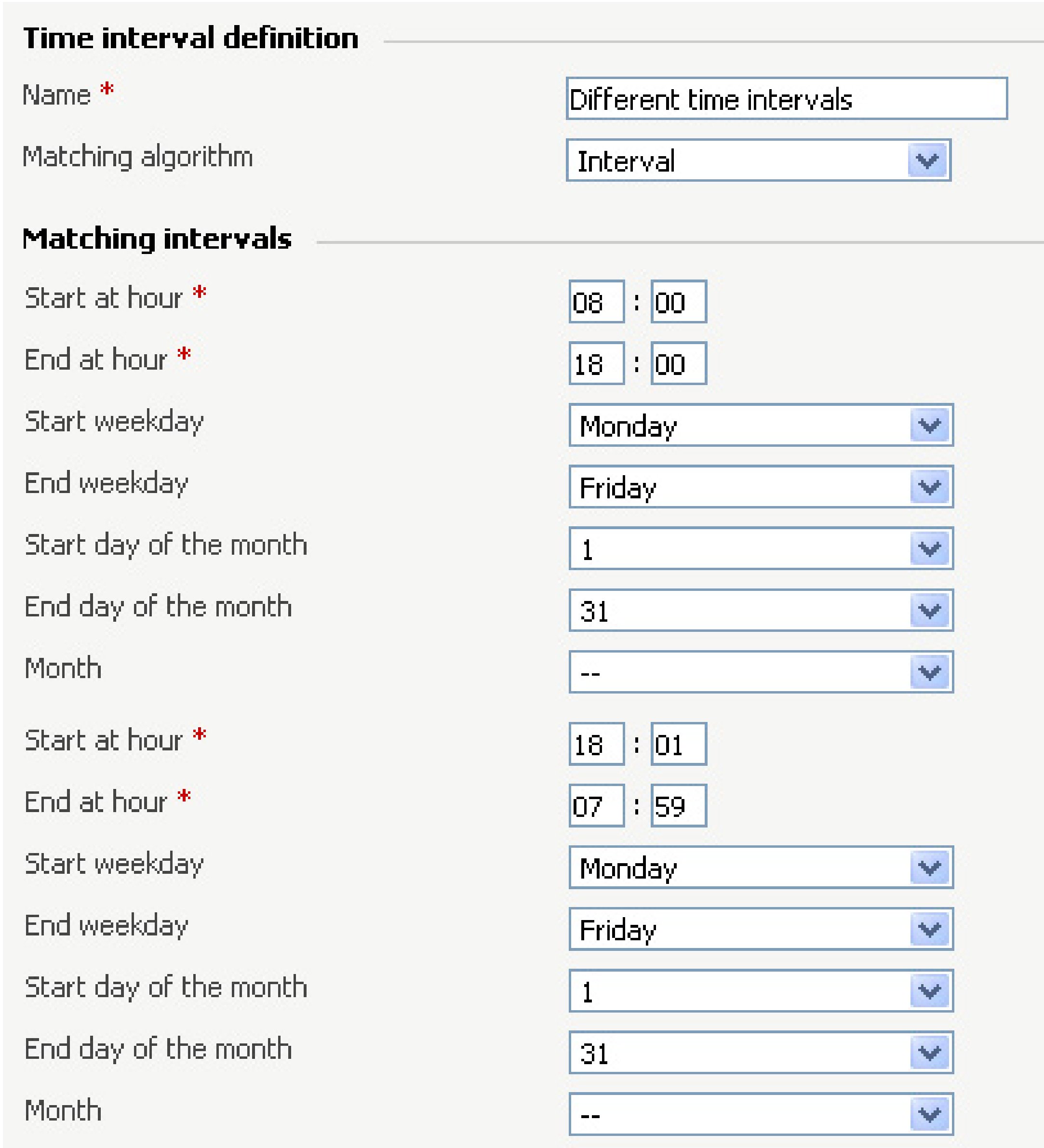
In the below time interval, 4PSA VoipNow matches the calls made or received between Monday, 8:00 and Friday, 20:00, between 1 and 31 of every month.



A continuous time interval

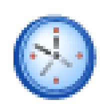
Example of a time interval block with two different time intervals defined for individual time frames

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



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 Unified Communications page, in Unified Communications settings 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 Unified Communications options 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.

Manage 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 Sound List

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

To access this page, click the Unified Communications link in the left navigation panel. In the new opened page, click the Sounds icon available in the Unified Communications settings 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 – This icon displays the sound's status:
  - Enabled
  - Disabled

  Click the icon to change the sound's status.
- T – This icon displays the sound's type:
  - 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:
  - specifies an Announcement sound
  - 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**
>
> 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 button or the Search label to display only the sounds 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 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

A new sound can be added only if there is at least one sound language available. To add a new sound, click the Sounds icon available in the Unified Communications page, in the Unified Communications settings 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 – Select 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 [Unified Communications]() page, in the `Unified Communications settings` 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:

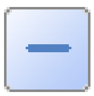
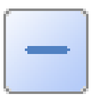
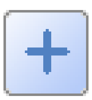
1. Click the name of the sound you want to modify.
2. A new page opens, allowing you to change the details of the sound. The content of this page depends on the purpose of the sound: announcement or `music on hold`.

   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 - Select 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:
    -  removes the corresponding Upload sound files. section
    -  adds another Upload sound files section.

    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 Unified Communications link, than the Sounds icon, available in the Unified Communications options area, 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 sound if:
>
> - The folder where the sound is located is used.
> - The sound is the only one left in the folder.

Manage Sound Folders

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 Unified Communications link situated in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Folders icon available in the Tools area.

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 that match your search 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.

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 Unified Communications link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Folders icon in the Tools area 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 Unified Communications link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the 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 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 Unified Communications link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Sound languages icon, in the Tools area.

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 that match your search 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.

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 Unified Communications link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Sound languages icon in the Tools area 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 [Unified Communications](#) link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Sound languages icon in the Tools area 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 [Unified Communications](#) link in the left Navigation panel. Next, click the Sounds icon, in the Unified Communications settings area. In the new opened page, click the Sound languages icon in the Tools area and follow the next steps:

1. Choose the languages you want to delete by selecting their corresponding check boxes.
2. Click the [Remove selected](#) 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 5

Manage Charging Plans

> **Caution**
>
> This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

View Your Charging Plans

A charging plan is a collection of rules which defines how a client will be charged for the calls made by his extensions. To view the charging plans list, click the Extensions link available in the left navigation panel and than the Charging plans icon situated in the Tools area.

In the Charging Plan Management page, you can view the list of all charging plans available for the client. You can also perform the following actions on these plans:

- View your charging plan

- Add a new charging plan
- Search for specific charging plans
- Edit a charging plan's details
- Delete charging plans

4PSA VoipNow displays the following information about each charging plan:

- S – The charging plan's status is displayed using an icon:
  - Enabled
  - Disabled

  Click on this icon to change the charging plan's status.

> **Note**
>
> You can change a charging plan's status only if it is not currently used.

- I – The permission for incoming calls is displayed using an icon:
  - Allowed and free
  - Allowed and charged
  - Not allowed
- O – The permission for outgoing external calls is displayed using an icon:
  - Allowed
  - Not allowed
- L – The permission for local calls between extensions that belong to the same client account is displayed using an icon:
  - Allowed
  - Not allowed
- E – The permission for extended local calls between extensions that belong to different client accounts in the system is displayed using an icon:
  - Allowed
  - Not allowed

- Name – The descriptive name of the charging plan. Click the link to edit the details of the charging plan.
- Type – The type of the charging plan: prepaid or postpaid.
- ExtOutCredit – The credit limit for the external outgoing calls.
- ExtInCredit – The credit limit for external incoming calls.
- Resellers – The number of resellers using this charging plan.
- Products - The number of products using this charging plan
- Created – The date when the charging plan was added to the system.

Note

You can filter the columns you would like to display in this page 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 Charging Plans List

Caution

This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

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

- Search – Fill in the text you are looking for in the text box. Click on the icon or the Search label to display only the plans that match your search criteria.
- Show all – Click on this icon 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 charging plans list can be filtered by name, type, ExtOutCredit, ExtInCredit, resellers number, products number 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 charging plan list was sorted. The sort direction can be changed by another click on that header.

Add a New Charging Plan

> **Caution**
>
> This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

4PSA VoipNow offers the possibility of adding a new charging plan, which can be applied to client account creation.

To add a new charging plan, click the Extension link available in the left navigation panel, than the Charging plans icon situated in the Tools area and follow the next steps:

1. In the Charging Plan Management page, click the Add charging plan icon. A new page opens, allowing you to enter information about the new charging plan.
2. The information is grouped in several sections:
   - Charging plan description

     > **Note**
     >
     > Some of the options described may not be present if the charging plan associated with your account does not permit them.

     - Name – Use the text box to give a descriptive name to the charging plan.
       - Set as default charging plan - Select this check box located next to the Name text box if you wish to set the charging plan as default for the new reseller accounts.

> **Note**
>
> If no charging plan is selected when adding a new extension account, the client's default charging plan is set as the default one for the new extension account.
>
> The default charging plan cannot be deleted.
>
> A client must have only one default charging plan. If you set another charging plan as default, the old one is no longer considered default.

- Outgoing routing rule – Use the drop-down list to select one of the available Outgoing routing rule groups. They contain guidelines that 4PSA VoipNow follows when choosing the route of an outgoing call. For more information about outgoing routing rule groups, please see the [Manage Your Outgoing Rules](#) section.
- Allow incoming calls – When this option is enabled, the user is able to receive calls from extensions registered into the system as well as from extensions outside the system.
- Allow outgoing external calls – When this option is enabled, the user is able to make calls to extensions outside the server.
- Allow outgoing local calls – When this option is enabled, the user is able to call extensions on the same client account.
- Allow outgoing extended local calls – When this option is enabled, the user is able to call other extensions in the system.

* Charging policy
  - Charging plan types – 4PSA VoipNow offers two types of charging plans:
    a. Prepaid - The client will have a limited credit. Once the credit is consumed, the client will no longer be allowed to place or receive calls.
    b. Postpaid - The client will pay a *monthly* fee which will include a predefined number of minutes. The minutes that exceed that limit will be charged after predefined rates.
  - Limit for external outgoing calls – In order to prevent abuse, you can assign a money limit for the total costs of outgoing external calls. When the cost of the calls exceeds this limit, the extensions will no longer be able to make calls to external destinations.

Note

This field is displayed only for `Postpaid` charging plans. The value in this field represents a *monthly* limit (i.e. the amount limits the total costs of the external outgoing calls in one month).

- Limit for external incoming calls – In order to prevent abuse, you can assign a money limit for the total costs of incoming external calls. When the cost of the calls in a month exceeds this limit, the extensions will no longer be able to receive calls from external numbers.

  Note

  This field is displayed only for `Postpaid` charging plans. The value in this field represents a *monthly* limit (i.e. the amount limits the total costs of the external incoming calls in one month).

- Available external outgoing minutes – {m} in time interval {T} - The outgoing minutes available on the account where the charging plan will be applied.

  You can use the buttons to remove/ add available minutes for different time intervals:

  removes the minutes corresponding to the selected time interval.

  adds another time interval to the charging plan.

  You can add outgoing minutes blocks as long as you still have unused time intervals available.

  Note

  The **Available external outgoing minutes** fields can be edited only if the **Allow outgoing external calls** setting has been enabled in the previous section.

  This field is displayed only for `Postpaid` charging plans. The value entered in this field represents a *monthly* limit (i.e. the number of minutes limits the total duration of the external outgoing calls in one month).

- External outgoing over usage – {multiplication_factor} x {m} included outgoing minutes + {m} minutes – This is the number of outgoing minutes the user can consume after having exceeded the available minutes in the time intervals.

> **Note**
>
> This field is displayed only for `Postpaid` charging plans. The value entered in this field represents a *monthly* limit (i.e. the number of minutes limits the total duration of the external outgoing calls in one month).
>
> You can set on the reseller charging plans limits that exceed the limits of the charging plan currently associated with the reseller account.

- Charging segments
  - Charge outgoing indivisible for the first {x} seconds – If an outgoing call lasts less than {x} seconds, the user will be charged the price corresponding to a {x} seconds call.
  - Then charge every {y} seconds – 4PSA VoipNow computes the cost of an outgoing call every {y} seconds, if a call lasts more than the indivisible interval {x} set above.
  - Charge external incoming indivisible for the first {w} seconds – If an external incoming call lasts less than {w} seconds, the user will be charged the price corresponding to a {w} seconds call.
  - Then charge every {z} seconds – 4PSA VoipNow computes the cost of an external incoming call every {z} seconds, if a call lasts more than the indivisible interval {w} set above.
- Fees
  - Initial outgoing credit {currency} – The credit offered to the reseller on account creation. This money can be used only for outgoing calls. If you do not want to limit the reseller, select the Unlimited check box.

    > **Note**
    >
    > This field is displayed only for `prepaid` charging plans.

  - Initial incoming credit {currency} – The credit offered to the reseller on account creation. This money can be used only for incoming calls. If you do not want to limit the reseller, select the Unlimited check box.

    > **Note**
    >
    > This field is displayed only for `prepaid` charging plans.

◦ Charge method – Two methods for charging calls are provided: Fixed prices and Relative to call cost. They are mutually exclusive and must be used based on the system application.

> **Note**
>
> The external charge field can be disabled no matter what the charge method is, if the **Allow outgoing external calls** check box is deselected.

▪ Charging fixed price – This method charges the same price for calls that are made in the same time interval. It does not take into consideration the real cost of the calls (i.e. the price charged by the channel provider or the call destination). The following fields are displayed:

- Charge local calls {value} {currency}/second – The charge for the calls made to extensions belonging to the same client account. The default cost is free of charge.
- Charge extended local calls {value} {currency}/second - The charge for the calls made to extensions that do not belong to the same client.
- Charge external incoming calls {value} {currency}/second – The charge for the calls received from outside the system.
- Charge external outgoing calls {value_1} {currency}/ second in time interval {time_interval} {value_2} {currency}/ second outside these intervals - The charge for the calls made outside the system. Use the {time_interval} drop-down list to select the time interval(s) to which this charge will apply. Outside the chosen interval(s), the {value_2} will be charged. You can add/ remove several time intervals by using the + − icons.

> **Note**
>
> You can choose the time interval only if the **Charging plan type** was set to `Prepaid`.

> **Caution**
>
> The fixed prices method does not take advantage of 4PSA VoipNow's capabilities to route calls through channels that offer the best cost. The fixed prices policy is risky especially for telephony resellers. If the fixed

price is not carefully chosen, the reseller could end up paying to his provider a higher price than his clients pay him.

- Charging relative to call costs – This method calculates the call costs by using the real amount charged by the channel provider, based on call destination. It uses the following cost function:

  `n*call cost + adjustment`, where:

  - n and adjustment are parameters that can be set.

  The call cost variable depends on the user's level in the system hierarchy (i.e. system owner, reseller account owner, client account owner, extension account owner):

  - If the charging plan is applied to a reseller, the call cost is the amount charged by the telephony channel.
  - If the charging plan is applied to a client, the call cost is the price paid by the reseller that owns the client account.
  - If the charging plan is applied to an extension, the call cost is the price paid by the client that owns the extension account.

  For the Charging relative to call costs method the following fields are displayed:

  - Charge local calls {value_1} x call cost + {value_2} {currency}/ second
  - Charge extended local calls {value_1} x call cost + {value_2} {currency}/ second
  - Charge external incoming calls {value_1} x call cost + {value_2} {currency}/ second
  - Charge external outgoing calls {value_1} x call cost + {value_2} {currency}/ second

> **Note**
>
> The **{currency}** is the one defined when 4PSA VoipNow was set up for the first time.

> **Note**
>
> 4PSA VoipNow allows you to customize prices only for calls made to certain area codes. For more information on this, see section Edit a Charging Plan .

- Sound files

- **Play custom sound file when outgoing access is blocked** – Select the folder and the sound file to play when the user tries to make a call and external calls are blocked due to charging constraints.

  Clicking the icon will open a pop-up window that displays a list of all the available sounds matching the name 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.

3. Click OK to add the new charging plan. Click Cancel to return to the previous page without adding the plan.

Edit a Charging Plan

> **Caution**
>
> This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

When you edit a charging plan, you can make two types of changes:

- Edit the charging plan's details
- Edit the list of charging exceptions for area codes

To edit the details of a charging plan, follow these steps:

1. To edit a charging plan, click the Extensions link available in the left navigation panel and than the Charging plans icon situated in the Tools area, choose it from the charging plans list and click on its name.

2. A new page opens, allowing you to modify the information, which is grouped in the following sections:

   - **Charging plan description** – Use this section to modify general information about the charging plan.
   - **Charging policy** – Use this section to change the number of outgoing minutes available in the time intervals as well as the over-usage minutes.
   - **Charging segments** – Use this section to define the frequency of the charging operation during a call.
   - **Fees** – Use this section to choose a different charging method and set the costs for local, extended local, external incoming and outgoing calls.
   - **Sound files** – Use this section to change the sound files that will inform the caller that the call he is trying to make is blocked by the system.

   For more information, please read the Add a New Charging Plan section.

3. Click **OK** to save the changes to the charging plan. Click **Cancel** to return to the previous page without saving the changes.

Remove a Charging Plan

To remove charging plans from the system, click the Clients link available in the left navigation panel area, than the Charging plans icon situated in the **Tools** area and follow the next steps:

1. Choose the plans you want to remove by selecting their corresponding check boxes.
2. Click the Remove selected link. A new page displaying the list of the plans 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.

> **Note**
>
> You cannot remove charging plans that are currently used by clients or extensions. 4PSA VoipNow automatically disables their corresponding check boxes.

My Charging Plan

4PSA VoipNow allows you to view detailed information about a client account's current charging plan. To access this information, follow these steps:

1. Click the Extensions link located in the left navigation panel and than the Charging plans icon available in the Tools area.
2. Next, click the Client charging plan icon to view details about the prices charged for the calls made by the client account. The information is grouped into several 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 account's extensions 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 the extensions on your account can make calls to destinations outside the system.
     - Allow outgoing local calls - Yes – 4PSA VoipNow displays this information only if your account's extensions can call other extensions on the same client account.
     - Allow outgoing extended local calls - Yes – 4PSA VoipNow displays this information only if your account's extensions 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 {currency} / 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 {currency} / 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.

- Free minutes - This section provides an overview of the free minutes included in this user's charging plan.

Note

Some of these sections may not be displayed, depending on the user's charging plan.

All these fields are related to the permissions and fees set for the current user in his charging plan.

View Your Charging Limits History

Caution

This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

If your account has been added without an associated charging plan, you will not be able to view the **Charging Limits** section

4PSA VoipNow allows you to view detailed information about your charging limits. To access this information, click the Extensions link situated in the left navigation panel and than on Charging limits icon available in the Tools area.

Note

The **Charging limits** section is available only if your charging plan is `postpaid`.

The table with charging limits history 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 whether the limits are offered monthly or only for the current month.
- 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.

View Your Charging Credits History

> **Caution**
>
> This section will be displayed only if charging is enabled on the 4PSA VoipNow server.
>
> If your account has been added without an associated charging plan, you will not be able to view the **Charging Credits** section.

4PSA VoipNow allows you to view detailed information about the recharges history of your charging credit. To access this information, click the Extensions link situated in the left navigation panel and than on Charging credits icon available in the Tools area.

> **Note**
>
> The **Charging credits** section is available only if your charging plan is prepaid.

The table with charging credits history 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.

Manage Destination Charging Exceptions

4PSA VoipNow allows the definition of charging exceptions for certain area codes that override the costs set up in the charging plan. This option is available only if you have Charging plan management permission and only for charging plans that have permission for local, external or extended local calls.

View Destination Charging Exception Costs

In the Charging plans table, click the icon. A new page opens, allowing you to manually add, edit and remove charging exceptions or to upload cost files.

4PSA VoipNow displays the following information about each destination charging exception:

- Area code - The area code for which the destination charging exception applies. Click the link to edit the exception.
- Cost - This column provides the charging rule for the specified area code.
- Free minutes - The available free minutes set for the specified area code.
- Description - The additional information about the destination charging exception.
- Created - The date when the destination charging exception was added in the system.

Searching the Destination Charging Exception Costs List

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

- Search - Use the text box to specify the words you are looking for. Click the button or the Search label to display only the items that match your search criteria.
- Click this Show all 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 costs list can be filtered by area code, cost, free minutes, description 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 costs list was sorted. The sort direction can be changed by another click on that header.

Add a New Destination Charging Cost Exception

The new cost exceptions can be added either by uploading a cost file, either by manually entering each cost exception.

To add a new destination charging cost exception, click the icon available in the Charging plans table.

The information is grouped into several sections:

- Upload cost file - Use this section to upload a .csv format cost file. The following fields are available:
  - Charging method - This field displays the method chosen to charge the calls:
    - Fixed prices
    - Relative to call costs
  - Agree to replace ALL destination costs – Select this check box to confirm the fact that the uploaded file will replace all the exception costs currently associated with the charging plan.
  - Upload cost file – Click the Browse... button to locate the .csv file on your computer.
  - Field separator – Use this text box to specify the character that separates the values in the .csv file. The default character is ',' (comma).

  The entries from a cost file must be in the following format:

  - If the charging method is Fixed prices:
    - {Area code},{Indivisible cost},{Indivisible interval},{Cost},{Charging interval}
    - {Area code},{Indivisible cost},{Indivisible interval},{Cost},{Charging interval},{Description}

    Example of a valid entry: 021,1,60,0.20,10,Metropolitan
  - If the charging method is Relative to call cost:
    - {Area code},{n},{adjustment},{Charging interval}
    - {Area code},{n},{adjustment},{Charging interval},{Description}

    Example of a valid entry: 021,1,0.20,60,Metropolitan

  Click OK to upload the file and replace the current exception costs. Click Cancel to clear the Upload cost file section.
- Add costs - Use this section to manually add exception costs. Creating a destination exception cost depends on the charging method set up in the charging plans details:

- For the Fixed prices charging method, 4PSA VoipNow displays the following controls:
  - For calls to {area code}, description {description}, where:
    - {area code} - Use this text box to specify the desired call destination.
    - {description} - Use this text box to give a brief description of the cost.
  - Cost {indivisible cost} {currency} for the first {indivisible interval} seconds, then charge {cost} {currency} every {charging interval} seconds - Select the check box if you wish to define an exception cost for the calls initiated to the chosen area code:
    - {indivisible cost} – Use this text box to set up a fixed cost that will be charged even if the call's duration is less than {indivisible interval}.
    - {currency} – This is the system currency, as set up by the administrator.
    - {indivisible interval} - If an outgoing call lasts less than {indivisible interval} seconds, the user will be charged the price corresponding to a {indivisible interval} seconds call. Use this text box to specify the time interval.
    - {cost} – Use this text box to set up a fixed cost for all the outgoing calls.
    - {charging interval} - 4PSA VoipNow computes the cost of an outgoing call every {charging interval} seconds, if a call lasts more than the indivisible interval {indivisible interval} previously set. Use this text box to specify the time interval.
  - Free minutes every month from package {free minutes package} - Select the text box if you wish to grant a free minutes package for the chosen area code:
    - {free minutes package} - Use the available drop-down list to select a free minutes package.
- For the Relative to call costs charging method, 4PSA VoipNow displays the following controls:
  - For calls to {area code}, description {description}, where:
    - {area code} - Use this text box to specify the desired call destination.

        - {description} - Use this text box to give a brief description of the cost.

    - Cost {n} x call cost + {adjustment} {currency} / {charging interval} seconds for call to {area code} - Select the check box if you wish to define an exception cost for the calls initiated to the chosen area code:

        - {n} - Use this text box to specify the call cost's multiplier based on the real cost charged by the channel.
        - {adjustment} - Use this text box to specify the amount that will be added to the call cost every {charging interval} seconds.
        - {currency} – This is the system currency, as set up by the administrator.
        - {charging interval} - Use this text box to specify the number of seconds after that the {adjustment} will be added to the call cost.

    - Free minutes every month from package {free minutes package} - Select the text box if you wish to grant a free minutes package for the chosen area code:

        - {free minutes package} - Use the available drop-down list to select a free minutes package.

Click OK to add the cost(s) to the charging plan. Click Cancel to clear the Add costs section.

Use the buttons to add several area code exception costs at the same time.

> **Note**
>
> You cannot add different costs for the same area code. 4PSA VoipNow displays an error message if you try to override an area code that is already in the exceptions list.

Edit a Destination Charging Cost Exception

To manually edit costs, use the Current cost exceptions section available in the Charging Destination Exceptions page.

- Click the Area code link corresponding to the cost you want to edit. For more details on how to edit a cost exception, see the Add a New Destination Charging Cost Exceptions section.
- Click OK to save your changes. Click Cancel to go back to the previous page without saving your changes.

Export a Destination Charging Exception Cost

In 4PSA VoipNow you can export call cost exceptions in .csv format for sharing them among 4PSA VoipNow servers or for backup purposes.

Click the Export all exceptions link placed above the cost exceptions table and save the .csv file to the desired location.

Remove a Destination Charging Exception Cost

To remove destination charging exception costs from the system, follow these steps:

1. Choose the costs you want to delete by selecting their corresponding check boxes in the Charging Destination Exceptions 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.

Manage Free Minutes Packages

View the Free Minutes Packages List

To access the Free minutes packages management page, click the Manage packages button located in the Tools area of the Charging Destination Exceptions management page.

In the Free minutes packages management page, all the existing packages are displayed in a table. The following information is available on each package:

- Package name - The name of the package.
- Free minutes - The number of free minutes included in the package.
- Created - The date when the package was created.

Searching the Free Minutes Packages List

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

- Search – Use the text box to specify the words you are looking for. Click the button or the Search label to display only the customers that match your search criteria.
- Show all – Click this button or the Show all label to display the entire list of customers.

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 packages list can be filtered by package name, free minutes 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 packages list was sorted. The sort direction can be changed by another click on that header.

Add a New Free Minutes Package

To add a free minutes package, click the Manage package button located in the Tools area of the Charging Destination Exceptions management page and specify the required information:

- Package name - Use this text box to specify the name of the package.
- Included minutes - Use this text box to specify the number of free minutes included in the package.

Remove a Free Minutes Package

To remove free minutes packages from the system, follow these steps:

1. Choose the packages you want to delete by selecting their corresponding check boxes in the Free Minutes Packages 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.

Chapter 6

Manage System Templates

Manage Extension Templates

View the Extension Templates List

Extension templates are useful when adding new extension accounts that have similar permissions and phone numbers. Instead of setting each time the extension's permissions and phone numbers, the reseller, client or administrator can choose an extension template from a given selection list. However, if some of the data from the template does not meet the requirements, it can be edited by checking the Select extension permissions and phone numbers check box in the second step of the Add Wizard.

To access this page, click the Unified Communications link available in the left navigation panel and, in the new opened page, the Extension templates icon.

In the Extension Templates page, you can view a list of all extension templates available in the system. Multiple operations can be performed:

- Add a new extension template
- Search existing templates
- Edit a extension template
- Delete extension templates

4PSA VoipNow displays the following information about each template:

- S – This icon displays the extension template's status:
  - Enabled
  - Disabled

  Click on this icon to change the extension template's status.
- Template name – The name that identifies the template.
- Extension type – The type of extension that it is created using this template. The possible values of this field are:
  - Phone terminal
  - Queue
  - Voicemail center
  - Conference
  - IVR
- Extensions – The number of extensions created using this template. Click this link to view the list of extensions currently using this template.
- Updated – The date when the extension template was last modified.

Searching the Extension Templates List

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

- Search – Fill in the text you are looking for in the text box. Click on the button or the Search label to display only the extension templates that match your search 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.

The extension templates list can be filtered by name, products 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 client templates list was sorted. The sort direction can be changed by another click on that header.

Add a New Extension Template

To access this page, click the Unified Communications link available in the left navigation panel and, in the new opened page, the Extension templates icon. Next, follow these steps:

1. In the Extension Templates page, click the Add extension template icon.
2. A new page opens, allowing you to enter information on the new extension template. The information is grouped in several sections:
   - Extension template form
     - Name – Use this text box to provide a descriptive name for the extension template.
   - Permissions – Use this section to control the behavior of the extension created using this template.
     - Extension is multi-aware
     - Sound management
     - Phone extension SIP management
     - IM management
     - CallAPI management

> **Note**
>
> For explanations on these permissions, read the Edit Permissions and Phone Numbers section.

- Limits – Use this section to set up limitations for the extension created using this template.
  - Maximum disk space for sound files
  - Maximum disk space for music on hold files
  - Maximum concurrent calls
  - Maximum concurrent text to speech

    > Note
    >
    > This line is available only if the **Allow text to speech** option had been enabled by the administrator.
    >
    > 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.

  - Maximum number of queue members
  - Account expires in

    > Note
    >
    > The **Account expires in** text box contains the number of days that the extension account will be valid, starting with the creation date.

- Extension type selection – Use this section to choose the type of the extension that will be created using this template.

  > Note
  >
  > Based on the type you selected for the template, one or more additional sections will be available allowing you to configure the settings of the extension.
  >
  > For explanations on these extension types, read the Add a New Extension section.

3. Click Ok to add the new extension template. Click Cancel to go back to the previous page without adding the template.

Edit an Extension Template

4PSA VoipNow allows users to edit an existent extension template. The extensions that are created using the edited template will have the new features, while the ones already created using the original template will keep the old permissions and phone numbers. To modify the extension's limits, permissions, and charging plan you have to edit these features as described in the Edit Extension's Features and Edit Permissions and Phone Numbers sections.

To edit the details of an extension template, follow these steps:

1. In Unified Communication page, click the Extension templates icon.
2. Choose from the list the template you want to modify and click on its name.
3. Next, you can view and edit the settings of the selected extension template. The data is grouped in several sections:
   - Extension template form – Use this section to rename the template.
   - Permissions – Use this section to change the permissions for the extension account owners.
   - Limits – Use this section to change the limitations for the template.
   - Extension type selection – Use this section to change the type of the extension that will be created with this template.

   > **Note**
   >
   > Based on the type you have selected for your template, one or more additional sections become visible allowing you to configure the settings of the extension.
   >
   > For explanations on these extension types, read the Add a New Extension section.

4. Click OK to save the changes to the extension template. Click Cancel to return to the previous page without saving the changes.

> **Caution**
>
> When you modify a template, the accounts that were created using this template will not be affected!

Remove an Extension Template

To remove extension templates, click the Unified Communications link available in the left navigation panel than, in the new opened page, the Extension templates icon and follow these steps:

1. Choose the client templates 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, click OK. Otherwise, click Cancel to return to the previous page without deleting anything.

> **Caution**
>
> When you delete a template, the accounts created with it will not be affected!

Manage 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 Unified Communications link available in the left navigation panel and then, in the new opened page, the Email templates icon located in the System templates area.

The client can set the notification preferences for a series of events displayed on the first column. The users interested in receiving notifications are:

- The extension account owners – These users could be interested in the events targeting their Voicemail mailbox.

> **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, the client can enable email notifications for extension account owners as well as for his own account. However, the settings made by the client are available until the user targeted by the notification (extension) changes them. 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:

- Client email templates
  - Client account creation – This email notification is triggered by the creation of a client account.
  - Client account expiration warning – The email notification triggered by this event is sent {x} days in advance, as specified in the Send expiration noticesfield.
  - Client account expired - The email notification triggered by this event is sent after the client account has expired.
  - Client 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.
  - Client 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 send email alerts to the following users:

- The client account owner
- A custom email address

- 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 {minutes} minutes or when the credit is below {credit limit} as specified in 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 the client 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.

Chapter 7

Manage Customer Accounts

Manage Your Extensions

Express License Restriction

Express license allows access and management to Phone terminal extensions only. All other extension types already existent in the system maintain their functions unchanged and can therefor be used. For example, the system allows you to define routing rules with transfer to an existent queue.

Client's Home Page

The client's home page offers two distinct areas:

- Tools - This section provides access to the client's options:
  - Add a new extension to the client account
  - Edit the client's contact details

◦ Set the client's outgoing routing rules groups

◦ Manage the client's phone numbers collections

This futures can be accessed by clicking on their corresponding icon.

- Extensions - In this section, 4PSA VoipNow displays a list with all the extensions registered in the system for this particular client. To view a certain extension account, choose the extension name of your choice and click on it.

  Multiple operations can be performed on a client's extension account:

  ◦ Edit existing extensions

  ◦ Delete extensions from the client account

Note

In the **Extension Management** page, 4PSA VoipNow displays the name of the client account where each extension is located in the **Client** column.

4PSA VoipNow displays the following information about each extension:

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

  ◦ Enabled

  ◦ All local calls are permitted

  ◦ Only incoming call are permitted

  ◦ No calls are permitted

  ◦ Disabled

  Click on this icon to change the customer account's status. When you click this icon the Global and phone account status panel is displayed. This panel has 2 main areas:

  ◦ Global account status settings - From this area you can choose to enable or disable an account. There are two options:

  Caution

  Disabling an active account also disables all its child accounts.

        - **Customer is fully enabled** - The customer can use all system functions, but phone access permissions may apply.
        - **Customer is disabled** - The customer cannot access any system function and cannot use the phone service.
    - **Phone account status settings** - From this area you can manage the phone permissions for an enabled account. The following options are available:
        - **Customer can dial out and receive calls** - The customer has no phone restrictions.
        - **Customer can be called and can call internally** - Only local outgoing calls are permitted. Incoming calls are not restricted.
        - **Customer can be called only** - No outgoing calls are allowed, but all incoming calls are permitted.
        - **Customer cannot use phone service** - The customer can neither make, nor receive calls.

> **Note**
>
> If you select any of these options, its permissions/restrictions apply to all the child accounts of the current account.
>
> If a parent account has set a restriction for a child account, than that child account cannot remove that restriction for any of the accounts under it, but it can set more restrictions. For example: if the administrator has set for a reseller the **Customer can be called and can call internally** restriction, than the reseller cannot set for his clients full access to the phone service, but that reseller can decide to set for any or all of his clients the **Customer can be called only** restriction.

- **A** – This button specifies if the extension has the permission to access the control panel or not:
    - Enabled
    - Disabled

  Click on this icon to enable/ disable the control panel access.
- **T** – This button specifies the type of the extension:
    - Phone terminal
    - Queue

- Interactive Voice Response (IVR)
- Voicemail center
- Conference
- Callback
- Calling card
- Intercom/ Paging

- Extension – The extension contact name and number displayed in the format Contact_Name(Client_ID*Local_Extension_Number). Click this link to go to the extension context.
- Client - The name of the client to whom the extension belongs.
- State – This field specifies if the extension has a phone terminal connected:
  - Registered - A phone terminal is connected to the extension.
  - No registration necessary - This text is displayed if the extension type is phone terminal and if the user has provided a valid IP/ port in the Phone does not register and is located on IP field from the Phone Terminal Provisioning page.
  - If there is no phone terminal connected to the extension, 4PSA VoipNow displays '-'.
- CallerID – The public phone number assigned to the extension. If the extension has several phone numbers associated, 4PSA VoipNow displays the number selected for the setting Use the following callerID. For more information, see Edit Permissions and Phone Numbers . If there is no public phone number 4PSA VoipNow displays '-'.
- Created – The date when the extension was added to the system

> **Note**
>
> You can filter the columns displayed in the extension's list table 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 Extensions List

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

- Extension type filter – Use this drop-down list to display just the extensions belonging to a certain type.
- Search – Fill in the text you are looking for in the text box. Click on the button or the Search label to display only the extensions that match your search 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 and filter 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 extensions 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 extensions list was sorted. The sort direction can be changed by another click on that header.

View the Extension's Report

4PSA VoipNow offers an easy way to keep track of each extension's calls and their costs.

To access this page, follow the next steps:

1. Choose the desired extension from the Extensions List and click on its name.
2. In the new opened page, click the Call reports icon available in the Tools area.

In this page, you can view a detailed list of calls for the current and previous months. Multiple operations can be performed:

- Search for specific calls
- Export the call list to a Microsoft Excel file
- Export the call list to a .csv file

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 an icon:
  - Local call
  - Extended local call
  - External call
- A – The type of the call application is displayed using an icon:
  - Dial
  - Queue
  - IVR
  - Voicemail
  - Conference
  - Park
  - Unpark
  - Callback
  - Calling card.
  - Intercom / paging.
- From – The callerID and the extension (if the call is initiated from inside the system) of the person who made the call.
- To – The callerID and the extension (if the call is to an inside extension) of the person who answered the call.
- Call started – The date and time when the call was started.
- Answered – The date and time when the call was answered.
- Call duration – The call's duration.
- CallID – The unique number generated by Asterisk to identify the call.

- Call cost – The call cost for the extension owner.

> **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 Extensions List Call Reports

4PSA VoipNow automatically displays only the current month's calls. If you want to view a call list for the previous months or search for specific calls, you have to click the Search calls button from the Call Reports page. Then, define your search criteria by filling in the available fields.

1. Use the following options to carry out an advanced search:
   - From number - Use this text box to fill in the phone number of the person who made the call.
   - To number - Use this text box to fill in the phone number of the person who answered the call.
   - 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 - Use this text box to fill in the selected channel prefix.
   - Call duration – Use this section to specify the call duration limitations by filling in the fields from the next rule:

     Higher than {} seconds and/or lower than {} seconds
   - Call cost – Use this section to specify call cost limitations by filling in the fields from the next rule:

     Higher than {} and/or lower than {}
   - Call ended with – Use the drop-down list to choose a certain ending for the call. The possible values are: answered, no answer, busy, failed, unknown, not allowed.
   - Start search on {x} and end search on {y} - Use the text boxes or click the corresponding calendar icon to specify the period you are searching for.

- **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 received calls.
  - **Outgoing calls** – Select this option to display only the placed calls.
- **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 a queue extensions.
  - **Conference** – Select this option to display the conference calls.
  - **Voicemail** – Select this option to display the calls that ended in the voicemail mailbox.
  - **Voicemail center** – Select this option to display the calls to a voicemail center extension type.
  - **IVR** – Select this option to display the calls targeted at an IVR extensions.
  - **Park** – Select this option to display the calls that were parked.
  - **Unpark** – Select this option to display the calls that were picked up form the parking lot.
  - **Calling card** - Select this option to display the calls that were made using a calling card extension type.
  - **Intercom/paging** - Select this option to display the calls made through an intercom/ paging extension type.

    - Callback - Select this option to display the calls that were made using a callback extension type.
    - Fax - Select this option to display the fax messages.
    - Supervising - Select this option to display the supervised calls.
2. Click OK to display only the records that fit your search criteria. Click Show all to display all the records from the data base.

   Export to an Easy-to-Edit Format

- Export to Excel – Click this button to export the call costs report to a Microsoft Excel file.
- Export to CSV - Click this button 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 `Export columns` button.

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 cost of the call as charged by the channel.

- Call profit - The difference between the cost paid by the owner of the reseller account where the cost originated and the cost charged by the channel.
- Money unit - The currency currently used for charging.
- CallID - 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 displays the destination extension.
- Initially called extension - If the call was picked up from another extension, this column displays the extension that was originally called.
- Callback callerID - If the caller used a callback extension to route its call to a remote destination, this column displays the authorized callerID (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.

View an Extension Overview

The extension overview displays detailed information about the extension's settings.

To access the extension overview, in the Extension Management page, choose the desired extension and click on its name.

The information displayed depends on the extension type.

Phone Terminal Overview

- Extension type – The extension type, in this case Phone terminal.
- Your phone terminal login – The login that you must use on your phone terminal in order to login to the server. The password is either identical with the extension account password, either it is set up in the Phone authentication section of the extension features page.
- 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.

- **Extension terminal** – If the extension is registered to the system, the terminal advertised by the extension.
- **Extension state** – The state of the extension, from the network connection perspective.
- **Extension IP address** – The IP address of the extension registered into the system.
- **Extension's registration expires on** – The date and time when the extension registration expires.
- **IM login** - The login that you must use on your phone terminal in order to be able to use the IM chat.
- **Calls cost for {month}** – The calls' cost in the current month.
- **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 current month.
- **Number of voicemail messages** – The total number of voicemail messages, the disk space used and the percent of available disk space.
- **Number of fax messages** – The total number of fax messages, the disk space used and the percent of available disk space.
- **Number of recorded conversations** – The total number of recorded conversations, the disk space used and the percent of available disk space.
- **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.

Queue Overview

- **Extension type** – The extension type, in this case Queue.
- **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.
- **Outgoing time spent on {month}** – The outgoing calls' total duration of the total number of calls in current month.

- Incoming time spent on {month} – The incoming calls' total duration of the total number of calls in current month.
- Total agents – The total number of agents assigned to the queue.
- Registered agents – The total number of agents registered into the queue.
- Queue supervisors – The total number of supervisors for the queue.
- 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.
- Queue report - Reports on the queue's activity in a selected time interval.

Interactive Voice Response (IVR) Overview

This extension type allows the creation of an interactive menu that can be used by callers to get information without having to connect to a human operator.

- 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.

Voicemail Center Overview

This type of extension is similar to the voicemail function of the phone terminal extension. However, the voicemail center allows callers to verify their messages by using a terminal located outside the system.

- Extension type – The extension type, in this case Voicemail center.
- 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.

Conference Overview

This type of extension allows the creation of conferences that can be accessed by system users, as well as by external callers.

- Extension type – The extension type, in this case Conference.
- 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.

Callback Overview

This type of extension allows system users to call this extension from a phone connected to the public network and then place an outgoing call through the 4PSA VoipNow server.

- Extension type – The extension type, in this case `Callback`.
- 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.

Calling Card Overview

This type of extension allows the implementation of a calling card system on the 4PSA VoipNow server.

- Extension type - The extension type, in this case `Calling card`.
- 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.

Intercom/ Paging Overview

This type of extension allows the user to call several or all the available extensions in the same time. The called extensions will hear the caller's announcements whether they pick up the phone or not.

- Extension type - The extension type, in this case Intercom/ paging.
- 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.

Enable/ Disable an Extension

If you want to enable/ disable an extension account, you have to click the chosen extension's name in the Extension Management page and than the Disable/Enable extension link, located under the page title. A pop-up window will ask you to confirm this action.

Impersonate an Extension

4PSA VoipNow offers the possibility to impersonate an extension account owner. This option allows management access for the parent account owners in order to modify the child account's permissions and limits.

If you impersonate, you will be able to view the interface from an extension's perspective. To do so, click the respective extension's name in the Extension Management page and than the Impersonate link, located under the page title.

> **Note**
>
> The **Impersonate** feature can only be used for enabled users with control panel access. Any attempt to use this feature for a disabled account or an account without control panel access will trigger the following error message:
>
> `You cannot use impersonate on an user that is disabled or doesn't have control panel access.`

> **Note**
>
> When you impersonate an extension, the application will change the skin to the one used by the chosen extension, if different from the one you are currently using.

To return to normal view mode, just click the Return to my account link located in the right panel, next to the Help icon.

Add a New Extension

> **Note**
>
> You can add extensions only if the `Extension Management` permission has been activated for your account.

Starting 4PSA VoipNow 2.0, the extension accounts can be created without an associated charging plan.

If you want to create an extension account with an associated charging plan, make sure the administrator had enabled the Charging option.

If there is no charging plan in the system, you must create one:

- First, make sure that the time intervals you want to use for the charging plan are defined.

- If you want to use another time interval, click the Unified Communications link in the left navigation area, than the Time intervals icon and follow the instructions in the Add a New Time Interval section.
- After all the time intervals have been created, click the Charging plans link available in left navigation panel and create a new plan. For more information, see the Add a New Charging Plan section.

You can add an extension by following the Extensions link available in the left navigation panel. In the Extension Management page, 4PSA VoipNow displays a list with all the extensions registered in the system. To add a new one, just click the Add extension icon.

To add a new extension, follow these steps:

1. The information is grouped in several sections:
   - Extension setup
     - Number – The value in this field is automatically generated and it represents the lowest extension number in the client account that is not currently used. To specify a different extension number, use the text box to enter the desired one.

       > **Note**
       >
       > The length of the extension number is based on the administrator's preference. This number is the so-called `local extension number`. It can be used to access extensions on the same client account.

       > **Caution**
       >
       > 4PSA VoipNow displays an error message if you try to assign a number defined as a **forbidden extension**.
   - Extension owner – Fill in details about the person that will be using the extension and his login.
     - Create using template – Use the drop-down list to choose one of the available templates as a base for the new extension. If you do not want to create the account not based on a template, make sure the '--' option is selected.

Note

A template contains default settings that will be used to create the extension. For more information on extension templates, see the Manage Extension Templates section.

- Company name
- Contact name
- Login
- Password auto generation – When this option is enabled, a password matching the chosen strength is automatically computed. Also, you will not be required to fill in the next two fields.
- Password – In order to be valid, the password must be at least five characters long and must comply with the setup strength level.

  While you type in your password, a colored bar will inform you about the strength of the chosen combination.
- Confirm password
- Phone
- Fax
- Email
- 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.
- Interface language – Use this drop-down list to choose the interface language for the extension account. The list contains all the available languages for the interface.

> **Note**
>
> If you choose the `Default` option, the language that will be used for the client account interface is the one specified by the administrator.

- Phone language – Use this drop-down list to select the language of the sound files that will be played over the phone. The default is the one specified by the administrator.
- Extension notes – Use this text box to insert comments about the extension.

* Extension type – Choose one of the following options:
  - `Phone terminal`
  - `Queue`
  - `IVR`
  - `Voicemail center`
  - `Conference`
  - `Callback`
  - `Calling card`
  - `Intercom/paging`
* Charging and outgoing call filtering
  - Charging plan – Use this drop-down list to choose one of the available charging plans that will apply to the new extension account.

> **Caution**
>
> This section will be displayed only if charging is enabled on the 4PSA VoipNow server.

  - Outgoing routing group – Use this drop-down list to choose one of the available outgoing routing rule groups that will apply to the new extension account.

2. The Select extension permissions and phone numbers check box allows you to specify what the extension will be able to do in the system:
   * If you click OK, you will be directed to the next step: specifying the extension's permissions and phone numbers.

Note

The information on the new created account will be sent by email to the account owner (Contact person) after clicking the **OK** button if the client had enabled the **Extension account creation** option from his **Email Templates** page.

- Deselect the check box and click OK if you want to add the new reseller account without configuring its permissions. If you choose to set limitations later, skip steps 4 and 5. Click Cancel to go back to the previous page without adding the extension.

Note

An extension that does not have its limitations and permissions set will have all permissions disabled and all limits set to 0. The account expiration date is `Unlimited`.

3. A new page opens, allowing you to change the account permissions and phone numbers.

   - Permissions

     - Extension is multi user aware – This option allows the extension to "see" the other extensions available on the same client account and use them when setting up features involving call redirection such as: Ring all, Call forward, Call cascade, etc.

       Note

       The **Extension is multi user aware** option is displayed for Phone `terminal` extensions only. Other extension types MUST be multi-user aware by design because otherwise they cannot serve their purpose.

     - Phone extension SIP management – When this option is enabled, the extension user is allowed to use the provisioning features on his phone terminal extensions. Additionally he can choose the Allowed codecs for the phone terminal extensions. For more information on this topic, see the Provisioning section.

> **Note**
>
> The **Phone extension SIP management** option is available for phone terminal extensions only.

  - IM management - When this option is enabled, the extension user is able to manage the chat application.
  - CallAPI management - When this option is enabled, the extension is able to manage the CallAPI permission from the Phone Terminal Setup page. For more information, read the [CallAPI](#) section.
  - 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 sound files. 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 calls – Use the available text box to limit the number of calls that can be active at the same time for any extension on the reseller's account. If you do not want to limit the extension, select the Unlimited check box.

> **Note**
>
> The **Maximum concurrent calls** option is displayed for Phone terminal extensions only.

  - 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 had been enabled by the administrator.
>
> 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.

- Maximum number of queue members – Use the available text box to limit the number of agents that can be added to the queue.

> **Note**
>
> The **Maximum number of queue members** option is displayed for Queue extensions only.

- Incoming phone number selection – Use the two lists to associate one or more public phone numbers from the client's pool with the extension.

> **Note**
>
> This section is displayed only if there are phone numbers available in the client account where the extension is located.

- 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.

4. The Select extension type parameters check box allows you to configure the active features of the new extension:
   - Select the check box and click OK to save the extension permissions and to go to the next step (activate extension features).
   - Deselect the check box and click OK to save the extension permissions and add the extension with the default features.
   - Click Cancel to exit without saving the extension permissions and phone numbers.
5. A new page opens, allowing you to activate the features for the extension. These options depend on the extension type you have previously selected.

Phone Terminal Setup

If the extension type is Phone terminal, 4PSA VoipNow displays the following options:

- Basic settings
  - Default music on hold folder – This folder contains the sound files that will be played in order, when the caller is on hold or when the extension waits for an operation to be performed. 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.

    > **Note**
    >
    > The path will display the folder name and also its origin:
    >
    > //// placed before the name of a folder signals the admin's default folder
    >
    > /// placed before the name of a folder signals the reseller's default folder
    >
    > // placed before the name of a folder signals the client's default folder
    >
    > / placed before the name of a folder signals the extension's default folder

  - CallerID name in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
    - Set by server - If this option is selected, phones with callerID display the extension owner's name.
    - Set by equipment - If this option is selected, phones with callerID display the caller name as it is set up from the phone terminal apparatus.
    - Anonymous - If this option is selected, phones with callerID display the string Anonymous.

- CallerID number in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
  - Set by server - If this option is selected, phones with callerID display the public phone number of the extension.
  - Set by equipment - If this option is selected, phones with callerID display the phone number of that particular phone terminal apparatus.
  - Anonymous - If this option is selected, phones with callerID display the string Anonymous.
- Use the following callerID – Use the drop-down list to select the phone number that will be displayed when the extension user is calling external destination. Also, you can click the icon to see a list with all the available phone numbers. A pop-up window will be displayed, allowing you to choose the number.

  The Extensions list pop-up window displays the following details:
  - T - This icon displays the extension type:
    - Phone terminal
  - S - This icon displays the extension's status:
    - Enabled
    - Disabled
  - Extension - The name of the extension.

    Click the link to select the callerID associated to the extension.
  - Extension number - The extension number.
  - CallerID - The public phone number that will be displayed when the extension use will call external destinations.

  If the extensions list is too long, you can use the available controls to search for a specific one.
- CallerID on internal calls like on public calls – If this option is enabled and a public callerID is available, than that public callerID is used in local calls and extended local calls as well as in external calls.
- Send SIP P-Asserted-Identity header – When enabled, a new header is added to all outgoing INVITE requests sent from this extension. The header contains the extension's caller ID number, i.e. P-Asserted-Identity: sip:0003*003@localhost.localdomain.

- Consider 'No answer' after {x} seconds – Use this text box to set the time interval a call is allowed to ring before being terminated by the 4PSA VoipNow server.
- Parking timeout {x} seconds – Use this text box to set the time interval a call is allowed to remain in the parking lot before being transferred back to the extension that parked the call.
- CallAPI access [] with preferred agent - Select this check box to allow the extensions to access CallAPI and choose the agent that you will use for CallAPI. Selecting a different agent than the one you use may lead to unexpected behavior. Select NONE if you intend to send direct commands to CallAPI. For more information, please read the CallAPI section.

- Instant messaging
  - Enable server chat access – Select this check box to allow the extensions to access the IM chat server.
- Calling features
  - Caller waiting – Calls are not rejected when the extension is busy. When this option is enabled, the user will be able to answer to multiple calls using the phone call waiting features.
  - Do not disturb function active – When this option is enabled, calls are rejected and a custom sound file is played to the callers trying to contact the extension.
  - Play sound {folder} when DND is activated – This sound is played to the callers trying to contact the extension while the Do not disturb function is enabled. Clicking the icon will open 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.

- Authentication to reach extension – This feature ensures privacy by requesting callers to provide a secret password before being connected to the extension.
  - Authentication active – When this option is enabled, callers will be prompted to dial a password (i.e. a number) in order to connect to the extension.
  - Password required to connect – Use this text box to set the password that the caller is required to dial.
  - Play sound – Use the icon to select the sound played to the callers when the extension requires a password. 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.
- Cascade calls to {extension number} after {number} seconds – This feature allows incoming calls to ring multiple extensions in a predefined order:
  - {extension number} - Use the text box to specify the number of the extension that you want the call to ring in the first place. Also, you can click the icon to see a list with all the extensions available for that client. A pop-up window will be displayed, allowing you to choose the extension number.

    The Extensions list pop-up window displays the following details:
    - T - This icon displays the extension type:
      - Phone terminal
    - S - This icon displays the extension's status:

- Enabled
- Disabled

- Extension - The name of the extension.

  Click the link to select the 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.

- {number} - If the call is not answered for the specified number of seconds, the next extension number will be ringed. The values range between 5 and 999 seconds.

You can use the buttons to add/remove several extensions to the list.

> Note
>
> You can add to the list as many extensions as the client account has.

> Note
>
> The **Cascade call** function is only available if there is at least one phone terminal extension on the same client account and the extension has **Extension is multi-user aware** permission enabled.

> Note
>
> The extensions in the cascade must be different. If you try to add the same extension twice, 4PSA VoipNow displays an error message. The destination extensions must belong to the same client account.

- Ring all extensions - Select this check box if you want to specify the extensions that will be ringed simultaneously when an incoming call is received. Use the text box to specify the extension's number. Also, you can click the icon to see a list with all the extensions available for that client. A pop-up window will be displayed, allowing you to choose the extension number.

  The Extensions list pop-up window displays the following details:

  - T - This icon displays the extension type:

- Phone terminal

- S - This icon displays the extension's status:
  - Enabled
  - Disabled
- Extension - The name of the extension.

  Click the link to select the 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 use the buttons to add/remove several extensions to the list.

> **Note**
>
> You can add to the list as many extensions as the client account has.

> **Note**
>
> The **Cascade calls to** and the **Ring all** functions cannot be activated at the same time.

- Voicemail – This feature allows callers to leave voice messages when the extension is unavailable or busy.
  - Enable voicemail – When this check box is selected, the extension is able to use the voicemail function.
  - Mailbox storage space – The space limit allowed for the mailbox. Use this text box to specify the number of Mb that the mailbox should not exceed. If you do not want to set a size limit, select the Unlimited option.
  - Auto delete messages older than - Use the this text box to specify the number of days after which all the messages will be auto deleted. Values for this parameter range from 1 to 999.
  - New message notification – Choose the action that will be performed by 4PSA VoipNow when the extension receives a new voicemail message:
    - send alert email – When this option is selected, the extension owner receives an email notifying him about a new voicemail message.

- send message by email – When this option is selected, the extension owner receives the new voicemail message file by email.

- Voicemail password – The password requested when the mailbox is accessed over the phone.

> **Note**
>
> If you do not set a password for the voice mailbox, the extension owner will not be able to access his mailbox over the phone. However, he will still be able to manage the Voicemail mailbox through the 4PSA VoipNow interface.

- Voicemail automatically answers after {x} seconds – If the extension user does not answer after {x} seconds, Voicemail answers.

- Add extension to company directory – When this option is selected, the extension is added to company directory.

- Conference settings – This feature allows more than two extension owners to take part to the same phone conversation.

> **Note**
>
> The **Conference** function is available only for the extensions that have **Extension is multi-user aware** permission enabled.

- Conference function enabled – When this check box is selected, the extension is able to create and join conference calls.

- Conference room size – Use this text box to set the maximum number of users that can join the conversation. You can fill in any number between 2 and 99.

- Timeout on empty conference room {seconds} seconds – Use this text box to set the timeout until the conference ends when there are no participants left. You can fill in any number between 1 and 9999. If the conference is scheduled to close when all moderators exit, this option is not going to be taken into consideration.

- Enable music on hold – When this option is selected, 4PSA VoipNow plays the files located in the Default music on hold folder if there is only one user present in the conference.

- Prompt for PIN on conference creation – When this option is enabled, 4PSA VoipNow asks the conference creator to set a password; all the users that join the conference have to dial this password in order to access the conference.

- Close the conference when all conference moderators exit – When this option is enabled, 4PSA VoipNow terminates all the calls when all the conference moderators exit the conference.
- Announce user count on joining conference – When this option is selected, 4PSA VoipNow announces any new participant about the number of users in the conference call.
- Announce users joining/leaving – When this option is selected, 4PSA VoipNow announces the users about any participant joining or leaving the conference call.

- Fax Center – This feature allows the extension to receive faxes and manage them by using the extension account.
  - Enable fax center – When this check box is selected, the extension is able to receive faxes. Upon the receipt of a fax, 4PSA VoipNow will save it into a file on the server; the extension user can later retrieve them.
  - Accept faxes sent by email to - If this option is enabled, the extension will accept faxes sent to the administrator's email address, defaulted at installation.
  - Accept fax from email - Use the text box to specify the email addresses from which the extension should accept fax messages.

    Use the buttons to remove/add email addresses from the list:

    removes the email address.

    adds another email address.

    > Note
    >
    > This option is enabled only if the **Accept faxes sent by email to** check box has been previously selected.

  - Before sending fax play - This sound is played before a fax message is sent. Clicking the icon will open a pop-up window that displays a list of all the available sounds matching the name 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.

- Maximum disk space for received faxes – The space limit allowed for the storage of the received fax files. Use this text box to specify the number of Mb that the fax files should not exceed. If you do not want to set a size limit, select the Unlimited option.
- Autodelete received faxes older than - Use the this text box to specify the number of days after which all received faxes will be auto deleted. Values for this parameter range from 1 to 999.
- New received fax notification – Choose the action that will be performed by 4PSA VoipNow when the extension receives a new fax message:
  - send alert email – When this option is selected, the extension owner receives an email notifying him about a new fax message.
  - send message by email – When this option is selected, the extension owner receives the new fax message file by email.
- Fax automatically answers after {x} seconds – If the extension user does not answer after {x} seconds, the server will try to answer in order to detect a fax.
- If not a fax, send to voicemail – When this option is enabled, the server will transfer the call to the extension's voicemail in case the call is not a fax. Otherwise the system will answer with fax tone.

> **Note**
>
> This option is available only if the Enable Voicemail check box is selected.

- Call recording – This feature allows the user to record phone conversations.
  - Call recording function enabled – When this option is enabled, the user is able to use the call recording functions.
  - Call recording storage space – Use this text box to specify the number of Mb that the recorded calls should not exceed. If you do not want to set a size limit, select the Unlimited option.

- Record triggered – Use the available options to specify when/ how call recording will be triggered:
  - Never – Although the call recording feature is enabled, it is not used.
  - Only conferences – When this option is enabled, 4PSA VoipNow will record only conference conversations. This option is available only if Conference feature is enabled.
  - When *1 is pressed – When this option is enabled, the user will be able to start the recording of a conversation by dialing *1 on his phone pad.
  - All calls are recorded – When this option is enabled, 4PSA VoipNow will record all the conversations of the extension.
- Play sound {sound} when call recording starts – When this option is enable, 4PSA VoipNow plays the sound each time a recording operation starts. Clicking the icon will open a pop-up window that displays a list of all the available sounds matching the name 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.

Caution

To define the behavior of the extension for the case when the user cannot answer a call, you must take into account the following parameters:

- **Consider 'No answer' after {no answer} seconds**
- **Voicemail automatically answers after {voicemail answer} seconds**
- **Fax automatically answers after {fax answer} seconds**
- **If not a fax, send to voicemail**

The following configuration is recommended for a correct behavior:

- **{no answer}** > **{voicemail answer}** > **{fax answer}**.
- **If not a fax, send to voicemail** check box selected.

Provisioning and SIP

In order to access this option, select the desired extension from the Extensions List by clicking on its name and than click the  Provisioning and SIP icon located in the Tools area.

4PSA VoipNow can automatically configure the phone associated with a Phone terminal extension. This feature is called *provisioning* and it helps you set and maintain identical configurations for a large number of phone devices.

The default behaviour is the following: after a new phone terminal is added to the system, 4PSA VoipNow displays this message:

> Extension John Smith (0197*002) has been successfully added.
>
> Click here if you want to provision this extension now. If you want to provision every newly added extension click here.

However, if you previously chose to perform provisioning each time you add a new phone terminal, 4PSA VoipNow displays the following message:

> You have been directed to this page because you previously opted to provision every newly added phone terminal. If you do not want to provision and you do not want to be directed here on new phone terminal additions, click here.

You must set the hostname or IP address of the provisioning server before being able to provision any extension. If you try to provision an extension and the server is not set, 4PSA VoipNow will automatically direct you to the appropriate page.

After doing so, a new page will open, allowing you to fill in the following details:

- Phone provisioning

> **Caution**
>
> Users that log in to the 4PSA VoipNow interface using a reseller, client or extension account have complete access to the **Phone provisioning** and **SIP**

and IM preferences sections, only if the **Phone extension SIP management** permission is enabled. If the **Phone extension SIP management** permission is disabled, then these users have access only to the following features from the **SIP and IM preferences** section:

- Use the same password with interface
- Phone password
- Confirm phone password
- Equipment description

More details on how to set this permission can be found in the Manage Phone Numbers Collections section from the **Manage Unified Communications Features** chapter.

- Use provisioning - When this check box is selected, the phone device associated with the extension will get all its setup parameters from the provisioning server. Otherwise, the extension user will have to manually set the phone parameters.
- Phone brand and model – Use this drop-down list to select one of the phone brands and models supported by the 4PSA VoipNow provisioning system.

Note

The current 4PSA VoipNow version supports the following phone brands: Aastra, Cisco, Grandstream, Linksys, Polycom, Snom, Thomson.

- Firmware – Use this drop-down list to select one of the firmware versions corresponding to the selected brand and model. The list contains the firmware versions available in the 4PSA VoipNow provisioning database.
- Phone MAC – The MAC address of the phone. Check your phone documentation to obtain it. You must enter the MAC address in the following format: XX:XX:XX:XX:XX:XX, where X is a hexadecimal digit (i.e. 0-9, A-F or a-f).
- Phone admin username – The user name for logging in to the phone's browser based configuration interface.

Note

Not all phones support configuration via a web browser. Check the documentation for your specific phone.

- Phone admin password – The password for logging in the phone's browser based configuration interface.
- Confirm phone admin password – Use this text box to re-enter the password for logging in the phone's interface.
- Phone update interval – The number of minutes the phone waits before checking for updates on the provisioning server. The default value is 10 minutes. Allowed values range from 1 to 99999 minutes.
- Update protocol – The protocol used by the phone to access the configuration file on the provisioning server. Use the drop-down list to select one of the available protocols.
- Regenerate provisioning location – When this check box is enabled, 4PSA VoipNow will delete the existing configuration file and create a new configuration file with a different name.

- SIP and IM preferences
  - Use the same password with interface – When this option is enabled, the extension user's phone will use the account login password to authenticate to the 4PSA VoipNow server. If the check box is disabled, you can use the two following text boxes to set and confirm the phone password.
  - Phone and IM password - The password used for logging to the phone and IM.
  - Confirm phone and IM password - Use this text box to re-enter the password used for logging to the phone and IM.
  - DTMF – Use this drop-down list to choose the DTMF mode. The default option is rfc2833. If you choose the auto option, Asterisk automatically detects whether the channel supports rfc2833 or not; if the channel does not support rfc2833, Asterisk uses inband mode.
  - A PBX is connected to this extension [] Enable for SIP trunking service - This setting allows the system to direct a incoming call made to a public phone number to a particular extension on the PBX server connected to the extension for which the current setting is enabled. When the call is sent to the PBX server, the public phone number which was called is saved and thus the call can be directed to the chosen extension on the PBX server.

> **Note**
>
> For this setting to be available, your license must support the **Special features to connect PBXes - Yes** feature.

- Ping extension to check its status – When enabled, the server sends ping SIP messages to the extension regularly. Usually this option is used for extensions behind NAT.
- The extension is behind the same private network as the server - This option is available only if the Deployment Infrastructure NAT (Network Address Translation) and the Public/Private Networks Routing options are enabled. Check this option if your extension is located inside the private network of your SIP server.
- Allow re-invites from this extension - Check this option allow extension to send RE-INVITES.
- Extension publishes its own state - Check this option if you do not want the server to send presence notifications to the phones that are watching this extension for presence. If it is checked, the server no longer sends any notification events unless this extension explicitly publishes its presence by sending PUBLISH messages to the SIP server.
- Force enable of MWI - Check this option if you want to receive message waiting notifications, but your phone does not send explicit subscriptions for message waiting. Most phones do not need this.
- Allowed codecs – Use these check boxes to select the codecs supported by the phone device.

> Note
>
> The list of possible codecs displayed in **Allowed codecs** can be modified in the Unified Communications >> **System Preferences** >> **General** page.

> Caution
>
> The users that log in to the 4PSA VoipNow interface with a reseller, client or extension account will be able to see **Allowed codecs** only if they have the **Phone extension SIP management** permission enabled. More details on how to set this permission can be found in the Manage Phone Numbers Collections section from the **Manage Unified Communications Features** chapter.

- Phone does not register and is located on IP - The extension will no longer register to the server and its location is given by this IP and this port.

    - **Allow extension SIP connection only from IP** - You can use this field to limit the usage of the extension to an IP or network. Only the IP(s) specified here will be allowed to receive and make calls from this extension. Registration on the phone is still needed in order to receive calls. You can add several IPs by using the buttons.
    - **Equipment description** – Use this text box to briefly describe your phone model.

Queue Setup

This type of extension is used to implement call center functionality.

4PSA VoipNow displays the following options:

- **Queue general preferences**
    - **Queue name** – Use this text box to provide a descriptive name for the queue
    - **Queue size** – The maximum number of callers waiting to talk to an operator. If you do not want to limit the queue size, enable the `Unlimited` option. Otherwise, disable the `Unlimited` option and fill in a value in the available text box.
    - **Call distribution algorithm** – 4PSA VoipNow offers you several methods of assigning calls to queue operators:
        - **Ring all** – All free operator extensions ring at the same time and the call is transferred to the first operator that answers.
        - **Least recently called** – The call is transferred to the operator with the longest waiting time interval from the previous call.
        - **Fewest calls** – The call is transferred to the operator who has answered the fewest calls. This method does not take into account the actual agent workloads; it ignores the time the agents spent on each call.

          For example, if Agent1 has had 3 calls each lasting for 10 minutes and Agent2 has had 5 calls each lasting 2 minutes, 4PSA VoipNow will assign a new call to Agent1.
        - **Random** – The call is transferred to a randomly selected operator.
        - **Round robin with memory** – This method searches for available agents sequentially and uses the order of the agent list. Each time it tries to assign a call, it remembers the agent that answered the call answered; the next time a waiting call arrives, the search begins with agent in position answered+1.

For example, let's assume you have a queue served by 3 agents. The first time a call arrives, 4PSA VoipNow searches for the first available operator using the order Agent1, Agent 2, Agent 3. Let's suppose Agent2 is available and answers the call. When the second call arrives, 4PSA VoipNow starts the search with Agent3 and uses the order Agent3, Agent1, Agent2.

- Ring members in the adding order - The call is transferred to the agents in the order they have been added to the queue.

  For example, let's assume you have a queue managed by 3 agents. The first added to the queue is Agent1, the second is Agent2 and the third is Agent3. The first time a call arrives, 4PSA VoipNow searches for the first available operation using the order Agent1, Agent2, Agent3. If Agent1 is available, the call is transferred to him. If not, it will be transferred to Agent2. If he is not available as well, the call will be transferred to Agent3.

- Random with member penalty - The call is transferred to a randomly selected agent from those with the smallest penalty level. If none is available, a new agent is selected from the next penalty level.

  For example, let's assume you have a queue managed by 4 agents. Agent1 and Agent3 have the smallest penalty level, while Agent2 and Agent4 have a bigger penalty level. The first time a call arrives, 4PSA VoipNow searches for the group with the smallest penalty level and randomly assigns the call to one of the Agent1 and Agent3. If none is available, the call is transferred to one of the Agent2 and Agent4.

- Wait for {x} seconds before retrying all agents again – After ringing all operators according to the queue's call distribution algorithm, the application waits for {x} seconds before restarting the process. Values for this parameter range from 3 to 900 seconds. The default value is 20 seconds.

- Service level agreement – This is the maximum time interval that callers should be waiting in the queue. Values for this parameter range from 3 to 9999. This text box is empty by default.

- Record all queue conversations – This option allows the recording of all the calls taken by the queue operators.

- Call recording storage space – When the call recording option is enabled, you have the possibility to limit the storage space for the recordings. If you don't want to limit the space, select the Unlimited check box.

- Local agent's behavior

- Ring an agent for a maximum of {x} seconds – The value {x} is the maximum time interval that an operator extension will ring. The default value is 20.
- Maintain a minimum of {x} seconds between calls – The value {x} specifies the minimum operator break between calls. The default value is 120.
- Delay for {x} seconds before connecting agent to caller – After an operator answers a call, the application will wait for {x} seconds before connecting the caller to the operator. Values for this delay range from 0 to 60 seconds. The default value is 0 seconds.
- Pickup announcement for agent – The sound that 4PSA VoipNow plays for queue agents before connecting them to a waiting call.

> **Note**
>
> This feature is useful for agents that are simultaneously logged to several queues at the same time. Distinctive sounds can be assigned for every queue.

- Report how long the user had to wait in the queue – When this option is enabled, 4PSA VoipNow reports the time the user spent in queue before being connected to an agent.
- Restart timer if agent does not answer – When this option is enabled, the timer Maintain a minimum of {x} seconds between calls is reset every time the agent does not answer.

- Caller behavior
  - Welcome sound – Use the icon to select the sound played to the caller before connecting him to the queue. 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.

◦ Announce position every {y} seconds – When this option is enabled, the callers will be informed about their position in the queue every {y} seconds.

> **Note**
>
> The caller will be announced of his position in the queue using the There are sound and **'The elapsed queue hold time' sound** set in the **Sound files setup** section.

◦ Announce hold time – When this option is enabled, the callers are informed about the time they have been waiting in the current queue for their call to be answered by an agent. The sound played to the user when this option is enabled is the one entered in the 'The elapsed queue hold time' sound field.

◦ Periodic announcements every {x} seconds – A periodic announcement is a message like "Thank you for holding, your call is important to us". The value *{x}* specifies the frequency of these announcements. The default value is 30.

◦ Exit to extension on key pressed - When this option is enabled, the caller can exit the queue by pressing "0" key on his phone pad. The call will be transferred to another extension belonging to the same client account. Use the text box to specify the extension's number. Also, you can click the icon to see a list with all the extensions available for that client. A pop-up window will be displayed, allowing you to choose the extension number.

The Extensions list pop-up window displays the following details:

- 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 the 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.

- Sound files setup
  - Music on hold – The sound played to the callers while they are waiting.

    > **Note**
    >
    > The path will display the folder name and also its origin:
    >
    > //// placed before the name of a folder signals the admin's default folder
    >
    > /// placed before the name of a folder signals the reseller's default folder
    >
    > // placed before the name of a folder signals the client's default folder
    >
    > / placed before the name of a folder signals the extension's default folder

  - 'There are' sound – The sound played to announce the position in the queue.

    > **Note**
    >
    > This is disabled if the **Announce Position every {y} seconds** is also disabled.

  - 'The elapsed queue hold time' sound – This is the sound played to the caller waiting in the queue for his/her call to be answered by an agent. It represents the amount of time for which the caller has been waiting in the current queue (the amount of time is not cumulative for callers that have been transferred from one queue to another).

- 'You are now first in line' sound – The sound played to the caller that is in the second position in the queue.
- 'Thank you for your patience' sound – The sound played to the caller that is first in the queue.
- 'Calls waiting' sound – The sound played to describe how many calls are waiting in the queue.
- 'Hold time' sound – This sound is played to the agent answering a call from a user waiting in the queue. This sound represents the amount of time for which the user has been waiting in the current queue.
- 'All reps busy / wait for next' sound – The sound played to announce the caller that, for the moment, all the agents are busy and that he has to wait a certain period until his call will be answered.
- 'Seconds' sound – The sound file that corresponds to the word 'seconds'.
- 'Minutes' sound – The sound file that corresponds to the word 'minutes'.

> **Note**
>
> When you click the icon, a pop-up window that shows a list of all the available sounds matching the text filled in the text box is displayed. 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.

- Queue behavior

> **Note**
>
> The following options can be edited only if there is at least another phone terminal extension in the same client account.

- If a caller has been waiting in queue for {x} seconds, transfer call to extension {extension} – Use this option to set a maximum waiting time and to specify an extension to transfer the call to in case it exceeds this time. When the check box is selected you can fill in the two text boxes:
  - {x} - The waiting interval. The default value is 600.
  - {extension} - The extension that the call will be transferred to.
- If there are no members logged in the queue, transfer the caller to extension {extension} – Use this option to specify an extension to transfer the call to in case there are no operators logged in the queue.
- If all agents are unavailable, transfer new calls to extension {extension} – Use this option to specify an extension to transfer the new call to when all operators are busy.
- Play sound {sound} on disconnect due to queue full - Use this option to specify the sound that will be played to the caller on disconnection due to queue full. Clicking the icon will open a pop-up window that displays a list of all the available sounds matching the name 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.

Note

Use the text boxes to specify the extension's number or click the icon to see a list with all the extensions available for that client. A pop-up window will be displayed, allowing you to choose the extension number.

The **Extensions list** pop-up window displays the following details:

- **T** - This icon displays the extension type:

        - Phone terminal
        - Queue
        - Interactive Voice Response (IVR)
    - **S** - This icon displays the extension's status:
        - Enabled
        - Disabled
    - **Extension** - The name of the extension.

      Click the link to select the 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.

Interactive Voice Response (IVR) Setup

If the extension type is IVR, 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 name 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. Use the to select the desired selection.
  - 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 name 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 .

Voicemail Center Setup

This extension type is similar to the phone terminal extension's voicemail function. However, the `Voicemail center` allows users to verify their messages from a telephone located outside the system (e.g. a public phone).

4PSA VoipNow displays the following options:

- Play sound {folder} {sound} before connecting to the Voicemail Center – When the check box is selected, use the icon to select the sound that will be played to the caller before he is connected to the extension. A pop-up window that displays a list of all the available sounds matching the name 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.

Conference Center Setup

This extension type allows setting up conferences that can be accessed by users calling from phones connected to the system, as well as by outside callers (e.g. calling from a phone connected to the PSTN).

4PSA VoipNow displays the following options:

- Conference settings
  - Play sound {folder} {sound} before connecting to conference center - When the check box is selected, use the icon to select the sound that will be played for the caller before he is connected to the extension. A pop-up window that displays a list of all the available sounds matching the name 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.
  - Conference room size - Use this text box to set the maximum number of users that can join the conversation. You can fill in any number between 2 and 99.
  - Record conference conversations - Three options are available:
    - Always - When this option is enabled, 4PSA VoipNow will always record all the conversations in this conference.
    - User's choice - When this option is enabled, the user has to decide which conversations will be recorded by 4PSA VoipNow.
    - Never - When this option is enabled, 4PSA VoipNow will never record any conversation in this conference.
  - Call recording storage space – Use the available text box to limit the storage space allowed for recorded calls. If you do not want to limit the disk space, make sure the `Unlimited` check box is selected.

- Enable music on hold - When this option is selected, 4PSA VoipNow plays the files located in the `Default music on hold` folder if there is only one user present in the conference.
- Music on hold folder - Use the box to specify the folder containing the files to be played if the Enable music on hold option is selected.

- Default settings for scheduled conferences
  - Close the conference when all conference moderators exit - When this option is enabled, 4PSA VoipNow terminates all calls when all the conference moderators log out.
  - Announce user count on joining conference - When this option is selected, 4PSA VoipNow announces any new participant about the number of users in the conference call.
  - Announce users joining/leaving - When this option is selected, 4PSA VoipNow announces the users about any participant joining or leaving the conference call.

Callback Setup

This extension type allows system users to call this extension from a phone connected to the public network and then place an outgoing call through the 4PSA VoipNow server.

4PSA VoipNow displays the following options:

- Basic settings
  - CallerID name in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
    - Set by server - If this option is selected, phones with callerID display the extension owner's name.
    - Set by equipment - If this option is selected, phones with callerID display the caller name as it is set up from the phone terminal apparatus.
    - Anonymous - If this option is selected, phones with callerID display the string Anonymous.
  - CallerID number in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
    - Set by server - If this option is selected, phones with callerID display the public phone number of the extension.

        - Set by equipment - If this option is selected, phones with callerID display the phone number of that particular phone terminal apparatus.
        - Anonymous - If this option is selected, phones with callerID display the string Anonymous.
    - Trigger call return after {x} seconds of ringing - Use this text box to insert the number of seconds a caller should wait until the server transfers his connection.
- Callback number behavior
    - Return calls - Use this drop-down list to select the action. You have the following options:
        - coming from the authorized callerIDs - 4PSA VoipNow returns the call only if it is made from an authorized number.
        - to the caller callerID - 4PSA VoipNow returns the calls made from any number.
        - to a fixed number - 4PSA VoipNow returns the call to a predefined phone number.

> **Note**
>
> In case the coming from the authorized callerIDs option is selected and a user whose callerID is not included in the authorized ID's list tries to route his call through the server, the server will not call back.
>
> In case the to the caller callerID option is selected, and a user whose callerID is hidden tries to route his call through the server, the server will not call back.

    - Number where calls should be returned - You can use this field only if you previously selected the option to a fixed number in the return calls field. Use this text box to enter a predefined phone number where the server will return all calls.
    - Play before disconnecting the call during conversation - Use this control to select the sound that will be played to the user that made the call, upon automatically interrupting the conversation (e.g.: a sound announcing that credit value is 0).
    - Service client must dial remote party number in - Use this text box to specify the time interval (in seconds), the user has at its disposal for dial the remote party number. After this time interval, 4PSA VoipNow will consider the inserted number as being complete.
- Service security

- Request the following password on callback - Use this text box to enter the password the system should require to the user wishing to route their calls through the server.
- Request password associated with authorized callerID - Enable this check box if you want the system to require users their individual passwords, to verify whether they are included in the authorized callerID's list.
- User can interrogate the account credit - Select this check box if you want to give the users the possibility to find out their credit value, before starting the conversation. After the user is authenticated with one of the authorized callerIDs he can choose to either interrogate his credit or make a phone call.

Calling Card Setup

This extension type allows setting up a calling card system on the 4PSA VoipNow server.

4PSA VoipNow displays the following options:

- Basic settings
  - CallerID name in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
    - Set by server - If this option is selected, phones with callerID display the extension owner's name.
    - Set by equipment - If this option is selected, phones with callerID display the caller name as it is set up from the phone terminal apparatus.
    - Anonymous - If this option is selected, phones with callerID display the string Anonymous.
  - CallerID number in public calls – This option is used when the extension is calling public destinations. You can choose from the drop-down list one of the 3 setup options:
    - Set by server - If this option is selected, phones with callerID display the public phone number of the extension.
    - Set by equipment - If this option is selected, phones with callerID display the phone number of that particular phone terminal apparatus.
    - Anonymous - If this option is selected, phones with callerID display the string Anonymous.
- Service behaviour

- Do not allow the user to call if credit below {x} {currency} - Use this text box to define the minimum credit a user should have when placing a call through the calling card extension.
- Play when the call can not be initialized due to lack of credit - Use this control to select the sound that should be played to the user running out of credit, upon automatically interrupting the conversation.
- Play before disconnecting the call during conversation - Use this control to select the sound that should be played to the user that made the call, upon automatically interrupting the conversation.
- User can interrogate the account credit - Select this check box if you want to give the users the possibility to find out their credit value, before starting the conversation. After the user is authenticated with one of the card codes he can choose to either interrogate his credit or make a phone call.
- Service client must dial remote party number in - Use this text box to specify the time interval (in seconds) the user has at its disposal for dial the remote party number. After this time interval, 4PSA VoipNow will consider the inserted number as being completed.

Intercom / Paging Setup

This extension type allows the user to call several or all available extensions in the same time. The called extensions will hear the caller's announcements whether they pick up the phone or not.

4PSA VoipNow displays the following options:

Note

In order to add/ remove numbers or groups to/ from the lists, you have to click the » button. The **Choose extensions/ groups** window will pop up, allowing you to select the extensions/groups that you want to add/ remove.

- Basic settings
  - Type - You are able to choose between:
    - 2 way Intercom - The called extensions are able to talk back to the caller.
    - 1 way Paging - The called extensions cannot talk balk to the caller.

- Alert-Info header - The text specified in this field will be displayed on the called extensions' phone terminals
- Timeout - The maximum duration of the intercom/ paging session. After this period of time, the call is disconnected
- On connection play sound - 4PSA VoipNow plays this sound each time the user is connected to the called extensions. Use the icon to select the sound or specify the address of the sound file. A pop-up window that displays a list of all the available sounds matching the name 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.
- Caller permission for all extensions - If this option is enabled, all the available extensions are allowed to call the intercom/ paging extension. If this option is disabled, you will be able to manually assign individual permissions from the Caller permission area.
- Allow intercom calls to all extensions at once - When this option is enabled, the intercom calls are allowed to call all the available extensions in the same time.

• Caller permission - Use this section to specify the extensions that are allowed to call the intercom/ paging extension.
  - Individual extensions - Specify the extensions that are allowed to call the intercom/ paging extension.
  - Groups - Specify the extension groups that are allowed to call the intercom/ paging extension.

• Allow intercom calls to - Use this section to specify the extensions that can be called by the intercom/ paging extension.

- Individual extensions - Specify the extensions that can be called by the intercom/paging extension
- Groups - Specify the extension groups that can be called by the intercom/paging extension.

Edit an Extension

Edit General Information

> **Note**
>
> You can only edit an extension if the `Extension management` permission has been activated for its account. If this permission has not been activated, you can only edit the extension's contact details.

To edit the details of an extension account, follow these steps:

1. In the Extension Management page, choose the desired extension and click on its name.
2. Click the Edit extension icon available in the Tools area.
3. A new page where you can view and edit details about the selected extension and its owner opens. The data is grouped in several sections:
   - Extension owner – Use this section to modify extension owner's personal information or his user name and password.
   - Charging and outgoing call filtering – Use this section to change the charging plan and the outgoing routing group associated to the extension.

> **Note**
>
> For more details on how to modify these settings, see the Add a New Extension section.

If you want to resend contact details to the email address specified for the extension account, select the Resend extension contact details check box. The contact details will also be resent to the client and reseller who own the extension, as well as to the system administrator, if the appropriate parameters have been set in the Unified Communications » Email templates page.

> **Note**
>
> The password will be sent only if it has been modified.

4. Click OK to save the changes or Cancel to return to the previous page without modifying anything.

Edit Extension Features

In the 4PSA VoipNow system, each type of extension has its own set of features and functionalities. To view and edit these features, follow these steps:

- If the extension type is Phone terminal, click the Phone terminal setup icon from the extension account page.
- If the extension type is Queue, click the Queue setup icon from the extension account page.
- If the extension type is IVR, click the IVR setup icon from the extension account page. In the new opened page, you can design the functionality of the IVR. For more information on this topic, see Design an IVR's Behavior .
- If the extension type is Voicemail center, click the Voicemail center setup icon from the extension account page.
- If the extension type is Conference, click the Conference center icon from the extension account page.
- If the extension type is Callback, click the Callback setup icon from the extension account page.
- If the extension type is Calling card, click the Calling card setup icon from the extension account page.
- If the extension type is Intercom/paging, click the Intercom/paging setup icon from the extension account page.

Edit Extension's Permissions and Phone Numbers

To modify the permissions and phone numbers of a particular extension, in the Extension Management page, choose the extension that you want to edit and click on its name. Next, 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
  - Extension is multi-user aware – This option allows the extension to see the other extensions on the same client account and to access the functions that forward calls to other extensions, like call forwarding, transfer, ring-all, etc.

    > **Note**
    >
    > The **Extension is multi-user aware** option is only displayed for Phone `terminal` extensions. Other extension types MUST be multi-user aware by design because otherwise they cannot serve their purpose.

  - Phone extension SIP management – When this option is enabled, the extension user is allowed to use the provisioning features on his phone terminal extensions. Additionally, he can choose the Allowed codecs for the phone terminal extensions. For more information on this topic, see the Provisioning section.

    > **Note**
    >
    > The **Phone extension SIP management** option is displayed only for Phone `terminal` extensions.

  - IM management - This option allows the extension to manage the chat application for its clients.
  - CallAPI management - When this option is enabled, the extension is able to manage the CallAPI permission. For more information, please read the CallAPI section.
  - 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 calls – Use the available text box to limit the number of external calls that can be active at the same time. If you do not want to limit the extension, select the `Unlimited` check box.

> Note
>
> The **Maximum concurrent calls** option is available for phone terminal extensions only. Both incoming and outgoing calls are counted.

◦ 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 had been enabled by the system administrator.
>
> 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.

◦ Maximum number of queue members – Use the available text box to limit the number of agents that can be added to the queue.

> Note
>
> The **Maximum number of queue members** option is displayed for `Queue` extensions only.

   - **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.
- **Incoming phone number selection** – Use the two lists to associate one or more public phone numbers from the client's pool with the extension.

> **Note**
>
> This section is displayed only if there are phone numbers available in the client account where the extension is located.
>
> When you assign a public phone number to an extension, the phone number becomes exclusive to that extension. No other extension can use it. From that moment on, callers from outside the 4PSA VoipNow system can reach that extension by dialing the phone number.

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

Remove an Extension

To remove extension accounts from the system, follow these steps:

1. Choose the extensions you want to delete by selecting their corresponding check boxes in the **Client Management** page.
2. Click the Remove selected link. A new page displaying the list of extensions 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.

Group Operations on Extension Accounts

View the Extension Groups List

4PSA VoipNow allows you to define **Extension Groups**. In order to access the **Extension Groups Management** page, click the **Extension groups** icon located in the **Tools** section of the **Client Management** page.

4PSA VoipNow displays the following information about each extensions group:

- S – This icon specifies the extensions group account's status:
  - Enabled
  - Disabled

  Click on this icon to change the status.
- Name - The name of the extensions group.
- Code - The code of the extensions group.
- Tags - The identification tags of the extensions group. The user can search in an extension groups list by using these tags as search criteria.
- Extensions - The number of extensions belonging to that particular group.
- Created - The date when the extensions group was created.

Searching the Extension Groups List

When the extension groups list is too long and you are searching for specific group, 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 groups 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 extension groups list can be filtered by name, code, extensions 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 extension groups list was sorted. The sort direction can be changed by another click on that header.

Add a New Extension Group

In order to add an extension group, click the Add extension group icon. In the new opened page, you can fill in the following details in order to set up a new extensions group:

- Code - The code of the extension group.
- Name - The name of the extension group.
- Tags - The identification tags for the extension group.
- Extensions - Click the button to add/ remove extensions to the group. A new window will pop up, allowing you to select the desired items.
- Description - A short comment regarding the extension group.

Remove an Extension Group

If you want to remove extensions groups from the system, follow the next steps:

1. Choose the extension groups 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, click OK. Otherwise, click Cancel to return to the previous page without deleting anything.

Manage Extension's Time Intervals

To access this option, in the Extension Management page, choose the desired extension and click on its name. Than, click the Time intervals icon available in the Tools area.

For a detailed overview, see the Manage Time Intervals section from the Manage Unified Communications Features chapter.

Add a New Extension's Time Interval

If you want to add a new time interval to the extension account, click the Add time interval icon available in the extension's Tools area. For more detailed information, see the Add a New Time Interval section.

Edit Extension's Time Intervals

For more details on how to edit the extension's time intervals, see the Edit a Time Interval section.

Manage Extension's Sounds

To access the extension's sounds page, in the Extension Management page, choose the extension and click on its name. Next, click the Sounds icon available in the Tools area.

For a detailed overview, see the Manage Sounds section from the Manage Unified Communications Features chapter.

Add a New Extension's Sound

If you want to add a new sound to the extension account, click the Add sound icon available in the extension's Tools area. For more detailed information, see the Add a New Sound section.

Edit Extension's Sound Information

For more details on how to edit the extension's sounds, see the Edit Sound Information section.

Manage Extension's Sound Folders

For a detailed overview, see the Manage Sound Folders section from the Manage Unified Communications Features chapter.

Add a New Extension's Sound Folder

If you want to add a new sound folder to the extension account, click the Add folder icon available in the Tools area. For more detailed information, see the Add a New Sound Folder section.

Manage Extension's Sound Languages

For a detailed overview, see the Manage Sound Languages section from the Manage Unified Communications Features chapter.

Add a New Extension's Sound Language

If you want to add a new sound language to the extension account, click the Add language icon available in the Tools area. For more detailed information, see the Add a New Language section.

Edit the Extension's Languages Details

For more details on how to edit the extension's languages, see the Edit Language Details section.

Manage Extension's Phone Number Collections

To access the extension's Phone Numbers Collections page, click the chosen extension's name in the Extensions Management page. A new page containing button links to all specific client operations opens. Next, click the  Phone numbers collection icon available in the Tools area.

For a detailed explanation upon how to customize the extension's phone numbers collections, see the Manage Phone Numbers Collections section from the Manage Unified Communications Features chapter.

The difference between the administrator's phone number collections and the extension's is the inheritance level. For the extension, only one level is available:

- 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.

Add Extension's New Collection Numbers

To add a new collection number, click the  Add number icon available in the Tools area. For more details, see the Add a New Collection Number section.

Manage Extension's Phone Numbers Categories

You can view and edit the available categories, or you can add a new one by clicking the  Categories icon available in the Tools area. For more details, see the Manage Phone Numbers Categories section.

Manage Extension's Call Rules

Manage 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 call. 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, choose the desired extension from the Extension Management page and click on its name. Next, 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 – This icon displays the rule's status:
  - Enabled
  - Disabled

  Click the icon to change the rule's status.

  > **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.
  - Set call priority – 4PSA VoipNow sets a certain priority for the incoming call in order to be answered faster by the operators in a queue. This action is only available for the Queue extension type. The value of the priority parameter is also displayed here.
  - 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 on event - 4PSA VoipNow transfers the call to another extension on the same client account or to an external destination when a specific event occurs. This action is only available for the Phone `terminal` extension type.
  - 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.
  - Voicemail - If the extension type is Phone `terminal` and if the user has selected the Enable voicemail check box in the Phone terminal setup page, calls can be directly routed to voicemail.
  - 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 callerID 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, choose the desired extension from the Extension Management page and click on its name. Next, 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.
   - Set call priority – 4PSA VoipNow sets a certain priority for the incoming call in order to be answered faster by the operators in a queue. This action is available only for the Queue extension type.
   - Transfer to internal – 4PSA VoipNow transfers the call to another extension on the same client account.
   - Transfer on event - 4PSA VoipNow transfers the call to another extension on the same client account or to an external destination when a specific event occurs. This action is available for the Phone terminal extension type.
   - Transfer to external – If there is a charging plan that allows calls to external destinations assigned to the extension, the calls can be diverted to this destination. The called extension will be charged for these calls.

- Voicemail – For the phone terminal type extensions, the calls can be directly routed to the voicemail.
- Follow me to - 4PSA VoipNow transfers the call when the extension user has switched terminals, allowing him to take the call from his new terminal.

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 callerID information.

> **Caution**
>
> Number matching is based on callerID. If the remote party does not send a callerID, 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.

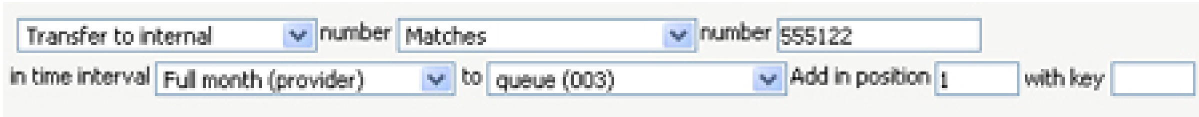
> Caution
>
> The rule's position in the group is very important because it defines the order in which 4PSA VoipNow verifies the call rules in case of an incoming call.
>
> The checking is made in order and all rules are final (meaning that the program stops checking when the first rule is matched).

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. The internal transfer option is available for phone terminal extensions with Multi-user aware permission enabled and other phone terminal extensions on the same client account.
     - 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 that allow you to create an additional rule.
- Click the button to delete the 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, choose the desired extension from the Extension Management page and click on its name. Next, 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 call rules list.

Remove an Incoming Call Rule

To remove call rules from the system, follow the next steps:

1. Choose the rules that you want to delete by selecting their corresponding check boxes in the Existing incoming call rules list.
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.

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

Manage 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 callerID of the system user that dialed the number.

Outgoing Call Rules Overview

To access the outgoing call rules option, choose the desired extension from the Extension Management page and click on its name. Next, 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 – This icon displays the rules group's status:
  - Enabled
  - Disabled

  Click on this icon to change the group's status.
- 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, choose the desired extension from the Extension Management page and click on its name. Next, click the  Outgoing call rules icon available in the Tools area.

In the new opened page, 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 when this rule applies.

> **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 from the system, follow the next steps:

1. Choose the rules that you want to delete by selecting their corresponding check boxes in the Existing outgoing call rules list.
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.

Manage Extension's Recorded Calls

Extension's Recorded Calls Overview

To access the recorded calls option, choose the desired extension from the Extension Management page and click on its name. Next, click the Recorded calls icon available in the Tools area.

When the call recording feature is enabled, in the Recorded calls page you can view a list of the calls recorded by the extension owner. Multiple operations can be performed on these recorded calls:

- Search for specific calls
- Download recorded conversations on your computer
- Delete recorded conversations
- Activate/ deactivate the call recording feature (this operation is available only for phone terminal extensions)

4PSA VoipNow displays the following details for each recorded call:

- T – This icon displays the call type:
  - Incoming
  - Outgoing
  - Unknown
- From – The name of the file. It is automatically generated by 4PSA VoipNow using a format that is specific to each extension type:

    - Phone terminals: `date_time-type.ext` (e.g. `20051230_182345-in.wav`).Click this link to download the recorded file.
    - Queues: `date_time-agentnumber.ext` (e.g. `20051230_182345-0001*0002.wav`). Click this link to download the recorded file.
    - Conferences: `conferenceno_date_time-conference.ext` (e.g. `102-20090302_185116-conference.wav`). Click this link to download the recorded file.
- Size – The size of the recorded file.
- Created – The date and time when the conversation recording started.
- Length - The recorded call's duration.

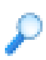
Enable or Disable Call Recording

-  Activate Recording – Use this icon to activate call recording.
-  Deactivate Recording – Use this button to deactivate call recording.

> **Note**
>
> This option is only available for the phone `terminal` extension type.

Searching the Recorded Calls List

When the recorded conversations list is too long and you are searching for specific recordings, 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 recorded calls that match your search 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.

Another way to simplify the listing is to sort the recorded conversations by clicking a table header. The order criteria is marked by the highlighted table header and the arrow indicates how the recorded calls list was sorted. The sort direction can be changed by another click on that header.

Remove a Recorded Call

To remove recorded calls from the system, follow the next steps:

1. Choose the calls you want to delete by selecting their corresponding check boxes in the Recorded Messages Management 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.

Manage the Call Screening Preferences

Screening

The Screening feature allows you to define phone numbers that cannot be called by the respective phone terminal extension.

> **Note**
>
> In order to filter calls, you must define phone number categories first.

To access the Screening management page, click the chosen extension's name from the Extension Management page. Next, click the Call screening icon available in the Tools area.

In the new opened page there are two available tabs :

1. Screening
   - Call screening
     - Screening behaviour - Defines the behaviour of the screening feature. The following options are available:
       - Do not use filtering - All outgoing calls are allowed, no filtering is applied.
       - Filter calls to selected numbers - This option allows you to specify the phone numbers that extension will not be able to call. When this option is selected, the following sections are available:

- Screen all calls to numbers in - The extension will not be able to call the phone numbers from the categories that are assigned to be screened. To assign a category, choose it from the Available categories list and click on it. The application will automatically transfer it to the Assigned categories list.

  The Assigned categories list contains all the categories that are screened. To delete a category from this list, choose it and click on it. The application will automatically transfer it back to the Available categories list.

- But allow calls to - This section contains the categories that can be called, OVERRIDING the screening rules set in the Screen all calls to numbers in section.

  To assign a category, choose it from the Available categories list and click on it. The application will automatically transfer it to the Assigned categories list.

  The Assigned categories list contains all the categories that are screened. To delete a category from this list, choose it and click on it. The application will automatically transfer it back to the Available categories list.

- Permit only calls to selected numbers - When this option is selected, the extension will only be able to call the numbers from the assigned categories.

  To assign a category, choose it from the Available categories list and click on it. The application will automatically transfer it to the Assigned categories list.

  The Assigned categories list contains all the categories that are screened. To delete a category from this list, choose it and click on it. The application will automatically transfer it back to the Available categories list.

- Behavior settings
  - Play sound when access is restricted - Use the available text box to select the sound to be played when the access is restricted.

2. Phone numbers collections - Use this tab to define phone numbers collections in order to be able to use the Call screening.

Phone Number Collection

Phone number collections can be used for screening the outgoing calls of a phone terminal extension. For more information, please read the Screening section.

To access the extension's Phone numbers collections option, click the chosen extension's name from the Extension Management page. Next, click on the Phone numbers collection icon available in the Tools area.

For a detailed explanation upon how to customize the phone numbers collections, see the Manage Phone Numbers Collections section from the Manage Unified Communications Features chapter.

Manage the Call Now Preferences

The Call Now interface allows anyone in the world with Internet access to contact an extension from a VoipNow server. After filling in the requested details, the extension will call him back based on the number of the external request. The extension's specific routing, screening and charging rules will apply, as if the call was initiated by the extension.

Prerequisites

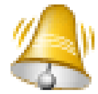
The following prerequisites must be met in order to use the CallNow function:

1. The Call Now feature is available only for phone terminal extensions.
2. The Call Now feature is available only for extensions with CallAPI access.
3. The Call Now feature is available only when the extension's parent has CallAPI access.

To activate the CallAPI access for an extension, click the chosen extension in the Extension Management page. Next, click the Phone terminal setup icon available in the Tools area. In the new opened page, select the CallAPI access check box available in the Basic settings area and click OK.

To activate the CallAPI access for a client, click the chosen client in the Client Management page. Next, click the CallAPI icon available in the Tools area. In the new opened page, select the Allow CallAPI access on client check box available in the CallAPI preferences area, fill in the settings regarding your password and preferred agent and click OK.

Activating the Call Now Function

To activate the Call Now function, click the chosen extension in the Extension Management page. Next, click the  Call Now icon available in the Tools area. In the new opened page, select the Allow people to call me check box. This will activate the following options:

- Call Now ID - Enter the callerID for your extension.
- I am available only in time interval - Enter your availability for being contacted through Call Now.
- Do not allow people to contact me while I am on the phone - Select whether you would like to reject all Call Now requests.
- Confirmation required before connecting me to caller - Select whether you would like to confirm before accepting a Call Now request.
- Show my name on the public Call Now interface - Make your name public on the Call Now interface.
- Ask for the name of the caller - Do not accept anonymous callers.
- Use image validation on the public interface - Use a random validation security image.
- Language - Use the drop-down list to select the Call Now interface's language.
- Message on the public interface - Enter a welcome message for your public interface.

When you are done, click OK to validate and apply your changes or Cancel to abort and go back to the previous page.

For more information about Call Now, click here.

Manage Extension's Charging Limits

Caution

This section will be displayed only if:

- Charging is enabled on the 4PSA VoipNow server.
- The extension was created with a charging plan attached to it.

4PSA VoipNow allows you to set charging limits when the extension operates under a postpaid charging plan. If you choose to adjust the charging rules of a particular extension, you can add extra limits to his account.

> **Note**
>
> If the extension operates under a `prepaid` charging plan, you can only offer *charging credits*.

View Extension's Charging Limits History

4PSA VoipNow allows you to view detailed information about a extension's charging limits. To access this information, follow these steps:

1. Choose the desired extension from the Extension Management page and click on its name.
2. In the new opened page, 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.

Add Limits to an Extension Account

> **Caution**
>
> You will be able to use this option only if the charging limit for incoming/outgoing calls is not set to `unlimited` in the extension account.

To access this information, follow these steps:

1. Choose the desired extension from the Extension Management page and click on its name.

2. In the new opened page, click the Charging limits icon available in the Tools area.

In this section of the page you can insert extra time and money limits to the extension, by inserting digits in the following fields:

- Incoming money limit – Enter the amount of money which you want add to the external outgoing calls limit that was initially set in this extension's charging plan.
- Outgoing money limit – Enter the amount of money which you want to add to the external incoming calls limit that was initially set in this extension's charging plan.
- Over usage minutes – Enter the amount of minutes you want add to the external outgoing over usage minutes from this extension's charging plan.
- Order number – Insert the identification number of the request for allocating these charging limits.
- These limits should be added every month - Select this check box if you want to add these limits automatically every month.

Click OK to save your settings, or Cancel to go back to the previous page.

Remove Extension's Charging Limits

To remove monthly charging limits, choose the desired extension from the Extension Management page and click on his name. Then, click the Charging limits icon available in the Tools area and follow the next steps:

1. Choose the charging limits you want to delete by selecting their corresponding check boxes from the Limits history table.

> **Note**
>
> You cannot delete a charging limit that is set for one month only. However, if you have made a mistake and you want to modify the limit you have added, insert a new charging limit with a similar negative value (with a minus in front). Then, click the **OK** button to save the new setting, or **Cancel** to go back without making any changes.

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 to return to the previous page without deleting anything.

Manage Extension's Charging Credits

Caution

This section will be displayed only if:

- Charging is enabled on the 4PSA VoipNow server.
- The extension was created with a charging plan attached to it.

4PSA VoipNow allows you to set charging credits when the extension operates under a prepaid charging plan. You can access this page when the extension needs to recharge its account.

Note

If the extension operates under a postpaid charging plan, you can only offer *charging limits*.

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, follow these steps:

1. Choose the desired extension from the Extension Management page and click on its name.
2. In the new opened page, 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.

Add Credits to an Extension Account

> **Caution**
>
> You will be able to use this option only if the credit limit for incoming/outgoing calls is not set to `unlimited` in the extension account.

To access this information, follow these steps:

1. Choose the desired calling card extension from the Extension Management page and click on its name.
2. In the new opened page, click the Charging credits icon available in the Tools area.

In this section of the page you can insert extra time and money limits to the extension, by inserting digits in the following fields:

- Outgoing calls credit – Enter the amount of money with which you want to recharge this extension's credit, in order to be used for outgoing external calls.
- Incoming calls credit – Enter the amount of money with which you want to recharge this extension's credit, in order to be used for incoming external calls.
- Order number – Insert the identification number of the request for allocating the charging credits.

Click Ok to save your settings, or Cancel to go back to the previous page.

Decrease Extension's Charging Credits

You can access this option from the Extension Management page by clicking the chosen extension name and the Charging credits icon available in the Tools area.

You cannot remove a charging credit. However, if you have made a mistake and you want to modify the added credit, insert a new charging credit with a smaller negative value (with a minus in front). Then click OK button to save the new setting, or Cancel to go back without making any changes.

View Extension's Charging Plan

> **Caution**
>
> This section will be displayed only if:
>
> - Charging is enabled on the 4PSA VoipNow server.
> - The extension was created with a charging plan attached to it.

4PSA VoipNow allows you to view detailed information about an extension account's charging plan. To access this information, follow these steps:

1. Choose the desired extension from the **Extension Management** page and click on its name.
2. In the new opened page, click the **Extension charging plan** icon available in the **Tools** area to view details about the prices charged for the calls made by the extension account. The information is grouped into several sections:
   - **Charging plan description** - This section displays general details about the charging plan, like its name, type and permissions.
   - **External outgoing limits** - This section provides information about the limits imposed to the external outgoing calls, including the number of minutes and the time intervals in which they can be used.
   - **Outgoing calls charges** - This section displays the details regarding the outgoing calls, like the price charged per time interval, the period when the fees apply and the local calls costs.
   - **External incoming calls charges** - This section displays the details about the fees charged for the external incoming calls.
   - **Free minutes** - This section provides an overview of the free minutes included in this user's charging plan.

   > **Note**
   >
   > Some of these sections may not be displayed, depending on the user's charging plan.
   >
   > All these fields are related to the permissions and fees set for the current user in his charging plan.

Manage Extension's Email Templates

To access this page, follow the next steps:

1. Choose the desired extension from the Extension Management page and click on its name.
2. In the new opened page, click the Email templates icon available in Tools area.

For a detailed explanation upon how to customize the extension's email templates, see the Manage Email Templates section from the Manage System Templates chapter.

Note that some of the functions described in the Manage Email Templates section may not be available or may be modified, depending on the access level.

Customize Extension's Email Content

You can customize the subject and content of an email notification. For more information, see the Customize Email Content section.

Phone Terminal Features

Manage a Phone Terminal's Voice Mailbox

If someone tries to reach an extension with this feature enabled when it is unavailable or engaged in a call, he will be able to leave a message.

Voicemail Overview

To access the voicemail, choose the desired extension from the Extension Management page and click on its name. Next, click the Mailbox icon available in the Tools area.

> **Note**
>
> The **Mailbox** icon is available only if the extension is Phone `terminal` type and the voicemail feature is enabled.

In the Mailbox Management page, you can view a list of the voicemail messages recorded for the selected extension. Multiple operations can be performed:

- Search for specific messages
- Download message files on your computer
- Delete voicemail messages
- Activate/ deactivate the voicemail feature

4PSA VoipNow displays the following details for each voicemail message:

- P – The priority of the message is displayed using an icon:
  - normal
  - attention
  - urgent

  These priority levels are generated when the message is recorded by interrogating the person that leaves the message.
- From – The callerID and the extension of the person that left the voicemail message. Click this link to download the message file.
- Folder – The folder where the message file was stored.
- Size – The message file's size.
- Created – The date when the voicemail message was recorded.
- Length – The length of the message displayed in the following format: hours : minutes : seconds.

You can force the update of this page by clicking the Refresh icon available in the top right side of the main frame.

Searching the Voicemails List

When the messages list is too long and you are searching for specific messages, 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 messages that match your search 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.

Another way to simplify the listing is to sort the message list by clicking a table header. 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.

Check Your Messages

If you want to listen to your voice messages, you have the following options:

- Use your computer – This method is described in this section.
- Use your phone – This can be done by calling *95 from your local phone. If you want to listen to your messages from a remote location, you can call your extension public phone number and then dial * during the voicemail invitation message.

Download Messages on Your Computer

To download the messages on your computer, choose the desired extension from the Extension Management page and click on its name. Next, click the  Mailbox icon available in the Tools area and follow the next steps:

1. In the From column of the message table, click the link corresponding to the message you want to save on your computer. A download dialog box appears displaying information about the file you have selected.

   > **Note**
   >
   > 4PSA VoipNow names the message file using the standard format `msg{xxxx}.ext`, where `{xxxx}` is a number automatically assigned by 4PSA VoipNow and `ext` is the sound file extension.

2. Save the file on your local computer.

Now you can locate the downloaded message on your computer and play it using your favorite media player.

> **Note**
>
> Once you have downloaded a voice message, the message is marked as read and automatically moved from the **INBOX** folder to the **OLD** folder.

Manage Greetings

To access this page, click the Manage greetings button from the Mailbox Management page. A new page opens, allowing you to enter information about the new greeting file, to search or delete the existing greeting files.

The information on the new greeting file in grouped into the Upload greeting section:

- Greeting type – Use the drop-down list to select the type of greeting file that will be added:
  - Temporary greeting
  - Unavailable message
  - My name
  - Busy message
- Greeting file – Use the Browse... button to locate the greeting file on your computer.

Click Cancel to go back to the previous page without adding the greeting file or OK to proceed with the upload.

4PSA VoipNow displays the following information about each greeting file:

- Listen to greeting – The name of the greeting file. click the link to listen it.
- Greeting type – The type of the greeting file.
- Size – The size of the greeting file in Kb .
- File created – The date when the greeting file was added to the system.

Searching the Greeting Files List

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

- Search – Use the text box to specify the words you are looking for. click the button or the Search label to display only the greeting files 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.

Another way to simplify the listing is to sort the greeting file list by clicking a table header. The order criteria is marked by the highlighted table header and the arrow indicates how the greeting files list was sorted. The sort direction can be changed by another click on that header.

Remove Greeting Files

To remove greeting files from the system, follow the next steps:

1. Choose the files 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.

Remove a Voicemail Message

To remove recorded voicemail messages from an extension account, click the chosen extension link in the Extension Management page. Next, click the Mailbox icon and follow the next steps:

1. Choose the messages 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.

Enable or Disable the Mailbox

- Activate voicemail – Click this icon to activate the voice mailbox.
- Deactivate voicemail – Click this icon to deactivate the voice mailbox.

Manage a Phone Terminal's Fax Messages

4PSA VoipNow allows the Phone terminal extension type to receive fax messages and manage them through the 4PSA VoipNow control panel.

Fax Center Overview

To access the fax messages option, choose the desired extension from the Extension Management page and click on its name. Next, click the Fax Center icon available in the Tools area.

When the fax center feature is enabled, in the Fax Messages Management page you can view a list of the faxes received by the extension. Multiple operations can be performed on these files:

- Search for specific fax messages
- Download fax files on your computer
- Delete fax messages
- Enable/ disable the fax center
- Manage sent faxes

4PSA VoipNow displays the following details for each fax message:

- T – This icon displays the fax message's status:
    - Incoming
    - Outgoing
- From – The callerID of the fax machine that sent the fax message. Click this link to download the fax file on your computer.
- Pages – The number of pages of the fax.
- Size – The fax file's size.
- Created – The date when the fax file was created on the server.

> **Note**
>
> New messages are displayed in bold style.

Searching the Fax Messages List

When the fax list is too long and you are searching for specific faxes, 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 fax messages that match your search 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.

Another way to simplify the listing is to sort the fax messages by clicking a table header. 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.

Remove a Fax Message

To remove fax messages from an extension account, click the chosen extension link in the Extension Management page. Next, click the Fax center icon and follow the next steps:

1. Choose the messages 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.

Enable or Disable Fax Center

- Enable Fax Center – Use this icon to enable the fax center option.
- Disable Fax Center – Use this button to disable the fax center option.

View the Sent Faxes List

4PSA VoipNow allows the extensions to send fax messages. Faxes are sent using:

- email messages - by attaching the fax content as a PDF, JPG or TIFF file to an email message, which is sent to a special faxing email address on the server. For more information, go to the [4PSA VoipNow](#) Knowledge Base area.
- the 4PSA VoipNow interface - by uploading a fax message as a PDF, JPG or TIFF file using the controls from the Fax Messages Management page located in the Fax center area of each extension.

To access the sent faxes list, choose the desired extension from the Extension Management page and click on its name. Next, click the Fax Center icon available in the Tools area and then the Sent Faxes icon.

A new page opens, allowing you to send faxes and see details about the fax messages in the system.

To send a fax use the controls from Upload fax files area:

- Send fax to recipients - List of phone numbers that you want to send the fax to. The list cannot have more phone numbers then the Maximum number of fax recipients set by the system administrator.
- Fax file - Upload fax file. You can only upload a number of files. This number cannot has to be at least equal to the Maximum number of fax files per email set by the system administrator. Only PDF, JPG and TIFF file types are supported.
- Use the buttons to add several files to the fax message.
- Send later - When this is checked the fax message will be saved with status Not approved. Later you can click the link under Approved to approve fax and send it to the recipient.
- Click Ok to upload the new fax. Click Cancel to go cancel any action.

4PSA VoipNow displays the following information about each sent fax message:

- Source
  - fax interface
  - email message
- ID - The fax message ID.

- Approved - The fax message's status can be:
  - Approved - In which case here it will be displayed Yes.
  - Not Approved - In which case here it will be displayed No as a link. Click the link to approve the fax message.
  - -- - This means that the fax message was Not Approved and it has been removed from the system.
- Fax to - The list of recipients.
- Status - A fax message can have the following states:
  - Not approved - The fax message has not been approved.
  - Approved - The fax message has been approved and you can click the link to send it.
  - Scheduled for sending - The fax message is scheduled for sending.
  - Sent - The fax message was sent to all recipients.
  - Partially sent - The fax message was sent only to a part of the recipients. Click the link to send the fax to the other recipients.
  - Send failed - The fax message was not sent. Click the link to send it again.

> **Note**
>
> If the state of a fax message is `Partially sent` or `Send failed`, you can re-schedule it for sending either by click its state from the list, or by clicking the Resend link newly available from 4PSA VoipNow 2.0.3 .

  - Cancelled - This fax message will not be sent anymore.
  - Purged - A fax message reaches this status after the fax has been erased from the system. This happens when the fax message has been in the system longer then the number of days allowed.
- Size - The size of the fax message displayed in KB or MB.
- Added - The date when the fax message was added to the system.
- Sent on - This field has different values, depending on the status of the fax message:
  - When the fax message status is Sent or Partially sent, then here it is displayed the date when the fax was sent.
  - When the fax message's status is different from the above values, then here it is displayed a Cancel link. Click this link if you do not want to send the fax any more.

- Info - Clicking the icon will open a page with historical information about the fax message:
  - Attempt to - The recipient's phone number. When there is more then one recipient, the phone number is replaced by All destinations.
  - Date - This is the date when the system tried to send the fax.
  - Result - Fax historical information.

Searching the Sent Faxes List

- Search in faxes – Fill in the text you are looking for in the text box.
- between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date. This date has to be lower or equal to the fax added date, for the fax message to be compliant with the search criteria.
- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date. This date has to be higher or equal to the fax added date, for the fax message to be compliant with the search criteria.
- Then click the button or the Search label to display only the sounds that match your search 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.

Another way to simplify the listing is to sort the sound list by clicking a table header link. The order criteria are marked by the highlight of the table header and the arrow indicates the direction. The sort direction can be changed by another click on that header.

View a Phone Terminal's Queue Membership

In this page you can view a list of the queues in which the extension is an agent and you can set the queue login PIN required to connect to the queue.

This page is available for the Phone terminal extensions that have the multi-user aware permission enabled and that has agents in a queue.

To access this option, choose the desired extension from the Extension Management page and click on its name. Next, click the Queue member icon available in the Tools area.

If you would like to secure the extension's access to queues, check the Require authorization to connect to queue option. This will enable the Queue login PIN and Confirm queue login PIN text boxes where you can set up a PIN made up of 1 to 4 digits. Enter the same PIN in both text boxes and click the OK button. This PIN will be required when dialing *96 or *97 to login as agent in queue. 4PSA VoipNow will display the Old queue login PIN field if the extension already has a PIN set up.

View the Queues List

4PSA VoipNow displays the following information about each queue that includes the current extension:

- S – This icon displays the status of the queue in which the extension is member:
  - Enabled
  - Disabled
- V – The role of the extension in the queue:
  - specifies that the extension user is a supervisor
  - specifies a regular agent

  Click the icon to change the role of the extension in the queue.
- Name – The name of the queue in which the extension is member. Click on the link to go to the queue extension context.
- Penalty – This value determines the order in which 4PSA VoipNow tries to assign calls to the agents. When a call is received, 4PSA VoipNow first applies the distribution algorithm to the set of agents with Penalty = 1. If no available agent is found, 4PSA VoipNow applies the algorithm to the agents with Penalty = 2 and so on. Agent with high Penalty values will be assigned fewer calls normally.
- Since – The date when the extension become member in the queue.

Searching the Queues List

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

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

The queues list can be filtered by name, penalty 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 queues list was sorted. The sort direction can be changed by another click on that header.

Queue Features

Manage Queue Agents

To access the Queue Agents page, click the Queue Agents icon located in the Tools section of the respective queue extension's management page.

Select Queue Agents

You can assign or un-assign agents to the queue by clicking on the Choose items button located on the right of the Queue agents list. A new pop-up window will open, allowing you to select the desired agents.

When you are done, click the Update button. This will populate the queue agents list displayed at the bottom of the page with the assigned extensions.

View the Queue Agents List

In the Queue Agents page, all existing agents are displayed in a table. The following information is available:

- S - This icon shows the agent's status:
    - - agent is logged in.

-  - agent is logged off.
- V - This icon shows the agent's type:
  -  - the agent is a normal queue member.
  -  - the agent is a queue supervisor.
- Agent - The agent's phone terminal extension.
- Last logged in - The date and time when the agent last logged in.
- Last logged off - The date and time when the agent last logged out.
- Average logged - The average duration of the agent's login sessions.
- Penalty - The agent's penalty number. For more information, please read the [Edit a queue agent](#) section.
- Calls - The number of calls accepted by the agent.
- Connected to - The phone terminal extension where the agent is connected from.

Edit a Queue Agent

If you want to edit an agent who has been added to the queue, select him from the queue agents information list in the Queue Agents page and click on his name.

The new opened page allows you to configure the following parameters:

- Supervisor - Use the available drop-down list to specify whether the agent is a supervisor or not.
- Penalty - Use the available text box to specify the penalty number of the respective agent. The Penalty can be used to differentiate agents by level. The call distribution algorithm will be applied on the agents with the lowest penalty number. If the are no agents with the lowest penalty number available, the algorithm will be applied on the agents with the next higher penalty number.

  For example, let's assume you have a queue served by 4 agents. Agent A and Agent B have 1 as penalty; Agent C and agent D have 2 as penalty. When a call arrives, 4PSA VoipNow will apply selected the distribution algorithm on agents A and B, which have the lowest penalty number (1). If Agent A and Agent B are unavailable, 4PSA VoipNow will apply the call distribution algorithm on agents B and C, which have 2 as penalty.

In this page you can also see a Quick report on the selected queue agent. The following details are displayed:

- Last logged in - The date and time when the agent last logged in.
- Last logged off - The date and time when the agent last logged out.
- Average logged in time - The average duration of the agent's login sessions.
- Number of completed calls - The number of completed calls.
- Average call time - The average time interval (in seconds) an agent spent in a conversation.
- Average hold time - The average time interval (in seconds) an agent spent on hold.
- Connected to - The phone terminal extension where the agent is connected from.

View Reports on the Queue Activity

The Queue Report page includes relevant metrics (displayed in tables and graphics) that can be used for reviewing the activity of the queue operators.

To access this information, follow these steps:

1. In the Extension Management page, click the queue extension's name.
2. In the new opened page, click the Queue report icon available in the Tools area.

Queue Reports Overview

To access this page, click the Overview tab located in the Queue Report tool bar.

The information is structured in several sections:

- Queue overview – This section displays general statistic data on the selected queue.
  - Total answered calls – The total number of calls answered by the queue's agents.
  - Total unanswered calls - The total number of calls unanswered by the queue's agents.
  - Total number of calls - The total number of both the answered and unanswered calls.
- Answered calls – This section displays general statistic data on the answered calls.
  - Total calls ended by agent – The total number of answered calls that were normally ended by the queue's agents.

- Total calls ended by caller – The total number of answered calls that were normally ended by the person who called the queue.
- Total number of transferred calls – The total number of calls that were transferred from the queue to an extension.

- Unanswered calls - This section displays general statistic data on the unanswered calls.
  - Calls dropped due to channel incompatibility – The total number of calls answered by an agent, but dropped because the communication channels were not compatible.
  - Calls ended due to caller abandon – The total number of calls that entered the queue and that were ended by the callers before speaking to an agent.
  - Calls transferred with key - The caller pressed 0 key before speaking to an agent and the call was transferred to another extension.
  - Calls that exit the queue due to timeout – The total number of calls that exited the queue when the caller was on hold for too long and the timeout limit was reached.
  - Calls ended due to no members - The total number of calls that were ended due to the fact that no member was available at that moment.
  - Calls ended due to no members logged in - The total number of calls that were ended due to the fact that no members were logged in at that moment.
  - Calls ended due to all members unavailable - The total number of calls that were ended due to the fact that all the members were unavailable at that moment.
  - Calls ended due to all members logged out - The total number of calls that were ended due to the fact that all the members were logged out at that moment.
  - Calls ended due to queue full - The total number of calls that were ended due to the fact that the queue was full at that moment.
- Call duration - This section displays general statistic data on the calls' duration.
  - Avg call length (completed calls) - The average call length of the completed calls.
  - Avg hold time (completed calls) - The average on hold time for the completed calls.

- Avg hold time (abandoned calls) - The average time spent by the callers in the queue before abandoning the call.

- Call completion - This section displays general statistic data on the completed calls.
  - Avg pos when callers abandon - The average position of the callers when they abandon the call.
  - Avg pos advanced (abandoned calls) - The average number of positions that the callers advanced in the queue before they abandoned the call.
  - Avg init pos for completed calls - The average initial position of the callers who completed the calls.

To filter the records displayed on this page you can use the following controls:

- Analyzing records between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- Stats display – Use the drop-down list to specify the display method for the report. Choose between:
  - Default
  - Hourly
  - Weekly
  - Daily
  - Monthly
- Click the button to display only the desired records.

> **Note**
>
> The dates are saved even if you navigate to other pages. All the other queue statistics pages available from the tool bar will display records from the same time interval.

Answered Calls Report

To access this page, click the Answered calls tab located in the Queue Report tool bar.

The information is structured in several sections:

- Queue Overview – This section displays the following statistics about call duration and caller waiting intervals:
  - Total number of answered calls - The total number of calls answered by the queue's agents.
  - Average call length - The average length of the incoming calls.
  - Minimum call length – 4PSA VoipNow also displays the date and time of the conversation as well as the agent responsible for it.
  - Maximum call length – 4PSA VoipNow also displays the date and time of the conversation as well as the agent responsible for it.
  - Total call length - The total length of all the incoming calls.
  - Average call waiting time - The average waiting time for all the calls.
  - Minimum call waiting time - The minimum waiting time for an incoming call.
  - Maximum call waiting time - The maximum waiting time for an incoming call.
  - Total waiting time - The total waiting time of all the incoming calls.
- Queue agents – This section displays the following statistics about each operator from the queue:
  - Agent – The number of the operator's extension as well as his status in the queue (logged in or not logged in). Click this link to open the Agent status page and view the statistics about his activity.
  - Calls – The numbered of answered calls registered by the operator.
  - Percent – The operator's percentage of answered calls out of the total number of answered calls.
  - Graphic – A graphic representation of the percentage value.
- Service level agreement – This section displays statistics for the intervals that the callers spent waiting in the queue.
  - Answered – The waiting time interval.
  - Calls – The number of answered calls in Answered period.
  - Percent – The percentage of answered calls in Answered period from the total calls answered.

- Graphic – A graphic representation of the percentage of answered calls.

- Disconnection causes – This section displays statistics about how calls are terminated:
  - Cause – There are 3 possible reasons for terminating a call: the agent hung up, the caller hung up or the call was transferred to an extension outside the queue.
  - Calls – The number of calls that were terminated that way.
  - Percent – The percentage represented by the disconnection cause out of the total number of calls.
  - Graphic – The graphic representation of the percent value.

To filter the records displayed on this page you can use the following controls:

- Analyzing records between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- Stats display – Use the drop-down list to specify the display method for the report. Choose between:
  - Default
  - Hourly
  - Weekly
  - Daily
  - Monthly
- Click the button to display only the desired records.

> **Note**
>
> The dates are saved even if you navigate to other pages. All the other queue statistics pages available from the tool bar will display records from the same time interval.

Unanswered Calls Report

To access this page, click the Unanswered calls tab located in the Queue Report tool bar.

- Queue overview – This section displays the following statistics about call duration and caller waiting intervals:
  - Total number of unanswered calls - The total number of unanswered incoming calls.
  - Average wait time before disconnection - The average time a user had to wait before his call was interrupted.
  - Minimum wait time before disconnection - The minimum time a user had to wait before his call was interrupted.
  - Maximum wait time before disconnection - The maximum time a user had to wait before his call was interrupted.
  - Total wait time before disconnection - The total time waited by all the users before their calls were interrupted.
  - Average queue position at disconnection - The average queue position of an user before the call was interrupted.
  - Minimum queue position at disconnection - The minimum queue position of an user before the call was interrupted.
  - Maximum queue position at disconnection - The maximum queue position of an user before the call was interrupted.
- Service level agreement – This section displays statistics for the intervals that the callers spent waiting before the call was terminated.
  - Hangup – The waiting time interval.
  - Calls – The number of unanswered calls in Hangup period.
  - Percent – The percentage of unanswered calls in Hangup period from the total calls answered.
  - Graphic – A graphic representation of the percentage of unanswered calls.
- Disconnection causes – This section displays statistics about how calls are terminated:
  - Cause – There are several possible reasons for terminating a call:
    - Call abandoned by caller – This happens when the caller hangs up before being connected to an agent.
    - Call abandoned by agent – This happens when an agent hangs up during the pick-up announcement or the delay before connecting to the caller.

        - Call disconnected due to channel incompatibility – This happens when there are differences between the list of codecs used on the agent's channel and list of codecs used on the caller's channel.
        - Call transferred with key – This happens when the caller presses a key on his phone pad while waiting to be connected to an agent.
        - Call timeout – This happens when the caller's waiting time exceeds the maximum waiting time set for the queue (i.e. the queue's timeout).
        - Call disconnected due to no members – This occurs when a call arrives and no queue agents have logged in yet.
        - Call disconnected due to no members logged in – This occurs when a call arrives on position number 1 but there are no agents available to take the call.
        - Call disconnected due to event that all queue members disconnected – This occurs when a call arrives and but all queue agents have logged out.
        - Call disconnected due to event that all queue members logged out – This occurs when a call arrives on position number 1, but while waiting, all agents have logged out.
        - Call disconnected due to event queue full – This occurs when a call arrives and the maximum numbers of callers waiting in queue has already been reached.
    - Calls – The number of calls that were terminated that way.
    - Percent – The percentage represented by the disconnection cause out of the total number of calls.
    - Graphic – The graphic representation of the percent value.

To filter the records displayed on this page you can use the following controls:

- Analyzing records between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- Stats display – Use the drop-down list to specify the display method for the report. Choose between:
    - Default

- Hourly
- Weekly
- Daily
- Monthly

- Click the button to display only the desired records.

> **Note**
> The dates are saved even if you navigate to other pages. All the other queue statistics pages available from the tool bar will display records from the same time interval.

Calls Distribution Report

To access this page, click the Calls distribution tab located in the Queue Report tool bar.

This page displays a series of statistics computed for different time intervals (day, weekday, hour) and different types of objects (answered calls, call waiting, unanswered calls):

- Answered calls per day
  - Day
  - Calls
  - Percent
  - Average call duration
  - Minimum call duration
  - Maximum call duration
  - Graphic
- Call wait time per day
  - Day
  - Calls
  - Percent
  - Average call wait
  - Minimum call wait
  - Maximum call wait
  - Graphic

- Unanswered calls per day
  - Day
  - Calls
  - Percent
  - Average time to hangup
  - Minimum time to hangup
  - Maximum time to hangup
  - Graphic
- Answered calls per weekday
  - Weekday
  - Calls
  - Percent
  - Average call duration
  - Minimum call duration
  - Maximum call duration
  - Graphic
- Call wait time per weekday
  - Weekday
  - Calls
  - Percent
  - Average call wait
  - Minimum call wait
  - Maximum call wait
  - Graphic
- Unanswered calls per weekday
  - Weekday
  - Calls
  - Percent
  - Average time to hangup
  - Minimum time to hangup
  - Maximum time to hangup

  - Graphic
- Answered calls per hour
  - Hour
  - Calls
  - Percent
  - Average call duration
  - Minimum call duration
  - Maximum call duration
  - Graphic
- Call wait time per hour
  - Hour
  - Calls
  - Percent
  - Average call wait
  - Minimum call wait
  - Maximum call wait
  - Graphic
- Unanswered calls per hour
  - Hour
  - Calls
  - Percent
  - Average time to hangup
  - Minimum time to hangup
  - Maximum time to hangup
  - Graphic

To filter the records displayed on this page you can use the following controls:

- Analyzing records between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the  button to display a calendar and select the desired date.

- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- Stats display – Use the drop-down list to specify the display method for the report. Choose between:
  - Default
  - Hourly
  - Weekly
  - Daily
  - Monthly
- Click the button to display only the desired records.

> **Note**
>
> The dates are saved even if you navigate to other pages. All the other queue statistics pages available from the tool bar will display records from the same time interval.

Agents Report

To access this page, click the Agents report tab located in the Queue Report tool bar.

- Agents overview
  - Number of agents - The total number of agents of that particular queue.
  - Average logged in time - The average time the agents were logged in to the queue.
  - Minimum logged in time - The minimum time the agents were logged in to the queue.
  - Maximum logged in time - The maximum time the agents were logged in to the queue.
  - Total agents time - The total time all the agents were logged
  - Average on pause time – The average length of the agent's pauses.
  - Minimum on pause time – The minimum length of the agent's pauses.
  - Maximum on pause time – The maximum length of the agent's pauses.
  - Total agents pause time – The total length of all the agents' pauses.
- Agent Availability

    - Agent – Click this link to open the Agent status page and view the statistics about his activity.
    - Logged in time - The total time the agent was logged in to the queue.
    - On pause time - The total time the agent was on pause.
    - Effective time - The effective time (Logged in time - On pause time).
- Agent sessions
    - Agent – Click this link to open the Agent status page and view the statistics about his activity.
    - Sessions – Click this link to open the Agent status page and view statistics about the agent's sessions.
    - Average time per session - The average time spent by an agent logged in per session.
    - Pauses - The total time of the agent's pauses.
    - Average time per pause - The average time of an agent's pause.
    - Pause % - The percentage of the pauses time out of the total session time.
    - Pauses per session - The number agent's pauses per session.
- Answered calls
    - Agent – Click this link to open the Agent status page and view the statistics about his activity.
    - Calls – Click this link to open the agent's Agent calls page and view statistics about the calls assigned to the agent.
    - Total call time - The total time of the calls answered by the agent.
    - Average call time - The average time of an answered call.
    - Average wait time - The average time the user had to wait until his call was answered by an agent.
    - % of queue calls - The percentage of the answered calls out of the total queue's calls.
    - Graphic – A graphic representation of the percentage value.

To filter the records displayed on this page you can use the following controls:

- Analyzing records between – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- and – Use the text box to fill in a date in the following format yyyy-mm-dd. Use the button to display a calendar and select the desired date.
- Stats display – Use the drop-down list to specify the display method for the report. Choose between:
  - Default
  - Hourly
  - Weekly
  - Daily
  - Monthly
- Click the button to display only the desired records.

> Note
>
> The dates are saved even if you navigate to other pages. All the other queue statistics pages available from the tool bar will display records from the same time interval.

Agent Status

This page can be accessed by clicking the agent extension number in one of the following statistics pages: Answered Calls Report and Agents Report.

The page displays general statistics about the status of an agent and his sessions:

- Status - The agent's status.
- Logged in – The number of times the agent has logged in the queue.
- Average logged in – The average length of the agent's sessions.
- Minimum logged in – The length of the agent's shortest session.
- Maximum logged in – The length of the agent's longest session.
- Paused – The number of times the agent used the pause feature (i.e. dialed *96EXTENSION_NUMBER on his phone).
- Average on pause time – The average length of the agent's pauses.
- Minimum on pause time – The length of the agent's shortest pause.
- Maximum on pause time – The length of the agent's longest pause.

- Calls – The total number of calls assigned to the agent in the reported time period.

Agent Session Details

This page can be accessed by clicking the number of sessions corresponding to an agent on the Agents Report page.

The page displays detailed statistics about the sessions of an agent:

- Login hour – The session's start time.
- Logout hour – The session's end time.
- Duration – The session's length.
- Logged in from – Agents can log in a queue from any phone connected to the 4PSA VoipNow system (the phone associated with the agent's extension or another phone associated with another extension). This column specifies the extended number of the extension associated with the phone used by the agent during the session.
- Pauses – The number of times the agent used the pause feature (i.e. dialed *96EXTENSION_NUMBER on his phone).
- Pause time – The agent's pauses total duration.

Agent Calls

This page can be accessed by clicking the number of calls answered by an agent on the Agents Report page.

The page displays detailed statistics about the calls assigned to an agent:

- CallerID – The caller's identification number.
- CallerID – A unique identification number generated for each call.
- Start time - The time the conversation started.
- End time - The time the conversation ended.
- Duration – The conversation's length.
- Call wait – The time the caller had to wait before being connected to the agent.
- Call ended with – The reason the call was terminated.

IVR Features

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, choose the desired IVR extension from the Extension Management page and click on its name. Next, 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 schemes

Edit an IVR

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

1. Click the 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 **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** – Select this check box if you want to set the new context as the entry context for the IVR.

   Note

   If you have previously created and defined another entry context, 4PSA VoipNow will keep the new context as entry and set the initial context as regular.

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

Note

The context you have just created is similar to an empty container. To fill it with options and actions, see the following sections.

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 on 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.

       {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.

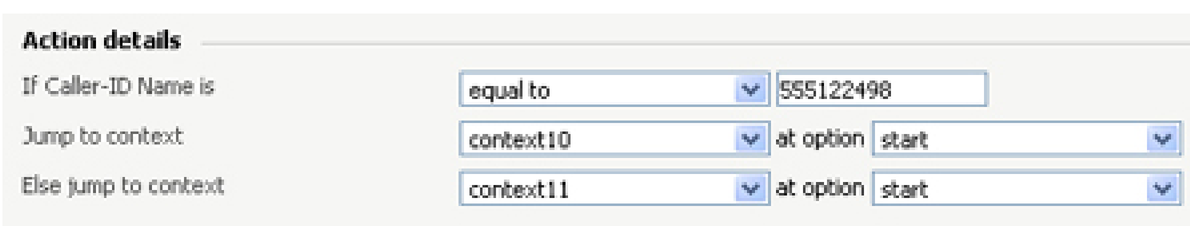
  > **Note**
  >
  > In 4PSA VoipNow 2.0.3 when a call is made to a public phone number and you want to know on which DID number that call reached the IVR, you can use the IVR_NUMBER.CALLEDDID variable to store the DID number that was called. This variable can be used in any other action that makes use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

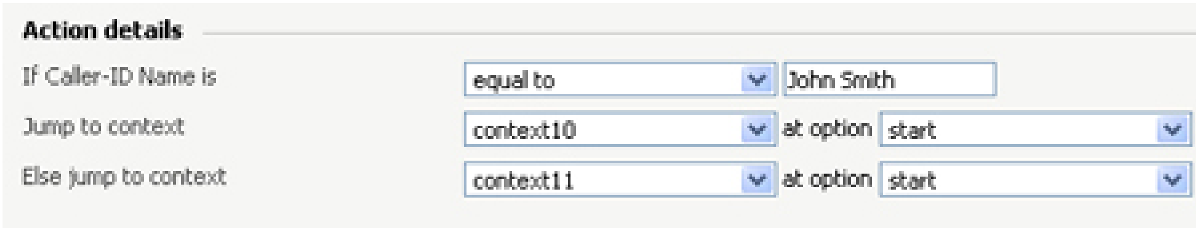
  If callerID is {relation} {number} Jump to context {context} at option {option} Else jump to context {context} at option {option} – Use the drop-down lists to select the destination of the jump (context and option). Use the other controls to define the condition of the jump. See the example below:



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:



Example of a valid 'CallerID name based jump' action

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

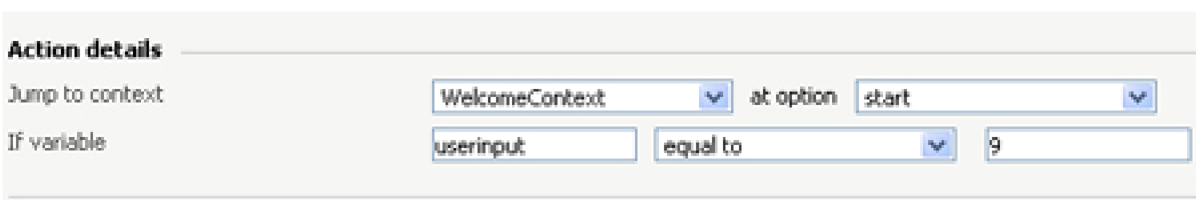
  Associate variable {variable} with string {string} – Use the two text box to fill in the name of the variable and the string to be used.

- 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 on 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. Jump to context and Time interval based jump action types).

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 chosen IVR extension name in the Extension Management page.
2. In the new opened page, click the IVR Setup icon available in the Tools area.
3. Make the desired modifications (e.g. creating new contexts etc.)
4. 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 IVR extension's short phone number.

When you want to go live with this IVR, click the Generate IVR link placed in the top right corner of the screen.

Conference Features

Scheduled Conferences

4PSA VoipNow allows conference scheduling for Conference extension types.

In the Scheduled Conferences page, you can view a list of the scheduled conferences in the system. Multiple operations can be performed:

- Search for specific conferences
- Schedule a new conference
- Delete scheduled conferences

To access the scheduled conferences on an extension account, click the chosen conference extension link in the Extension Management page. Next, click the Scheduled conferences icon available in the Tools area.

4PSA VoipNow displays the following details for each scheduled conference:

- S – This icon displays the scheduled conference's status:
  - Enabled
  - Disabled

  Click on this icon to change the conference's status.
- Name - The conference name.
- Number - The conference number.
- State - The conference state:
  - Never started
  - In progress
  - Ended

- Created - The date when the scheduled conference was created.
- Scheduled date - The date when the conference is scheduled.
- Started - The time when the conference started.
- Ended - The time when the conference ended.
- In conference - The number of participants to the conference.
- Sessions - The number of sessions for the conference. If there has been at least one session, you can click the link to open the Scheduled Conference Sessions page that displays an overview of all the sessions of that particular conference. For more details, see the next section.

View Scheduled Conference Sessions

This page allows you to see all the sessions belonging to a particular conference. To access this page, choose the desired conference from the Scheduled conferences table and click the link available in the Sessions column.

4PSA VoipNow displays the following details for each session:

- S - This icon displays the session's status:
  - Conference ended
  - Conference started
  - Conference recorded
- Started - The date and time when the session had begun.
- Ended - The date and time when the session had ended.
- Participants - The number of people that have attended this conference.
- In conference - The number of participants that still are in the conference.
- Duration - The length of each session.

Searching the Sessions List

If you want to search for a particular session, you can use one or more of the available filtered:

Show sessions between {date_1} and {date2}, where:

- {date_1) - Use the available text box or the calendar button to specify the lower limit of the time interval in which you want to search for particular sessions. The date format must be yyyy-mm-dd.

- {date_2} - Use the available text box or the calendar button to specify the upper limit of the time interval in which you want to search for particular sessions. The date format must be yyyy-mm-dd.

When you have decided on the filters you want to use, click the button or the Search label to display only the sessions that match your search criteria.

Click the button or the Show all label to display the entire sessions 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 sessions list can be filtered by status, starting time, end time, participants and users in conference. To do so, click a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the orders list was sorted. The sort direction can be changed by another click on the corresponding header.

Schedule a New Conference

This extension type allows setting up conferences that can be accessed by users calling from phones connected to the system, as well as by outside callers (e.g. calling from a phone connected to the PSTN).

To schedule a new conference, click the Schedule new conference button available in the Tools area and fill in the following details:

- Conference schedule
  - Name - Use this text box to set the conference descriptive name.
  - Administrator PIN - Use this text box to set the PIN code for the conference administrator.

> **Note**
>
> Although it is highly recommended that you set up an administrator PIN, you can leave this field empty. If you choose to leave the Administrator PIN field empty the system behaviour changes as follows:
>
> - You cannot set up a participant PIN.
> - NO PIN is requested when users enter the scheduled conference.
> - ALL users join the conference as members.

- NO administrator is able to join the conference.

- Participant PIN - Use this text box to set the PIN code used by participants to this conference.
- Conference room size - Use this text box to set the maximum number of users that can join the conversation. You can fill in any number between 2 and 99.
- Conference type - Three options are available:
  - One type - When this option is enabled, the conference is scheduled one time between Start hour and Scheduled end hour.
  - Anytime - When this option is enabled, the conference is permanent.
  - Recurring - When this option is enabled, the conference is scheduled to take place as specified by Weekday, Day of the month, Month between Start hour and Scheduled end hour.
- Start hour - Use this text box to specify the scheduled start time for one time or recurring conferences.
- Scheduled end hour - Use this text box to specify the scheduled end time for one time or recurring conferences.
- Conference date - Use this text box to specify the scheduled date for one time or conferences. Also, you can click the icon to chose the date from the calendar.
- Weekday - Use this text box to specify the day of the week when a recurring conference is scheduled to take place.
- Day of month - Use this text box to specify the day of the month when a recurring conference is scheduled to take place.
- Month - Use this text box to specify the month when a recurring conference is scheduled to take place.

- Conference details
  - Play sound {folder} {sound} before connecting to conference center – When the check box is selected, use the icon to select the sound that will be played for the caller before he is connected to the extension. A pop-up window that displays a list of all the available sounds matching the name 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.

- Enable music on hold - When this option is selected, 4PSA VoipNow plays the files located in the `Default music on hold` folder if there is only one user present in the conference.
- Close the conference when all conference moderators exit - When this option is enabled, 4PSA VoipNow terminates all calls when all the conference moderators log out.
- Announce user count on joining conference - When this option is selected, 4PSA VoipNow announces any new participant about the number of users in the conference call.
- Announce users joining/leaving - When this option is selected, 4PSA VoipNow announces the users about any participant joining or leaving the conference call.
- Record conference conversations - Select this option if you want 4PSA VoipNow to record all your conferences.

Click OK to schedule a new conference. Click Cancel to go back to the previous page without any change.

Searching the Scheduled Conferences List

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

- Use the drop-down list to select the time interval when the conferences were scheduled. Only the conferences defined in that interval will be displayed. The available time frames are:
  - `Any time`
  - `Today`
  - `Tomorrow`
  - `Next 7 days`

    - Next month
    - In the past
- Search – Use the text box to specify the words you are looking for. Click the button or the Search label to display only the conferences that match your search 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.

The conferences 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 conferences list was sorted. The sort direction can be changed by another click on that header.

Remove a Scheduled Conference

To remove scheduled conferences from an extension account, click the chosen extension link from the Extension Management page, than the Scheduled Conferences icon and follow the next steps:

1. Choose the conferences 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.

Callback Features

Manage Callback Authorized CallerIDs

4PSA VoipNow allows you to authorize the users that should benefit from the callback function.

The Callback extension type allows system users to place calls using the 4PSA VoipNow server even if their phone is only connected to the public network. To do this, the user calls the Callback extension and waits to be called back. After being called back, he will be able to dial any number using the 4PSA VoipNow server.

> **Note**
>
> It is recommended to restrict this functionality in order to avoid abuse by creating a list of authorized callerIDs. Users will be allowed to route phone calls through the server only if they call from one of those authorized phone numbers.

View the Callback Authorized CallerIDs List

4PSA VoipNow allows you to view the authorized users. To access this information, follow these steps:

1. In the Extension Management page, click the callback extension's name.
2. In the new opened page, click the Authorized callerIDs icon available in the Tools area.

   The table with authorized IDs contains the following columns:

- S – This icon displays the callerID's status:
  - Enabled
  - Disabled

  Click on this icon to change the callerID's status.
- C – Click this icon if you want to view a report about the costs of the calls that have originated from this callerIDs.
- Callback number - The callerID that is authorized to use the callback function. Click the link to modify the number or to change the PIN code.
- PIN – Displays Yes/No whether the user will be asked to introduce his PIN code before being able to use the callback function.
- Total credit – Displays the user's total initial credit.
- Available credit – Displays the credit left for using the callback function.
- Created – Displays the date when the phone number was introduced to the authorized callerID's list.
- B – Click this icon if you want to access the CallerID Credit Management page.

Add an Authorized CallerID

To add an authorized callerID to the list, follow these steps:

1. In the Extension Management page, click the callback extension's name.
2. Click the Authorized callerIDs icon available in the Tools area.
3. In the new opened page, click the Add authorized callerIDs icon.

   Here you can add callerIDs or upload a file containing multiple callerIDs. Fill in the required fields:

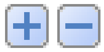
   - Upload authorized callerIDs from file:
     - Upload callerIDs from file – Select this check box in case you want to upload a file containing data about multiple callerIDs.

       > **Note**
       >
       > If you select this option, you will not be able to use the **Add authorized callerIDs** section.

     - CallerIDs file – When the Upload callerIDs from file option is enabled, you can use the Browse... button to locate the file containing the callerIDs that you want to upload.

       > **Note**
       >
       > The uploaded callerID will be displayed in the following pattern: `callerID, pin, orderno, credit`. The `credit` parameter can take numeric values or the `u, unlimited` value.

     - Field separator – Use this text box to specify the character that separates the values in the file. The default character is ',' (comma).
   - Add authorized callerIDs
     - Accept calls from callerID – Use this field to specify the number of the extension. 4PSA VoipNow will allow callback to this number.
     - PIN number – Use the text box to specify the PIN code associated to the extension. 4PSA VoipNow will request the user to provide the PIN before allowing him to use the callback extension.
     - Order number – Use the text box to specify the identification number of the request for allocating this credit.

- Add an initial credit of – Use the text box to specify the amount of money offered to the user when setting up his callerID. Select the Unlimited check box if you do not want to limit the amount.
- Use the  buttons to add/remove several new authorized callerID's at the same time.

4. Click OK to add the new authorized callerID to the system. Click Cancel to go back to the previous page without adding the callerID.

Edit an Authorized CallerID

If you want to edit the details of an authorized callerID, choose it from the Authorized callerIDs list and click the callback number. In the new opened page, you can modify the following fields:

- Accept calls from callerID
- PIN number

For more information on how to edit these fields, see the [Add Authorized CallerID] section.

Manage the Credit Associated to the Authorized CallerID

4PSA VoipNow allows you to add money to the extension whose callerID is included in the authorized ID's list.

View the Credit Associated to the Authorized CallerID

To view an authorized callerID's credit, follow these steps:

1. In the Extension Management page, click the callback extension's name.
2. In the new opened page, click the  Authorized callerIDs icon available in the Tools area.
3. In the displayed table, click the  Credit Management icon corresponding to the desired callerID.

In the next page, in the Recharge history section, a new table with credit information will be displayed :

- Order number – Displays the identification number for the credit allocation.
- Credit added – Displays the amount of money added to this callerID.
- Credit left – Displays the amount of money available for conversations.

- Date added – Displays the date when the credit was added to the callerID.

Add Credit to the Authorized CallerID

To add credit to an authorized callerID, follow these steps:

1. In the Extension Management page, click the callback extension's name.
2. In the new opened page, click the Authorized callerIDs icon available in the Tools area.
3. In the displayed table, click the Credit Management icon corresponding to the desired callerID.

In the opening page use the Add credit section. Fill in the required fields:

- Add credit – Use this field to introduce the amount of money you want to offer the callerID user.
- Order number – Use this field to insert the identification number of the request for allocating this credit.
- Click OK to add the new credit to the system. Click Cancel to go back to the previous page without adding the credit.

The newly added credit will be displayed in the table below.

Remove an Authorized CallerID

You can access this option from the Extension Management page by clicking the chosen callback extension name and the Authorized callerIDs icon available in the next page.

To remove an existing callerID from the system, follow these steps:

1. Choose the callerIDs you want to remove by selecting the corresponding check boxes.
2. Click the Remove selected link.
3. You will be asked to confirm the removal. Select the Confirm the removal check box and click the OK button to delete the authorized callerID, or Cancel to return to previous page without any change.

Export to an Easy-to-Edit Format

In the Authorized CallerIDs Management page, you have the option to export the authorized callerIDs list 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.

Calling Card Features

Manage Calling Card Codes

The Calling card extension type allows system users to place calls using the 4PSA VoipNow server even if their phone is only connected to the public network. The user must have a valid calling card in order to call the calling card extension, which will enable him to dial any number using the 4PSA VoipNow server.

View Calling Card Codes

4PSA VoipNow allows you to view the calling card codes in the system. To access this information, follow these steps:

1. Choose the desired calling card extension from the Extension Management page and click on its name.
2. In the new opened page, click the Card codes icon available in the Tools area.

   The table with card codes contains the following columns:

- S – This icon displays the card code's status:
  - Enabled
  - Disabled

  Click on this icon to change the card code's status.
- C – Click this icon if you want to view a report about the costs of the calls that have been placed using this card code.
- Card code – Displays the unique code of the calling card.
- PIN – Displays Yes/No whether the user will be asked to introduce his PIN code before he will be able to use the calling card function.
- Total credit – Displays the card user's initial credit.

- Available credit – Displays the credit left for using the calling card function.
- Created – Displays the date when the calling card code was added to the system.
- B – Click this icon if you want to access the Card Code Credit Management page and recharge the calling card's credit.

Add a Card Code

To add a card code to the list, follow these steps:

1. Choose the desired calling card extension from the Extension Management page and click on its name
2. Click the Card codes icon available in the Tools area.
3. In the new opened page, click the Add card code icon available in the Tools area. You will be able to manually add card codes or upload a file containing multiple card codes. Fill in the required fields:
   - Upload card codes from file
     - Upload card codes from file – Select this check box in case you want to upload a file containing data about multiple card codes.

       > Note
       >
       > If you select this option, you will not be able to use the **Add card code** section.

     - Card codes file – When the Upload card codes from file option is enabled, you can use the Browse... button to locate the file containing the codes that you want to upload.

       > Note
       >
       > The uploaded code will be displayed in the following pattern: `card code, PIN, order number, initial credit`. The `credit` parameter can take numeric values or the `u, unlimited` value.

     - Field separator - Use this text box to specify the character that separates the values in the file. The default character is ',' (comma).
   - Add card code

- Code – Use this field to specify the number of the extension.
- PIN number – Use this field to specify the PIN code associated to the extension. 4PSA VoipNow will request the user to provide the PIN.
- Order number – Use this field to specify the identification number of the credit allocation request.
- Add an initial credit of {currency} – Use the text box to specify the amount of money offered to the extension to be used with the calling card. Select the Unlimited check box if you do not want to limit the amount.
- Use the buttons to add/remove several new codes at the same time.

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

Edit a Card Code

If you want to edit a card code's details, choose it from the Card codes list and click its number. In the new opened page, you can modify the following fields:

- Code
- PIN number

For more information on how to edit these fields, see the Add a Card Code section.

Generate Card Codes

To generate automatically a batch of calling card codes, follow these steps:

1. Choose the desired calling card extension from the Extension Management page and click on its name
2. Click the Card codes icon available in the Tools area.
3. In the new opened page, click the Generate card codes icon available in the Tools area. You will be able to fill in the settings for the automatic generation:
   - Number of codes to generate - The number of card codes to be automatically generated
   - Codes must have {n} digits - The number of digits for the calling card code

- **Calling cards must have PIN** - Select this check box if you want to generate card codes with PIN
- **PIN must have {n} digits** -The number of digits for the calling card code PIN
- **Initial credit on each calling card** - The initial credit for the generated calling card codes

4. Click **Ok** in order to automatically generate the desired number of calling card codes, or **Cancel** to return to the previous page without any change.

Manage Card Codes Credit

4PSA VoipNow allows you to add money to the extensions operating with Card Codes. You can add credit or view the credit status of the card user.

View Card Codes Credit

To view a card code credit, follow these steps:

1. Choose the desired calling card extension from the **Extension Management** page and click on its name.
2. In the new opened page, click the  **Card codes** icon available in the **Tools** area.
3. In the displayed table, click the  **Credit management** icon corresponding to the desired card code.

In the next page, a new table with credit information will be displayed in the **Recharge history** section:

- **Order number** – Displays the identification number for the credit allocation.
- **Credit added** – Displays the amount of money added to this card code.
- **Credit left** – Displays the amount of money available for conversations.
- **Date added** – Displays the date when the credit was added to the card code.

Add Card Codes Credit

To add credit to an card user, follow these steps:

1. Choose the desired calling card extension from the **Extension Management** page and click on its name.

2. In the new opened page, click the Card codes icon available in the Tools area.

3. In the displayed table, click the Credit management icon corresponding to the desired card code.

   Next, use the Add credit section. Fill in the required fields:

- Add credit – Use this field to introduce the amount of money you want to offer to the card user.
- Order number – Use this field to insert the identification number of the request for allocating this credit.
- Click OK to add the new card credit to the system. Click Cancel to go back to the previous page without adding the credit.

The new added credit will be displayed in the table below.

Remove a Card Code

You can access this option from the Extension Management page by clicking the chosen calling card extension name and the Card codes icon available in the next page.

To remove an existing calling card code from the system, follow these steps:

1. Choose the calling card codes you want to remove by selecting the corresponding check boxes.
2. Click the Remove selected link.
3. You will be asked to confirm the removal. Select the Confirm the removal check box and click the OK button to delete the authorized callerID, or Cancel to return to previous page without any change.

Export to an Easy-to-Edit Format

In the Authorized CallerIDs Management page, you have the option to export the authorized callerIDs list 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.

Chapter 8

Reports and Statistics

View System Reports

The Reports section provides the best overview on the system status. To access this page, click the Reports link available in the left navigation panel. Multiple statistics are available:

- A general overview of the 4PSA VoipNow system
- View the active calls in the system

Report Overview

In this page, you can view statistics about the number of objects (accounts, sounds, charging plans, active calls, etc.) currently available in the system.

To access this page, click the Overview tab available in the Reports page. 4PSA VoipNow displays the following information about the system:

- System usage overview for {month}, {year}
  - Total length of outgoing calls – The total time spent on outgoing calls in the current month.
  - Total length of incoming calls - The total time spent on incoming calls in the current month.
  - Maximum length of an outgoing call – The maximum time spent on outgoing calls by the extensions belonging to the logged in user.
  - Maximum length of an incoming call – The maximum time spent on incoming calls by extensions belonging to the logged in user.
- Account overview – This section displays the number of accounts in the system and their status.
  - Total extensions– Total number of extension accounts.
  - Enabled extensions– The number of enabled extensions accounts.
  - Suspended extensions– The number of disabled extensions accounts.
  - Registered extensions - The number of phone terminal extensions registered from a phone.
  - Phone terminals– The total number of phone terminals on the server.
  - Queues– The total number of queues on the server.
  - IVRs– The total number of IVR extensions on the server.
  - Voicemail centers– The total number of voicemail center extensions on the server.
  - Conferences– The total number of Conference extensions on the server.
  - Callbacks– The total number of callback extensions on the server.
  - Calling cards– The total number of calling card extensions on the server.
  - Intercom/paging– The total number of intercom/ paging extensions on the server.
- Sound files overview
  - Total sounds – The total number of shared and personal sounds in the system. The sounds owned by the logged in user and the sounds owned by users belonging to the logged in user are counted.
  - Shared sounds – The total number of shared sounds. Shared sounds can be defined in reseller and client contexts. Shared sounds can be used by all 4PSA VoipNow users belonging to the user that added the sound.
  - Personal sounds – These sounds can be used only be the user that created them.

- Music on hold overview
    - Total music on hold files – The number of music on hold files for the logged in user.
    - Personal music on hold files – The number of system music on hold files, owned by the logged in user.
    - Personal music on hold folders – The number of music on hold folders, owned by the logged in user.
- Charging plans overview
    - Client level charging plans – The number of charging plans created by clients.

Call Report

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 reports tab available in the Reports page.

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 – Use 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. Disable 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.
- Call profit - The difference between the cost paid by the owner of the reseller account where the cost originated and the cost 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 callerID - If the caller used a callback extension to route its call to a remote destination, this column displays the authorized callerID (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.

Call Flow Report

4PSA VoipNow offers the possibility to view all active calls in the system.

To access this page, click the Call flows tab available in the Reports page.

The following information is displayed for each active call:

- T – The type of the call is displayed using one of the icons:
  -  External call
  -  Local call
  -  Extended local call

- From – The contact name, callerID, and the extension number (Anonymous if not known).
- To – The contact name, callerID, and the extension number (Anonymous if not known).
- Call started – The date and time when the call was started.
- Call duration – The duration of the call.
- Channel – The channel used if the call is not local.

The page is reloaded every 60 seconds. You can force the update by clicking the Refresh icon available in the top right side of the main frame.

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.

Live Monitor

Live Monitor is a feature that allows the 4PSA VoipNow users real time tracking for several important components of the application.

> **Note**
>
> Live Monitor is only available for the **administrator** account.

To access this page, click the  [Unified Communications](#) link in the left navigation panel. In the new opened page, click the  **Live Monitor** icon available in the Machine area.

Live Monitor Statistics

The **Live Monitor** statistics tab displays all the components that can be monitored. You can enable/disable tracking for the desired components from the [Live Monitor services](#) tab. The status will be displayed through a message located in the component's name:

- **(enabled)** if tracking for that component is turned on
- **(disabled)** if tracking for that component is turned off

You can update the statistics by clicking on the  **Refresh** icon available in the tool bar.

The following components can be monitored:

- **Phone extensions**
  -  displayed if there are recorded statistics about this component
  -  displayed if there are no recorded statistics about this component

  Clicking on the  icon will open the statistics page. The graphics contain the following information about the phone extensions:

  - **Total extensions** - The total number of extensions registered in the system.
  - **Registered extensions** - The number of new extensions registered in the system over the specific time frame.
  - **Fixed IP extensions** - The number of extensions with fixed IP address.
- **Database**
  -  displayed if there are recorded statistics about this component

-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the database:

- Connections - The number of connections to the MySQL server.
- Slow queries - The number of slow queries received by the MySQL server.
- Queries/second - The number of queries per second compiled by the MySQL server.
- Threads - The number of opened MySQL instances.
- Opened tables - The number of opened tables in the database.

• Management interface

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the management interface:

- Sessions - The total number of open sessions.

• Calls

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the calls:

- Concurrent calls - The number of concurrent calls.

• Agents

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the agents:

- Online agents - The number of agents that were online.
- Total agents - The total number of agents using the application.

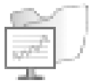
- Queues
  -  displayed if there are recorded statistics about this component
  -  displayed if there are no recorded statistics about this component

  Clicking on the  icon will open the statistics page. The graphics contain the following information about the queues:

  - Total number of queues - The total number of queues set up in the system.
  - Calls in queues - The total number of calls that waited in queues.
- Conferences
  -  displayed if there are recorded statistics about this component
  -  displayed if there are no recorded statistics about this component

  Clicking on the  icon will open the statistics page. The graphics contain the following information about the conferences:

  - Total calls in conferences - The total number of calls in conferences.
- Disk

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the disk space:

- Total disk space in GB - The total disk space of the partition where the application is installed.
- Used disk space in GB - The used disk space of the partition where the application is installed.
- Disk space used by 4PSA VoipNow in GB - The disk space used by the application.

• Performance

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the system's performance:

- System load - How much from the server's resources are used by the application.
- Running processes - The number of processes that were running in the same time.
- CPU load in % - The processor's usage.

• Memory

-  displayed if there are recorded statistics about this component
-  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the system's memory:

  - Total memory (Mb) - The total RAM available for the application.
  - Used memory (Mb) - The total RAM used by the application.
  - Total Swap (Mb) - The total disk space available for swap.
  - Used Swap (Mb) - The total disk space used for swap.

- Traffic
  -  displayed if there are recorded statistics about this component
  -  displayed if there are no recorded statistics about this component

Clicking on the  icon will open the statistics page. The graphics contain the following information about the traffic:

The graphics will display the values for all the used network interfaces.

  - Incoming traffic on {} (bytes) - The value of the incoming traffic for the specific network interface.
  - Outgoing traffic on {} (bytes) - The value of the outgoing traffic for the specific network interface.

All these statistics are displayed for three time frames:

- last 24 hours (daily)
- last 30 days (monthly)
- last 12 months (yearly)

For each item, 4PSA VoipNow provides the maximum, minimum and average values recorded over the specific time frame.

Live Monitor Services

4PSA VoipNow allows the user to choose the components he wants to be monitored over time. This can be done by selecting the appropriate check boxes from the Live Monitor resources section of the Live Monitor services tab. The following components can be monitored:

- Phone extensions
- Database
- Management interface
- Calls
- Agents
- Queues
- Conferences
- Disk
- Performance
- Memory
- Traffic

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.