CLOUD IS CALLING YOU.

4PSA VoipNow Core® 2.0.3

Reseller's Guide

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Preface

Who Should Read This Guide

This User's Guide must be read by all the 4PSA VoipNow Core resellers.

This manual does not cover the installation procedure. For detailed installation instructions, please check the Release Notes.

Chapter 1

Edit Your Contact Information

> **Caution**
>
> After the first install, you will be required to fill in your contact information from the **Reseller'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 reseller icon available in the Clients section, which can be accessed from the left navigation panel.

4PSA VoipNow Core 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
- Login

> Note
>
> The username must contain only the following character types:
>
> - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.
> - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
> - Special characters like: _**.**-@.

- 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.

> Note
>
> The password must contain only the following character types:
>
> - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.
> - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
> - Special characters like: **!?@#$%\/*()_+={}`~[];:,.|^&**.

- Confirm password
- Phone
- Fax
- Email – The email address where 4PSA VoipNow Core 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 Settings >> **Email templates** page.

- Address
- City
- Postal/ZIP code
- Country
- Region - Use the drop-down list to select the region of the country you are located in.
- Timezone - Use the drop-down list to select the timezone specific for your location. By default, the timezone of the chosen location is selected.

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

To access this page, you can either click the My interface link from the right corner of the top frame, either the My interface button located in the Tools area of the Interface Preferences management 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 9,999. The default value is 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 is 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 Core 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 hyper link attached to it. Use this text box to fill in the destination of this hyper link. 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 Core allows you to set up an access policy for the reseller account. To enter the Access policy page, click the Access icon available in the Tools area.

There are two types of access policies:

- Deny - When this policy is configured, the reseller is not allowed to log in to the 4PSA VoipNow Core 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 reseller account.
- Allow - When this policy is configured, the reseller can login to the 4PSA VoipNow Core 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 reseller account.

Note

You cannot set up both types of policies at the same time for the same IP (Network).

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 Core 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 Core 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:

1. 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.
2. 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.
3. Use the buttons to add several subnet or IP addresses at the same time.
4. 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 Core 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 Settings link situated in the left navigation panel. In the new opened page, click the Custom buttons icon available in the Infrastructure 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.
  - Available for both inheritance levels.
- 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 Core displays

- Label – The button's tag that will be displayed, allowing the user to click 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 [Settings](#) link situated in the left navigation panel. In the new opened page, click the Custom buttons icon available in the Infrastructure settings area and follow the next steps:

1. In the Custom Buttons page click the Add custom button 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 this name in order to access the specified location.
   - Location – Use the radio buttons to choose where the new custom 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 Core displays a default icon for the button. If you disable this check box, 4PSA VoipNow Core 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 Core 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 Core 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 Core appends the ID of the currently selected client to the URL linked with the button.
- Include endpoint ID – When this option is selected, 4PSA VoipNow Core appends the ID of the currently selected endpoint to the URL linked with the button.
- Include endpoint internal number – When this option is selected, 4PSA VoipNow Core appends the internal number of the currently selected endpoint to the URL linked with the button.
- Include endpoint public number – When this option is selected, 4PSA VoipNow Core appends the public phone number of the currently selected endpoint to the URL linked with the button.
- Include charging plan – When this option is selected, 4PSA VoipNow Core appends the ID of the currently selected user 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.
- Tooltip – Use this text box to specify a short description of the button's purpose.
- Display method - You can use the available radio buttons to choose between two display 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 reseller.
  - 1 – The button is visible only to the reseller and his clients.
  - 2 - The button is visible to the reseller, client and endpoint users.
- Display on level - Use this drop-down list to specify the button's visibility:
  - CLIENT - The button is visible only to the client users.

- ENDPOINT - The button is visible only to the endpoint 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 selected, the button will be visible to its owner account and to the client and endpoint accounts

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

- Action – Use the radio buttons 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 custom 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, click the [Settings](#) link available in the left navigation panel, click the Custom buttons icon available in the `Infrastructure settings` 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 Your Outgoing Routing Rules

4PSA VoipNow Core allows resellers 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 Reseller's Outgoing Routing Rules

To access this option, choose the desired reseller from the Reseller Management page and click his name. Then, click the  Outgoing routing rules icon available in the Tools area.

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

- Add new routing rules.

- Replace existing routing rules.

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

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

  Click 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 rules group. Click this link to edit the group's details.
- Rules – The number of rules inside the rule group.
- Updated – 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 – Use the text box to specify the words you are looking for. 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 outgoing routing rule group list can be filtered by name, rules number and update date. To do so, click the header link. The order criteria is marked by the highlighted table header and the arrow indicates how the routing rules list was sorted. The sort direction can be changed by another click on the corresponding header.

Add an Outgoing Routing Rules Group

To add outgoing routing rules to the system, click the name of the reseller in the Reseller Management page and 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 enter the details of the new routing rules group. The information is displayed in several sections:
   - Routing group management
     - Name – Use this text box to give a descriptive name to 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 Core 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 endpoint 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 endpoint 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 an Outgoing Routing Rule Group

To edit the properties of an outgoing routing rule group, click the reseller's name in the **Reseller Management** page and 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 or replace existing routing rules.

- 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 Core will delete from the database the selected group of rules and replace it 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 Core 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.

> Note
>
> For more information on how to edit the rule, see the Add an Outgoing Routing Rules Group section.

* Existing rules – Use this section to review the existing rules, change their order in the group or remove rules from the group.

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

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

  Click this icon to change the rule's status.
* Action – The action performed when 4PSA VoipNow Core matches the number dialed by the user.
* Number – The number chosen to match the number dialed by the endpoint user.

- In time interval – The time interval when the rule will be executed.
- Coming from – The number of the endpoint 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 enabling 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 to return to the previous page without deleting anything.

Save Outgoing Routing Rule Groups

4PSA VoipNow Core 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 Core rules database. You can save either individual groups or all groups available in the 4PSA VoipNow Core 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 Reseller 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 to return to the previous page without deleting anything.

Note

You cannot remove routing rule groups that are used in the reseller's charging plans.

Chapter 4

Manage Settings

Most settings that change the system behaviour can be managed starting from this page. The settings are grouped based on their utilization.

To access this page, click on the Settings 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 [Settings]() link located in the left navigation panel. Next, click the `Time intervals` icon available in the `Infrastructure 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 Core 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 link 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 the corresponding header.

Add a New Time Interval

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

To add a new time interval, click the Settings link located in the left navigation panel. Next, click the Time intervals icon, available in the Infrastructure settings area, and follow the next steps:

1. In the Time Interval Management page, click the Add time intervals icon.
2. A new page opens, allowing you to enter information about the new time interval:
   - The Time interval definition area has two fields which represent the generic description of the time interval block:
     - Name – Use the text box to fill in a descriptive name which will help to identify the time interval.
     - Matching algorithm – A time interval block can be described in two ways:

        - Individual days – This method allows 4PSA VoipNow Core to match the same time interval in different days. See the example below.
        - Interval – This method allows 4PSA VoipNow Core 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 for 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.

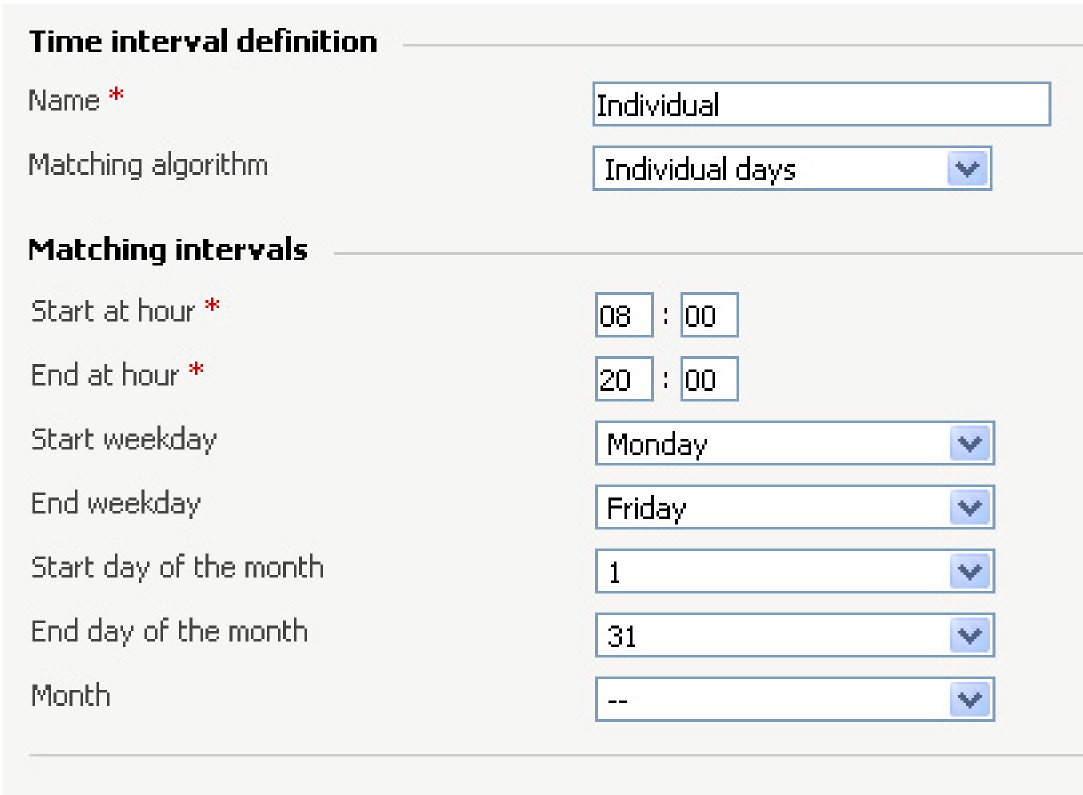
- The Matching intervals area allows you to enter multiple time intervals in order to have a more complex and comprehensive overview of the calls. Here you can enter the following parameters:
    - Start at hour and End at hour – Use the available text boxes to specify the limits of the time slot.
 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

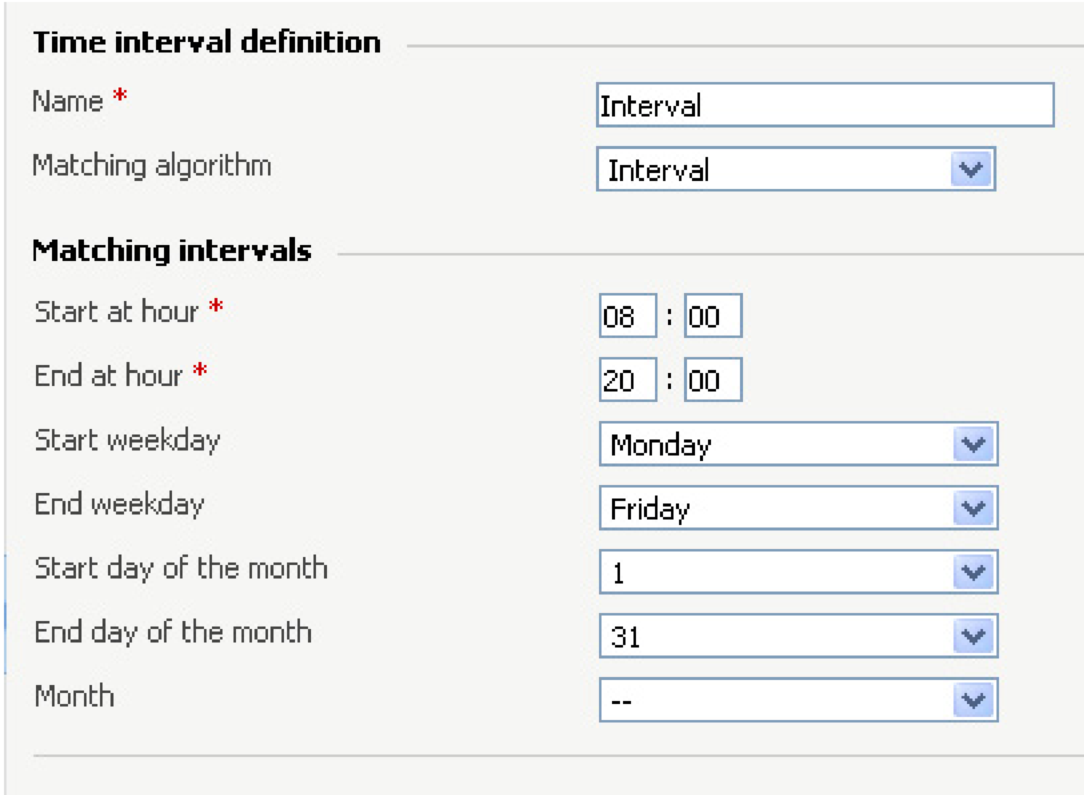
In the below time interval, 4PSA VoipNow Core matches the calls made or received between 8:00 – 20:00 hours, on Monday, Tuesday, Wednesday, Thursday and Friday between 1 and 31 of every month.



A time interval defined in individual days

Example of a contiguous time interval

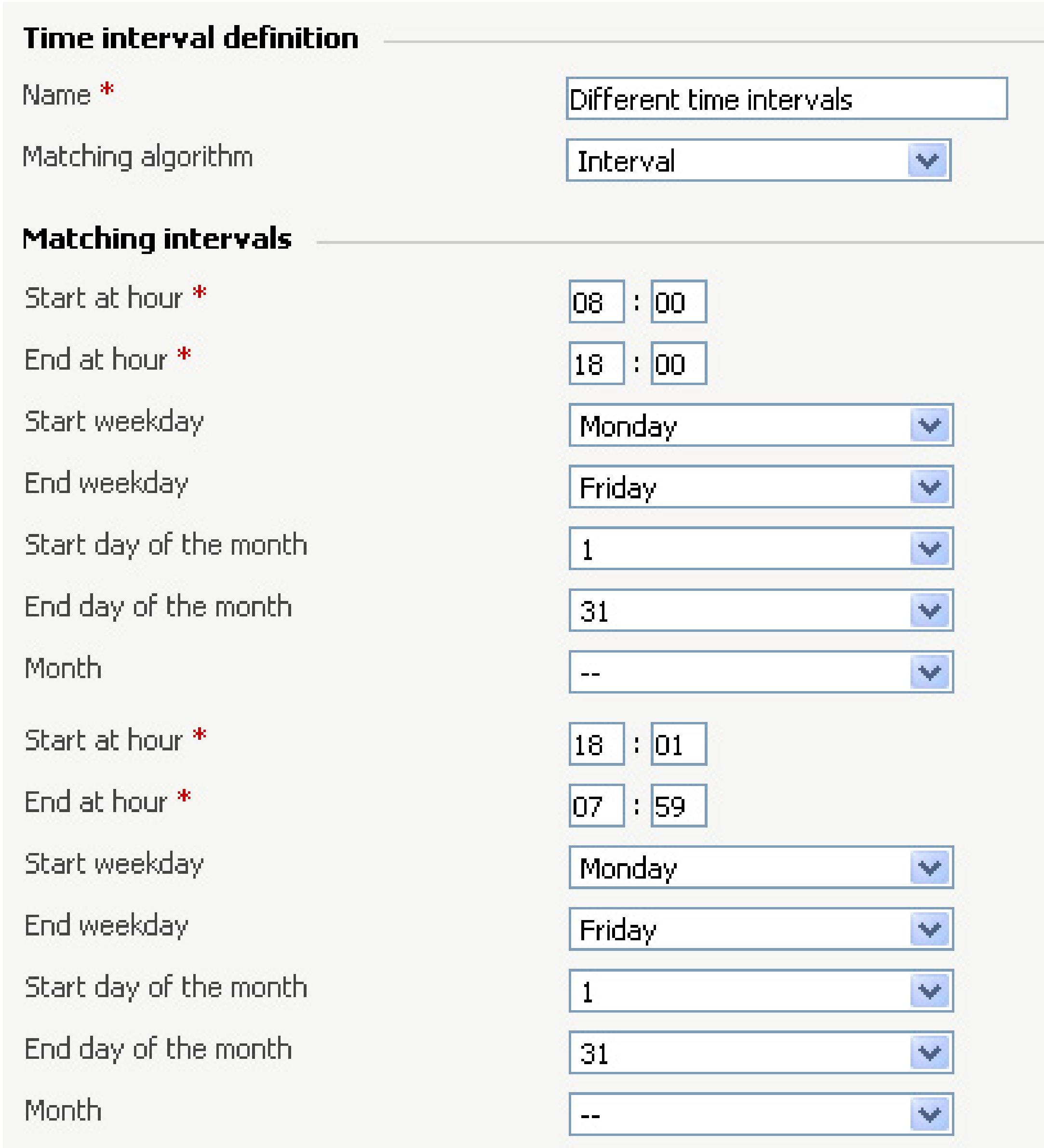
In the below time interval, 4PSA VoipNow Core matches the calls made or received between Monday, 8:00 and Friday, 20:00, between 1 and 31 of every month.



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 Core 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 Infrastructure Features page, in the Infrastructure 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 Infrastructure settings 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, click OK. Otherwise, click Cancel.

Public Phone Numbers

In the Public Phone Numbers Report page you can view a list of all the public phone numbers and the clients or the endpoints they had been assigned to. To access this page, click the Settings link available in the left navigation panel and than the Public phone numbers icon situated in the Infrastructure settings area.

View the Public Phone Numbers

4PSA VoipNow Core displays the following information about each public phone number:

- T - The public phone number type:

- Exclusive
- Stacked

- **Public phone number** - The public phone number.
- **DID** - The DID (Direct Inward Dialing) number.
- **Client** - The client the public phone number had been assigned to.
- **Endpoint** - The endpoint the public phone number had been assigned to.
- **Date added** - The date when the public phone number was added in the system.

Searching the Public Phone Numbers List

When the public phone number list is too long and you are searching for specific phone numbers, 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 public phone numbers that match your search criteria.
- **Show All** - Click the 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 public phone numbers list can be sorted by name, company and creation date. To do so, click a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the public phone numbers list was sorted. The sort direction can be changed by another click on the corresponding header.

Export to an Easy-to-Edit Format

Export to Excel - Click this button to export the public phone numbers report to a Microsoft Excel file.

Export to CSV - Click this button to export the public phone numbers report to a .csv format file.

Chapter 5

Manage Charging Plans

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

View Your Charging Plans

A charging plan is a collection of rules which defines how a reseller will be charged for the calls made by his endpoints. To view the charging plans list, click the Clients link available in the left navigation panel area 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 in the system. You can also perform the following actions on these plans:

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

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

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

  Click 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
- E – The permission for direct calls between endpoints 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.
- 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 **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 Core server. To enable/disable it, go to the Settings >> **System Preferences** >> **Charging** section.

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

- Search – Use the text box to specify the words you are looking for. Click the icon or the Search label to display only the plans that match your search criteria.
- Show all – Click 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, and creation date. To do so, click 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 the corresponding header.

Add a New Charging Plan

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

4PSA VoipNow Core offers the possibility of adding a new charging plan that can be later applied to a new reseller account.

To add a new charging plan, click the Clients link available in the left navigation panel and follow the next steps:

1. Click the Charging plans icon available in the Tools area.
2. 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.
3. The information is grouped into several sections:
   - Charging plan description
     - 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.
     - Outgoing routing rule – Use the drop-down list to select one of the available Outgoing routing rule groups. They contain guidelines that 4PSA VoipNow Core 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 endpoints registered into the system as well as from endpoints outside the system.
     - Allow outgoing external calls – When this option is enabled, the user is able to make calls to endpoints outside the server.
     - Allow direct calls between endpoints – When this option is enabled, the direct calls between endpoints are allowed.
   - Charging policy

- Charging plan types – 4PSA VoipNow Core offers two types of charging plans:

   a. `Prepaid` - The reseller 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 reseller 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 {currency} – 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 endpoints will no longer be able to make calls to external destinations. If you do not want to limit the endpoints, select the `Unlimited` check box.

   > **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 {currency} – 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 endpoints will no longer be able to receive calls from external numbers. If you do not want to limit the endpoints, select the `Unlimited` check box.

   > **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.

> **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).

  - 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 for the reseller charging plans limits that exceed the limits of the charging plan currently associated to 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 Core 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 Core 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 direct calls {value} {currency}/second – The charge for the direct calls made to endpoints.
      - 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 Core'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, endpoint 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 endpoint, the call cost is the price paid by the client that owns the endpoint account.

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

  - Charge direct 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 Core was set up for the first time.

> **Note**
>
> 4PSA VoipNow Core 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.

4. 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 Core 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. Click the Clients link available in the left navigation panel.
2. Click the Charging plans icon available in the Tools area and choose the one you want to edit from the charging plans list by clicking its name.
3. A new page opens, allowing you to modify the information, which is grouped into 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.
4. 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, click the Charging plans icon situated in the Tools area and follow the next steps:

1. Choose the plans you want to delete by selecting their corresponding check boxes in the Charging Plan Management page.
2. Click the Remove selected link.
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 endpoints. 4PSA VoipNow Core automatically disables their corresponding check boxes.

View Your Personal Charging Plan

4PSA VoipNow Core allows you to view detailed information about a your current charging plan. To access this information, follow these steps:

1. Click the Clients link available in the left navigation panel
2. In the new opened page, click the Charging plans icon available in the Tools area.
3. Next, click the Reseller charging plan icon to view details about the prices charged for the calls made by the reseller 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 Core displays this information only if your account's endpoints can receive calls from endpoints that belong to the system as well as from endpoints outside the system.
- **Allow outgoing external calls - Yes** – 4PSA VoipNow Core displays this information only if your account's endpoints can make calls to destinations outside the system.
- **Allow direct calls between endpoints - Yes** – 4PSA VoipNow Core displays this information only if your account's endpoints can directly call other endpoints.
- **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 – The 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 following 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 {month}

  > **Note**
  >
  > This information is available only for `postpaid` charging plans.
  >
  > 4PSA VoipNow Core displays this section only if the reseller 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 {U} seconds - For the first {T} seconds the call is taxed as one minute; afterwards, taxing is done every {U} seconds.
  - Direct calls between endpoints are charged {money unit}/second - The fee charged for direct calls between endpoints.

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

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

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

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

- External incoming calls charges – These charges apply to calls received from outside the system.
  - Calls are charged indivisible for the first {T} seconds and then every {U} seconds - For the first {T} seconds the received call is taxed as one minute; afterwards, taxing is done every {U} seconds.

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

- External incoming calls are charged {money unit}/second - The price charged for the external incoming calls.

> **Note**
>
> 4PSA VoipNow Core displays this information only if the reseller is 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 Core server.

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

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

The Charging limits left section displays the remaining charging limits that can still be used by the reseller:

- Outgoing money limit
- Incoming money limit

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 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 Clients link situated in the left navigation panel and than the Charging credits icon available in the Tools area.

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

The Charging credits left section displays the remaining credit that can still be used by the reseller:

- Outgoing calls credit
- Incoming calls credit

The credit 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.

Manage Destination Charging Exceptions

4PSA VoipNow Core allows the definition of charging exceptions for certain area codes that override the costs set up in the charging plan.

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 Core 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 algorithm - 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 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 the corresponding header.

Add a New Destination Charging Cost Exception

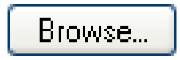
> **Note**
>
> The charging cost exceptions can be added only for the charging plans that have the **Allow outgoing external calls** or the **Allow direct calls between endpoints** options enabled.

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  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 Core 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 duration is less than {indivisible interval}.

        - {currency} – This is the system currency, as it can be seen in the Settings >> System Preferences >> Charging section.
        - {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 Core 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 Core 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 it can be seen in the Settings >> System Preferences >> Charging section.

- {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 Core 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 Core you can export call cost exceptions in .csv format for sharing them among 4PSA VoipNow Core 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 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 the corresponding 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 Client Templates

View the Client Templates List

Client templates are useful when adding new client accounts that have similar permissions and phone numbers. Instead of setting up each time the client's permissions and phone numbers, the reseller can choose a client template from an available list. However, if some of the template parameters do not meet the requirements, than the user can edit them or create a new template.

To access this page, click the Settings link available in the left navigation panel and than, the Client templates icon located in the System templates area.

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

- Add a new client template.
- Search existing templates.
- Edit a client template.
- Delete client templates.

4PSA VoipNow Core displays the following information about each template:

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

  Click this icon to change the client template's status.
- Template name – The name that identifies the template.
- Clients – The number of clients created using this template. Click the available link to view a list of all the clients currently using a particular template.
- Updated – The date the client template was last modified.

Searching the Client Templates List

When the client template 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 client 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 client templates list can be filtered by name and update date. To do so, click 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 the corresponding header.

Add a New Client Template

If you want to create a new client template, follow the next steps:

1. Click the Settings link available in the left navigation panel.
2. Than, click the Client templates icon located in the System templates area.
3. In the Client Templates page, click the Add client template icon.
4. A new page opens, allowing you to fill in the information about the new client template. The customizable details are grouped into several sections:
   - Client template form
     - Name - Use this text box to provide a descriptive name for the client template.
   - Permissions – Use this section to control the behavior of the client created using this template.
     - Endpoint management
     - Endpoint features management
     - Permission and limit management
     - Endpoint SIP management
     - Charging plans management
     - Phone numbers management

> **Note**
>
> For comprehensive details about these permissions, read the Edit Permissions and Phone Numbers section.

   - Limits – Use this section to set up limitations for the client created using this template.
     - Maximum number of endpoints
     - Maximum concurrent calls
     - Maximum disk space for call recording
     - Account expires in

Note

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

Note

If you do not want to limit the user, select the **Unlimited** check box.

Note

For comprehensive details about these limits, read the Add a New Client section.

- Charging plan

Caution

This section will be displayed only if charging is enabled on the 4PSA VoipNow Core server. To enable/disable it, go to the Settings >> **System Preferences** >> **Charging** section.

  - Charging plan – The charging plan associated with the client account. The list contains all the charging plans available in the reseller account.

5. Click OK to add the new client template. Click Cancel to go back to the previous page without adding the template.

Edit a Client Template

4PSA VoipNow Core allows users to edit an existent client template. The resellers that are created using the edited template will have the new features, while the ones already in the system created using the original reseller template will keep the old permissions and phone numbers. To modify the client's limits, permissions and charging plans you have to edit these features like described in the Edit Client's Details and Edit Permissions and Phone Numbers sections.

To edit the details of a client template, follow these steps:

1. In the Infrastructure Features page, click the Client templates icon available in the System templates area.

2. Choose from the list the template you want to modify and click its name.
3. A new page where you can view and edit the settings of the selected client template opens. The data is grouped into several sections:
   - Client template form – Use this section to rename the template.
   - Permissions – Use this section to change the permissions of the client account owners.

     > Note
     >
     > For comprehensive details about these permissions, read the Edit Permissions and Phone Numbers section.

   - Limits – Use this section to change the limitations for the template.

     > Note
     >
     > For comprehensive details about these limits, read the Add a New Client section.

   - Charging – Use this section to select the charging plan associated with the template.

     > Caution
     >
     > This section will be displayed only if charging is enabled on the 4PSA VoipNow Core server. To enable/disable it, go to the Settings >> **System Preferences** >> **Charging** section.

4. Click OK to save the changes to the client 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 a Client Template

To remove client templates from the system, click the Client templates icon available in the Infrastructure Features page, in the System templates area, 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 Endpoint Templates

View the Endpoint Templates List

Endpoint templates are useful when adding new endpoint accounts that use similar settings. Instead of configuring each endpoint, the reseller, the client or the administrator can choose one of the templates available in the system. However, if some of the template parameters do not meet the requirements, than the user can edit them or create a new template.

To access the Endpoint Templates page, click the Settings link available in the left navigation panel and than, the Endpoint templates icon located in the System templates area.

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

- Add a new endpoint template.
- Search existing templates.
- Edit an endpoint template.
- Remove endpoint templates.

4PSA VoipNow Core displays the following information about each template:

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

- Disabled

  Click this icon to change the endpoint template's status.

- Template name – The name that identifies the template.
- Endpoints – The number of endpoints created using this template. Click the available link to view a list of all the endpoints currently using a particular template.
- Updated – The date the endpoint template was last modified.

Searching the Endpoint Templates List

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

Add a New Endpoint Template

If you want to create a new endpoint template, follow the next steps:

1. Click the Settings link available in the left navigation panel.
2. Than, click the Endpoint templates icon located in the System templates area.

3. In the Endpoint Templates page, click the Add endpoint template icon.

4. A new page opens, allowing you to fill in the information about the new endpoint template. The customizable details are grouped into several sections:

- Endpoint template form
  - Name – Use this text box to provide a descriptive name for the endpoint template.
- Permissions – Use this section to control the behavior of the endpoint created using this template:
  - Endpoint SIP management – Select this check box if you want to allow the endpoint user to customize the SIP settings from the Endpoint Setup page.
- Limits – Use this section to set up limitations for the endpoint created using this template.
  - Maximum concurrent calls – Use the available text box to limit the number of calls that can be active at the same time for any endpoint created using this template. If you do not want to limit the endpoint, select the `Unlimited` check box.
  - Account expires in {x} Days - Use the available text box to specify the number of days the endpoint account will be valid, starting with the creation date.
- Basic settings - Use this section to configure all the core settings that will be used by the endpoints created with this template.

> **Note**
>
> For comprehensive details about these settings, read the Endpoint Features section.

- Call recording - Use this section to choose whether the user will be able to record its calls or not.

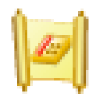
> **Note**
>
> For comprehensive details about the call recording features, read the Endpoint Features section.

5. Click Ok to add the new endpoint template. Click Cancel to go back to the previous page without saving the changes.

Edit an Endpoint Template

4PSA VoipNow Core allows users to edit an existent endpoint template. The endpoints 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 settings. To modify the endpoint's limits, permissions and settings, you have to edit these features as described in the Edit Endpoint Features section.

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

1. In the Infrastructure Features page, click the  Endpoint templates icon available in the System templates area.
2. Choose from the list the template you want to modify and click its name.
3. The data that can be edited is grouped into several sections:
   - Endpoint template form – Use this section to rename the template.
   - Permissions – Use this section to change the endpoint account owners' permissions.
   - Limits – Use this section to change the limitations.
   - Basic settings - Use this section to edit all the core settings that are used by the endpoints created with this template.

     > **Note**
     >
     > For comprehensive details about these settings, read the Endpoint Features section.

   - Call recording - Use this section to choose whether the user will be able to record its calls or not.

     > **Note**
     >
     > For comprehensive details about the call recording features, read the Endpoint Features 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 Endpoint Template

To remove endpoint templates from the system, click the Endpoint templates icon available in the Infrastructure Features page, in the System templates area, and follow these steps:

1. Choose the endpoint 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

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

To access this page, click the Settings link available in the left navigation panel and then, in the new opened page, the Email templates icon located in the System templates area.

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.

If you want to manage the users that will receive certain notifications, follow the next steps:

1. From the available check boxes, select the ones corresponding to the users you want to notify.
2. Click **OK** to save your options. Click **Cancel** to return to the previous page without saving the changes you have made.

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 Preferences section can be used by the reseller to specify the conditions required for sending the warning emails:

- 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 time 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.

You can customize the subject and the content of an email notification by following the next 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.

The events that can trigger an email notification are displayed in Email Template Management page and will be described in the next sections, along with the tags used by every notification.

The Reseller Email Templates

These notifications can be sent only to the reseller and/or to a custom email address.

The 'Reseller Account Expiration Warning' Email Template

The email notification triggered by this event is sent {x} days in advance, as specified in the Send expiration notices field available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the reseller whose account is set to expire. This is the name specified in the provided reseller information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided reseller information.
- [login] - The username used to connect to the reseller account, as it was specified in the provided reseller information.
- [expire_date] - The date when the user's account expires.

The 'Reseller Account Expired' Email Template

The email notification triggered by this event is sent after the reseller account has expired.

The default tags used by this notification are listed below:

- [contact_name] - The name of the reseller whose account has just expired. This is the name specified in the provided reseller information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided reseller information.
- [login] - The username used to connect to the reseller account, as it was specified in the provided reseller information.
- [expire_date] - The date when the user's account expired.

The 'Reseller Charging Limit Warning' Email Template

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 available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the reseller whose credit/number of minutes is below the customized limit. This is the name specified in the provided reseller information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided reseller information.
- [login] - The username used to connect to the reseller account, as it was specified in the provided reseller information.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [money_left_incoming] - The credit for incoming calls currently available to this user.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.
- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The 'Reseller Charging Limit Exceeded' Email Template

The email notification triggered by this event is sent after the charging limit specified in the Send charging limit warnings when the account is below field available in the Email Template Management page is exceeded.

The default tags used by this notification are listed below:

- [contact_name] - The name of the reseller whose credit/number of minutes exceeded the customized limit. This is the name specified in the provided reseller information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided reseller information.
- [login] - The username used to connect to the reseller account, as it was specified in the provided reseller information.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.
- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The Client Email Templates

These notifications can be sent to the the reseller, the client and/or to a custom email address.

The 'Client Account Creation' Email Template

This email notification is triggered by the creation of a new client account.

The default tags used by this notification are listed below:

- [contact_name] - The name of the client that has just been created, as it was specified in the provided client information.
- [recipient_name] - The name of the person who receives the email.
- [login] - The username that will be used to connect to the client account, as it was specified in the provided client information.
- [password] - The password that will be used to connect to the client account, as it was specified in the provided client information.
- [billing_plan] - The name of the billing plan employed for this particular account.

- [template] - The name of the client template used to create this account.
- [interface_language] - The language used by the 4PSA VoipNow Core interface when this user is logged in.
- [company_name] - The name of the company, as it was specified in the provided client information.
- [phone] - The user's telephone number, as it was specified in the provided client information.
- [fax] - The user's fax number, as it was specified in the provided client information.
- [address] - The user's address, as it was specified in the provided client information.
- [email] - The user's email address, as it was specified in the provided client information.
- [city] - The user's city of residence, as it was specified in the provided client information.
- [state] - The user's state of residence, as it was specified in the provided client information.
- [country] - The user's country of residence, as it was specified in the provided client information.
- [zip] - The user's postal/zip code, as it was specified in the provided client information.
- [notes] - The notes/comments that were filled in the provided client information.

The 'Client Account Expiration Warning' Email Template

The email notification triggered by this event is sent {x} days in advance, as specified in the Send expiration notices field available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the client whose account is set to expire. This is the name specified in the provided client information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided client information.
- [login] - The username used to connect to the client account, as it was specified in the provided client information.
- [expire_date] - The date when the user's account expires.

The 'Client Account Expired' Email Template

The email notification triggered by this event is sent after the client account has expired.

The default tags used by this notification are listed below:

- [contact_name] - The name of the client whose account has just expired. This is the name specified in the provided client information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided client information.
- [login] - The username used to connect to the client account, as it was specified in the provided client information.
- [expire_date] - The date when the user's account expired.

The 'Client Charging Limit Warning' Email Template

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 available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the client whose credit/number of minutes is below the customized limit. This is the name specified in the provided client information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided client information.
- [login] - The username used to connect to the client account, as it was specified in the provided client information.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [money_left_incoming] - The credit for incoming calls currently available to this user.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.

- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The 'Client Charging Limit Exceeded' Email Template

The email notification triggered by this event is sent after the charging limit specified in the Send charging limit warnings when the account is below field available in the Email Template Management page is exceeded.

The default tags used by this notification are listed below:

- [contact_name] - The name of the client whose credit/number of minutes exceeded the customized limit. This is the name specified in the provided client information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided client information.
- [login] - The username used to connect to the client account, as it was specified in the provided client information.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.
- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The Endpoint Email Templates

These notifications can be sent to the reseller, the client, the endpoint owner and/or to a custom email address.

The 'Endpoint Account Creation' Email Template

This email notification is triggered by the creation of a new endpoint account.

The default tags used by this notification are listed below:

- [ext_number] - The telephone number assigned to the newly created endpoint account.

- [login] - The username that will be used to connect to the endpoint account, as it was specified in the provided endpoint information.
- [password] - The password that will be used to connect to the endpoint account, as it was specified in the provided endpoint information.
- [billing_plan] - The name of the billing plan employed for this particular account.
- [template] - The name of the endpoint template used to create this account.
- [interface_language] - The language used by the 4PSA VoipNow Core interface when this user is logged in.
- [phone_login] - The password used when the user registers and/or makes calls using a SIP phone.
- [public_number] - The number used on the public phone network for this endpoint.
- [phone_lang] - The language the phone interface is displayed in.
- [company_name] - The name of the company, as it was specified in the provided endpoint information.
- [contact_name] - The name of the contact person specified in the provided endpoint information.
- [phone] - The user's telephone number, as it was specified in the provided endpoint information.
- [fax] - The user's fax number, as it was specified in the provided endpoint information.
- [address] - The user's address, as it was specified in the provided endpoint information.
- [email] - The user's email address, as it was specified in the provided endpoint information.
- [city] - The user's city of residence, as it was specified in the provided endpoint information.
- [state] - The user's state of residence, as it was specified in the provided endpoint information.
- [country] - The user's country of residence, as it was specified in the provided endpoint information.
- [zip] - The user's postal/zip code, as it was specified in the provided endpoint information.
- [notes] - The notes/comments that were filled in the provided endpoint information.

The 'Endpoint Account Expiration Warning' Email Template

The email notification triggered by this event is sent {x} days in advance, as specified in the Send expiration notices field available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the user whose endpoint account is set to expire. This is the name specified in the provided endpoint information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided endpoint information.
- [login] - The username used to connect to the endpoint account, as it was specified in the provided endpoint information.
- [ext_number] - The telephone number assigned to the endpoint account.
- [public_number] - The number used on the public phone network for this endpoint.
- [expire_date] - The date when the user's account expires.

The 'Endpoint Account Expired' Email Template

The email notification triggered by this event is sent after the endpoint account has expired.

The default tags used by this notification are listed below:

- [contact_name] - The name of the user whose endpoint account has just expired. This is the name specified in the provided endpoint information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided endpoint information.
- [login] - The username used to connect to the endpoint account, as it was specified in the provided endpoint information.
- [ext_number] - The telephone number assigned to the endpoint account.
- [public_number] - The number used on the public phone network for this endpoint.
- [expire_date] - The date when the user's account expired.

The 'Endpoint Charging Limit Warning' Email Template

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 available in the Email Template Management page.

The default tags used by this notification are listed below:

- [contact_name] - The name of the contact person specified for the endpoint account whose credit/number of minutes is below the customized limit. This is the name specified in the provided endpoint information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided endpoint information.
- [login] - The username used to connect to the endpoint account, as it was specified in the provided endpoint information.
- [ext_number] - The telephone number assigned to the endpoint account.
- [public_number] - The number used on the public phone network for this endpoint.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.
- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The 'Endpoint Charging Limit Exceeded' Email Template

The email notification triggered by this event is sent after the charging limit specified in the Send charging limit warnings when the account is below field available in the Email Template Management page is exceeded.

The default tags used by this notification are listed below:

- [contact_name] - The name of the contact person specified for the endpoint account whose credit/number of minutes exceeded the customized limit. This is the name specified in the provided endpoint information.
- [recipient_name] - The name of the person who receives the email.
- [company_name] - The name of the company, as it was specified in the provided endpoint information.
- [login] - The username used to connect to the endpoint account, as it was specified in the provided endpoint information.

- [ext_number] - The telephone number assigned to the endpoint account.
- [public_number] - The number used on the public phone network for this endpoint.
- [minutes_out] - The number of outgoing minutes left for this user.
- [money_left] - The credit for outgoing calls currently available to this user.
- [money] - The currency used in the system.
- [money_left_incoming] - The credit for incoming calls currently available to this user.
- [month] - The month when the notification is sent.
- [minutes_limit] - The minutes limit specified in the Send charging limit warnings when the account is below field.
- [money_limit] - The credit limit specified in the Send charging limit warnings when the account is below field.

The Security Email Templates

The 'Forgot Password' Email Template

For this event, 4PSA VoipNow Core will send an email message containing a temporary password to the user who has forgotten his own 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.

The default tags used by this notification are listed below:

- [recipient_name] - The name of the person who receives the email.
- [login] - The username used to connect to the 4PSA VoipNow Core interface, as it was specified in the provided reseller/client/endpoint information.
- [new_password] - The new password, generated in order to replace the forgotten one.
- [valid_minutes] - The new password can be activated only for the time specified here.
- [url] - The new password activation URL.
- [ip] - The IP address of the user who has requested the new password.

> **Note**
>
> This notification can be sent only to a custom email address.

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 Core will not overwrite the other email address destination.

Chapter 7

Manage Customer Accounts

Manage Your Clients

Reseller's Home Page

The reseller's home page offers two distinct areas:

- Tools - This section provides access to the reseller's options:
  - Add a new client to the reseller account.
  - Edit the reseller's contact details.
  - Manage the reseller's charging plans.
  - Set the reseller's outgoing routing rules groups.
  - Manage the reseller's phone numbers collections.

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

- Clients - In this section, 4PSA VoipNow Core displays a list with all the clients registered in the system belonging to this particular reseller. To view a certain client account, choose the client name and click it.

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

  - Edit existing clients.
  - Manage a client's charging plans and time intervals.
  - Delete clients from the reseller account.

  4PSA VoipNow Core displays the following information about each client:

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

  - Enabled
  - All local calls are permitted
  - Only incoming call are permitted
  - No calls are permitted
  - Disabled

  Click 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 two main areas:

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

    - 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.

    > **Caution**
    >
    > Disabling an active account also disables all its child accounts.

  - 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 whether the client has permission to log in and use the 4PSA VoipNow Core interface:
  - Allowed
  - Not allowed

  Click this icon to enable/disable the control panel access.

> **Caution**
>
> If the client does not have control panel access, neither will his child accounts.

- **Client** – The name of the client. Click this link to enter the client account context.
- **Company** – The name of the client's company.
- **Created** – The date when the client account was added to the reseller.
- **Endpoints** – The number of endpoints currently available under the client account.
- **R** – Click the icon to view a short report on the client.

Note

You can filter the columns displayed in the client's list table by clicking the Show columns link. Likewise, if you cannot see some of the above columns, it is likely that they have been disabled using this control.

Searching the Clients List

When the client list is too long and you are searching for specific clients, 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 clients 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 clients list can be sorted by client name, company and creation date. To do so, click a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the clients list was sorted. The sort direction can be changed by another click on the corresponding header.

View the Client's Report

The client report provides statistic information to the reseller upon the client's resources usage. To view the report on a particular client, click the icon in the Client Management page or the icon in the client context page.

4PSA VoipNow Core displays the following information about the client:

- System usage overview for {m} month, {y} year - {m} is the current month and {y} is the current year:
    - Total length of incoming calls - The total duration of the incoming calls in the current month.
    - Total length of outgoing calls - The total duration of the outgoing calls in the current month.

    - Maximum length of an incoming call -The maximum duration of an incoming call from all the endpoints belonging to the client in the current month.
    - Maximum length of an outgoing call - The maximum duration of an outgoing call from all the endpoints belonging to the client in the current month.
- Accounts overview – This section displays the number of accounts from the client account and their status.
    - Account created – The location from which the client has been created.
    - Total endpoints – The total number of endpoint accounts belonging to the client.
    - Enabled endpoints - The number of enabled endpoint accounts belonging to the client.
    - Suspended endpoints - The number of disabled endpoint accounts belonging to the client.
    - Registered endpoints - The number of endpoints registered from a phone.
- Charging plans overview
    - Client level charging plans – The number of charging plans owned by the client.
- Disk space overview
    - Disk space for recorded calls - The disk space used by all the recorded calls.
    - Total disk space - The total disk space used by the client.

Enable/Disable a Client

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

> **Note**
>
> Disabling a client account will also disable all the accounts belonging to it.

Impersonate a Client

4PSA VoipNow Core offers the possibility to impersonate a client 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 a client's perspective. To do so, click the respective client's name in the Client 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 a client, the application will change the skin to the one used by the chosen client, 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 Client

> **Note**
>
> You can add new clients only if the **Clients management** permission was enabled for the reseller account.

4PSA VoipNow Core allows the possibility to create client accounts without an associated charging plan.

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 Settings link available in the left navigation area, than the Time intervals icon and follow the instructions in the Add a New Time Interval section.

To add a new client account to a this reseller, follow the next steps:

1. Click the Clients link available in the left navigation panel and than the Add client icon located in the Tools area.

   > **Note**
   >
   > If the maximum number of clients had been reached and you cannot add another one to this reseller, the ! icon is displayed.

2. The information is grouped into several sections:
   - Client form
     - Create using template – Use the drop-down list to choose one of the available templates as a base for the new client. The list contains all the templates designed by the administrator and by the reseller. If you do not want to create the account based on a template, make sure the '--' option is selected.

       > **Note**
       >
       > A template contains default settings that will be used to create the client. For more information on client templates, see the Manage Client Templates section.

     - Company name
     - Contact name
     - Login

       > **Note**
       >
       > The username must contain only the following character types:
       >
       > - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.

    - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
    - Special characters like: **_.-@**.

  - Password auto generation – When this option is enabled, a password matching the chosen strength is automatically computed.
  - 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.

    > **Note**
    >
    > The password must contain only the following character types:
    >
    > - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.
    > - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
    > - Special characters like: **!?@#$%\/*()_+={}`~[];:,.|^&**.

  - Confirm password
  - Phone
  - Fax
  - Email
  - Address
  - City
  - Postal/ZIP code
  - Country
  - Region - This field is dynamically populated with all the regions of the selected country. The displayed region is the first one from the list.
  - Timezone - Use the drop-down list to select the timezone specific for your location. By default, the timezone of the chosen location is selected.
  - Interface language – Use this drop-down list to choose the language in which the interface will be displayed. The list contains all the available languages.

> **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.

- Client notes – Use this text box to insert comments on the client account.

- Charging and outgoing call filtering

  - Charging plan – Use this drop-down list to choose one of the available charging plans that can be applied to the new client account.
  - Outgoing routing group – Use this drop-down list to choose one of the outgoing routing rule groups previously defined by the reseller for its clients. The purpose of this rule group is to restrict the outgoing calls placed by the endpoints on the new client account.

3. The Select client permissions and phone numbers check box allows you to specify what the client will be able to do in the system:

   - If you click OK, you are directed to the next step: specifying the client'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 reseller had enabled the **Client account creation** option from his **Email Templates** page.

   - If you want to add the new client account without configuring its permissions, deselect the check box and click OK. If you choose to set the limitations later, skip steps 4, 5.

   > **Note**
   >
   > A client that does not have his limitations and permissions set will have all the **Permissions** disabled and all the limits set to 0. The account expiration date is `unlimited`.

   - Click Cancel to go back to the previous page without adding the client or click OK to go further.

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

* Permissions
    * Permission and limit management - When this option is enabled, the client is able to change endpoints' permissions and limits.
    * Endpoint management – When this option is enabled, the client is able to add and remove endpoints from his account.

    > **Note**
    >
    > Even if this permission is disabled in client account, the respective client can edit the contact details of endpoints.
    >
    > When you select the **Endpoint management** check box, 4PSA VoipNow Core automatically enables the **Endpoint features management** and the **Permission and limit management** check boxes and blocks the edit option.

    * Endpoint feature management – When this option is enabled, the client is able to manage endpoint setup parameters.

    > **Note**
    >
    > When the **Endpoint management** check box is selected, the **Endpoint features management** and the **Permission and limit management** check boxes cannot be deselected.

    * Endpoint SIP management – When this option is selected, the endpoint user is allowed to customize the SIP settings from the Endpoint Setup page.

      The client is also able to view and set the Endpoint SIP management permission for his endpoints.
    * Charging plan management – When this option is enabled, the client is able to add, remove or change charging plans' parameters. These charging plans can be applied on his endpoint accounts and are used at charging them.
    * Phone number management – When this option is enabled, the client is able to assign public phone numbers to endpoints from his own public phone numbers pool.
* Limits

Caution

The maximum number of endpoints, as well as the maximum disk space depends on the values set for the **Reseller**.

If you try to fill in for the **Client** a maximum number of endpoints or a maximum disk space bigger than it was set for the **Reseller**, an error message will pop up, informing you that the chosen value must be at most the value set for the **Reseller**.

Also, if you fill in for the **Reseller** a smaller value than the one set for the **Client**, the application will automatically decrease the **Client's** limit in order to match the **Reseller's** limit.

Therefore, the `Unlimited` check box might be disabled for certain items for which a limit was set by the system administrator.

- Maximum number of endpoints – Use the available text box to specify the maximum number of endpoints for the client's account. If you do not want to limit their number, 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 endpoint on the client's account. If you do not want to limit the number of calls, select the `Unlimited` check box.
- Maximum disk space for call recording – Use the available text box to specify the maximum storage space reserved for call recordings in the client account. If you do not want to limit the disk space, select the `Unlimited` check box.
- Account expiration date – Use the available text box or the calendar button to specify the expiration date for the client account. To enable the text box, deselect the `Unlimited` check box.

  Note

  If the client account expires, all the endpoints belonging to it also expire.

- Phone number selection – Use the available controls to assign/unassign public phone numbers for the client account.

  Note

  This section is displayed only if one of the following conditions is fulfilled:

- There are exclusive phone numbers available in the reseller's pool.
- The client's reseller has the **See stacked phone numbers** permission enabled and there are stacked phone numbers available in the system pool.

  - Available public phone numbers – The list contains all the available public phone numbers in the system. To assign a public phone number to the client, click on the desired number and it will be automatically moved into the `Assigned public phone numbers` pool.
  - Assigned public phone numbers – This list contains all the public phone numbers assigned to the client. To remove a phone number from the pool, click the desired number and it will be automatically moved back into the `Available public phone numbers` list.

5. Click OK to set the permissions, limits and phone numbers for the new client. Click `Cancel` to add the client without saving the permissions and phone numbers.

Edit Client's Details

To edit the details of a client account, follow these steps:

1. Click the chosen client name from the clients list.
2. Next, click the Edit client icon available in `Tools` section.
3. A new page opens, allowing you to edit details about the selected client account and its owner. The data is grouped into several sections:
   - Client form – Use this section to change the contact information of the account owner or the login user name and password.
   - Charging and outgoing call filtering – Use this section to choose another charging plan or another outgoing routing group for this account.
   - Resend client contact details - Select this check box if you want to resend contact details to the email address specified for the client account and to the reseller who owns the client, as well as to the system administrator, if the appropriate parameters have been set in the Settings » Email Templates page.

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

> **Note**
>
> For more information on how to modify these fields, see the [Add a New Client] section.

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

Edit Client's Permissions and Phone Numbers

The clients' permissions, limits and phone numbers can be modified based on the current account usage. For example, if a client has five endpoints on his account, the maximum number of endpoints can only be set at values greater than five.

To modify the permissions, limits and phone numbers of a particular client, follow the steps:

1. Click the chosen client name from the clients list.
2. Next, click the Client permissions and phone numbers icon available in the **Tools** area. The next page contains the following sections:
   - **Permissions** – This section allows you to enable or disable permissions such as endpoint management, phone numbers management, etc.

     > **Note**
     >
     > For more information, please read the [Add a New Client] section.

   - **Limits** – This section allows you to set limitations for the maximum number of endpoints , concurrent calls, etc. allowed in the client account. It also allows you to set an expiration date for the client account.

     > **Note**
     >
     > For more information, please read the [Add a New Client] section.

   - **Incoming phone number selection** – This section allows you to select the public phone numbers that the client is allowed to use for the endpoints on his account if the **Phone number management** check box is selected. The reseller can assign phone numbers to the client's endpoints from the same pool.

> **Note**
>
> This section is displayed only if one of the following conditions is fulfilled:
>
> - There are exclusive phone numbers available in the reseller's pool.
> - The client's reseller has the **See stacked phone numbers** permission enabled and there are stacked phone numbers available in the system pool.
> - There are phone numbers available in the client's pool.

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

Remove a Client

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

1. Choose the clients 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 the endpoints associated with the client account opens. These endpoints will be removed as well.
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 Client Accounts

4PSA VoipNow Core allows you to edit the permissions and the phone numbers for several clients at the same time:

1. Click the Clients icon located in the left navigation panel.
2. Choose the clients for whom you want to make the changes by selecting their corresponding check boxes.
3. Click the Group Operations link. A new page containing the following sections opens:
   - Permissions – This section allows you to make changes on all clients' permissions.

     For each permission, you have the following options:

- Do not change – When this option is enabled, the corresponding permission is not modified for any of the clients you have selected.
- Enable – When this option is enabled, the corresponding permission is enabled for all the clients you have selected.
- Disable – When this option is enabled, the corresponding permission is disabled for all the clients you have selected.

> **Note**
>
> For a detailed explanation upon each permission, read the Add a New Client section.

- Limits – This section allows you to make the same changes for all clients' limits, like the maximum number of endpoints, etc.

  For each limit, you have the following options:

  - Do not change – When this option is selected, the corresponding limit is not modified for any of the client accounts you have selected.
  - Unlimited – When this option is selected, the corresponding limit is set to `Unlimited`.
  - Value – When this option is selected, the adjacent text box is enabled; you must fill in a value that limits the corresponding feature value.
  - Increase – When this option is selected, the adjacent text box and drop-down list are enabled. Use the drop-down list to choose the increase method: units or percent. Use the text box to specify the number of units or the percent by which the corresponding limit is increased.
  - Decrease – When you choose this option, the adjacent text box and drop-down list is enabled. Use the drop-down list to select the decrease method: units or percent. Use the text box to specify the number of units or the percent by which the corresponding limit is decreased.

4. Click OK to save the changes to the selected accounts. Click Cancel to return to the previous page without saving the changes.

Manage Client's Custom Buttons

To access this page, choose the desired client from the Client Management page and click his name. Next, click the Custom buttons icon available in the Tools area.

For a detailed overview, see the Manage Custom Buttons section from the Manage the Application chapter.

Add a Client's Custom Button

If you want to add a new custom button for the client account, click the Add Custom Button icon available in the client's Tools area. For more detailed information, see the Add a New Custom Button section.

The difference between the administrator's custom buttons and the reseller's is the inheritance level. For the client, only two levels are available:

- 0 – The button 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 button is visible to the client and the endpoint users.

Edit Client's Custom Buttons

For more details on how to edit the client's custom buttons, see the Edit Custom Buttons section.

Manage Client's Time Intervals

Time intervals can only be seen by the users who have created them. Other system users can only see the properties of the time intervals directly associated with their account; for example, if an user has been created with a charging plan that uses the respective time interval, he will be able to see the properties of that particular time interval.

To access this option, choose the desired client from the Client Management page and click his 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 Settings chapter.

Add a New Client's Time Interval

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

Edit Client's Time Intervals

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

Manage Client's Outgoing Routing Rules

4PSA VoipNow Core 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 Client's Outgoing Routing Rules

To access this option, choose the desired client from the Client Management page and click his name. Than, click the Outgoing routing rules icon available in the Tools area.

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

- Add new routing rules
- Replace existing routing rules

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

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

  Click 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 rules group. Click this link to edit the group's details.
- Rules – The number of rules inside the rule group.
- Updated – 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 – Use the text box to specify the words you are looking for. 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 outgoing routing rule group list can be filtered by name, rules number and update date. To do so, click the header link. The order criteria is marked by the highlighted table header and the arrow indicates how the routing rules list was sorted. The sort direction can be changed by another click on the corresponding 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 Core 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 endpoint 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 endpoint 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 Core 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 Core 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 Core displays the following information about each existing routing rule:

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

  Click this icon to change the rule's status.
- Action – The action performed when 4PSA VoipNow Core matches the number dialed by the user.
- Number – The number chosen to match the number dialed by the endpoint user.
- In time interval – The time interval when the rule will be executed.
- Coming from – The number of the endpoint where the call originated.

Remove a Routing Rule from a Group

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

1. Choose the routing rules you want to delete by enabling 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 to return to the previous page without deleting anything.

Save an Outgoing Routing Rule Group

4PSA VoipNow Core 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 Core rules database. You can save either individual groups or all groups available in the 4PSA VoipNow Core system.

To save a specific group from the system onto your computer, follow the next steps:

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.

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 to return to the previous page without deleting anything.

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

Manage Client's Charging Limits

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

> **Note**
> The **Charging limits** section is only available for `postpaid` charging plans.

> **Note**
> If you have added a client without an associated charging plan, you will not be able to set any **Charging Limits** for him. The **Charging limits** icon will not be available in the `Tools` area of the **Client Management** page.

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

> **Note**
>
> If the client operates under a `prepaid` charging plan, you can adjust his charging rules only by adding *charging credits*.

View Client's Charging Limits History

4PSA VoipNow Core allows you to view detailed information about a client's charging limits. To access this information, follow the next steps:

1. Click the chosen client name in the Client Management page.
2. In the new opened page, click the  Charging limits icon available in the Tools area.

The Charging limits left section displays the remaining charging limits that can still be used by the client:

- Outgoing money limit
- Incoming money limit

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:
  - Yes - If the imposed charging limits are automatically added every month.
  - No - If the imposed charging limits apply only to the current month.
- Order number – Displays the number of the request made for allocating the new charging limits.
- Date added – Displays the date when the charging limits were enforced.

Add Limits to a Client Account

In this section you can manage the charging limits for a client by adjusting his time and money limits. The following fields are displayed:

- `Incoming money limit {value} {currency}` – Fill in the amount of money which you want to add to the external outgoing calls limit that was initially set in this client's charging plan.

> **Note**
>
> This field will be grayed out if the charging limit for the incoming calls was set to `unlimited` during the client's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 250 minutes left)`.

- `Outgoing money limit {value} {currency}` – Fill in the amount of money which you want to add to the external incoming calls limit that was initially set in this client's charging plan.

> **Note**
>
> This field will be grayed out if the charging limit for the outgoing calls was set to `unlimited` during the client's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 78 minutes left)`.

- `Over usage minutes {number} minutes` – Fill in the amount of minutes you want add to the external outgoing over usage minutes set up in the client's charging plan.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total number of minutes left to be used (e.g. `(currently 1999 minutes left)`.

- `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 Client's Charging Limits

To remove monthly charging limits, choose the desired client from the Client Management page and click 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, click OK. Otherwise, click Cancel to return to the previous page without deleting anything.

Manage Client's Charging Credits

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

> **Note**
>
> The **Charging credits** section is only available for `prepaid` charging plans.

> **Note**
>
> If you have added a client without an associated charging plan, you will not be able to set any **Charging Credits** for him. The icon will not be available in the `Tools` area of the **Client Management** page.

4PSA VoipNow Core allows you to set charging credits when the client operates under a prepaid charging plan.

> **Note**
>
> If the client operates under a `postpaid` charging plan, you can only adjust his *charging limits*.

View Client's Charging Credits History

4PSA VoipNow Core allows you to view detailed information about the client's charging credit history. To access this information, follow these steps:

1. Click the chosen client name in the Client Management page.
2. In the new opened page, click the Charging credits icon available in the Tools area.

The Charging credits left section displays the remaining credit that can still be used by the client:

- Outgoing calls credit
- Incoming calls credit

The credit history table contains the following columns:

- Outgoing calls credit – Displays the supplementary credit for outgoing calls.
- Incoming calls credit – Displays the supplementary credit for incoming 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 a Client Account

In this section you can manage the charging credits for a client by adjusting his available credit. The following fields are displayed:

- Outgoing calls credit {value} {currency} – Enter the amount of money with which you want to recharge this client's credit, in order to be used for outgoing external calls.

  > **Note**
  >
  > This field will be grayed out if the charging credit for the outgoing calls was set to `unlimited` during the client's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 12 USD left)`).

- `Incoming calls credit {value} {currency}` – Enter the amount of money with which you want to recharge this client's credit, in order to be used for incoming external calls.

> **Note**
>
> This field will be grayed out if the charging credit for the incoming calls was set to `unlimited` during the client's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 28 USD left)`).

- `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 Client's Charging Credits

In the `Client Management` page, choose the desired client and click his name. Then, click the  `Charging Credits` icon available in the `Tools` area.

You cannot delete a charging credit. However, if you have made a mistake and you want to modify the credit you added, insert a new charging credit with a smaller 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.

Manage Client's Charging Plans

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

The Charging Plan Management page displays a list with all the charging plans available in the client account. For more details, see the View Your Charging Plans section.

Add Client's New Charging Plans

Note

In 4PSA VoipNow Core, the child account does not inherit the charging plan of his parent account.

The client can also create new charging plans that can be used by himself or by his endpoints. To do so, in the Charging Plan Management page, click the Add a charging plan icon available in the Tools area.

Note

The client can create new charging plans within the limits set to him by his own charging plan. Therefore, he cannot add any of the following permissions if they hadn't been enabled in his charging plan:

- **Allow incoming calls**
- **Allow outgoing external calls**
- **Allow direct calls between endpoints**

In this conditions, not all the lines described in the Add a New Charging Plan section will be available.

Caution

If the reseller was created without an attached charging plan, than, when adding a new one, he will not be able to set any permissions or limits. The only options available to him will be:

- **Name**
- **Charging plan type**
  - `Prepaid`
  - `Postpaid`
- **Play custom sound file when outgoing access is blocked**

The first added charging plan will be set as the default one.

For more details on how to add a new charging plan to the client account, see the Add a New Charging Plan section.

Edit Client's Charging Plans

Clicking a charging plan's name in the Charging Plan Management page allows you to modify its parameters, as shown in the Edit a Charging Plan section.

Manage Client's Destination Charging Exceptions

4PSA VoipNow Core allows the definition of charging exceptions for certain area codes that override the costs set up in the charging plan.

For more details on the client's charging exceptions, see the Manage Destination Charging Exceptions section.

Manager Client's Free Minutes Packages

4PSA VoipNow Core allows the definition of free minutes packages that can be offered to certain child users. For more information, see the Manage the Free Minutes Packages section.

My Charging Plan

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

1. In the Client Management page, choose the desired client and click his name.
2. In the new opened page, click the  Charging plans icon available in the Tools area.
3. 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 Core displays this information only if your account's endpoints can receive calls from endpoints that belong to the system as well as from endpoints outside the system.

- **Allow outgoing external calls** - Yes – 4PSA VoipNow Core displays this information only if your account's endpoints can make calls to destinations outside the system.
- **Allow direct calls between endpoints** - Yes – 4PSA VoipNow Core displays this information only if your account's endpoints can directly call other endpoints.
- **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** – The 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 following 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 {month}

> **Note**
>
> This information is available only for `postpaid` charging plans.
>
> 4PSA VoipNow Core displays this section only if 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 {U} seconds - For the first {T} seconds the call is taxed as one minute; afterwards, taxing is done every {U} seconds.

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

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

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

  - Calls made outside these time intervals are charged {money unit}/ second – The price charged for external calls made outside time interval {T}.
- External incoming calls charges – These charges apply to calls received from outside the system.

> **Note**
>
> 4PSA VoipNow Core displays this information only if the client is 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.

Manage Client's Endpoint Templates

When creating an endpoint account, the client can select an endpoint template from his own templates list.

To access the templates list, choose a client from the Client Management page and click the name link. Next, click the Endpoint templates icon available in the Tools area.

For a detailed overview, see the Manage Endpoint Templates section of the Manage Endpoint Templates chapter.

Add Client's New Endpoint Templates

If you want to add a new endpoint template, click the Add endpoint template icon available in the Tools area. For more information, see the Add New Endpoint Template section.

Edit Client's Endpoint Templates

Clicking an endpoint template's name in the Endpoint Templates page allows you to modify its parameters, as shown in the Edit Endpoint Templates section.

Manage Client's Email Templates

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

For a detailed overview, see the Manage Email Templates section of 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.

You can customize the subject and the content of an email notification by following the next 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.

The email templates that can be customized for a client account are presented in the next sections.

The Client's 'Client Account Expiration Warning' Email Template

For more details about how to customize this template, see The 'Client Account Expiration Warning' Email Template section.

The Client's 'Client Account Expired' Email Template

For more details about how to customize this template, see The 'Client Account Expired' Email Template section.

The Client's 'Client Charging Limit Warning' Email Template

For more details about how to customize this template, see The 'Client Charging Limit Warning' Email Template section.

The Client's 'Client Charging Limit Exceeded' Email Template

For more details about how to customize this template, see The 'Client Charging Limit Exceeded' Email Template section.

The Client's 'Endpoint Account Creation' Email Template

For more details about how to customize this template, see The 'Endpoint Account Creation' Email Template section.

The Client's 'Endpoint Account Expiration Warning' Email Template

For more details about how to customize this template, see The 'Endpoint Account Expiration Warning' Email Template section.

The Client's 'Endpoint Account Expired' Email Template

For more details about how to customize this template, see The 'Endpoint Account Expired' Email Template section.

The Client's 'Endpoint Charging Limit Warning' Email Template

For more details about how to customize this template, see The 'Endpoint Charging Limit Warning' Email Template section.

The Client's 'Endpoint Charging Limit Exceeded' Email Template

For more details about how to customize this template, see The 'Endpoint Charging Limit Exceeded' Email Template section.

The Client's 'Forgot Password' Email Template

For more details about how to customize this template, see The 'Forgot Password' Email Template section.

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 Core will not overwrite the other email address destination.

Manage Your Clients' Endpoints

Endpoints' Management Page

4PSA VoipNow Core offers two ways of accessing an endpoint account and performing operations, as shown below:

1. By following the Endpoints link available in the left navigation panel. In the Endpoint Management page, 4PSA VoipNow Core displays a list

with all the endpoints registered in the system. You can access a certain endpoint account by clicking its name.

2. By following the Clients link available in the left navigation panel. In the new opened page, Client Management, click the client name whose endpoints you want to see. The next page displays the list of all the endpoints available in that client account.

Both ways allow the user to perform the same operations on an endpoint account, the only difference being that, in the second one, the reseller has access to all the endpoints belonging to a specified client, while in the first one, the reseller views all the endpoints in the system along with their corresponding clients. The manual describes in detail the first mentioned way.

The Endpoint Management page has two distinct sections:

- Tools - This section allows you to add a new endpoint account by clicking the Add endpoint icon.
- Endpoints - In this section, 4PSA VoipNow Core displays a list with all the endpoints registered in the system. To manage a certain endpoint account, click its name.

  Multiple operations can be performed on the client's endpoint account:

  - Add a new endpoint.
  - Manage features for existing endpoints.
  - Delete endpoints from the client account.

To access a client's endpoints list, click the chosen client name in the Client Management page or search for the endpoints of that particular client in the Endpoint Management page.

> Note
>
> In the **Endpoint Management** page, 4PSA VoipNow Core displays the name of the client account to which the endpoint belongs to in the **Client** column.

In the Endpoint Management page, 4PSA VoipNow Core displays the following information about each endpoint:

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

- All local calls are permitted
- Only incoming call are permitted
- No calls are permitted
- Disabled

Click 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 two 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 icon specifies if the endpoint has the permission to access the control panel or not:
  - Enabled
  - Disabled

  Click this icon to enable/disable the control panel access.
- Endpoint – The endpoint contact name and number displayed in the format Contact_Name(Client_ID*Local_Endpoint_Number). Click this link to go to the endpoint context.
- Client - The name of the client the endpoint belongs to.
- State – This field specifies if the endpoint has a phone terminal connected:
  - Registered - A phone terminal is connected to the endpoint.
  - If there is no phone terminal connected to the endpoint, 4PSA VoipNow Core displays '-'.
- CallerID – The public phone number assigned to the endpoint. If the endpoint has several phone numbers associated, 4PSA VoipNow Core displays the number selected for the setting Use the following callerID. For more information, see the Edit Permissions and Phone Numbers section. If there is no public phone number assigned, 4PSA VoipNow Core displays '-'.
- Created – The date when the endpoint was added to the system.

Note

You can filter the columns displayed in the endpoints list by clicking the Show columns button. After choosing the desired columns, click **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 Endpoints List

When the endpoints list is too long and you are searching for specific endpoints, 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 endpoints 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 endpoints list can be filtered by name, state and creation date. To do so, click a table header link. The order criteria is marked by the highlighted table header and the arrow indicates how the endpoints list was sorted. The sort direction can be changed by another click on the corresponding header.

View the Endpoint's Report

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

To access this page, follow the next steps:

1. Choose the desired endpoint from the Endpoint Management page and click its name.
2. In the new opened page, click the Call reports icon available in the Tools area.

Here you can view a detailed calls list 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 Core 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:
    - External call
    - Direct calls between endpoints
- From – The callerID and the endpoint (if the call is initiated from inside the system) of the person who made the call.
- To – The callerID and the endpoint (if the call is to an inside endpoint) 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 duration.
- CallID – The unique number generated by Asterisk to identify the call.
- SIP-CallID - It is used to identify all SIP packets that belong to a particular call.
- Called DID - The Direct Inward Dialing (DID) number that was called.
- PRI channel - This is the ID of the PRI card that contains the channel through which the call was made.
- 4PSA VoipNow calling extension – The name of the extension from the 4PSA VoipNow server that initiated the call.
- Received chargingID - The chargingID helps pointing out the endpoint that will be charged for the call.
- Node ID - The node's logical address.
- Call cost – The call cost for the endpoint owner.

> **Note**
>
> You can filter the displayed columns by clicking the Show columns button. After choosing the desired columns, click **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 Endpoints List Call Reports

4PSA VoipNow Core 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 icon available in 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.
   - Calls on node - Use the available drop-down list to select the node on which you want to perform the search. If you want to check for the calls on all the nodes, select `All` .
   - 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.
   - SIP-CallID - It is used to identify all SIP packets that belong to a particular call.
   - PRI channel - Use the available text box to specify the ID of the PRI card that contains the channel through which the call was made.
   - 4PSA VoipNow calling extension – Use the available text box to filter calls by the name of the 4PSA VoipNow extension from the 4PSA VoipNow server that initiated the call.
   - Received chargingID - Use the available text box to specify the chargingID that helps pointing out the endpoint that will be charged for the call.
   - Called DID - Use the available text box to specify the Direct Inward Dialing (DID) number that was called.
   - 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 filter calls that ended with:

    - Answered
    - No answer
    - Busy
    - Failed
    - Unknown
    - Not allowed
  - Start search on {x} and end 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 calls – Select this option to display all the calls.
    - Direct calls between endpoints – Select this option to display only the calls made between endpoints.
    - External calls – Select this option to display only the calls received from outside the system or sent to external destinations.
2. Click OK to display only the records that match 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 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 Export columns icon. Select the check boxes corresponding to the columns you want to export.

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

- Call flow - The call direction: incoming or outgoing.
- Call type - The received call type.
- 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 Core 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.
- Money unit - The currency currently used for charging.
- CallID - The call unique ID, generated by Asterisk.
- Transfer source - If the call was transferred to another endpoint, this column will list the source endpoint.
- Transfer destination - If the call was transferred to another endpoint, this column displays the destination endpoint.
- Initially called endpoint - If the call was picked up from another endpoint, this column displays the endpoint that was originally called.

View an Endpoint Overview

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

To access this overview, in the Endpoint Management page, choose the desired endpoint and click its name. The following information is displayed:

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

- Public phone number(s) – If one or more public phone numbers are assigned to the endpoint, they will be displayed here (e.g. 49932040495). Otherwise, 4PSA VoipNow Core displays '-'.
- Endpoint internal number – The phone number assigned when the endpoint was added to the system.
- Endpoint terminal – If the endpoint is registered to the system, the terminal advertised by the endpoint.
- Endpoint state – The state of the endpoint from the network connection perspective.
- Endpoint IP address – The IP address of the endpoint that is registered into the system.
- Endpoint registration – The date and time when the endpoint's registration expires.
- Calls cost for {month}/{year} – The calls' cost for the current month. The total amount is split between the incoming and outgoing calls costs (e.g. 130.00 USD (22.000 USD incoming external calls, 108.000 USD outgoing external calls)).
- Outgoing time spent on {month}/{year} – The outgoing calls' total duration and the total number of outgoing calls in the current month (e.g. 00:06:19 in 2 phone calls).
- Incoming time spent on {month}/{year} – The incoming calls' total duration and the total number of incoming calls in current month (e.g. 00:03:52 in 6 phone calls).

Enable/Disable an Endpoint

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

Impersonate an Endpoint

4PSA VoipNow Core offers the possibility to impersonate an endpoint 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 endpoint's perspective. To do so, click the respective endpoint's name in the Endpoint 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 endpoint, the application will change the skin to the one used by the chosen endpoint, 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 Endpoint

Note

You can add endpoints only if the `Endpoint Management` permission has been activated for your account.

The endpoint accounts can be created without an associated charging plan.

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 Settings link available in the left navigation panel, than the Time intervals icon and follow the instructions from 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.

4PSA VoipNow Core offers two ways of adding a new endpoint account to a specific client, as shown below:

1. By following the Endpoints link available in the left navigation panel. In the Endpoint Management page, 4PSA VoipNow Core displays a list with all the endpoints registered in the system. To add a new one, just click the Add endpoint icon available in the Tools area. This will open the Select Client page that allows you to choose the client account to which the new endpoint will be added to. For more information, see the Select Client section.
2. By following the Clients link available in the left navigation panel. In the Client Management page, choose the client that you want to add the new endpoint to and click his name. In the next page, click the Add endpoints icon from the Tools area.

> **Note**
>
> If the maximum number of endpoints had been reached and you cannot add another one to that particular client, the ! icon is displayed.

Both ways allow the user to perform the same operations on an endpoint account. The information is grouped into several successive pages that will be described hereafter.

Enter the New Endpoint Information

This section allows you to set up the primary information about the endpoint owner or the charging and outgoing call filtering:

- Endpoint setup
  - Number – The value in this field is automatically generated and it represents the lowest endpoint number in the client account that is not currently used. To specify a different endpoint number, use the text box to fill in the desired one.

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

- Endpoint owner – Fill in details about the person that will be using the endpoint and his login.

- Create using template – Use the drop-down list to choose one of the available templates as a base for the new endpoint. If you do not want to create the account based on a template, make sure the '--' option is selected.

  > Note
  >
  > A template contains default settings that will be used to create the endpoint. For more information on endpoint templates, see the Manage Endpoint Templates section.

- Company name
- Contact name
- Login

  > Note
  >
  > The username must contain only the following character types:
  >
  > - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.
  > - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
  > - Special characters like: _**.-**@.

- 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.

  > Note
  >
  > To set up the password strength, click the Settings link available in the left navigation panel and then the **Login preferences** icon.

- 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.

> **Note**
>
> To set up the password strength, click the Settings link available in the left navigation panel and then the **Login preferences** icon.

> **Note**
>
> The password must contain only the following character types:
>
> - Any of the **26 letters of the Latin alphabet [a-z]**, also included in the American Standard Code for Information Interchange (ASCII). The scripts of non-Latin languages (such as Arabic, Cyrillic, Chinese, Greek, Indian, Korean or Japanese) are illegible.
> - Any combination of the **10 decimals [0-9]**, also included in the ASCII.
> - Special characters like: **!?@#$%\/*()_+={}`~[];:,.|^&**.

- Confirm password
- Phone
- Fax
- Email
- Address
- City
- Region
- Postal/ZIP code
- Country
- Region - A country's regions are listed in alphabetical order. The region selected by default is the first one on the list.
- Timezone - Use the drop-down list to select the timezone specific for your location. By default, the timezone of the chosen location is selected.
- Interface language – Use this drop-down list to choose the interface language of the endpoint account. The list contains all the available interface languages.

Note

If you choose the `Default` option, the language that will be used for the endpoint 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 language is the one specified by the administrator.
- Endpoint notes – Use this text box to insert comments about the endpoint.

- 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 endpoint account.
  - Outgoing routing group – Use this drop-down list to choose one of the available outgoing routing rule groups that will apply to the new endpoint account.
  - Trust this account to impersonate calls - When this option is enabled, the ChargingIds sent by the device connected to the endpoint will be searched on the same client account and the call will be considered for that endpoint.
- The Select endpoint permissions and phone numbers check box allows you to specify what the endpoint will be able to do in the system:
  - If you click OK, you will be directed to the next step: specifying the endpoint's permissions and phone numbers. For details, see the next section.

Note

When you click **OK**, the information on the newly created account will be sent by email to the account owner (Contact person), if specified in the Settings >> **Email templates** page.

  - Deselect the check box and click OK if you want to add the new endpoint 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 endpoint.

Note

An endpoint 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`.

Select Endpoint Permissions and Phone Numbers

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

- **Permissions**
  - **Endpoint SIP management** – When this option is selected, the endpoint user is allowed to customize the SIP settings from the **Endpoint Setup** page.
- **Limits**
  - **Maximum concurrent calls** – Use the available text box to limit the number of calls that can be active at the same time for any endpoint on the reseller's account. If you do not want to limit the endpoint, select the `Unlimited` check box.
  - **Account expiration date** – To specify the date when the endpoint 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 endpoint.

Note

This section is displayed only if there are phone numbers available in the client account to which the endpoint belongs to.

When you assign a public phone number to an endpoint, the phone number becomes exclusive to that endpoint. No other endpoint can use it. From that moment on, callers from outside the 4PSA VoipNow Core system can reach that endpoint by dialing the phone number.

- The **Select endpoint type parameters** check box allows you to configure the active features of the new endpoint:
  - Select the check box and click **OK** to save the endpoint permissions and to go to the next step (activate endpoint features). For details, see the next section.

  - Deselect the check box and click OK to save the endpoint permissions and add the endpoint with the default features.
  - Click Cancel to exit without saving the endpoint permissions and phone numbers.

Endpoint Features

A new page opens, allowing you to activate the endpoint features:

- Basic settings - This section displays all the important settings available to configure an endpoint.
  - CallerID name in public calls – This option is used when the endpoint 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 endpoint 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.
  - Use the following callerID – Use the text box to specify the phone number that will be displayed when the endpoint user is calling external destinations. 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 Endpoint list pop-up window displays the following details:
    - T - This icon displays the endpoint type:
      - Endpoint
    - S - This icon displays the endpoint's status:
      - Enabled
      - Disabled
    - Endpoint - The name of the endpoint.

      Click the link to select the callerID associated to the endpoint.
    - Endpoint number - The endpoint number.

        - CallerID - The public phone number that will be displayed when the endpoint use will call external destinations.

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

    - CallerID number in public calls – This option is used when the endpoint 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 endpoint.
        - 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 text box to specify the phone number that will be displayed when the endpoint user is calling external destinations. 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 Endpoint list pop-up window displays the following details:

        - T - This icon displays the endpoint type:
            - Endpoint
        - S - This icon displays the endpoint's status:
            - Enabled
            - Disabled
        - Endpoint - The name of the endpoint.

            Click the link to select the callerID associated to the endpoint.

        - Endpoint number - The endpoint number.
        - CallerID - The public phone number that will be displayed when the endpoint use will call external destinations.

        If the endpoints 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, 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 endpoint. The header contains the endpoint's callerID number (i.e. P-Asserted-Identity: sip:0003*003@localhost.localdomain).
- Ring endpoint for {time} seconds - Use the available text box to specify the maximum number a seconds an endpoint will be ringed. The default value is 30 seconds.
- DTMF - Use this drop-down list to choose the Dual-Tone Multi-Frequency mode:
  - rfc2833 - This is the default option.
  - inband
  - info - If you choose this option, Asterisk automatically detects whether the channel supports rfc2833 or not. If the channel does not support it, Asterisk uses the inband mode.
- Ping endpoint to check its status - When this option is enabled, the server can check the endpoints for presence regularly. If the endpoint does not answer in a time below this setting, it is considered offline.
- Allowed codecs - Use these check boxes to select the codecs supported by the phone device.

> **Note**
>
> The system administrator can choose which codecs to be displayed here.

> **Caution**
>
> The users that log in to the 4PSA VoipNow Core interface with a reseller, client or endpoint account will be able to see **Allowed codecs** only if they have the **Endpoint SIP management** permission enabled.

- Endpoint does not register and is always on IP {IP} Port {Port} - Use the available text boxes to specify the endpoint's IP address and port so that it will no longer have to register to the server. All the calls will be redirected to that server.
- Permit usage of endpoint only from IP(s) - You can limit the usage of an endpoint only from certain IP(s). Use the available text box to specify the IP address. You can add/remove multiple IPs using the icons.
- Equipment description - Use the available text box to specify a brief description of the apparatus.

- **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 radio buttons to specify when/how call recording will be triggered:
    - **Never** – Although the call recording feature is enabled, it is not used.
    - **All calls are recorded** – When this option is enabled, 4PSA VoipNow Core will record all the endpoint's conversations.

Select Client

When you want to add a new endpoint directly from the **Endpoint Management** page, you have to select a client account to which this endpoint will be added to. After you have clicked the **Add endpoint** icon, the **Select Client** page will be displayed, allowing you to choose the desired client account.

4PSA VoipNow Core displays a table with all the clients available in the system, providing the following information about each one of them:

- **S** – This icon displays the client account's status:
  - Enabled
  - All local calls are permitted
  - Only incoming call are permitted
  - No calls are permitted
  - Disabled

  Click 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 two 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 icon specifies whether the client has permission to log in and use the 4PSA VoipNow Core interface:
  - Allowed
  - Not allowed

  Click this icon to enable/disable the control panel access.

> **Caution**
>
> If the client does not have control panel access, neither will his child accounts.

- Clients – The name of the client account owner. Click the link to select this client to add the endpoint account to.

> **Note**
>
> If the maximum number of endpoint had been reached and you cannot add another one to that particular client, the ! icon is displayed. Also, the client's name is not underlined anymore.

- Company – The owner's company name.
- Created – The date when the client account was added to the system.
- R – Click the icon to view a short report on the client.

When the client list is too long and you are searching for specific clients, you can use the available 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.

Edit an Endpoint

Edit General Information

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

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

1. In the Endpoint Management page, choose the desired endpoint and Click its name.
2. Click the Edit endpoint icon available in the Tools area.
3. A new page where you can view and edit the details of the selected endpoint and its owner opens. The data is grouped into several sections:

- Endpoint owner – Use this section to modify endpoint owner's personal information like his username, password or timezone.
- Charging and outgoing call filtering – Use this section to change the charging plan or the outgoing routing group associated with the endpoint.
- Resend endpoint contact details - Select this check box if you want to resend contact details to the email address specified for the endpoint account and to the client and the reseller who own the client, as well as to the system administrator, if the appropriate parameters have been set in the Settings » 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.

> Note
>
> For more details on how to modify these settings, see the Enter the New Endpoint Information section.

Edit Endpoint Features

If you want to edit the endpoint's features and functionalities, follow the next steps:

1. In the Endpoint Management page, choose the desired endpoint and Click its name.
2. Click the Endpoint setup icon available in the Tools area.
3. The Edit Endpoint page will open, displaying two sections that can be customized:
   - Basic settings
   - Call recording

> Note
>
> For more detail on how to edit this options, check the Endpoint Features section.

Edit Endpoint's Permissions and Phone Numbers

To modify the permissions and phone numbers of a particular endpoint, in the Endpoint Management page, choose the endpoint that you want to edit and Click its name. Next, follow these steps:

1. Click the Endpoint permissions and phone numbers icon available in the Tools area.
2. A new page opens, allowing you to modify the following fields:
   - Permissions
   - Limits
   - Incoming phone number selection

   > **Note**
   >
   > This section is displayed only if there are phone numbers available in the client account to which the endpoint belongs to.

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

> **Note**
>
> For more detail on how to edit this options, check the [Select Endpoint Permissions and Phone Numbers] section.

Remove an Endpoint

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

1. Choose the endpoints 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 the endpoints that will be removed 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.

Manage Endpoint's Time Intervals

To access this option, in the Endpoint Management page, choose the desired endpoint and Click its name. Than, click the Time intervals icon available in the Tools area.

For a detailed overview, see the Manage Time Intervals section of the Manage Settings chapter.

Add a New Endpoint's Time Interval

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

Edit Endpoint's Time Intervals

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

Manage Endpoint's Call Rules

Manage Endpoint's Outgoing Call Rules

4PSA VoipNow Core allows endpoints 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 endpoint from the Endpoint Management page and Click its name. Next, click the Outgoing call rules icon available in the Tools area.

In the new opened page, you can view a list of all the rules available to the endpoint account. The following operations can be performed:

- Add new outgoing call rules.
- Change the priorities of the rules.
- Remove existing outgoing call rules.

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

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

  Click 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 endpoint from the Endpoint Management page and Click 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 Core blocks the call to a certain number if the number is matched.
2. Use the number text box to match the number dialed by the endpoint user.

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

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

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

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

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

Remove an Outgoing Call Rule

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

1. Choose the rules that you want to delete by selecting their corresponding check boxes.
2. Click the Remove selected link.
3. You will be asked to confirm the removal. If you want to proceed, click OK. Otherwise, click Cancel.

Manage Endpoint's Recorded Calls

Endpoint's Recorded Calls Overview

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

When the call recording feature is enabled, in the Recorded Message Management page you can view a list of the calls recorded by the endpoint 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

4PSA VoipNow Core 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 Core using a specific format:
  - date_time-type.ext (e.g. 20051230_182345-in.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 duration.

Enable or Disable Call Recording

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

>

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 the corresponding 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 Endpoint's Charging Limits

Caution

This section will be displayed only if:

- Charging is enabled on the 4PSA VoipNow Core server. To enable/disable it, go to the Settings >> **System Preferences** >> **Charging** section.
- The endpoint was created with a charging plan attached to it.

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

Note

If the endpoint operates under a prepaid charging plan, you can only offer *charging credits*.

View Endpoint's Charging Limits History

4PSA VoipNow Core allows you to view detailed information about an endpoint's charging limits. To access this information, click the  Charging limits icon available in the Tools area.

The Charging limits left section displays the remaining charging limits that can still be used by the endpoint:

- Outgoing money limit
- Incoming money limit

The charging limits history table contains the following columns:

- Incoming money limit – Displays the supplementary credit available for the external incoming calls.
- Outgoing money limit – Displays the supplementary credit available for the external outgoing calls.
- Over usage minutes – Displays the supplementary over usage minutes limit.
- Every month – Displays the time frame for the charging limits:
  - Yes - If the imposed charging limits are automatically added every month.
  - No - If the imposed charging limits apply only to the current month.
- Order number – Displays the number of the request for allocating the new charging limits.
- Date added – Displays the date and time when the charging limits were enforced.

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 Limits to an Endpoint Account

To access this page, follow these steps:

1. Choose the desired endpoint from the Endpoint Management page and click its name.
2. In the new opened page, click the  Charging limits icon available in the Tools area.

In this section you can manage the charging limits for an endpoint by adjusting its time and money limits. The following fields are displayed:

- Incoming money limit {value} {currency} – Fill in the amount of money which you want to add to the external outgoing calls limit that was initially set in this endpoint's charging plan.

> **Note**
>
> This field will be grayed out if the charging limit for the incoming calls was set to `unlimited` during the endpoint's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 250 minutes left)`).

- Outgoing money limit {value} {currency} – Fill in the amount of money which you want to add to the external incoming calls limit that was initially set in this endpoint's charging plan.

> **Note**
>
> This field will be grayed out if the charging limit for the outgoing calls was set to `unlimited` during the endpoint's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 78 minutes left)`).

- Over usage minutes {number} minutes – Fill in the amount of minutes you want add to the external outgoing over usage minutes set up in the endpoint's charging plan.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total number of minutes left to be used (e.g. `(currently 1999 minutes left)`).

- 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 Endpoint's Charging Limits

To remove monthly charging limits, choose the desired endpoint from the Endpoint Management page and click its 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.

   > **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, click OK. Otherwise, click Cancel to return to the previous page without deleting anything.

Manage Endpoint's Charging Credits

> **Caution**
>
> This section will be displayed only if:
>
> - Charging is enabled on the 4PSA VoipNow Core server. To enable/disable it, go to the Settings >> **System Preferences** >> **Charging** section.
> - The endpoint was created with a charging plan attached to it.

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

Note

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

View Endpoint's Charging Credits History

4PSA VoipNow Core allows you to view detailed information about the history of recharges for the endpoint's charging credit. To access this information, follow the next steps:

1. Choose the desired endpoint from the Endpoint Management page and click its name.
2. In the new opened page, click the  Charging credits icon available in the Tools area.

The Charging credits left section displays the remaining credit that can still be used by the endpoint:

- Outgoing calls credit
- Incoming calls credit

The credit history table contains the following columns:

- Incoming calls credit – Displays the supplementary credit available for the incoming calls.
- Outgoing calls credit – Displays the supplementary credit available for the outgoing calls.
- Order number – Displays the number of the request for allocating the new charging credits.
- Date added – Displays the date and time when the charging credits were enforced.

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 Credits to an Endpoint Account

In this section you can manage the charging credits for an endpoint by adjusting its available credit. The following fields are displayed:

1. Choose the desired endpoint from the Endpoint Management page and click its name.
2. In the new opened page, click the Charging credits icon available in the Tools area.

Here you can insert extra time and money limits for the endpoint by filling in the following fields:

- Outgoing calls credit {value} {currency} – Enter the amount of money with which you want to recharge this endpoint's credit, in order to be used for outgoing external calls.

> **Note**
>
> This field will be grayed out if the charging credit for the outgoing calls was set to `unlimited` during the endpoint's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 12 USD left)`.

- Incoming calls credit {value} {currency} – Enter the amount of money with which you want to recharge this endpoint's credit, in order to be used for incoming external calls.

> **Note**
>
> This field will be grayed out if the charging credit for the incoming calls was set to `unlimited` during the endpoint's setup.

> **Note**
>
> 4PSA VoipNow Core displays between parantheses the total money amount left to be used (e.g. `(currently 28 USD left)`.

- 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 Endpoint's Charging Credits

You can access this option from the Endpoint Management page by clicking the chosen endpoint's 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 Endpoint's Charging Plan

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

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

1. Choose the desired endpoint from the Endpoint Management page and click its name.
2. In the new opened page, click the Endpoint charging plan icon available in the Tools area. 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 Core displays this information only if your account's endpoints can receive calls from endpoints that belong to the system as well as from endpoints outside the system.

- Allow outgoing external calls - Yes – 4PSA VoipNow Core displays this information only if your account's endpoints can make calls to destinations outside the system.
- Allow direct calls between endpoints - Yes – 4PSA VoipNow Core displays this information only if your account's endpoints can directly call other endpoints.
- 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 – The 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 following 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 {month}

> **Note**
>
> This information is available only for postpaid charging plans.
>
> 4PSA VoipNow Core displays this section only if the endpoints 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 {U} seconds - For the first {T} seconds the call is taxed as one minute; afterwards, taxing is done every {U} seconds.

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

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

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

  - Calls made outside these time intervals are charged {money unit}/ second – The price charged for external calls made outside time interval {T}.
- External incoming calls charges – These charges apply to calls received from outside the system.

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

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

    - External incoming calls are charged {money unit}/second - The fee charged to the endpoint for each incoming external call.
- 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 Endpoint's Email Templates

To access this page, follow the next steps:

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

For a detailed overview, 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.

You can customize the subject and the content of an email notification by following the next 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.

The email templates that can be customized for an endpoint account are presented in the next sections.

The Endpoint's 'Endpoint Account Expiration Warning' Email Template

For more details about how to customize this template, see The 'Endpoint Account Expiration Warning' Email Template section.

The Endpoint's 'Endpoint Account Expired' Email Template

For more details about how to customize this template, see The 'Endpoint Account Expired' Email Template section.

The Endpoint's 'Endpoint Charging Limit Warning' Email Template

For more details about how to customize this template, see The 'Endpoint Charging Limit Warning' Email Template section.

The Endpoint's 'Endpoint Charging Limit Exceeded' Email Template

For more details about how to customize this template, see The 'Endpoint Charging Limit Exceeded' Email Template section.

The Endpoint's 'Forgot Password' Email Template

For more details about how to customize this template, see The 'Forgot Password' Email Template section.

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 Core will not overwrite the other email address destination.

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 Core system.
- View the active calls in the system.
- An overview of the nodes work load.

Call Reports

4PSA VoipNow Core offers an easy way to keep track of the calls made by all the endpoints 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 Report Management page.

4PSA VoipNow Core 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
  -  Direct calls between endpoints
- From – The number of the endpoint that initiated the call.
- To – The number of the endpoint 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 endpoint.
- SIP-CallID - The ID of the SIP packets belonging to a particular call.
- Called DID - The Direct Inward Dialing (DID) number that was called.
- PRI channel - The ID of the PRI card that contains the channel through which the call was made.
- 4PSA VoipNow calling extension – The name of the extension from the 4PSA VoipNow server that initiated the call.
- Received chargingID - The chargingID helps pointing out the endpoint that will be charged for the call.
- Node ID - The node's logical address.
- 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 **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 Core 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 endpoint levels) you are searching for.
   - Charging plan - Use this text box to fill in the name of the charging plan 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.
   - 4PSA VoipNow calling extension – Use the available text box to filter calls by the name of the 4PSA VoipNow extension from the 4PSA VoipNow server that initiated the call.
   - Called DID - The Direct Inward Dialing (DID) number that was called.
   - 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 calls – 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 calls – Select this option to display all the calls.
  - Direct calls between endpoints – Select this option to display only the calls made between endpoints.
  - External calls – Select this option to display only the calls received from outside the system or sent to external destinations.

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 type.
- 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 Core 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
- Client - The user name of the client account where the call originated.
- Client ID - The ID of the client account where the call originated.
- Charging plan - The charging plan that generated the call cost.
- Call cost - The call 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 Core.
- Transfer source - If the call was transferred to another endpoint, this column will list the source endpoint.
- Transfer destination - If the call was transferred to another endpoint, this column will list the destination endpoint.
- Initially called endpoint - If the call was picked up from another endpoint, this column will display the endpoint that was originally called.

Manage Sessions

View the Sessions List

This page lists the server sessions currently in progress. In order to access the **Manage Sessions page**, click the Settings link available in the left navigation panel and then the Sessions button located in the **Infrastructure settings** area. Multiple operations can be performed:

- Search the existing sessions.
- Delete sessions.

4PSA VoipNow Core 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
  - Endpoint
- Login – The user name of the person who logged in to the system.
- IP - The IP of the machine from which the user logged in to the system.
- Login 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 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 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 the corresponding 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 with the removal, click OK, otherwise click Cancel.

> **Note**
>
> You cannot delete your own sessions, but only those of the other users connected to the server.

Login History

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

The following information is available:

- T - The user's level is shown using an icon:
  - Admin
  - Reseller
  - Client
  - Endpoint

  - 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 names of the persons that 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 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 the corresponding 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 for 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.
- Hostname - The hostname where the user logged in from.
- L - This column shows that the user logged in from the interface:
    - Control panel 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 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 the corresponding 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 that the user logged in from the interface.
- 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.
- 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 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 the corresponding header.

Clear Logs

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