

## Contact Center Call Queues (ACD)

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### Concept

The VOIPx3 Contact Center Solution allows inbound traffic to be distributed to Call Center Agents from one or more Call Queues. This feature is sometimes called an ACD (which stands for Automatic Call Distribution). Upon calling into the system, a caller can be placed into queue until the next available agent is free. While in a queue, callers can hear music on hold or custom company announcements. There are several different types of queues that can be used depending on business needs. The Call Center Supervisor can view various reports and metrics that are useful in managing a call center operation.

### Definitions

There are four types of call queues used in a Contact Center:

- Round-robin (longest idle) – this type of queue routes callers to the available agent that has been idle longest.
- Ring All – this type of queue routes callers to all available agents at the same time.
- Linear Hunt – this type of queue routes callers to the available agents in a predefined order. The order is defined when editing the queue's agents.
- Linear Cascade – this type of queue routes callers to groups of available agents in a predefined order. The order is defined when editing the queue's agents.

### Rules

- Call queues can be configured and modified only by users with a scope of Office Manager/Call Center Supervisor or higher.
- Only once a call queue is set up can agents be added.
- Call queues can contain both on-net and off-net agents.
- Call queues need to have a numerical “name.”

- Only online agents can be part of an active queue.
- If a device is not registered then the agent will be considered to be offline.
- Icon colors represent agent status; grey - offline, green - online, red - online but currently taking a call.
- Agents that are a part of multiple queues can prioritize one queue over another.
- Queues must have music on hold files uploaded to it; otherwise domain default music on hold will be played.
- You must assign a dedicated extension/owner.
- If the extension you are creating for the queue is not currently present; the system will create one and indicate this by showing the green New label to the right of the dialog box.

## Adding a Call Queue

To create a Call Queue select the Add Call Queue button.



Complete the form by entering a numeric name and an extension to be associated with it.

**Add a Call Queue**

Basic

Name

Extension

Note: Extension cannot be changed

Type

- ☐ Round-robin (longest idle)
- ☐ Ring All
- ☐ Linear Hunt
- ☐ Linear Cascade
- ☐ Call Park

Phone Number

Cancel

Once the queue has been named and numbered, the type of call queue must be selected.

## 1. Round-Robin

To enable round-robin select the radio button that displays “Round-robin (longest idle)”.

### Basic Tab Fields

- Phone Numbers that are assigned to the inventory as Available Numbers can be assigned to a call queue from the Phone Number drop down box.
- If Recorded is selected then the call queue can be configured to be recorded.
- If Statistics is selected the system generates call queue related information for the Call Center Supervisor.

The screenshot shows the 'Add a Call Queue' dialog box with the 'Round-robin' tab selected. The 'Basic' sub-tab is active. The 'Name' field contains 'First Available'. The 'Extension' field contains '501' with a green 'New' button to its right. A note below the extension states 'Note: Extension cannot be changed'. The 'Type' section has five radio buttons: 'Round-robin (longest idle)' (selected and highlighted with a blue box), 'Ring All', 'Linear Hunt', 'Linear Cascade', and 'Call Park'. The 'Phone Number' field is a dropdown menu showing 'Select an available number'. The 'Record Calls' dropdown is set to 'No', and the 'Statistics' dropdown is set to 'Yes'. At the bottom are 'Cancel' and 'Next' buttons.

### Pre Queue Tab Fields

- Require agents sets whether at least one agent is required to be online before sending the caller to the queue.

- The Max Expected Wait is the time in seconds before the queue is unavailable to new callers. This applies when the queue's average wait time reaches the maximum expected wait.
- The Max Queue Length is the maximum amount of callers allowed in the queue before it's full and unavailable to new callers.
- If the queue reaches the maximum wait or the queue is full the Forward if unavailable option will be used.

The screenshot shows a web-based configuration window titled "Add a Call Queue" with a "Round-robin" tab selected. Below the title bar are three tabs: "Basic", "Pre Queue Options", and "In Queue Options". The "Basic" tab is active, displaying the following settings:

- A sub-header: "Options for before the caller is put in queue."
- "Require agents": A dropdown menu set to "No".
- "Max Expected Wait (sec)": A slider ranging from "Unlimited" to "1000", with a tick mark at "500".
- "Max Queue Length": A slider ranging from "Unlimited" to "99", with a tick mark at "50".
- "Forward if unavailable": A text input field containing the placeholder text "Extension, number or phone".

At the bottom of the window are three buttons: "Cancel", "Back", and "Next".

### In Queue Tab Fields

- The Queue Ring Timeout is how long the queue will attempt to ring agents before following an exit option.
- The Agent Ring Timeout is how long the queue will ring agents before moving on to the next available. This should be less than the Queue Ring Timeout.
- You can set if you want an agent to be logged out of the queue if they miss a call
- If agents fail to answer before the Queue Ring Timeout the Forward if unanswered exit option will be used.
- Callers will be sent to queue's voicemail if agents fail to answer before the Ring Timeout and Forward if unanswered is not set. This will also trigger the system message; "Please continue to hold or Press 2 to leave a voicemail" and then return the call back to the queue if nothing is pressed.

NOTE: the voicemail box used if you press 2 will be the call queue owner/user mailbox.

Add a Call Queue
Round-robin

Basic
Pre Queue Options
In Queue Options

Options for while callers are queued and being routed to agents.

Queue Ring Timeout (sec)
5
55

Agent Ring Timeout (sec)
5
90

Logout agent on missed call
No

Forward if unanswered
Extension, number or phone

Voicemail
Yes

Cancel
Back
Add

## 2. Ring All

To enable ring-all select the radio button that displays “Ring All”.

### Basic Tab Fields

- Phone Numbers that are assigned to the inventory as Available Numbers can be assigned to a call queue from the Phone Number drop down box.
- If Recorded is selected then the call queue can be configured to be recorded.
- If Statistics is selected the system generates call queue related information for the Call Center Supervisor.

**Add a Call Queue** Ring All

Basic Pre Queue Options In Queue Options

Name

Extension  New

Note: Extension cannot be changed

Type

- ☐ Round-robin (longest idle) ⓘ
- ☒ **Ring All ⓘ**
- ☐ Linear Hunt ⓘ
- ☐ Linear Cascade ⓘ
- ☐ Call Park ⓘ

Phone Number

Record Calls ⓘ

Statistics ⓘ

Cancel Next

### Pre Queue Tab Fields

- Require agents sets whether at least one agent is required to be online before sending the caller to the queue.
- The Max Expected Wait is the time in seconds before the queue is unavailable to new callers. This applies when the queue's average wait time reaches the maximum expected wait.
- The Max Queue Length is the maximum amount of callers allowed in the queue before it's full and unavailable to new callers.
- If the queue reaches the maximum wait or the queue is full the Forward if unavailable option will be used.

Add a Call Queue
Ring All

Basic
Pre Queue Options
In Queue Options

Options for before the caller is put in queue.

Require agents ⓘ

No ▾

Max Expected Wait (sec) ⓘ

Unlimited

500

1000

Max Queue Length ⓘ

Unlimited

50

99

Forward if unavailable ⓘ

Extension, number or phone

Cancel
Back
Next

## In Queue Tab Fields

- Set the Queue Ring Timeout for how long the queue will attempt to ring agents before following an exit option.
- If agents fail to answer before the Queue Ring Timeout the Forward if unanswered exit option will be used.
- Callers will be sent to queue's voicemail if agents fail to answer before the Ring Timeout and Forward if unanswered is not set. This will also trigger the system message; "Please continue to hold or Press 2 to leave a voicemail" and then return the call back to the queue if nothing is pressed.

NOTE: the voicemail box used if you press 2 will be the call queue owner/user mailbox.

The screenshot shows a web-based configuration window titled "Add a Call Queue" with a close button (X) in the top right corner. Below the title bar are three tabs: "Basic", "Pre Queue Options", and "In Queue Options", with the third tab being the active one. The main content area is titled "Options for while callers are queued and being routed to agents." and contains three settings: 1. "Queue Ring Timeout (sec)" with a slider control ranging from 5 to 55. 2. "Forward if unanswered" with a text input field containing the placeholder text "Extension, number or phone". 3. "Voicemail" with a dropdown menu currently set to "Yes". At the bottom of the window are three buttons: "Cancel", "Back", and "Add".

### 3. Linear Hunt

To enable linear hunt select the radio button that displays “Linear Hunt”.

#### Basic Tab Fields

- Phone Numbers that are assigned to the inventory as Available Numbers can be assigned to a call queue from the Phone Number drop down box.
- If Recorded is selected then the call queue can be configured to be recorded.
- If Statistics is selected the system generates call queue related information for the Call Center Supervisor.



The screenshot shows a web-based configuration window titled "Add a Call Queue" with a sub-tab "Linear Hunt". The window has three tabs: "Basic", "Pre Queue Options", and "In Queue Options". The "Basic" tab is active. It contains the following fields and options:

- Name:** A text input field containing "Linear Hunt".
- Extension:** A text input field containing "503", with a green "New" button to its right.
- Note:** A text label stating "Note: Extension cannot be changed".
- Type:** A group of radio buttons with the following options:
  - Round-robin (longest idle) ⓘ
  - Ring All ⓘ
  - Linear Hunt ⓘ** (This option is selected and highlighted with a red rectangle)
  - Linear Cascade ⓘ
  - Call Park ⓘ
- Phone Number:** A dropdown menu with the text "Select an available number".
- Record Calls ⓘ:** A dropdown menu with the value "No".
- Statistics ⓘ:** A dropdown menu with the value "Yes".

At the bottom of the window are two buttons: "Cancel" and "Next".

### Pre Queue Tab Fields

- Require agents sets whether at least one agent is required to be online before sending the caller to the queue.
- The Max Expected Wait is the time in seconds before the queue is unavailable to new callers. This applies when the queue's average wait time reaches the maximum expected wait.
- The Max Queue Length is the maximum amount of callers allowed in the queue before it's full and unavailable to new callers.
- If the queue reaches the maximum wait or the queue is full the Forward if unavailable option will be used.

**Add a Call Queue** Linear Hunt

Basic Pre Queue Options **In Queue Options**

Options for before the caller is put in queue.

Require agents No

Max Expected Wait (sec)

Max Queue Length

Forward if unavailable

Cancel Back Next

### In Queue Tab Fields

- Set the Queue Ring Timeout for how long the queue will attempt to ring agents before following an exit option.
- The Agent Ring Timeout is how long the queue will ring agents before moving on to the next available. This should be less than the Queue Ring Timeout.
- You can set if you want an agent to be logged out of the queue if they miss a call
- If agents fail to answer before the Queue Ring Timeout the Forward if unanswered exit option will be used.
- Callers will be sent to queue's voicemail if agents fail to answer before the Ring Timeout and
- Forward if unanswered is not set. This will also trigger the system message; "Please continue to hold or Press 2 to leave a voicemail" and then return the call back to the queue if nothing is pressed.

NOTE: the voicemail box used if you press 2 will be the call queue owner/user mailbox.

**TROUBLESHOOTING NOTE:** If the call is not being sent to voicemail then check the Default settings for the domain to make sure that both VMail Prov and VMail control are set to yes. If not then you may experience calls staying in the queue despite having passed the configured timeout limit

Add a Call Queue

Linear Hunt

Basic

Pre Queue Options

In Queue Options

Options for while callers are queued and being routed to agents.

Queue Ring Timeout (sec)

555

Agent Ring Timeout (sec)

90

Logout agent on missed call

No

Forward if unanswered

Extension, number or phone

Voicemail

Yes

Cancel

Back

Add

## 4. Linear Cascade

To enable linear cascade select the radio button that displays “Linear Cascade”.

### Basic Tab Fields

- Phone Numbers that are assigned to the inventory as Available Numbers can be assigned to a call queue from the Phone Number drop down box.
- If Recorded is selected then the call queue can be configured to be recorded.
- If Statistics is selected the system generates call queue related information for the Call Center Supervisor.

The screenshot shows a 'Pre Queue Options' tab in a 'Add a Call Queue' dialog. The 'Name' field is 'Linear Cascade'. The 'Extension' field is '504' with a 'New' button and a note: 'Note: Extension cannot be changed'. The 'Type' section has five radio buttons: 'Round-robin (longest idle)', 'Ring All', 'Linear Hunt', 'Linear Cascade' (which is selected and highlighted with a red box), and 'Call Park'. The 'Phone Number' field is a dropdown menu with 'Select an available number'. The 'Record Calls' dropdown is set to 'No' and the 'Statistics' dropdown is set to 'Yes'. At the bottom are 'Cancel' and 'Next' buttons.

**Add a Call Queue** Linear Cascade

Basic Pre Queue Options In Queue Options

Name: Linear Cascade

Extension: 504 **New**

Note: Extension cannot be changed

Type:

- ☐ Round-robin (longest idle)
- ☐ Ring All
- ☐ Linear Hunt
- ☒ Linear Cascade
- ☐ Call Park

Phone Number: Select an available number

Record Calls: No

Statistics: Yes

Cancel Next

### Pre Queue Tab Fields

- Require agents sets whether at least one agent is required to be online before sending the caller to the queue.
- The Max Expected Wait is the time in seconds before the queue is unavailable to new callers. This applies when the queue's average wait time reaches the maximum expected wait.
- The Max Queue Length is the maximum amount of callers allowed in the queue before it's full and unavailable to new callers.
- If the queue reaches the maximum wait or the queue is full the Forward if unavailable option will be used.

**Add a Call Queue** Linear Cascade

Basic Pre Queue Options **In Queue Options**

Options for before the caller is put in queue.

Require agents No ▼

Max Expected Wait (sec)

Max Queue Length

Forward if unavailable

Cancel Back **Next**

## In Queue Tab Fields

- Set the Queue Ring Timeout for how long the queue will attempt to ring agents before following an exit option.
- The Agent Ring Timeout is how long the queue will ring agents before moving on to the next available. This should be less than the Queue Ring Timeout.
- Agents to Ring Initially are the number of available agents to ring based on their predefined order.
- This is the first group of agents in the linear cascade.
- Agents to Add After Timeout are the number of additional agents to ring after all of the first group of agents has been called.
- The queue will ring the first group of agents and add additional agents simultaneously.
- You can set if you want an agent to be logged out of the queue if they miss a call
- If agents fail to answer before the Queue Ring Timeout the Forward if unanswered exit option will be used.
- Callers will be sent to queue's voicemail if agents fail to answer before the Ring Timeout and
- Forward if unanswered is not set. This will also trigger the system message; "Please continue to hold or Press 2 to leave a voicemail" and then return the call back to the queue if nothing is pressed.