CloudPBX

User Manual

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Online management and logging in

You can find MachVoice-CloudPBX at https://pbx.machcloud.com

You need to enter your username and password and press ‘Log on’ to enter the site.

My settings

Here you find information about your settings and the availability of the phone.

Personal information

Here you can adjust your password and email address.

Phone

Here you can find which phone you are currently logged on to and see which extensions and external numbers are associated with your account. If you have write permissions to the company, you are also able to change the phone you are logged on to.

The voicemail section will tell you if you have any messages waiting in your voicemail boxes.

You are able to reach the voicemail box by phone by doing either:

- Call 1233 with a logged on user and enter the PIN code when prompted
- Call the phone number for which the voicemail box is set, press * during the welcome

message and enter the PIN code when prompted

The structure of the voicemail menu is as follows:

- Main menu - You have X new and Y old messages. If there are any messages, they are played. If not, the settings menu is played.
- During playback of a message you have the following choices:
  - 2 Pause
  - 4 Rewind message 5 seconds
  - 5 Replay message
  - 6 Fast forward message 5 seconds
  - * Message menu
- After playing a message the message menu plays. Here you have the following choices:
  - 4 Previous message
  - 5 Repeat message
  - 6 Next message
  - 8 Delete message
  - 9 To settings menu
  - * Help
  - # Main menu
- These are the choices in the settings menu:
  - 1 Play welcome message
  - 2 Record welcome message
  - 5 Change PIN code
  - * Main menu

Call forwarding

Here you can manage forwarding of incoming calls, e.g. forward immediately (Always), when you are busy (Busy), could not answer the phone (No Answer) or are not reachable (Unavailable). By setting the ring time you decide how long the phone rings before following the No Answer call forward. Checking the CLI transparent box will display the original caller ID at the destination, instead of the caller ID of the forwarding party.

Dial plan switches

This list contains up to 10 dial plan switches present in your company. If there are more, you can click through to the overview page. Next to the switch is a pencil icon, which allows you to change the setting of the dial plan switch.

Queues

Here you can find the queues to which you have been added, e.g. the type of phone calls you can expect (for example sales or support).

Service codes

You can change your telephony settings by dialling service codes. Service codes always start with an asterisk (*), followed by the desired service code and followed by the settings, depending on the requested service code. You can also configure these service codes as speed dials with the function keys of your phone, if programming function keys is supported for your type of phone. Below you can find the currently implemented service codes and their explanation.

*1: Log on and log off from your phone

By dialling *1, you can log on to your phone. If you were not logged on, you will hear a voice, asking you to enter your extension, followed by the pound key (#). If you have configured a PIN code for your extension, you will be requested to enter the code as well. If the PIN code is correct, you will hear a voice indicating you have been logged on.

If a PIN code is not configured for your extension, you will not be asked for it either. When the entered extension is known within your company, a voice will directly tell you you have been logged on.

Whenever you enter an invalid extension, you will be informed of this and the phone will be hung up immediately. If you enter a correct extension, but an invalid PIN code, you may retry your PIN code up to two times. Therefore, if you enter an invalid PIN code three times in a row, the phone will be hung up.

If you were already logged on to the phone and dial *1, you will be logged off of your phone. This will also be indicated by the voice, saying “goodbye”.

*48: Log in and log out from a queue

You can dial a service code, starting with *48, to log in or log out from a queue within your company. The service code has to be followed by another asterisk and the queue short code. This queue short code can be configured by your administrator.

By default, when you log in to a queue, your identity will be configured in a way that your personal call forwards will **not** be followed in case you receive a call from the queue. Next to that, your identity will have priority 1 in the queue. This implies that your phone will ring immediately, according to the queue strategy, when an outside caller enters the specified queue.

It is possible to change these default settings by appending more parameters when dialling the service code. All parameters are separated by asterisks (*). As mentioned, the first setting is mandatory and is the queue short code. The second setting is optional and is used to indicate whether your personal call forwards should be followed. A one (1) tells to follow them, a zero (0) lets the platform know you do not want your forwards to be followed.

With the last setting, you can control with which priority you will enter the queue. This priority can be either 1, 2 or 3. The priority indicates the amount of use of the queue that should be reached, before incoming calls will be attempted to be delivered on your phone.

The optional settings can only be configured when you are currently logged out from the queue. If you pass extra settings whilst you are already logged in to the queue, you will be logged out from the queue. The extra settings will be ignored.

Below are a few examples to clarify the use of *48:

*48*8 If you are logged on to the queue with short code 8, you will be logged off. If you are not currently a member of the queue, you will be added to it with priority 1 and have your personal call forwards disabled if you receive calls from this queue.

*48*2*1 Log in to the queue with short code 2 with priority 1. Your personal forwards **will** be followed when you receive calls from that queue.

*48*4*0*2 Log in to the queue with short code 4 with priority 2. Your personal call forwards will **not** be followed.

*49: Queue pause

If you temporarily don’t want to receive any calls from a queue, it is possible to ’pause’ that particular queue. You will remain a member, but no new calls will be offered to your phone. It is possible to pause multiple queues at the same time.

Pause is activated by dialling a service code, starting with *49, followed by another * and a queue short code. This sequence will mark you as paused in the corresponding queue. If you are already paused in the corresponding queue, this sequence will unpause you for the corresponding queue. If you dial *49 without a short code, you will be unpaused in all queues you are a member of.

*49*8 Pause queue with short code 8. Your identity will no longer receive new calls from the queue.

*49*27 Pause queue with short code 27.

*49*27 When you dial the same service code again, you will be unpaused in this queue. If there are any callers waiting you will receive new calls within seconds.

*49 Unpause all queues.

*55: Set dial plan switch

In order to set or check the status of a dial plan switch you can dial a service code starting with *55. This code needs to be followed by * and the number of the dial plan switch, then another * and the setting of the switch. The number of the switch and the possible settings can be configured by your administrator, who is also capable of configuring a quick dial on your phone. Here are a few examples in order to provide some clarification:

*55*9 When dialling dial plan switch 9, a prompt will identify the current setting of switch 9. This setting is a number.

*55*9*(number between 0 and 9) Change the setting of the dial plan switch to the entered number. Choose 0 for setting 10. Your administrator can configure the dial plan for each individual setting.

*8: Pickup of a call coming in on another phone

When the phone of a colleague within your company is ringing, you are able to take over the call and pick up on your own phone. There are two ways of doing this:

*8(extension of ringing phone) This is to take over the call from the ringing phone. There is an instant connection with the caller.

*8 This is to take over a random call within your company. This option is useful when you are not sure which phone exactly is ringing. When multiple phones are ringing, a random call is picked up.

It is possible the administrator of your organisation has limited the use of call pickup. If this is the case, you are only able to pick up certain calls: calls that are coming in with users that are in the same group as you.

Administrator Manual

Online Management and Login

You can find MachVoice-CloudPBX at https://pbx.machcloud.com

You need to enter your username and password and press Login to enter the site.

User Levels

There are several levels which vary according to the user's rights and the availability of the buttons. These levels are described below.

1. **End-user**: This shows the options My settings and Log out. You can adjust personal settings, see which phone is available and manage forwarding and queue settings.
2. **Organisation manager**: You can manage everything within your own organisation.
3. **Reseller**: You have an extra button named Organisations. Here you can select the organisation you want to manage, and use the menu Manage to adjust as needed.
4. **Root Reseller**: You are able to manage all resellers.

Quick Start Guide

This quick start guide will show how to set up a new company. For a more extensive guide, including images, see the manual.

Add an Organisation

1. Click ‘Organisations’.
2. Select your reseller account.
3. Click ‘Add company’.
4. Enter the name of the organisation.
5. Enter the short name that has been given to you. It is very important that the correct name is entered here, it cannot be changed after you click ‘Save’! The SIP domain should complete automatically. If it doesn’t please paste the short name in front of the URL. Choose the language. Click ‘Save’.
6. The new company had been added.

Organising a Company

To be able to function a company needs at least the following elements:

1. A User
2. A Phone
3. An External number
4. An Extension
5. A Dial plan

Add an External Number

Adding an external number is the first step. You will need an external number to enter at the next step, add a new user.

1. Go to ‘Manage’, ‘Dial plan’, ‘External numbers’.
2. Click ‘Add external number’.
3. Enter the external number, description and Name shown at outbound call. Click ‘Save’.
4. The new external number had been added.

Add a User

1. Go to 'Manage, 'Users', 'Users'.
2. Click 'Add user'.
3. Enter the data, if you also enter an Extension here, it will be automatically added. Click 'Save'.
4. The new user has been added.

Add a Telephone

1. Go to 'Manage', 'Phones'.
2. Choose 'Add phone'.
3. Choose the Phone Model, and enter the required data. Click 'Save'.
4. The new telephone has been added.

Add an Extension

If a user hasn't been given an extension when he or she was added, you can enter one here.

1. Go to 'Manage', 'Dial plan', 'Extensions'.
2. Click 'Add extension'.
3. Enter the extension and description. Click 'Save'.
4. The new extension has been added.

Enter a Dial plan

Please enter a very simple dial plan at first, for example, call > user. Try to call to +3185-7739999 and also execute an incoming test call. If this doesn't work, find out where the error lies. If this does work, you can enter a more extensive dial plan. Dial plans can be entered for both extensions and external numbers. This example features an external number.

1. Go to 'Manage', 'Dial plan', 'External numbers'.
2. Choose the number you want to add a dial plan to.
3. Enter the desired elements, for example, time-based routing, users, voice prompts or

an IVR menu. You can find these elements (if they have been added before) at the right below ‘Elements’.

4. Save the dial plan by clicking on the Save button, in the top right corner of the dial plan canvas.
5. The dial plan has been added.

Manage

Organisation managers can manage and configure various options and set up dial plans. The dial plan will be discussed elsewhere in this manual.

If you click Dial plan you will find several options to adjust the phone system of your department according to your needs. A list appears allowing you to create new records for the elements under Dial plan. These links will take you to the Add resource screens which belong to that specific element. If you want to select the element itself, you don’t click on Dial plan but just hover your mouse over it followed by clicking on the element of your choice.

Extensions

Extensions are the 2, 3, 4 or 5 digit numbers at which you can be reached through the internal network. To avoid confusion for example with emergency telephone numbers like 112, the first number of extensions can not be 0 or 1. You can create extensions in the range from 20 to 99, 200 to 998 (with the exception of 911), 2000 to 9999 and 20000 to 99999. You create an extension for one of your colleagues. Your colleague can use this extension to log in on any phone by pressing *1 followed by the extension. Next the PIN code is prompted to be entered, but only when a PIN code is set.

By clicking on the description in the extension overview, you open the dial plan, where the desired path for an incoming call can be decided. A green check mark behind a name/extension means a dial plan has been configured for this extension.

By clicking on one of the categories the overview is sorted.

You can add a new extension by clicking ‘Add new extension’, underneath the overview. The ‘Add extension’ page loads. Enter the internal number in the ‘Extension’ field and in ‘Description’ a name corresponding to the extension, which will be visible in the overview list. This can be an extension number or a more detailed description like someone's name. Click 'Save'.

Creating a new extension can also be done while adding a new user (see 'Users'). Editing an extension can be done by clicking the Edit button (pencil icon) to the right of the description of the extensions overview list. The 'Edit extension' page will load where changes can be made.

Deleting an extension is done by clicking the delete button (bin icon). You will be requested to confirm the deletion.

External Numbers

External numbers are phone numbers which are used to reach your company. These numbers are already provided by your telecommunication partner. You can add and remove external numbers yourself. **Warning:** if you remove an external number, you can no longer be reached on this number! If you have new external numbers you can add those yourself, as explained below. By clicking on the description of the number the dial plan for the external number will be opened. The dial plan is explained elsewhere in this manual.

If you click 'Add external number' above the overview the 'Add external number' page will load. Here you can enter the number in the 'External number' field. In the 'Description' field a name can be filled out which will be visible in the overview list. This could be just the number, or, if desired, a more comprehensive description.

The name (16 characters max) the receiving party of the call will see in its display is set in the 'Name shown at outbound call' field. When finished click 'Save'.

You can edit an external number by clicking the Edit button (pencil icon) to the right of the description in the overview. The 'Edit external number' page will load where the desired changes can be made. To delete an external number click the delete button (bin icon). You will be requested to confirm the deletion. **Warning:** If you remove an external number you can no longer be reached on this number!

Voice Prompts

You can add your voice prompts by uploading audio files. MachVoice-CloudPBX recognizes all sorts of different audio files, like .mp3 and .wav, which it converts to a usable format.

Click ‘Add prompt’ to upload a new audio file. The page ‘Add Voice prompt’ loads. By clicking ‘Select’ you are able to browse your files and select the audio file you want to upload. The name entered in the ‘Name’ field will be visible in the Voice prompt overview list. The ‘Description’ is where you enter the content of the voice prompt (for example: ‘Good afternoon, welcome to Example Company). When finished click ‘Save’.

To change the name and description of the voice prompt, click the Edit button (pencil icon). The ‘Edit prompt’ page will load. Remove a voice prompt by clicking the delete button (bin icon). You will be requested to confirm the deletion.

Music on Hold

You can add new categories by clicking ‘Add music on hold’. After entering a name, click ‘Next’. The ‘Edit category music on hold’ loads, where audio files can be added. Next to the ‘New sound prompt’ field, click ‘Select’ to browse through your files and select an audio file. It is possible to add more than one file to a category. When more than one file is added to a category, files will be played in alphabetical order. When finished click ‘Save’. Categories can be edited and audio files can be added and removed by clicking the Edit button (pencil icon). The ‘Edit category music on hold’ page will load. To delete a category and its files click the delete button (bin icon). You will be requested to confirm the deletion.

Queues

You can add a new queue by clicking ‘Add queue’.

- **Name Queue**: allows you to enter the name of the new queue. Use a unique name, preferably short and descriptive.
- **Strategy**: queue strategy determines how the queue calls agents logged in on the queue. The following options are available:
  - **Activate all phones simultaneously**; all phones in the queue will ring at the same time.
  - **Activate all available phones alternatively**; one phone at a time will receive a call.
  - **Activate all available phones alternatively and recall last phone**; one phone at a time will receive a call, starting with the phone that completed a call last.

  - **Choose phone least recently called by this queue**; the phone least recently called will receive the call first.
  - **Choose phone with least calls by this queue**; the phone to have received the least calls will ring first.
  - **Choose phone arbitrarily**; phones will ring randomly.
- **Possible to connect to a queue**:
  - **If at least one agent is logged in**: calls will be placed in the queue even if all agents are paused.
  - **If at least one agent is not paused**: calls will only be placed in the queue when at least one agent is available (unpaused).
  - **Always**: a call will always be placed in the queue, even when no agents are logged in.
- **Stay connected to queue**:
  - **While at least one agent is logged in**: calls in this queue will stay in the queue while agents are available, even if they are all paused.
  - **At least one agent is not paused**: calls will stay in the queue while one agent is available. When all agents are paused, the call will leave the queue.
  - **Always**: will cause all calls to stay in the queue even if there are no agents logged in anymore.
- **Callers can escape from this queue**: When enabled, a caller can press 1 to exit the queue. MachVoice-CloudPBX will ignore the maximum waiting time and will immediately continue to the next step in the dial plan. For example: set a periodic announcement with a prompt stating that many agents are occupied and a caller can choose to leave a voicemail message by pressing 1, so they can be called back at another time. Make sure the queue is followed by a next dial plan element, otherwise the queue will disconnect after pressing 1.
- **Call waiting if agent is already in a call:** Enabled by default. This setting is only applicable if an agent has enabled call waiting on their phone. When disabled, this setting overrules the phone's call waiting setting and a second queue call will not be offered if an agent is already in a call.
- **Max. number of people in queue**: If the filled in number of waiting callers in a queue is reached, the first new caller will not be placed in the queue. When there are no successive steps in the dial plan, the call will be disconnected.
- **Elapsed time in queue**: The ring time in seconds a call is offered to available agents in the queue.
- **Maximum waiting time**: Time in seconds a call can stay in the queue. When passed, the call will continue to the next step in the dial plan.
- **Weight**: The weight of this queue compared to other queues. If an agent is logged in to multiple queues, a call to a queue with a higher weight will be offered first. The default is 1 and the maximum is 5 (extreme weight).

- **Gear up agents after a long waiting time**: When this is set more agents will be gradually engaged depending on priority and availability. At login on a queue priority 1, 2 or 3 can be set for an agent. At first agents with priority 1 will be offered calls. When option 60/180 is set, this will be the case for the first 60 seconds. In the subsequent 180 seconds agents with priority 2 will be engaged, if agents with priority 1 are unavailable. After 240 seconds all agents including priority 3 will be offered calls, until the maximum waiting time has elapsed.
- **Music on hold**: Choose from files added in the Music on hold menu which music is played for a waiting caller.
- **Periodic Announcements**: Choose which prompt is repeated during the waiting time in a queue.
- **Time lapse between announcement**: Sets the interval in seconds between periodic announcements. This setting will yield the Elapsed time in queue setting when not equal.
- **Interval between announcements of callers waiting and hold time**: Sets an announcement stating the number of waiting callers in the queue. Any value will set the time in seconds between the callers waiting announcement and a hold time announcement when set.
- **Report estimated hold time**: Set whether and when estimated hold time is reported to the waiting caller. The following options are available:
    - **Each interval**: coincides with the Interval between announcements of callers waiting and hold time setting
    - **Only the first time**: coincides only the first time with the Interval between announcements of callers waiting and hold time setting
    - **Do not report**: Turns off the estimated hold time announcement
- **Round hold time (seconds)**: The amount in seconds the estimated waiting time is rounded off. For example, if the waiting time should be rounded off to minutes, enter 60.
- **Shortcode**: Code for the queue which can be used to log in and out of the queue on a phone by dialling *48*, followed by the code entered here. This code has to be a value greater than 0 and can contain a maximum of 5 numbers. When finished setting up the queue click ‘Save’.

By clicking on the name of the queue in the overview the queue page loads. Here the queue’s settings are displayed and users can be logged in and out of a queue as agents. The right list displays available users in the company not logged in to the queue, the left list displays agents in the queue.

To add a user to the queue click the add button (plus icon) in the right column, to remove an agent from the queue click the remove button (minus icon) in the left column.

Priority and whether call forwards are followed can be set for agents. When agents are logged in to a queue by default priority is set to 1 and follow call forwards is disabled.

Click 'Save' to save any changes.

Conference Box

You can set up a conference call using a Conference box. Provide each participant of the conference call with the number at which the conference box can be reached and if necessary the PIN code. The first person to call opens the conference call, and the other participants join in.

You can add a new Conference box by clicking 'Add new conference box'. Enter the name of the box and if necessary the PIN code. When finished click 'Save'.

To edit a conference box, in the Conference box overview click the Edit button (pencil icon) to the right of the name of the box you wish to edit. On the Edit Conference box page the Name and PIN code can be edited. To discard changes click Cancel, to save changes click Save.

Permanently deleting a conference box can be done by clicking the remove button (bin icon) in the conference box overview. You will be requested to confirm the deletion.

Voicemail

To add a new voicemail box, click 'Add new voicemail'. On the Add Voicemail page a description and PIN code need to be filled out. The description can be a descriptive title, for example the name of the person or department the voicemail box will be assigned to. Entering an email address is optional, this can be set to receive the voicemail audio file in your email box.

The voicemail box settings can be edited by clicking the Edit button (pencil icon) to the right of the voicemail box' name you wish to edit, on the overview page. The description, PIN code and email address can be changed. To discard changes click Cancel, to save changes click Save.

To permanently delete a voicemail box, in the Voicemail box overview click the remove button (bin icon) behind the box to be removed. You will be requested to confirm the deletion.

Call Forwarding

When you add a call forward, this call forward will be available in the dial plan’s Call forwarding submenu. For further details see the Dial plan section.

Add a new call forward by clicking ‘Add new call forwarding destination’.

- **Call forward towards number**: Enter the phone number to which the call forward has to be directed. This can be an internal or external extension or for example a mobile phone number.
- **Description**: Enter a descriptive name for the call forward.
- **Ring time (seconds)**: lets you choose how long the call will be offered to the destination of the forward, before reverting back to the dial plan. Setting ring time at 0 will not revert to the dial plan.
- **Extension**: When filled out, a new extension will be created. Its function is to forward to the destination number, therefore it could be used as a quick dial. For example, if the destination for the forward is someone’s mobile number, only the extension has to be dialled in order to reach the person on mobile. The extension can also be used to add a more extensive dial plan.
- **Call forward CLI transparent**: When enabled the original caller ID will be sent to the destination, instead of the caller ID of the forwarding party.
- **Confirm received call**: When enabled the destination will be prompted to confirm answering the forwarded call by pressing a key on the phone. When denied, the call will return to the dial plan. If no other option is set, it will be terminated.

When finished setting these options, click Save.

To edit a call forward, click the Edit button (pencil icon) in the overview. To discard changes click Cancel, to save changes click Save.

If you wish to permanently delete a call forward, click the remove button (bin icon) in the overview. You will be requested to confirm the deletion.

Dial plan switch

When dial plan switches have been added to a dial plan in your company, this overview gives you a list of all the switches, their short code and current setting. For further details on how to add a dial plan switch, see the Branches section.

To change the setting of a dial plan switch via the web interface, click the Edit button (pencil icon) to the right of the switch’s name. On the Edit Dial plan switch page is an overview of all the available settings, with the current setting selected. Select the desired setting and click Save. In the Dial plan switch overview, the current setting is visible. Deleting a dial plan switch can be done by going to the extension’s dial plan in which the switch is located. Click the X icon in the dial plan switch block to remove it from the dial plan and click Save.

Users and Groups

In this section you will find groups, departments and users that have been created in the company. You will be able to create, modify and delete these items as well as set up user rights. Users in departments and groups can be allowed to pick up incoming phone calls on each other’s phones by dialling *8.

In the main menu, navigate to the Manage tab. Click Users in the submenu to go directly to the Add users and groups page to create groups, departments or users. Or to get an overview and more options for each individual item, select the Users submenu and then click on the item you want to work on.

Groups

The function of Groups is to group together a selection of users. Users can belong to multiple groups. For example, cross-department project teams.

Groups can be used to limit the reach of a *8 call pickup by first setting up groups of users that should be able to pick up each others calls, and then enabling Call-Pickup within group for a company.

To add a new group, click Add group. Fill out a descriptive name for the group and click Save.

Go to the Group information page by clicking on the group in the Groups overview. Here users can be added to the selected group by clicking the add button (plus icon) next to their username in the Non-members of the group list. Removing members is done by clicking the remove button (minus icon) next to the username in the Members of the group list. Use the Filter field to do a quick search for a user and when finished click Save to keep the changes made.

If you wish to change the name of the group, click Edit group on the Group information page. This can also be done by clicking the Edit button (pencil icon) to the right of the group name in the Groups overview.

Removing a group can only be done from the Groups overview, by clicking on the remove button (bin icon) behind the group name. You will be requested to confirm deleting the group.

Departments

In the departments overview you can see all departments within the company. The function of departments is similar to that of groups, only this is meant to group together all the users who are for instance in the physical Support department within your organisation.

To add a new department, click Add department in the Departments overview. On the Add department page fill out a descriptive name for the department and when finished click Save.

Go to the Department information page by clicking on the department in the Departments overview. Here users can be added to the selected department by clicking the add button (plus icon) next to their username in the Non-members of the department list. Removing members is done by clicking the remove button (minus icon) next to the username in the Members of department list. Use the Filter field to do a quick search for a user and when finished click Save to keep the changes made.

If you wish to change the name of the department, click Edit department on the Department information page. This can also be done by clicking the Edit button (pencil icon) to the right of the department name in the Departments overview.

Removing a department can only be done from the Departments overview, by clicking on the remove button (bin icon) behind the department name. You will be requested to confirm deleting the department.

User

The Users overview will give you an alphabetical list of all the users in the selected organisation.

Go to Add user to add a new user to the organisation. Be aware that adding users could affect monthly charges. On the Add user page the following can be filled out:

- **Full name**: Fill out the full name of the user
- **Select language**: Select the desired language of the user. This will overrule the company default language setting for text on the web interface and prompts on the phone
- **Username**: Will be generated while typing the Full name, but can also be customized. Can not contain capitals. This is the name that will be used to log in to MachCloud-CloudPBX and is visible on a phone’s display on which the user has logged in
- **Password**: Type a custom password with which the user can log in to MachVoice-CloudPBX web interface. Has to be left empty when password is auto generated
- **Email**: Fill out the email address of the user. This is the address the auto generated password will be sent to, this field is mandatory when Send login credentials is checked
- **Send login credentials**: Check this option when you want the password to be auto generated. An email address should be filled out.
- **Extension**: If the user needs to have its own internal extension assigned, this is where it can be created. It can not be an existing extension, the new extension will be created upon adding the user
- **Description**: When assigning an extension to the user, the description is a short descriptive name given to the extension, which will be visible in the Extension overview. When no extension is assigned, this field can be left empty
- **PIN code for login**: Optional 1-4 number long code used for logging a user in on a phone securely
- **Outbound number**: When set to Internal calls only (default), the user is not able to

call to an external number, only to extensions within the company. When set to an external number, the user is able to make calls outside of the company. The number selected will be set as the caller ID. This option is only available if an external number has been added to the company.

When finished filling out the desired options for the user, click Save.

To see a user's basic information and to set more options, click a user's name in the overview to go to the User information page. This page contains the user's name, email address, username, language and its identities.

The user can be edited by clicking Edit user on the User information page. On the Edit user page the Full name, email address, PIN code for login on a phone, language, and additional features can be changed. The features incur extra monthly charges, and can be changed after clicking the 'Edit features' button. If the desired changes have been made click Save, or Cancel to discard.

The user's identities can be edited by clicking the Edit button (pencil icon) to the right of the identity's name on the Users overview page. To get more information on the options available for an identity, see the Identities section.

Change password will allow the user's password to be changed without the need to know the current password. This can, for example, be used by administrators to generate a new password when the current one has been lost. If the user has set an email address, a new auto generated password can be sent to this address by checking the Generate new and email option. If you prefer to set a custom password, fill out and repeat the new password in the designated fields.

A user can have certain rights within an organisation. These determine what a user can view and edit and on which level. Go to Set up user-rights to view and change these rights for the selected user. More information about setting up user rights can be found in the User rights section.

One user can have multiple identities which can be added by clicking on Add identity. This will open the Create new identity page, which will be further explained in the Identities section.

To log the selected user on and off on a phone using the web interface, go to Log in and log off phone. On the Log on to phone page, an overview of all the phones in the company is visible. The selected user can be logged in on a phone by clicking the phone name. The user’s name will appear behind the phone name when the user is logged in. Logging out is done by clicking the phone name again. The user’s name disappears when logged out.

Settings can be used to view and change the user’s personal and phone information, set identity call forwarding and view voicemail and queues information. For more information, see the Settings section.

If you wish to permanently delete a user click the remove button (bin icon) behind the user’s name in the Users overview. You will be requested to confirm deletion.

Additional features

Users can be edited to enable additional features. These features incur monthly charges. Contact your reseller for more information.

The following features are currently available:

- **Call control API**: Enable the REST API calls that allow external applications to perform call control. Refer to the REST schema to see the exact calls that become available when enabling this feature.

User rights

User rights can be set by going to the user’s User information page and clicking Set up user-rights. Rights can only be set by users with write rights within the company or reseller.

The following levels of user rights are available:

- **Company rights**: User can manage its own company. For example create and manage dial plans, users, groups and departments.
- **Reseller rights**: In addition to the above, the user can also create and manage companies.
- **Super reseller rights**: In addition to the above, the user can also create and manage resellers.

If for example you want to grant a user company rights, select the Set up Company rights check box and click Next. On the next page, Company rights for user, select the company on which you want to grant the user rights. On the Set up company rights for user page, click the drop down list behind Apply rights and to select either Unauthorized for mortal user rights, View for read rights and Change for full read and write rights for the user in the selected company. Click Save to set the selected rights, or Cancel to discard.

Identities

The first identity of a user is its primary identity and is created when the user is created. When a user with multiple identities logs in on a phone, all of its identities are visible on the display and, according to the type of phone used, each identity has its own line. Be aware that the maximum number of identities created in MachVoice-CloudPBX might not coincide with the maximum number of identity slots available on the phone the user is logged on to.

Additional identities for a user can be created by clicking Add identity on the selected user's User information page, which will open the Create identity page. The following options can be set when creating a new identity:

- **Name identity**: Fill out the name of the identity
- **Description**: Fill out a descriptive name for the identity. This will be visible in the overview.
- **Extension**: If the identity needs to have its own internal extension assigned, this is where it can be created. It can not be an existing extension, the new extension will be created upon adding the identity
- **Outbound number**: When set to Internal calls only (default), the user is not able to call to an external number, only to extensions within the company. When set to an external number, the user is able to make calls outside of the company. The number selected will be set as the caller ID. This option is only available if an external number has been added to the company.
- **Voicemailbox**: Set the voicemailbox to which incoming messages are delivered
- **Hide caller ID**: When checked the caller ID of the identity will not be visible to the receiving party
- **Confirm received call**: When enabled the destination will be prompted to confirm answering the forwarded call by pressing a key on the phone. When denied, the call will return to the dial plan. If no other option is set, it will be terminated.
- **Record calls**: When enabled all incoming and outgoing calls of this identity will be recorded. Enabling this option will unveil three more fields. An Email recordings to field

where an email address can be entered where the recordings will be sent. A disclaimer field which needs to be read and agreed upon by checking the I Agree check box.

When finished setting up the new identity, click Save.

The newly created identity is now visible in the overview on the User information page. To edit an identity, click the Edit button (pencil icon) to the right of the identity’s name. On the Edit current identity page all above options can be edited.

If you wish to permanently delete an identity, click the remove button (bin icon) behind the identity name in the identities overview on the User information page. You will be requested to confirm deletion.

Settings

The user’s settings page provides an overview of the user’s personal-, phone-, voicemail and queue information. To get to this page, select the user in the Users overview and click Settings.

The user’s email address, password, phone and identity forwards can be modified. In the Call forwarding section identity forwards can be set. The following options are available:

- **Always**: Incoming calls are always immediately forwarded to the given number.
- **Busy**: Incoming calls will only be forwarded when the user is already in a call.
- **No answer**: Incoming calls will be forwarded when the calls are not answered. A call will be considered not answered after the set ring time has passed.
- **Unavailable**: Incoming calls will be forwarded when the phone the user is registered to is unavailable. This is the case when either a user is not logged in on the phone, or the user has enabled the Do Not Disturb setting on the phone.

Incoming calls will be forwarded to the given number in the field below the forward option. This can be an internal extension, an external number for example a mobile phone number, or voicemail (1233). Additional options for identity call forwards are:

- **Ring time**: The set time (seconds) determines how long the call will be offered until a call is considered not answered.
- **Call forward CLI transparent**: When this option is enabled, the original caller ID will

be sent to the destination, instead of the caller ID of the forwarding party.

Phones

From the Manage menu you can choose the Phones menu option to get an overview of phones in the company.

Adding a certified phone

MachVoice-CloudPBX is equipped with auto configuration for certified phones. Auto configuration takes care of configuring certified phones so that no manual set up is required.

Selected models of these brands have been certified to work with MachVoice-CloudPBX:

- Snom
- Yealink

See **Adding an unsupported phone** for phones that are not certified.

To add a certified phone for auto configuration, go to Manage > Phones and click the Add phone button. You're able to set several basic properties:

- **Phone name**: give the phone a recognisable name
- **Phone model**: select the specific model/type of the certified phone you wish to add
- **MAC address**: enter the MAC address, usually found on a sticker on the bottom of the phone
- **Expansion pads** (only when applicable): enter the amount of connected expansion pads
- **VLAN ID** (only when applicable): enter the ID of the VLAN the phone should use to connect. Consult your network administrator for details. Valid VLAN ID values are between 1 and 4094. If unsure, leave this empty. Usually a VLAN ID is not needed.
- **Encryption** (only when applicable): Enable or disable encrypted SIPS and SRTP
    - **Optional** means a certified phone will always be auto configured to use unencrypted SIP over UDP and unencrypted RTP.
    - **Mandatory** means a certified phone will always be auto configured with SIPS and SRTP to force both the signaling and the audio to be encrypted.

Click Save to add the phone to the company. You will see the added phone in the overview of configured phones. You can edit the phone by clicking on the Edit button (pencil icon) to the right of the phone details in the overview.

Reset the phone settings to defaults as documented by the phone vendor to activate auto configuration. Auto configuration by MachVoice-CloudPBX takes place on the first boot after the reset to defaults. **Note**: the time window to reset and reboot the phone expires every week on Wednesday at 03:00 CET/CEST in the night. To open a new time window, go to the phone status page and click the Activate button for Provisioning by manufacturer.

Adding an unsupported phone

Phones that have not been certified to work with MachVoice-CloudPBX can be added as one of these types:

- Generic SIP Phone, for physical phones with a MAC address
- Generic SIP DECT phone for wireless phones, and
- Generic SIP Softphone for software clients and mobile clients

Go to Manage > Phones and click the Add phone button. You're able to set several basic properties:

- **Phone name**: give the phone a recognisable name
- **Phone model**: select the specific model/type of the unsupported phone you wish to add
- **MAC address** (only when applicable): enter the MAC address, usually found on a sticker on the bottom of the phone
- **Encryption** (only when applicable): Select optional or mandatory SIPS and SRTP
  - **Optional** means a phone may register using unencrypted SIP over UDP and then use unencrypted RTP. It *may* also connect using SIPS (SIP over TLS) and is then *required to use SRTP* to force both the signaling and the audio to be encrypted.
  - **Mandatory** means a phone is *required* to use both SIPS and SRTP to force both the signaling and the audio to be encrypted.

Click Save to add the phone to the company. You will see the added phone in the overview of configured phones. You can edit the phone by clicking on the Edit button (pencil icon) to the right of the phone details in the overview.

The phone can now be configured manually to register with MachVoice-CloudPBX.

Phone status

To view the properties and details of an individual phone, click on the phone name in the Phones overview. You will see the phone’s details, a Reboot button to remotely restart the phone, and a View provisioning button. The details in this overview are usually not required for normal operation.

Phone settings

To change the settings of a particular phone, click on the phone’s name in the overview to see all of the phone details. Above the table with details, there are several options: Settings and Edit function keys.

General phone settings

On the phone’s status page, click Settings to see several configuration options for that specific phone.

You are able to edit the sensitivity of the earpiece, headset microphone, and phone speaker. Maximum sensitivity is 100%, and 0% means no sound at all.

It’s also possible to enable call waiting and call waiting indication. If you enable call waiting, you will be able to answer a second incoming call while already on the phone in another call. The second call will be indicated to you as configured. You can choose if you wish to answer the second call or not. If call waiting is not enabled, a second call will not be routed to your phone so you will not be disturbed.

Custom settings

Custom settings enable an administrator to configure custom phone settings by entering provisioning data which is merged into MachVoice-CloudPBX default provisioning. Custom settings can be configured for an individual phone, or for a phone type, which applies to all phones of the specified type within the company.

Be aware: custom settings will override MachVoice-CloudPBX settings and incorrect input could potentially break the phone's functionality. This is advanced functionality and should only be set by an experienced administrator.

Examples for custom settings are changing a label or display text, remapping a key, or setting a speed dial to be a designated log in button.

Adding and removing custom settings

Click Add custom setting to reveal two fields: one for the setting name and another one for the value of that setting. Enter a setting name and value in the fields, click Save when done to push the altered configuration to the selected phone. Setting names and possible values can be found in the provisioning manual of the corresponding phone type or vendor.

Click Add custom setting again to add more fields for custom settings. A custom setting can be removed by pressing the *x* in front of the Setting name field.

Checking provisioning

To view a phone's provisioning configuration, click View provisioning on the phone's Status page. If any customised settings have been applied, these will be visible at the bottom of the document.

Unsetting values

In some cases it may be necessary to unset a value that is set by (default or custom) provisioning. The method to do this differs per phone vendor. These are the methods for the vendors of supported phones:

- Snom
  - Set Setting name to the name of the setting you want to unset.
  - Set the value to " " (a space, without the quotes).
- Yealink
  - Set Setting name to the name of the setting you want to unset.
  - Set the value to `%NULL%`.

Edit function keys

Click Edit function keys to configure the function keys on supported phones.

The amount of function keys depends on the type of the selected phone. For a Snom phone with two rows of function keys, the keys are numbered from the top left (1) to bottom right.

You can configure a function for every key. There are different types of functions to choose from:

- **Standard**: the key will have the function assigned by the manufacturer.
- **Button**: you can choose one of the following functions: On hold, Call transfer, Do not disturb, Redial.
- **Line**: open a new line to start a call.
- **No function**: the key will have no function at all.
- **Speeddial**: call a number entered in the input field in this form.
- **Status**: the key will serve multiple functions: The light for this key will serve as a status light for the internal number configured in the input field. If the light is off the internal number is not busy or ringing. If the light is on and doesn't blink, the internal number is busy. If the light blinks, the internal number is ringing. If the button is pressed while the light is blinking, it functions as call pickup and the call that is ringing on the internal number is transferred to the phone and answered immediately. Additionally, pressing the key if the light is not on will call the internal number entered in the input field in this form.

Configuring function keys can be done for one phone individually, or for all phones of a particular type at the same time. To configure all phones of a particular type, choose Edit function keys directly from the Phones overview page. Choose the phone type you wish to configure. Set up configuration as you would do for an individual phone from there.

Editing phones

To edit a phone, click the Edit button (pencil icon) in the overview, or click the Edit button on the Phone status page.

You will see the following:

- **Phone name**: adjust the name here if needed
- **Phone model**: make corrections here if the wrong model was entered earlier
- **MAC address**: make corrections here if the wrong MAC was entered earlier
- **Expansion pads** (only when applicable): adjust the amount of connected expansion pads
- **Codec profile** (only when applicable): a codec profile is already defined for the company. If you require a different codec profile for this specific phone, you can configure this here. For example, if a user is working from home on a low bandwidth internet connection. Our advice is to leave this set to default.
- **Firmware version** (only when applicable): configure which version of the firmware you would like this phone to have. MachVoice-CloudPBX will attempt to upgrade this phone to the selected firmware.
- **VLAN ID** (only when applicable): enter the ID of the VLAN the phone should use to connect. Consult your network administrator for details. Valid VLAN ID values are between 1 and 4094. If unsure, leave this empty. Usually a VLAN ID is not needed. To deconfigure a VLAN setting, enter the number 0. The next time the phone collects its configuration, it won't be in a VLAN anymore.
- **Encryption** (only when applicable):
  - **On certified phones**:
    - **Optional** means a certified phone will always be auto configured to use unencrypted SIP over UDP and unencrypted RTP.
    - **Mandatory** means a certified phone will always be auto configured with SIPS and SRTP to force both the signaling and the audio to be encrypted.
  - **On unsupported phones**:
    - **Optional** means a phone may register using unencrypted SIP over UDP and then use unencrypted RTP. It *may* also connect using SIPS (SIP over TLS) and is then *required to use SRTP* to force both the signaling and the audio to be encrypted.
    - **Mandatory** means a phone is *required* to use both SIPS and SRTP to force both the signaling and the audio to be encrypted.

Dial plan

As an administrator, you can edit everything related to dial plans. The procedure is to set up all the individual elements listed under the Dial plan menu first. When all users, prompts, queues and other elements have been set up, they can be added to the dial plan's tree-like structure. This determines when, and in which order, a particular action (play a prompt, connect to a user, etc) is taken. Dial plans can be set up for both external numbers as well as internal extensions. Go to either overview page and select the number or extension you wish to set up or edit a dial plan for.

Editor

In the dial plan editor, you can create and alter dial plans by dragging and dropping dial plan elements. The available elements are on the right hand side of the editor. There is a search field to filter elements. At the moment, these are the types of elements that are available:

- Branches
  - Time based routing
  - IVR menu
  - Dial plan switch
  - Number recognition
- Call forwarding
- Conferences
- Miscellaneous
  - End call
  - Busy
  - Prefix
  - DTMF input
- Persons
- Prompts
- Queues
- Voicemails

In the top left corner is a grey block: Call. This is the point where the call enters the dial plan. You can now click and drag a dial plan element from the right panel to drop it on the first free slot: First action.

An already placed element can be removed by hovering over the element in the dial plan and clicking the X in the top right corner of the element.

Please note that you should always manually save any changes you've made to the dial plan. Changes to the dial plan are **not** saved automatically. To save your changes click the Save button in the top right corner of the dial plan editor.

Dial plan elements

The list of elements with which a dial plan can be made consists of the created resources, such as queues, prompts, persons, and special elements such as time based routers and dial plan switches. In the next chapters we'll describe how these elements can be used.

Branches

This category of dial plan elements contains Dial plan switch, IVR menu, Number recognition and Time based routing.

Dial plan switch

If a call should be routed differently depending on a condition set by a user, you can use a Dial plan switch. This for example allows a user to redirect callers on the technical support number to a prompt indicating a service disruption, so all of the support engineers can work on resolving the issue.

To add a Dial plan switch, drag the element to a free slot. A pop-up for the settings will appear. Then enter a name, a Dial plan switch shortcode (used to identify the switch when changing or reading the branch), and the amount of switch branches you require. When ready, save the settings. The branches should now appear in the dial plan.

Optionally, you can give each branch a name by clicking on the branch element and filling in the form field.

Now simply drag dial plan elements to the branches to configure what happens if a call is routed through that branch.

If you have created a Dial plan switch, there are two ways to read and change the current setting. First by going to the Dial plan switches page in MachVoice-CloudPBX, see the **Dial plan switch** section. Second, by using a service code on your phone, as described in the **Set dial plan Switch** section. Additionally, in the dial plan of the extension containing the switch the current setting of the switch is indicated by a check mark in the block of the selected setting.

IVR menu

If a call should be routed differently based on a choice made by the caller, you can use an Interactive Voice Response (IVR) Menu. This for example allows a caller to press '1' for support, and '2' for sales.

To add an IVR menu, drag the element to a free slot. A pop-up for the settings will appear. Then enter a name, add a voice prompt in which the available options are explained, select how many times callers should hear the menu repeated and how long a caller has to respond with a choice. Check the dial pad keys the menu should respond to and save the settings. The dial plan should now display a branch for every selected key.

Now simply drag dial plan elements to the branches to configure what happens if a caller presses that key.

Number recognition

If a call should be routed differently depending on the number it's calling from, you can use Number recognition. This for example allows for different dial plan branches for different countries of origin, or routing a customer directly to a specific support agent. Anonymous calls can be routed separately.

To add Number recognition, drag the element to a free slot. A pop-up for the branches will appear. Click the plus icon to add branches. Determine how many different branches the routing should have, and give them a name such as 'Region A', 'Region B', 'Region C', and 'Customer X'. When ready, save the settings. The branches should now appear in the dial plan.

Click on the branch element to set which incoming numbers should be recognised. The Number list can take prefixes or complete numbers.

- Input one prefix or number per line in the Number list.
- Always use international format, but *without* the plus sign (+), minus sign (-) or spaces.
- To match a specific number, enter the complete number including international prefix ("31201234567").
- To match a region, enter the international prefix and the area code (example: "3120"

to match all calls from Amsterdam).

- To match all mobile calls, enter the international prefix and the mobile number prefix ("316").
- To match all calls from a country, enter the international prefix number ("31").

These things are important to consider:

- Anonymous calls by default do not match any branch. If you wish to route anonymous calls, always have one branch with the option Caller ID blocked enabled. All anonymous calls will be routed through that branch.
- If more than one branch matches the incoming number, the first match will determine the branch the call is routed through. For example: if the first branch matches on "31612" and the second matches on "316", then incoming calls from number 31612345678 will be routed through the "31612" branch.
- If the incoming number doesn't match any manually configured branch, the call will be routed through the Default branch. This branch is always added automatically.

Do this for every branch, and make sure that every number (including anonymous) you wish to route has a match in one of the branches.

Time based routing

If a call should be routed differently depending on the time of day, day of the week, or (part of) the month, you can use Time based routing. This for example allows you to play different prompts during the day, such as 'Good morning' and 'Good afternoon'.

To add Time based routing, drag the element to a free slot. A pop-up for the branches will appear. Click the plus icon to add branches. Determine how many different branches the routing should have, and give them a name such as 'Morning', 'Afternoon', 'Evening', and 'Night'. When ready, save the settings. The branches should now appear in the dial plan.

Click on the branch element to set at which times that branch should be followed. Do this for every branch, and make sure that there are no gaps between the time set for each branch. So 'Morning' is set from 08:00 to 12:00, then 'Afternoon' is set from 12:00 to 18:00, etc.

Call Forwarding

If at some point in the dial plan you would like to forward the call to a different number (internal or external), you can use a forward. If a forward is used in a dial plan for an external number, and you are not forwarding to an internal extension, the external number of the dial plan will be used as the outgoing number for number recognition.

Conferences

If you would like to have a conference box in your dial plan, drag it to an open slot in the dial plan.

A conference box element will answer incoming calls automatically and ask for a PIN code if required. A conference box is a dial plan end point, meaning elements placed after a conference box will not be executed.

Miscellaneous

This category of dial plan elements contains End call, Busy, Prefix and DTMF input.

End call: if this element is encountered in the dial plan before a call is answered, the call will end with a “Temporarily not available” status. If the call was answered earlier in the dial plan, and the call continued after that, it will end with a “Normal call clearing” status.

Busy: a call encountering this element will end with a “Busy” status.

Prefix: if a call encounters this element, a configurable text will show in the display of the phone receiving the call together with the calling number. This can help to identify through which number a caller is calling. To set a prefix, drag the element in the dial plan and click on it to configure the text.

DTMF input: this element reads DTMF (digit) input from the caller. Use a fixed-length input if the amount of digits is fixed, ie. a 4-digit PIN code. If variable-length is selected, the caller ends the input using the pound sign (#). Pressing the star (*) resets the input.

You are advised to use the selected voice prompt to instruct the caller on the usage of this element; for example, mention that input can be ended with the pound sign for variable-length inputs.

Persons

You can set up a dial plan to call a particular person by dragging one of the person elements to a free slot in the dial plan. The dial plan will call the first identity configured for this person. In addition, identity forwards set for that identity will be followed. If the call is not answered directly or after following forwards, the dial plan will continue to the next configured action.

Prompts

If you would like to play a message to the caller, you can add a prompt to a free slot in the dial plan. An incoming call will be answered automatically first, before playing the audio. When the prompt has finished playing the dial plan will continue to the next configured action.

Queues

If the handling of incoming calls should be distributed over a group of users (agents) while the caller waits in line, you can use a queue. This for example allows a sales team to all receive calls to the sales number and have users wait if all sales representatives are busy handling calls. If configured, users will be informed about their position in the waiting line and the expected waiting time.

A call will only be routed to elements after a queue if:

- callers were unable to enter the queue due to its settings
- the caller escapes from the queue (if configured)
- the maximum waiting time is reached

If a call is answered by an agent, the queue will be the end point of the call.

Voicemails

If you would like to offer the caller the option to leave a message, you can use a voicemail box.

A voicemail box element will answer incoming calls automatically. A voicemail box is ***not*** a dial plan end point. If a caller presses # (hash key) to finish leaving a voicemail message, the call will continue through the dial plan.

Examples

Front desk

If you would like to have all incoming calls handled by the front desk, create a front desk queue and add it to the first slot of the dial plan of the main external number. Click Save to save the dial plan. Now all incoming calls on the main external number will be offered to the front desk, where the call can be transferred to the relevant employee.

Call recordings

Introduction

Call recording can be enabled for an identity (user), and for an external number. Please note:

- A call recording is saved to file and sent to the configured email address after the call ends. The recording file could become large, particularly on long calls.
- Call recording files are ***not*** saved on the telephony platform. If the email with the attached call recording file cannot be delivered successfully (for example, because the receiving mailbox is full) the recording file cannot be recovered.
- The users in your company are responsible for announcing that calls are recorded, and for maintaining a reasonable retention period for call recordings.

Automatic processing

To allow call recordings to be automatically processed, the following data is stored in the header of the email message containing a call recording:

- `X-MachCloud-CompanyId`: the unique identification of the company in which the call recording took place.

- `X-MachCloud-Company`: the shortname of the company in which the call recording took place.
- `X-MachCloud-IdentityId*`: the unique identification of the identity (user) for which the call recording was done. Empty for external number call recordings.
- `X-MachCloud-Identity*`: the name of the identity (user) for which the call recording was done. Empty for external number call recordings.
- `X-MachCloud-ExternalNumberId*`: the unique identification of the external number for which the call recording was done. Empty for identity call recordings.
- `X-MachCloud-ExternalNumber*`: the external number for which the call recording was done. Empty for identity call recordings.
- `X-MachCloud-Direction`: the direction of a call. Can be either `inbound` or `outbound`.
- `X-MachCloud-MD5`: The MD5 checksum for the attached call recording file.

The headers marked with a * are optional and could be empty depending on the type of recording. For example: if an identity call recording is done, the X-MachCloud-ExternalNumberId and X-MachCloud-ExternalNumber headers will be empty.

Note: next to the data in the headers, information about the call recording is also present in the body of the email, such as the numbers of the caller and callee. The information is simplified: if a call is routed through a queue or forward before call recording is triggered, the values may be different than expected.