Product Configuration

User Management Fields

Although Advanced Queuing can distribute the calls to any SIP URI that can be dialled through MS-Teams, only UCX Suite users can be Agents. Agents must have a UCX Suite user properly configured in the users list. To be able to tell which line is associated to an agent, Advanced Queuing uses the primary extension..

User permissions

The following access levels are defined for the Advanced Queuing application:

- Administrators: these users have complete management rights on the application. The can:
 - ◆ Create, edit and delete any queue
 - ◆ Start/Stop the service and edit application settings
 - ◆ Change the queues global settings
 - Monitor and change the login status of any agent
 - ◆ See the historical reports of any queue and any agent
 - ♦ Assign permissions to specific queues/users
- Global Supervisors: a supervisor has limited control on all gueues. Supervisors can:
 - Edit existing queues settings, behaviours and agent list
 - ♦ View global settings
 - ♦ Monitor and change the login status of agents
 - See the historical reports of any queue and any agent
- Advanced Global Supervisor: Same as Global Supervisor.
- Queue Managers: administer only the queues they are assigned to by an administrator
- Queue and agents observeâ r:
 - can monitor queue statistics
 - can see calls waiting for the queue
 - ◆ Monitor and change the login status of agents
 - cannot change the queue settings but can read them
- Queue statistics observeâ r:
 - can monitor queue statistics
 - can see calls waiting for the queue
 - cannot see information on the agents of the queue, not even the name and surname and therefore not even the distribution list (agents privacy protection)
 - cannot change the queue settings but can read them
- Queue Supervisors: edit all the basic queue settings for every-day management
 - ♦ Edit queue timetable
 - ◆ Edit the agent list
 - ♦ Login/Logout queue agents
 - ♦ Manually switch the queue between statuses open/closed
 - ◆ See the historical reports of the gueue
 - ♦ See real-time status statistics for queue and agents
- Advanced Queue Supervisor: Same as Queue Supervisor.
- Advanced Agents: can temporarily change the gueue behaviour, and see advanced stats
- Basic Agents: usually reserved for the queue agents. These users:
 - ◆ Cannot create or edit queues, neither change any queue settings
 - ◆ Can see and modify their login/logout status
- No Access: users with this level do not see Advanced Queuing in the UCX Suite web menu

Basic Agent is automatically assigned to an UCX Suite user when it is configured as an agent for one or more queues.

Detailed Access List Table

The first column describes the operation, the second if the right to do that operation can be assigned per queue or if it applies to all queues.

The Administrators and Global supervisors operations implicitly apply to all queues. Users with other roles may perform the operations only on the queues they are assigned to. To allow them to perform such operations on other queues, you must explicitly assign them through the web interface.

Rights / Roles	Scope	Administrator (complete management)	Advanced Global Supervisor	Global Supervisor	Queue Manager	Advanced Queue Supervisor	Queue Supervisor	Queue and Agents Observer	Queue Statistics Observer	Advanced Agent
Create Queue	Generic only	x				1			1	
Delete Queue	Generic / per queue	x	x	x						
Assign managers to queue	Generic / per queue	X				_				
Assign supervisors to queue	Generic / per queue	x			X					
Assign observers to queue	Generic / per queue	x			X					
Assign agents to queue	Generic / per queue	x	x	x	x					
Change scheduled behaviours	Generic / per queue	x	x	x	x					
Change audio messages	Generic / per queue	x	x	x	x					
Change other queue parameters	Generic / per queue	X	X	x	x					
View agents status	Generic / per queue	X	X	x	x	x	x	x		
Activate manual queue behaviour	Generic	x	X	X	x	x	x			X
Pickup and answer calls										X**
Read personal real time stats	Generic / per queue		X	X	X	X	X	x		x
Read all agents real time stats					x	x	x	x		
View calls waiting on any queue	Generic / per queue	x	X	X				x	x	
View calls waiting on my queues	Generic / per queue	n/a	n/a	n/a	x	X	x	x	x	x
		X	Х	Х	Х				,	

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Manage scheduled reports	Generic / per queue						
View online and scheduled reports	Generic / per queue	X	X	x	X	x	x
Login/Logout from my queues		n/a	n/a	n/a			
Change other agents login / logout status	ULIOLIO	X	Х	X	Х	X	X



Default settings

Most of queue settings can be inherited by default settings, that are a set of values that can be used as default values and shared by multiple queues. These include basic parameters, queue behaviours, date/time schedule and voice prompts.

In this way administrators can create multiple queues with similar behaviours and settings without spending a lot of time entering the same values for every queue. However, every setting can be overridden anytime with a queue-specific value (i.e. that will apply to that queue only).

In the image below, a sample of a parameter inheriting its value from default settings and another taking a queue-specific value (override).



Uncheck "use default settings" to be able to enter the override value.

Note: each default setting can be easily reverted to its default value, a **factory setting**, that is a built in value set during the UCX Suite installation.

Administrative menu

Select "Advanced Queuing" in the UCX Suite menu. The following options are available:

- Queues: allows to create, delete and edit the queues.
- **Default settings**: allows to edit the queue settings which will be inherited by all queues
- Agent Status: this is a link to a page that allows managing the login/logout status of the agents on any gueue
- Reports: link to Advanced Queuing Public queues/agents reports
- Scheduled reports: Displays the list of all scheduled Advanced Queuing reports.
- Manage Service: to start or stop Advanced Queuing service

Queues configuration

Note: Advanced Queuing reloads settings every 1 minute. So most Advanced Queuing setting changes apply 1 minute after they have been saved. For example, after changing a voice prompt, you must wait 1 minute before callers hear the new one.

^{**} Added automatically when the user is added to the queue distribution list.

Note: all Advanced Queuing settings are explained by a contextual help available as a tooltip window over the "i" icon, beside each control.

1. MS-Teams Configurations

Please read the dedicated KB article.

2. Creating a queue

Creating a new queue is a very simple task. Select the Queues menu option, the list of existing queues is displayed. Click the "Add new queue" link on top of the list. A popup form window will appear asking to fill the basic queue information:

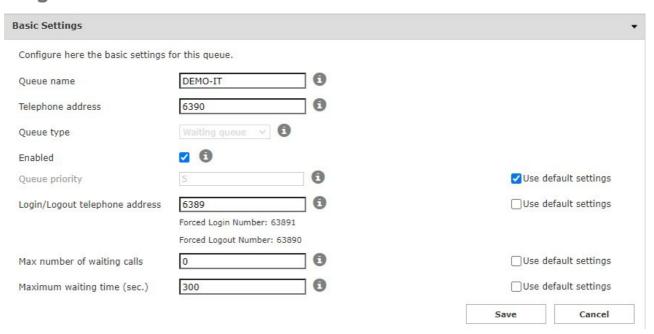
- Queue name: a mnemonic identifier of the queue. This must be unique, that is, two queues cannot have the same name
- Queue phone number: the telephone number to be called to enter the queue (DNIS). This must be unique, that is, two queues cannot have the same phone number. Also called **Pilot Number**
- **Type**: the type of the queue. Waiting Queue is the normal waiting queue (Priority-FIFO). The **Camp-On** is used internally to park calls directed to internals which are currently busy. See below.
- **Enabled**: tells the system if the queue is enabled or not. Disabling unnecessary queues may be useful to change the queue settings without the need to stop the service.

Once confirmed the new queue will appear in the queue list. Double click on it or click the "details" icon to edit the queue settings and behaviours.

3. Basic Settings

The basic settings windows allow to edit the information you inserted during creation, plus other parameters:

- Queue Priority: this is the priority level value of this queue, in the range 1-10. Higher values will instruct Advanced Queuing to serve this queue calls before the ones in lower priority queues. This value is used only when two or more queues share the same agents and the distribution algorithm has selected the same agent as destination for a call.
- Login/Logout telephone address: this is a phone number triggering a very simple voice service that toggles the login status of agents for this queue, switching from login to logout and vice versa. Please notice that this phone number is optional but, if set, it must be unique, different from the queue phone number and reachable by a route in the PBX. When this number is set, two additional service numbers are automatically defined by the system appending respectively '0' and '1' to the login/logout phone numbers. For example, if login/logout number is 811, such numbers will be 8110 and 8111. These additional numbers can be called by agents to change their login status respectively to logout and login, without the "toggle" mechanism, so they can be used to define two speed dials buttons in the agents phone set to login/logout the queue very easily. If you intend to use these additional numbers (that are 1 digit longer than the login/logout toggle number) be sure they are reachable through a route in the PBX.
- Max number of waiting calls: this is the upper limit you can define for the number of waiting calls in the queue. Incoming calls exceeding this limit will trigger the **overflow** scenario and the associated treatment will be applied. Set this value to 0 (zero) to remove any limit.
- Maximum waiting time: this is the maximum time interval the calls will wait in queue for an agent. When this time is over, the maximum waiting time scenario will trigger and the associated treatment will be applied. Set this value to 0 (zero) to remove any limit.

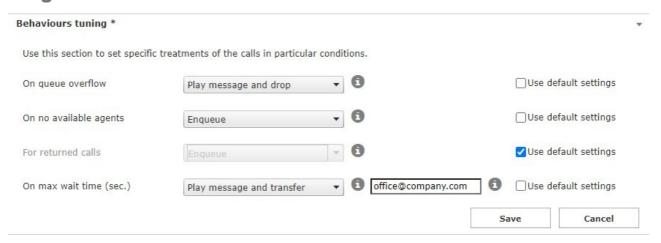


Hint: to make a simpler configuration, set the main queue phone number and the login/logout phone number with a constant offset. For example, define three queues with phone numbers 800, 810, 820 and associated login/logout numbers with 801, 811, 821.

4. Configuring Specific scenarios

In the "Behaviours Tuning" section of the queue configuration page, you can define the treatments that will be applied in less common situations/conditions. The following conditions can occur:

- Queue overflow: this treatment is applied when the incoming call is exceeding the maximum number of waiting calls (if such value is different from zero). You can just play a message and hang-up or play a message and transfer to an internal number or to a SIP URI. PSTN numbers are not allowed.
- No available agents: this treatment will be applied when the incoming call arrives and there are no agents configured or all configured agents are logged out. You can place the call in the waiting queue or just play a message and hang-up or play a message and transfer to an internal number or to a SIP URI. PSTN numbers are not allowed.
- **Returned calls**: this treatment is applied to calls that enter the queue for the second (or more) time, for example because of a no-answer forward by a company extension. You can place the call in the waiting queue or just play a message and hang-up or play a message and transfer to an internal number or to a SIP URI. PSTN numbers are not allowed
- Maximum waiting time: this treatment is applied when the maximum wait time expires (if such timeout is set different from zero). You can just play a message and hang-up or play a message and transfer to an internal number or to a SIP URI. PSTN numbers are not allowed.

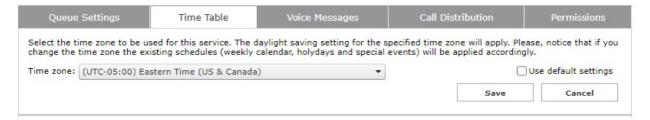


5.Time Table

Once selected a queue, the "Time table" tab allows to configure the ordinary weekly time table, with relevant queue behaviours. In this tab administrator can define when the queue is open (business hours), holidays or special events and the related treatments to apply. The combination of default behaviours, ordinary weekly schedule and special events/holidays makes the queue programming really flexible allowing, for example, to provide specific voice prompts or trigger different behaviours in particular hours or days. This tab include five sections, descriptions follow.

Timezone selection

Select the timezone that rules the queue timetable (opening/closure time bands). Please, notice that the daylight saving time shift will automatically apply to the selected timezone.



Forced Mode

This section allows to force a particular behaviour of the queue, overriding any schedule. This is also known as "Manual Mode", since this forced mode can also be set from Attendant Console, typically to override a schedule programmed by the administrator.

Administrators can program which is the call treatment to apply in the case of **forced open** status and **forced closed** status. They can also use this section to switch the queue to one of the following options:

- Regular queue scheduled
- Forced open
- Forced closed

Default behaviour

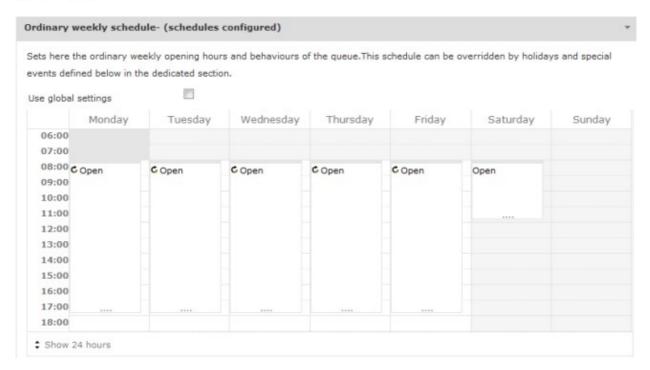
This section allows to decide which is the default behaviour of the queue, that is, out of any scheduled time interval and holidays/special events.

Typically a queue is closed by default, but administrator could choose to keep the queue open by default, for example if the queue is managing a 24x7 service.

Ordinary weekly schedule

This section allows to define the business hours of the queue over the week and the treatments to apply. A calendar with a weekly view displays the actual configuration and edit it very easily.

Right click the mouse over the week calendar view to add a new time interval. Click on the right upper corner of a defined time interval to delete it.



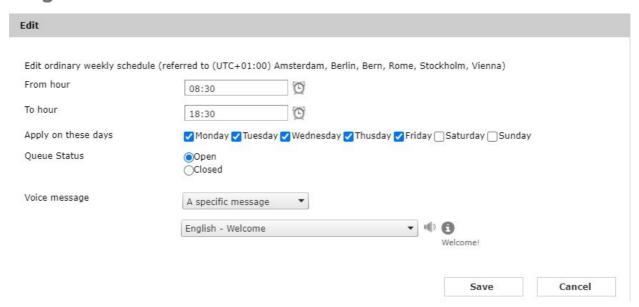
Note: you need to uncheck the "Use global settings" option in order to enable the calendar editing, otherwise the weekly view will display the global settings, that is not editable from this window (you need to configure it in the "Global Settings" left side menu option).

Hint: You can select a time interval in the weekly calendar view, then press the right click button, to select a time range as in the image above.

Once selected the "Add a new schedule" option, a popup window will appear allowing to define the new time interval. You can choose the starting hour, the ending hour, the days of week the time interval will be valid and the preferred behaviour to apply in such time interval.

Notice that you can program the queue to be closed in the time interval. This may be useful, for instance, if the default behaviour of the queue is set to be open.

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Hint: You can define a mix of closure and opening time intervals. The schedule in the following screenshot, for example, uses a closure time interval on Saturday morning only to provide a different closure voice message, respect to the one programmed in the default behaviour.

Holidays and special events

Use this section to define treatments for holidays and special events that override the ordinary weekly schedule. A grid will display the list of configured events, grouped in two classes of events:

- Common holidays/events: these are holiday and events common to all queues, inherited from global settings. They are displayed in the higher part of the list. Administrators can define common events in the global settings configuration page. This allows to define new holidays/events that apply to all queues very quickly.
- Queue-specific events: these events apply only to the specific queue, they are displayed in the lower part of the list. If needed, you can also use this kind of events to override the common holidays/events.

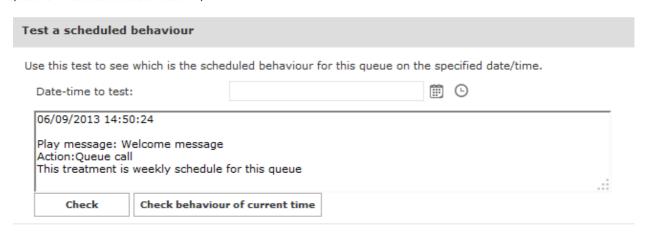


To add a new holiday/event, click the "Add" link. A popup window will appear, asking for the event details (starting date-time, ending date-time, recurrence, **treatment to apply**, voice prompt).

Remember to click the Save button to apply changes.

Testing behaviours

In order to understand which treatment will be applied by Advanced Queuing on a specific date-time, a test section is available (named "Test a scheduled behaviour").



This is a very simple form that displays the scheduled behaviour for a given date-time, pressing the "Check" button. Pressing the "Check current behaviour" will display the behaviour applied at the current date-time.

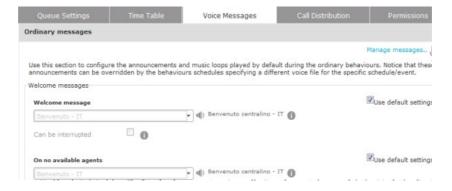
Note: this test only considers the scheduled behaviours, not the scenarios that may trigger in particular conditions that arise at run time, not available in advance (for instance: no agents available, overflow, etc).

6. Configuring voice prompts

The "Voice messages" tab allows to define and customize the audio prompt and music provided by the application to callers. A set of pre-installed voice prompts are available in the various supported languages (builtin prompts).

All audio messages settings can be inherited by default from the global settings, more over, it's possible to listen at the voice prompts directly from the WEB browser clicking the speaker icon (requires a multimedia-capable PC and a multimedia plugin able to play WAV files).

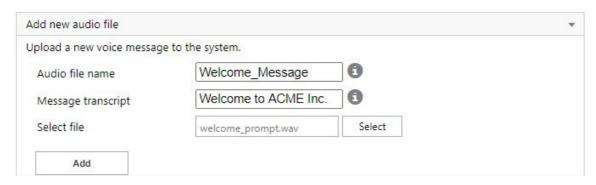
In order to avoid a voice prompt is played, select the entry "None" in the drop-down selection list.



Administrators can load and manager their own voice messages in a dedicated window, available pressing the "Manage messages" link.

A popup window will allow to upload a new audio file from the client PC in Wav or MP3 formats. If the audio sample rate is not compliant, it will be automatically converted to the required format.

Each audio file is associated to name (identifier) and an optional transcript, useful to describe the content of the voice prompt.



The second section of the popup form (named "Manage audio files") can be used to list and delete the existing audio files.



Following, the list of voice prompts that can be edited:

Ordinary voice prompts

- Welcome messages
 - Ordinary welcome message: played before the call is enqueued, if there is at least one agent logged in the
 aueue.
 - No-available agents welcome message: played before the call is enqueued, if there are no operators logged in the queue.
- Closure messages
 - ♦ Closure goodbye: played out of the business hours (queue closed).
 - ♦ Holiday goodbye:played by default during the holiday events.
- Wait messages
 - ♦ Wait music: the loop played while the caller is waiting in queue.
 - ◆ Short wait message: this message is played once, while waiting in queue for an available agent. Generally used to provide prompts such as "We apologize for the wait, our operators are still busy". The delay amount triggering this prompt replay can be set in the waiting treatment tuning section of the queue settings.
 - ♦ Long wait message: this message is played periodically after the short wait message, while waiting in queue for an available agent. The recurrence time of this prompt is can be set in the waiting treatment tuning section of the queue settings.
- Additional messages (play queue position): If the option is enabled, after the Welcome message, the ShortWait and the LongWait, Advanced Queuing plays a system message with an indication of the position in the queue. At each position change, Advanced Queuing delivers:
 - ♦ no message if:
 - the call is at the head of the queue and there is at least one agent available (ready and idle)
 or a consultation is in progress with an operator
 - "You will be the next caller to be served", if the call is at the front of the queue and there are no agents available, nor are consultations with operators

- ◆ "There are <n> calls waiting to be served before you", in case there are 1 to 9 calls waiting before the involved call.
- "There are more than 9 calls waiting to be served before you", in case there are more than 9 calls before the involved call:

NOTE. Note: If a VIP call is queued, it overrides sequence of non-VIP calls in the queue, without affecting queue position voice announcement, which still plays the "best" gained position in the queue (cheat).

Special cases

- Returned calls: this is the optional welcome message provided to calls that enter in queue for the second (or more) time.
- Queue full: this is the goodbye message played before the overflow treatment is applied.
- Max wait time: this is the goodbye message played before the maximum wait time treatment is applied.

Multi-Tenant environments: Voice Prompts Separation

In case of Imagicle Multi-Tenant environments, it is possible to restrict access to customized voice prompts on a tenant basis.

In fact, customized voice promtps can be fully managed (uploaded, configured and deleted) by users who has been given the following Advanced Queuing system permissions:

- Global supervisor;
- Global advanced supervisor;
- Complete management.

Such users can manage Advanced Queuing voice prompts at system level and set them as shared (accessible and available by all Tenants) or set them to a specific Tenant (accessible and available only by the specific tenant they have been assigned to)

A specific user who has been given "queue manager" permission can manage (configure and delete) only voice prompts that are shared across all Tenants and Tenant specific ones.

Hint: set a message prompt to "None" to skip it.

7. Defining the set of agents/targets that will serve the queue

In the "Call distribution" tab administrators can set the agents/targets that will answer the calls of the current queue and the algorithm used by Advanced Queuing to dispatch calls to the available agents.

Please, see "Product description and architecture" for a detailed description of available algorithms, sub-selection policies and escalation levels.

Configured agents are represented in a treeview, grouped in escalation levels:

- Agents are displayed with an agent icon, green-colored if the associated phone number is actually monitored via MS APIs
- Simple destinations are displayed with a phone set icon.

Note: you need to save the agents list, to properly display CTI indication (green/grey agent icon).

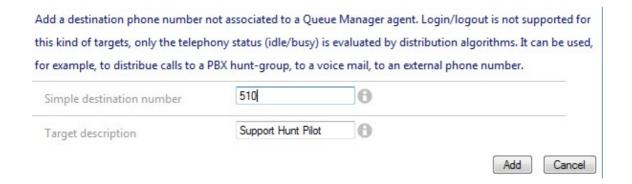
DEMO2-IT (6395) - (waiting queue)



A right click will activate a menu to add/delete escalation levels (groups) and single agents. When you select the "Add agent" option, a popup window will let you to insert a new target.

Such popup window has two sections:

- Agent: allows to add an agent searching him/her in the UCX Suite users list. Search can be done by name, numner or SIP URI. You can't add an agent associated to a PSTN number in +E.164 format.
- **Simple number**: allows to add a new target just inserting an internal number or SIP URI address (and a short description for it). You can't add a PSTN number in +E.164 format.



Advanced Settings

Advanced settings for Call Distribution include some parameters that should be changed carefully, because they impact on the call dispatching mechanism and its effectiveness. Such parameters are:

- Call Transfer Type: this sets the type of call transfer from Advanced Queuing to targets. Basically it's possible to decide if enabling the supervised transfer (with consultation, this is the recommended option) or the blind transfer.
- No Answer Timeout: the maximum duration (in seconds) of the consultation transfer to agents. When this time value has been exceeded, Advanced Queuing retrieve the call in queue and try to engage the next agent. This value is not considered if the call transfer type is "blind".
- Automatically logout agents on no-answer: if the consultation to an agent call times out and this flag is enabled, the agent is automatically logged out from the current queue.

- Automatically logout agents with unreachable phones: Automatically logout agents with unreachable phone or client;
- Transfer attempts every: this value (in seconds) rules the frequency of consultation calls to agents/targets in the case the target is not monitored. Please, change this value only if suggested by Imagicle support team.
- Ignore agents telephony status: Advanced Queuing engages a consultation call to agent, regardless own phone status.
- Max consultation calls per agent: Maximum number of queued calls offered to an agent;
- Caller name string: use this setting to compose the caller name string of the consultation call from Advanced Queuing to agents. Such name can be constant or composed dynamically, using a set of variables indicated by the tooltip, in the web page. Some of such variables are related to the Speedy Enterprise contacts (for instance the company name) and are blank if Contact Manager is not licensed. This value is not considered if the call transfer type is "blind".
- **Caller number**: use this setting to compose the caller number of the consultation call from Advanced Queuing to agents. It can be constant or dynamically set using the original caller number (variable *\$\$CALLERNUMBER\$\$*). This value is not considered if the call transfer type is set to "blind".
- After call work Wrap-up time (sec.): This is the comfort interval, in seconds, assigned to agent after every served call. During Wrap-up time, calls are distributed to other agents.

8. Configuring user permissions for the Queue

Once you have added agents to the queue, you may change their permissions. Open the Queue settings, Click on Permissions.

Here you can set the permissions for the agents. For a detailed descriptions of the available roles, please see **User permissions** at the beginning of this section.

In the lower part you can assign a role to users who are not agents. This allows, for example, to define Queue supervisors or observers who do not begin to queue distributions lists. The first step is to choose an UC Suite user by clicking on the "add user link". Select one or more users and the permission level you need. You can edit the Permissions later through the list in the main User's permissions page.

The Camp-On queue

The camp-on queue allows to directly transfer a call towards an internal number. If the number is busy, Advanced Queuing will keep the call waiting, and the caller will hear music on hold. When the destination number becomes available, the call is automatically transferred to that number.

The call is kept on the camp-on queue:

- Until the maximum waiting time is reached
- Until an agent manually retrieves the call
- Until the destination number becomes available

Agents using Attendant Console may use the camp-on queue through a simple graphic interface. Agents who do not have Attendant console may park the calls by dialing:

```
<Camp-on-prefix><destination number>
E.g. +280000
```

You enter the camp-on prefix in the Queue Phone number field in the queue basic settings.

One camp-on queue is built in. Usually there is no need to have more than one camp-on queue.

Should you need another camp-on queue, you may only edit: Queue Basic settings, Call Distribution advanced settings, a subset of the Voice Messages and the Queue Permissions.

The maximum number of call that can be parked on all camp-on queues is the number of licensed channels doubled. E.g. if you bought a 8 channels license, you'll have a free additional 16 camp-on channels.