



# ACD and EAC User Guide

**Abstract:** This guide describes how to configure and use the Epygi's ACD feature and ACD Console application on QX IP PBXs.

## Document Revision History

Revision	Date	Description	Valid for FW	Valid for Models
1.0	02-Nov-15	Initial Release	6.1.2 and higher	QX IP PBXs
1.1	29-Dec-15	Updated	6.1.15 and higher	QX IP PBXs
1.2	17-Feb-17	ACD Archiving is removed, Schedules for ACD reports is added. Updated.	6.1.40 and higher	QX IP PBXs
1.3	03-Apr-17	Updated for QX500.	6.1.45 and higher	QX IP PBXs
1.4	15-Jun-17	Added a new option to allow the <b>EAC data</b> to be backed up and saved along with the system configuration and voice data. Added new <b>Reporting</b> types in <b>EAC</b> . Updated.	6.1.50 and higher	QX IP PBXs

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## 1 Introduction

Epygi's **Automatic Call Distribution** (herein **ACD**) feature is a complete solution for today's call centers. ACD designed to receive and queue high-volume inbound calls, then distribute queued calls to the available agents in call center.

Epygi's **ACD Console** (herein **EAC**) is a web application designed to support call center agents monitoring ACD activity and performance on the QX IP PBXs (herein QX). **EAC** store and format the data and produce real-time information and statistical reports on **ACD** activity.

## 2 Installing the ACD and EAC Feature Keys

Both **ACD** and **EAC** are licensable features for QX, so license keys should be purchased to make the **ACD** and **EAC** functional on the QX:

- **ACD** license is a single license per unit that enables access to the ACD configuration management. You can configure and use call queuing and distributing between agents for call center on QX. **ACD** feature can be used on its own, in cases when the user only requires the automatic call distribution, whereas **EAC** relies on ACD and works only if ACD is active.
- **EAC** license is a per seat (user) license that enables login and access to Epygi's ACD Console Web application and use it for monitoring the ACD processes on QX. **EAC** is an annually renewable license. The number of **EAC** licenses required is determined by the number of agents that will be connected simultaneously to the system.

To receive a **Feature Key**, register the QX device and send a corresponding request to **Epygi Technical Support**. This request must include the **Unique ID** that is displayed in the **Features** page above the features list.

Enter a **Feature Key** as follows:

1. Click the **Add** button.
2. Enter the key in the **Feature Key** field.
3. Click **Save**. The status of the selected feature will turn to "**Reboot needed**".
4. Reboot QX to complete the installation. The status of the feature will turn to "**Activated**".

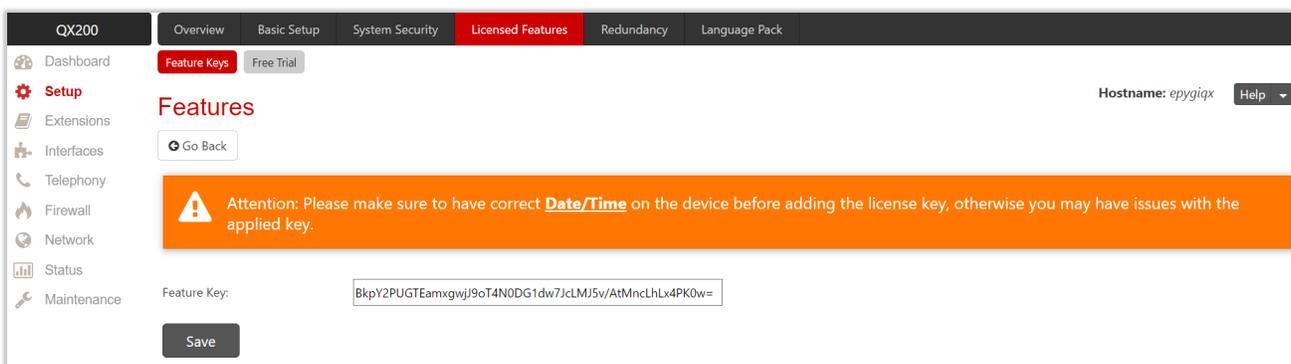


Figure 1: Adding a feature key

**Note:** Please make sure to have correct **Date/Time** on the device before adding the license key, otherwise you may have issues with the applied key.

QX200 Overview Basic Setup System Security **Licensed Features** Redundancy Language Pack

Dashboard Setup Extensions Interfaces Telephony Firewall Network Status Maintenance

Feature Keys Free Trial

## Features

Unique ID: 12-6.1.49-0b8278334955484880485385165166d6

+ Add

Name	Description	Status
<b>Permanent Feature Keys</b>		
Debug	Support for debugging purposes	Activated
3PCC	Support for Third Party Call Control	Activated
Automatic Call Distribution	Support for ACD	Activated
Barge-In	Support for Listen-In, Whisper and Barge-In services	Activated
Redundancy	Support for Two-unit Standby Redundant System	Activated
Epygi Hotel Console	Support for Epygi Hotel Console application	No Key Found
Call Cost	Support for Calling Cost Control	Activated
DCC Pro	Support for Desktop Communication Console (Pro-level) application	100 users
DCC Basic	Support for Desktop Communication Console (Basic-level) application	20 users
iQall Mobile Toggling	Support for call toggling from iQall mobile application (Android/iOS)	200 users
IP Phone Expansion	Support for additional IP lines	176 users
Auto Dialer	Support for Auto Dialer application	64 users
Audio Conference	Support for Audio Conference	32 users
Epygi ACD Console	Support for Epygi ACD Console	No Key Found
Call Recording	Support for Call Recording	20 users
Video Conference	Support for Video Conference	16 users
<b>Time Limited Feature Keys</b>		
Epygi ACD Console	Support for Epygi ACD Console	10 users Exp. at: 02-May-2018 13:56:37 ( 324 days left )
Epygi Hotel Console	Support for Epygi Hotel Console application	Activated Exp. at: 02-May-2018 14:39:29 ( 324 days left )

Figure 2: Activated ACD and EAC support

For more information on activation of licensable features, please refer to the [Licensable Features on QX IP PBXs](#) guide.

### 3 System Requirements for ACD and EAC

- ACD feature can be used on its own, in cases when the user only requires the automatic call distribution, whereas EAC relies on ACD and works only if ACD is active.
- Google Chrome, Opera, Microsoft Edge and Mozilla Firefox are the recommended WEB browsers for using EAC.
- The QX and the PC running EAC in the browser should be visible to each other. If user connects to the QX via the WAN interface, ensure a filtering rule is enabled on the QX firewall for the PC. EAC application will use port 8181. Creating a rule is not required if the firewall on QX is disabled or set to Low level. For more information regarding the Firewall and Firewall Filtering Rules in QX, see the [Manual-II: Administration Guide for QX IP PBXs](#).
- ACD and EAC are supported since QX firmware version 6.1.2 or higher. To achieve maximum compatibility always use the latest available firmware.

- **Barge-In** license should be activated on the QX, to allow barge in (Barge-In, Listen-In and Whisper) to active calls when using **EAC**.
- **Call Recording** license should be activated on the QX, to allow recording ACD calls.
- As soon as **EAC** license expires the system will stop collecting **ACD Call Statistics** and **Agent Status Statistics**. Follow the license expiration notifications to activate it on time and continue registering important data in **EAC**.

## 4 Recommendations and Limitations

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- **ACD** is available on the following QX models: QX50, QX200, QX500 and QX2000.
- When using **ACD** (with or without **EAC**) on QXs, it is strongly recommended to use **SD** memory cards as external memory to expand the system capacity and improve its stability. Currently, the largest capacity for the recommended SD card's, applicable to QX50/QX200 is **32 GB**. The largest capacity for the recommended micro SD card's, applicable to QX500 is **64 GB**.
- If the call type option configured for agent is other than "**PBX**", direct inbound and outbound calls will not be counted as ACD calls. Only agents with **PBX** call type are able to make outbound calls from **EAC**.
- Agent will **always** receive **Direct Inbound Calls** during wrap-up timeout. Once the **direct inbound call** is answered, the agent's status will be changed from **Wrap-up** to **Busy**.
- The **Caller ID Based Services** configured (activated) on the agent's extension on QX will be ignored for ACD calls. The **Caller ID Based Services** will operate in case of **Direct Inbound Calls**. It is recommended to disable the **Caller ID Based Services** on the agent's extension to avoid any misconfiguration and wrong interpretations.
- Calls addressed to the agent cannot be intercepted by another agent or user extension.
- If an agent rejects a call by pressing the **Reject** button on the phone, then that call will not ring the agent's phone again within the **Queue Ring Timeout** duration.
- All data producing **EAC** will be shown according to the time zone settings on PC.

### System Capacities

Each of QX models has its own capacity regarding the amount of ACD calls and EAC sessions. The table below shows the maximum number of answered/recorded calls and EAC sessions, that can be supported simultaneously without influencing the quality of voice. The maximum numbers may vary (be lower), depending on the QX configuration, system load and etc.

Model	Answered Calls	Recorded Calls	Active EAC sessions
QX50	12	12	12
	16	4	16
QX200	15	15	15
	30	0	30
	30	8	4
QX500	64	0	0
	40	24	24
QX2000	80	0	50
	300	150	300

Table 1: System capacities

## 5 ACD and EAC Definitions

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### Agent roles

Agents are employees – well, phone extensions that are used by employees in call center. An agent can be a member and receive calls from one or more ACD Queues (herein queue). There are three roles that can be bounded to an agent during configuration on QX:

- **ACD Agent** – ACD Agent can receive calls from queue, view and modify information related to him/her only. An agent can be assigned to and receive calls from many queues.
- **Queue Supervisor** (herein supervisor) – supervisor has a complete control over the queue. The supervisor can review the information related to the queue, change the status of the agents as well as monitor and control queue activities.
- **ACD Admin** (herein admin) – admin has a complete control over **EAC** application. Admin can monitor and control all ACD activities.

### Note:

- Regardless of the bounded role, each agent can receive calls from queue(s), make and receive **Direct Calls**.
- The **EAC** menus (pages) content and available actions depend on the roles bound to the agent.

### Agent status

The agent's status is the same in all queues he/she is involved. The following statuses are available by default:

- **Online** – agent can receive calls from his/her queue(s). The agent's status will be changed from **Online** to **Free** in the **Direct Inbound Calls** and **Direct Outbound Calls** queues.
- **Offline** – agent cannot receive calls from his/her queue(s).
- **Away** – agent is temporarily unavailable and cannot receive calls from his/her queue(s).
- **DND (Do Not Disturb)** – agent is busy by some activity and cannot receive calls from his/her queue(s). Unlike the Away status, the DND automatically changes to Online when the preconfigured DND timeout expires for the extension (30 minutes by default).

In addition to the above listed default statuses the QX administrator can define new statuses for agents (e.g. **Meeting**, **Lunch**, etc.) reflecting the specific state of the agent. These new statuses are equivalent to the **Away** status.

The agent's status can be changed:

- **From QX WEB GUI** – QX administrator can change the agent's status from **Extensions→ACD→Agents** page, by clicking the hyperlinked agent name and modifying the [agent's status](#).
- **From handset** – user (agent, external caller, etc.) can change the agent's status by calling to the special Auto Attendant (with enabled ACD scenario). After successfully passing [authentication](#), the user can change agent's status following the audio prompts.
- **From agent's desk phone** – agent can change his/her status by dialing \*83. **TIP:** This option allows to change agent's (only agents with **PBX** call type) status from **Online** to **Offline** and vice-versa.
- **From EAC** – agent can change his/her status after logging into **EAC** application. **TIP:** The agent's status can also be changed by admin(s) and supervisor(s).

Besides the above listed statuses, the agent can also be in so-called temporary states. The following states are available:

- **Busy** – agent is currently busy with a call. This state cannot be set manually by the user; it is being set automatically by the system, when agent answers the call. If you watch the status of the agent in some queue while he/she is on the call from another queue, then EAC will show **Busy (Other)** for the agent's status.
- **Wrap-up** – agent is busy with the previous call activity and cannot receive the calls from the queue(s). Wrap-up period starts immediately after finishing the call and lasts for the wrap-up **Timeout** configured for each agent in the queue individually. If you watch the status of the agent in some queue while the wrap-up activated in the other queue, then EAC will show **Wrap-up (Other)** for the agent's status.
- **Disabled** – the agent cannot receive calls from the queue. **TIP:** This state can be set manually only by **supervisor/admin** from EAC or by **QX administrator** from WEB GUI.
- **N/A** – if ACD system is not running (e.g. QX is rebooting, system issue, etc.), the status statistics duration will not be counted. This allows to avoid being attributed incorrect status (state) duration to the agent.

### Queue types

EAC differentiates the following type of queues:

- **Inbound Queue** – **user-defined queues** to receive and distribute incoming calls to the agents. Configured manually in QX using unique name and extension number.
- **Direct Inbound Calls** – created automatically and serves as the single default queue for all agents to receive direct calls. Calls received by agents directly from other agents or/and non-agent parties are considered as ACD calls and will also be shown in the **Direct Inbound Calls** statistics of **EAC**.
- **Direct Outbound Calls** – created automatically and serves as default single queue used by all agents for making **direct outbound calls**. Calls made by agents directly from handset and by **EAC** are considered as ACD calls and will be shown in the **Direct Outbound Calls** statistics of **EAC**.

### **Note:**

- Each created agent is a member of **Direct Inbound Calls** and **Direct Outbound Calls** by default.
- One agent can be assigned to many **Inbound Queues** as a member.
- Admin can manage ACD activities without being a member of **Inbound Queue(s)**.
- Only admin(s) can monitor statistics of the **Direct Inbound** and **Outbound** queues.

### Direct Calls

Direct calls are those which are received or placed by an agent bypassing **Inbound Queue(s)**. **EAC** differentiates the following two **Direct Call** types: **Inbound** and **Outbound**. Agents can make and receive direct calls when their status is set to **Online**, **Offline**, **Away** or any other **User-defined** status. Agent will not receive direct calls in case of **DND**.

## Call states

EAC differentiates the following call states:

### For Inbound Queue

- **Answered call** – a call that reached the queue and has been answered by agent.
- **Abandoned call** – a call that reached the queue but has not been connected to any agent because the calling party hung up.
- **Rejected call** – a call that reached the queue but has not been answered by any agent because either the **Queue Ring Timeout** expired or the number of calls waiting in the queue hit the **Maximum Queue Size**.

### For Direct Calls

- **Answered call** – a call answered by an agent or by remote party for **Direct Inbound Calls/Direct Outbound Calls** queues respectively.
- **Abandoned call** – not applicable.
- **Rejected calls** – not applicable.

## Icons

The following icons are used in **EAC**:

-  – agent's phone is ringing.
-  – agent is "busy" with a call.
-  – agent is "busy" with a call in another queue.
-  – agent is in "wrap-up" state.
-  – agent is in wrap-up state. The "Wrap-up" has been activated after answering the call from another queue.
-  – agent's status is **Online**.
-  – agent's status is **Offline**.
-  – agent's status is **DnD**.
-  – agent's status is **Away**.
-  – agent's status is **user-defined**.

-  – "admin" role is bounded to the agent.
-  – agent doesn't have any **admin** privileges, "supervisor" role can be bounded to the agent.
-  – answered call in Inbound Queue(s) and Direct Inbound Calls.
-  – answered call in **Direct Outbound Calls**.
-  – rejected call in **Inbound Queue(s)**.
-  – abandoned call in **Inbound Queue(s)**.

## 6 ACD Configuration

### 6.1 ACD Queue

Basically, an ACD Queue is a QX extension with enhanced capabilities. Therefore, except for regular attributes (extension number, SIP username, etc.) each queue is also characterized by agents assigned to the queue and the call distribution mechanism, etc.

#### 6.1.1 Configuring ACD Queue

The **ACD Queues** page allows creating/modifying a new or already created queue(s). **Add** – leads to the **ACD Management – Add Queue** page to create a new queue. Add a queue as follows (Figure 3):

- Insert the **Queue Name**.
- Insert the **Queue Extension** number.

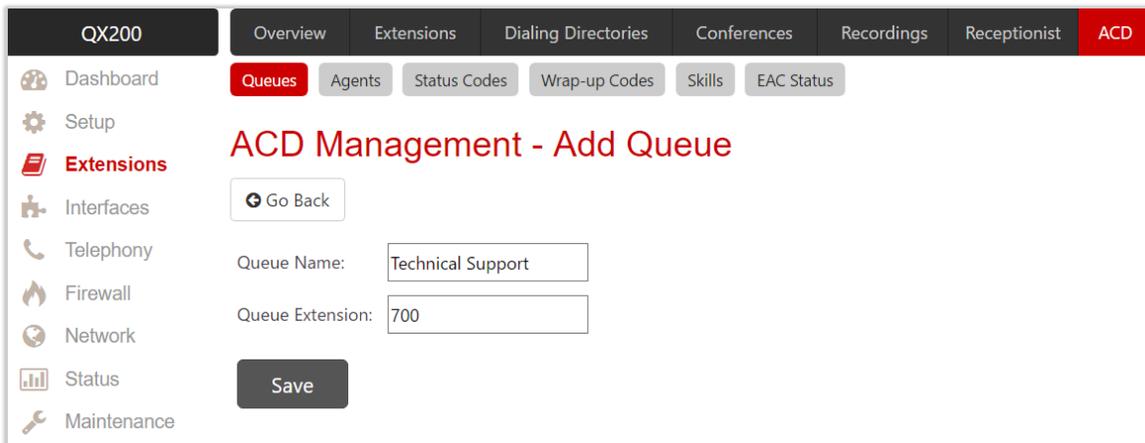


Figure 3: ACD Management - Add Entry page

Recently created ACD Queue will appear in the ACD Queues table (Figure 4).

Queue Name	Extension Number	SIP Address	Agents	Percentage of System Memory	Codecs
<a href="#">Technical Support</a>	700	7412700@192.168.0.209:5060	<a href="#">James Hunt</a> , <a href="#">Jasson, Ciara</a> , <a href="#">Milla Brown</a>	0.1% (33 min 2 sec)	<a href="#">PCMU...</a>
<a href="#">Customer Care</a>	770	7412770@192.168.0.209:5060	<a href="#">James Hunt</a> , <a href="#">Milla Brown</a> , <a href="#">Ciara</a>	0.5% (2 hour 45 min 10 sec)	<a href="#">PCMU...</a>
<a href="#">test</a>	777	7412777@192.168.0.209:5060	no agents	0.5% (2 hour 45 min 10 sec)	<a href="#">PCMU...</a>

Figure 4: ACD Queues table

Created queue(s) can be checked/modified by clicking their hyperlinked name(s) or the **Edit** button. The opened **ACD Management – Edit Queue** page allows adjusting the regular as well as specific parameters characterizing each queue.

### General Settings

This section allows configuring the following parameters of the queue:

- **Queue Name** – will be showed as caller ID on the agent’s phone and in **EAC**.
- **Show on Public Directory** – allows to display the queue extension in the Phone book (Directory) and QX's Extension Directory.
- **Percentage of Total Memory** – is used to adjust the memory size assigned to the extension for **Custom Queue** messages.

**ACD Management - Edit Queue**

Go Back

**General Settings**

SIP Settings

SIP Advanced Settings

ACD Queue Settings

ACD Agents

Go To Codec Settings

**General Settings - Technical Support (700)**

Queue Name:

Show on Public Directory

Percentage of Total Memory:  %

**Save**

Figure 5: ACD Management – Edit Queue – General Settings page

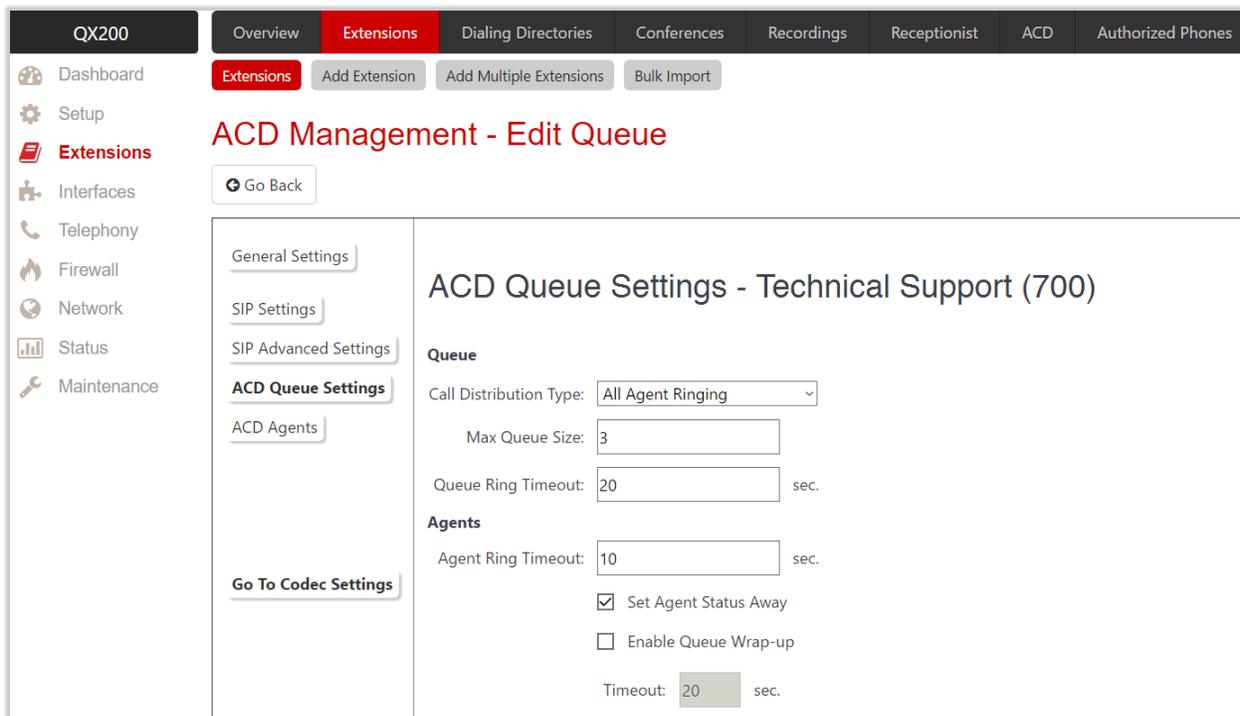
**Note:** The SIP Settings, SIP Advanced Settings and Go To Codec Settings sections are the same as for user extensions (see [Manual-II: Administration Guide for QX IP PBXs](#)).

## ACD Queue Settings

This section is used to configure the queue specific settings (Figure 6):

### Queue

- **Call Distribution Type** – provides with following call distribution options:
  - **All Agents Ringing** – ACD rings the phones for all available agents in queue. If any agent answers, ACD cancels calls to the others. If no one answers within the predefined Queue Ring Timeout, the system either disconnects or redirects the call.
  - **Round Robin** – ACD tries to connect the call to the first available agent in queue. If that agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the next agent in the list. Upon reaching the end of the agent's list it starts from the beginning. If the call is not answered within the predefined Queue Ring Timeout, the system either disconnects or redirects the call.
  - **Longest Idle** – ACD calls to the first available agent who was longest idle after his/her last answered call. If that agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the next available agent with the longest idle. If the call is not answered within the Queue Ring Timeout, the system either disconnects or redirects the call.
  - **Less Busy During Last Hour** – ACD calls to the first available agent who was least busy with calls during the last hour. If that agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the next available least busy agent, etc. If the call is not answered within the Queue Ring Timeout, the system either disconnects or redirects the call.



The screenshot shows the 'ACD Management - Edit Queue' interface for 'Technical Support (700)'. The left sidebar contains navigation options like Dashboard, Setup, Extensions, Interfaces, Telephony, Firewall, Network, Status, and Maintenance. The main content area is titled 'ACD Queue Settings - Technical Support (700)' and includes a 'Queue' section with the following settings:

- Call Distribution Type: All Agent Ringing (dropdown)
- Max Queue Size: 3 (input field)
- Queue Ring Timeout: 20 (input field) sec.

The 'Agents' section includes:

- Agent Ring Timeout: 10 (input field) sec.
- Set Agent Status Away
- Enable Queue Wrap-up
- Timeout: 20 (input field) sec.

Figure 6: ACD Queue Settings (Queue and Agents) section

- **Random Hunting** – ACD tries to connect to the first available agent selected randomly from the list. If that agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the next available agent selected randomly from the list, etc. If the call is not answered within the Queue Ring Timeout, the system either disconnects or redirects the call.
- **Skills** – ACD tries to connect to the first available agent having the highest composite skills grade in the queue. If that agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the

next agent with the highest composite skills grade, etc. If the call is not answered within the Queue Ring Timeout, the system either disconnects or redirects the call.

- **Max Queue Size** – defines the maximum number of calls waiting in the queue. If all positions of the queue are busy and a new call arrives, it will be rejected by the system.
- **Queue Ring Timeout** – defines the maximum waiting time of the call in the queue (including connection time when the call is extracted from the queue and rings on the agent's phone until it is answered). If the waiting call isn't answered by any agent within the defined timeout, then it will be disconnected or redirected.

**Note:** The calls will be redirected if the call redirection (**No Answer Redirect**) is activated and configured on the queue.

### Agents

- **Agent Ring Timeout** – defines the ringing timeout for each separate agent's phone. If the agent doesn't answer the call within that timeout, the system tries to connect the call to another agent in the selected queue.
- **Set Agent Status Away** – if selected, agent's status will be changed to **Away** once the agent receives a call and does not answer within the **Agent Ring Timeout**. **TIP:** As soon as the agent's status changed to **Away**, he/she will not be able to receive calls from other queues, until the status is changed back to **Online**.
- **Enable Queue Wrap-up** – if selected, agents will not receive calls from any queue(s) within **wrap-up timeout** after terminating the last answered call. The **Queue wrap-up timeout** has higher priority than the **wrap-up timeout** defined for each agent individually in the [ACD Agents](#) section.

**Note:** Agent will always receive **Direct Inbound Calls** during wrap-up timeout. Once the direct inbound call is answered, the agent's status will be changed from **Wrap-up** to **Busy**.

### Call Redirection

- **Enable No Answer Redirect** – if activated and configured, callers will be redirected to the specified address if not answered by the agents within the **Queue Ring Timeout**. This feature allows the call to be answered by someone else if all agents are busy.
- **Enable ZeroOut Redirect** – if activated and configured, callers dialing **0** will be redirected to the specified destination instead of waiting in the queue.
- **Call Type** (identical for both **No Answer Redirect** and **ZeroOut Redirect**) – lists the available options for call redirection:
  - **PBX** – local calls to QX extensions
  - **SIP** – calls via SIP
  - **PSTN** – calls to a legacy telephone network through the onboard FXO ports (N/A for QX500 and QX2000)
  - **Auto** – calls to a destination resolved by the **Call Routing Table**
- **Calling Address** (identical for both **No Answer Redirect** and **ZeroOut Redirect**) – is used to define the destination address the call will be redirected to. The address strictly depends on the call type. Thus, define a QX extension number for the PBX calls, SIP address for the SIP calls, phone number for the PSTN calls, and, finally, define a routing pattern for the Auto type calls.

**ACD Queue Settings - Technical Support (700)**

**Call Redirection**

Enable No Answer Redirect

Call Type:

Calling Address:

Enable ZeroOut Redirect

Call Type:

Calling Address:

**Queue Prompts**

Enable Custom Prompts

+ Add Edit Delete Move Up Move Down Q

<input type="checkbox"/>	Queue Prompt	Timeout(sec.)	Play Count
<input type="checkbox"/>	<a href="#">Upfront.wav</a>	5	2
<input type="checkbox"/>	<a href="#">Waiting_Music.mp3</a>	5	1
<input type="checkbox"/>	<a href="#">Holding_Music.wav</a>	5	1

Play Background Music

File

Upload file:  No file chosen

Record file:

RTP Channel

Choose Channel:

Audio Line In

Save

Figure 7: ACD Queue Settings(Call Redirection and Queue Prompts) section

## Queue Prompts

- **Enable Custom Prompts** – to configure custom voice prompt(s) to callers waiting in queue.
- **Custom Queue Prompts** table lists all files for custom prompts. Each prompt is characterized by a number of repeats and the timeouts between. The prompts are played back in the order they are listed in the table. Upon reaching the last prompt the playback will start from the beginning.
- **Add** – leads to the **ACD Management – Add Entry** page to upload/record a new file for prompt.

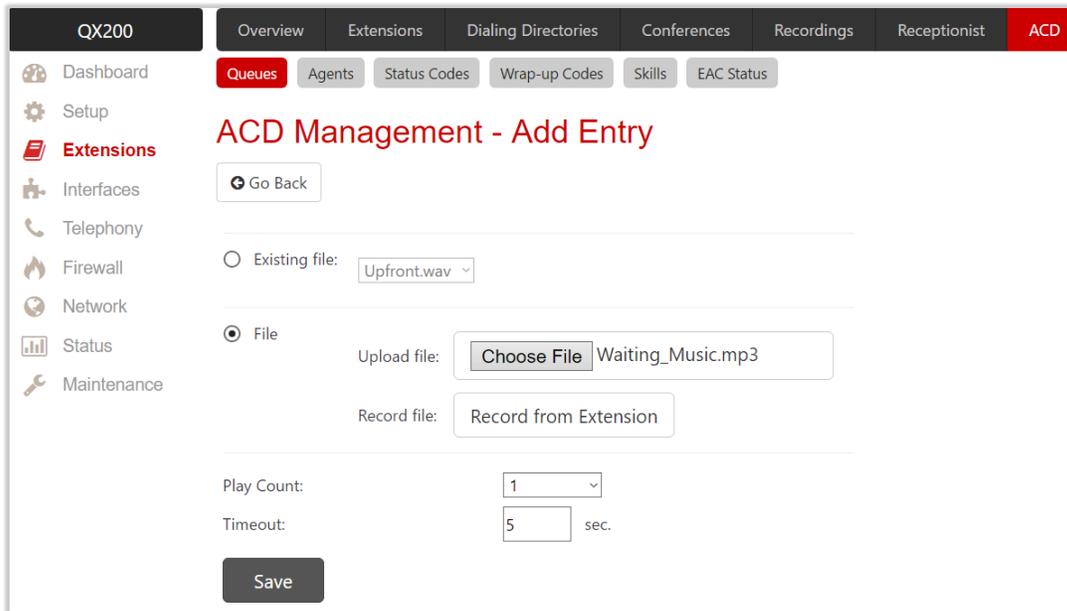


Figure 8: ACD Management – Add Entry page (Queue prompt)

- ◆ **Existing file** – is used to select one of the already uploaded files to include it in the scenario. The same file may appear in the different instances of the queue scenario.
- ◆ **File** – is used to upload/record a new custom prompt.
- ◆ **Play Count** – is used to define the number of the prompt replay.
- ◆ **Timeout** – is used to define the interval between two prompts, as well as the timeout before the first prompt.
- **Play Background Music** – allows to enable the background music to fill the silence between the custom prompt playbacks. The following options are available:
  - **File** – is used to upload/record a new background music.
  - **RTP Channel** – is used to stream the background music through the selected RTP Channel.
  - **Audio Line In** (available for QX50/QX200) – is used to stream the background music from external audio source (PC, smartphone, etc.) through Audio Line In.

**Attention:** Allocate sufficient memory on the [General Settings](#) section to be able to upload file(s) as custom prompts and background music for the selected queue.

## ACD Agents

This section describes how to add a new agent to the selected queue or adjust the settings for existing agents. **Add** – leads to the **Agents Table of Queue – Add Entry** page to add a new agent to the selected queue. The following options are available:

- **Agent** – lists all previously created agent(s) available in the **ACD Agents** table.
- **Allow Receiving Calls** – enables/disables the call receiving capability of the selected agent within this queue. If selected, agent will receive calls if his status is online, otherwise won't receive calls from this queue. **TIP:** Supervisor and/or admin can enable/disable this feature from **EAC**.

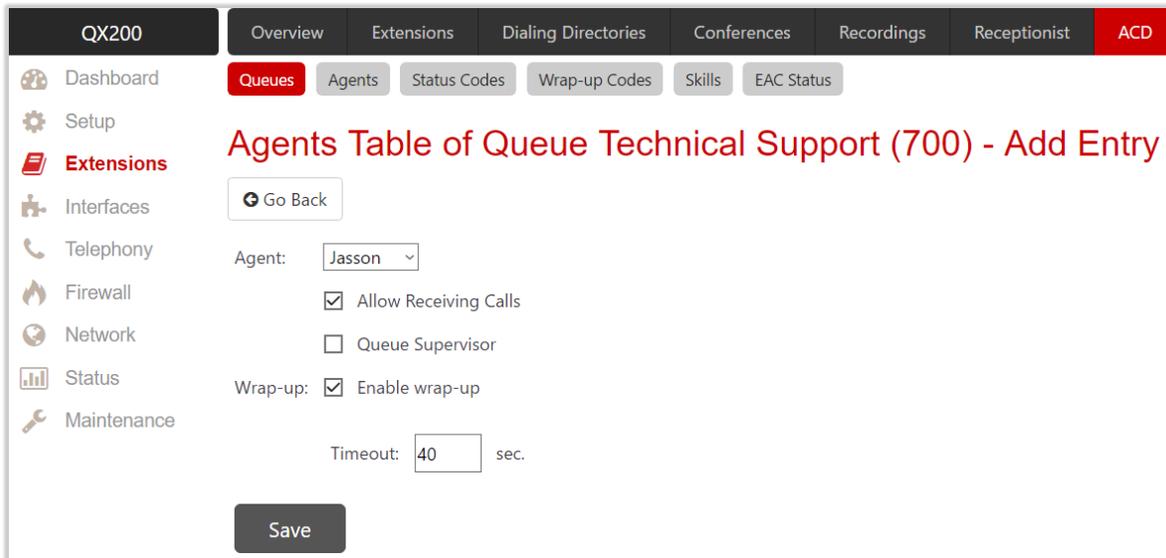


Figure 9: Agents Table of Queue – Add Entry page

- **Queue Supervisor** – if selected, assigns the selected agent as "Supervisor" within this queue that allows controlling, managing and reporting the queue activity from EAC.
- **Wrap-up** – if selected, agents will not receive calls from any queue(s) during **wrap-up timeout** counting after terminating the last answered call. **Agent wrap-up timeout** has lower priority than the **Queue wrap-up timeout**. **TIP:** **Agent wrap-up timeout** becomes non-editable if [Queue Wrap-up](#) is activated.

**Note:** Agent will always receive **Direct Inbound Calls** during wrap-up timeout. Once the direct inbound call is answered, the agent's status will be changed from **Wrap-up** to **Busy**.

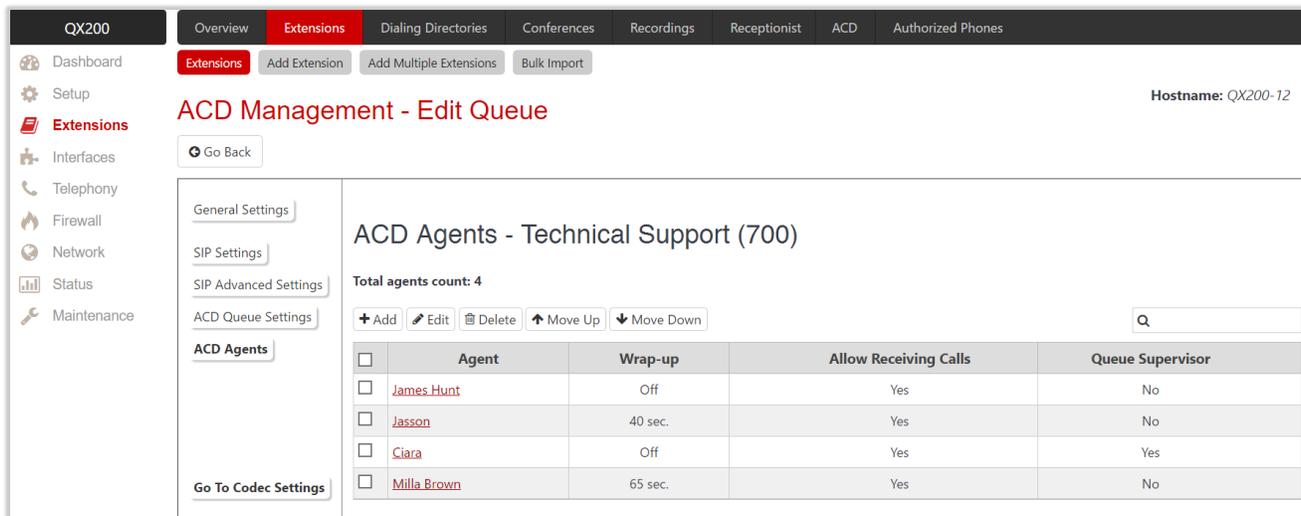


Figure 10: Agents Table of Queue

New agent added to the queue will appear in the ACD Agents table (Figure 10).

## 6.2 ACD Agents

Agent is a call center employee reachable via QX and responsible for answering the calls. To receive calls, agent needs to be assigned to one or more queues. Generally, agents are characterized by name, web and phone authentication credentials, global status, skills' levels and the phone number.

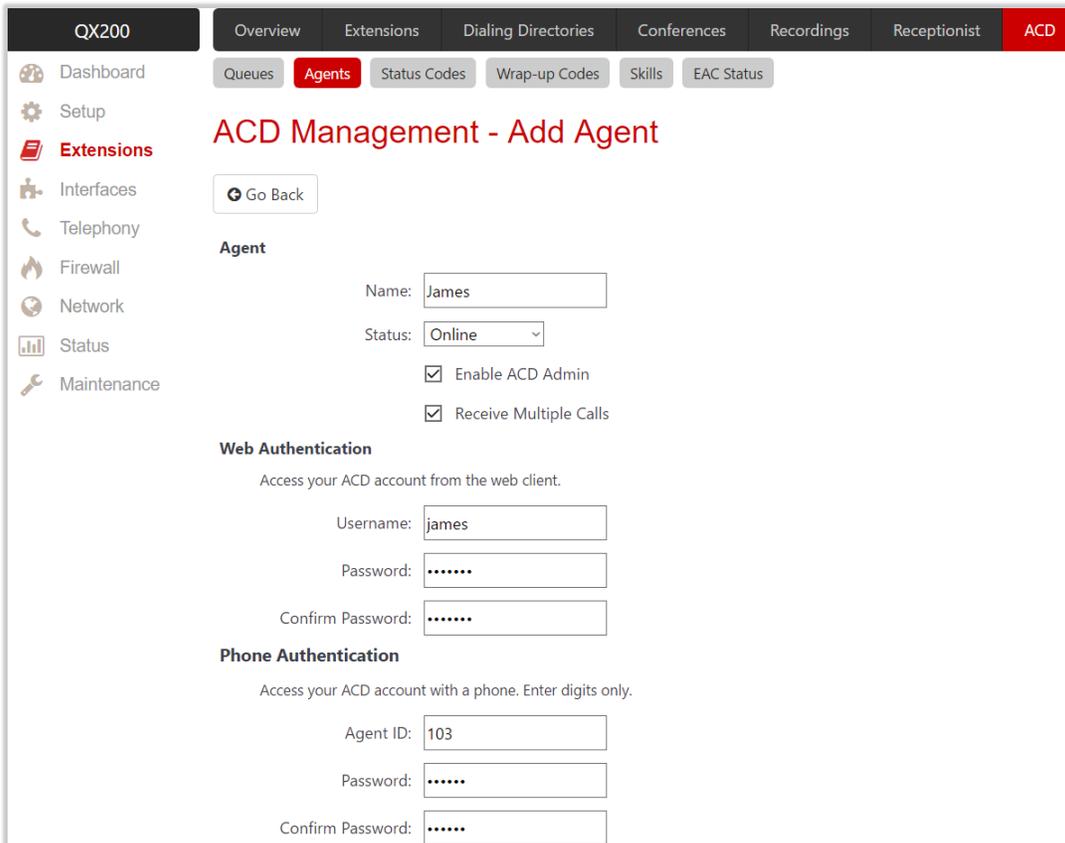
### 6.2.1 Configuring ACD Agent

The **ACD Agent** page allows creating/modifying new/existing agent(s). **Add** – leads to the **ACD Management – Add Agent** page to create a new agent. The following options are available:

#### Agent

- **Name** – unique identifier for the agent in **ACD** and **EAC**.
- **Status** – defines the global status for the agent, offering the options by default:
  - **Online** – can receive calls from his/her queue(s).
  - **Offline** – cannot receive calls from his/her queue(s).
  - **Away** – is temporarily unavailable and cannot receive calls from his/her queue(s).
  - **DND (Do Not Disturb)** – is busy by some activity and cannot receive calls from his/her queue(s). Unlike the Away status, the DND automatically changes to Online when the DND timeout expires (30 minutes by default).

**Note:** Agent's status is the same in all queues. In addition to the above listed default statuses the QX administrator can define new statuses for agents on the [ACD Status Codes](#) page.

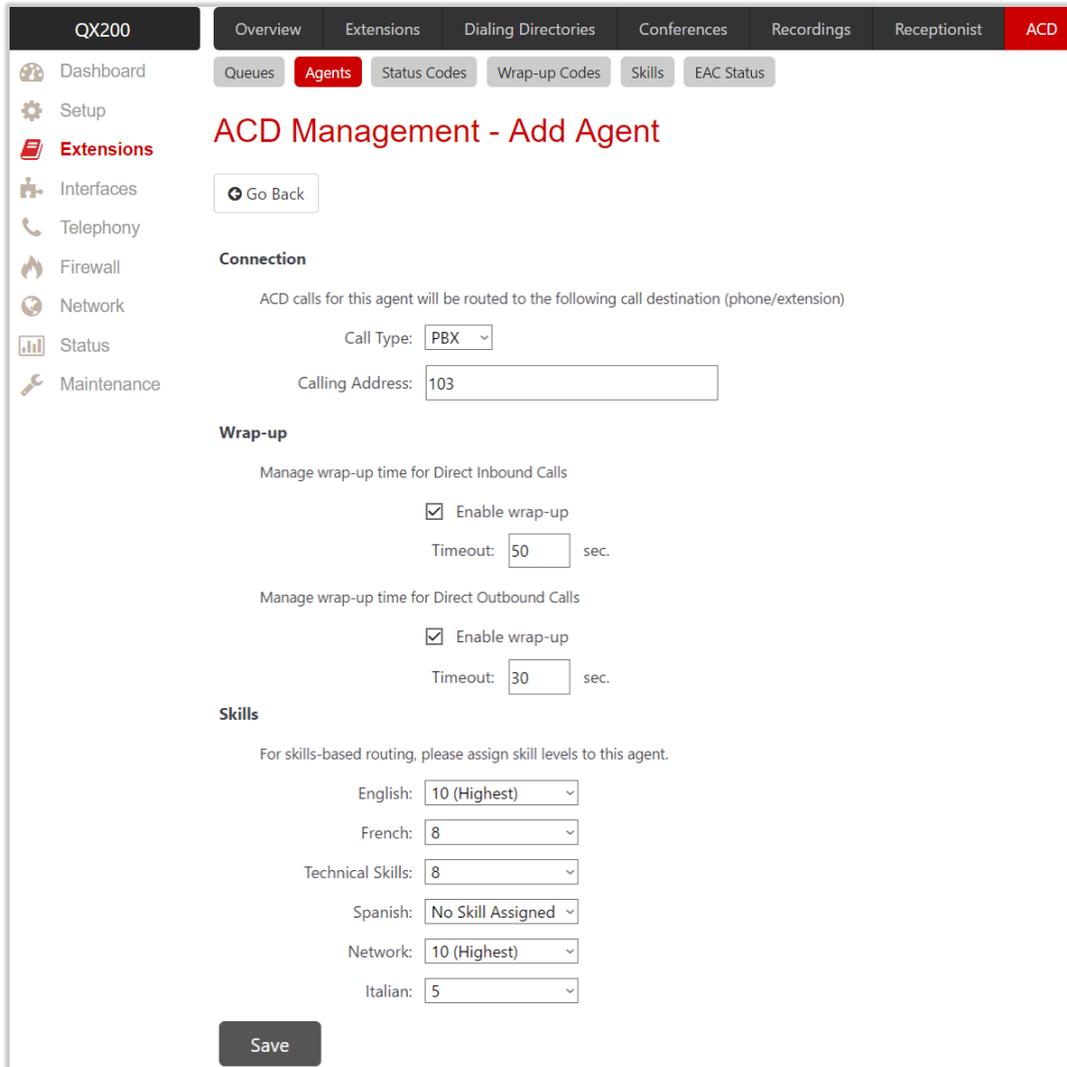


The screenshot displays the 'ACD Management - Add Agent' page. At the top, there is a navigation bar with tabs for Overview, Extensions, Dialing Directories, Conferences, Recordings, Receptionist, and ACD. Below this, there are sub-tabs for Queues, Agents (selected), Status Codes, Wrap-up Codes, Skills, and EAC Status. A 'Go Back' button is visible. The main form is divided into three sections:

- Agent:**
  - Name: James
  - Status: Online (dropdown menu)
  - Enable ACD Admin
  - Receive Multiple Calls
- Web Authentication:**
  - Access your ACD account from the web client.
  - Username: james
  - Password: masked
  - Confirm Password: masked
- Phone Authentication:**
  - Access your ACD account with a phone. Enter digits only.
  - Agent ID: 103
  - Password: masked
  - Confirm Password: masked

Figure 11: ACD Agent – (Agent, Web and Phone Authentication) sections

- **Enable ACD Admin** – enables "admin" privileges for the selected agent to manage all agents and queues from EAC.
- **Receive Multiple Calls** – if enabled allows to receive calls from other queue(s) when is currently busy on an existing call. Once a call is answered from a given queue, the agent will not receive a call from the same queue but can receive calls from other queues.



The screenshot shows the 'ACD Management - Add Agent' form in the EAC interface. The form is divided into three main sections: Connection, Wrap-up, and Skills. The 'Connection' section includes a 'Call Type' dropdown set to 'PBX' and a 'Calling Address' text field containing '103'. The 'Wrap-up' section has two sub-sections: 'Manage wrap-up time for Direct Inbound Calls' and 'Manage wrap-up time for Direct Outbound Calls'. Both have 'Enable wrap-up' checkboxes checked and 'Timeout' fields set to 50 and 30 seconds respectively. The 'Skills' section is titled 'For skills-based routing, please assign skill levels to this agent.' and contains dropdown menus for English (10 Highest), French (8), Technical Skills (8), Spanish (No Skill Assigned), Network (10 Highest), and Italian (5). A 'Save' button is located at the bottom of the form.

Figure 12: ACD Agent – (Connection, Wrap-up and Skills) sections

### Web Authentication

Web Authentication parameters are used for agent's login to EAC.

- **Username** – login name for EAC.
- **Password** – user-defined password for EAC.

## Phone Authentication

Phone Authentication is used to change agent's status from the handset. Calling to the Auto Attendant (with enabled ACD scenario) and successfully passing authentication agent can change his status by dialing corresponding codes. **TIP:** Only default statuses are available for phone authentication.

- **Agent ID** – the ID for phone authentication.
- **Password** – the user-defined password for phone authentication.

## Connection

This section defines how to route ACD calls to the agent through QX.

- **Call Type** – lists the available options for call destination:
  - **PBX** – local calls to QX extensions
  - **SIP** – calls via SIP
  - **PSTN** – calls to a legacy telephone network through the onboard FXO ports (N/A for QX500 and QX2000)
  - **Auto** – calls to a destination resolved by the **Call Routing Table**
- **Calling Address** – the agent's address for connection. The format of this field depends on the selected **Call Type**.

**Attention:** It's recommended to select **PBX** as the call type to achieve maximum capabilities with **EAC** application.

## Wrap-up

- **Wrap-up (Direct Inbound Calls)** – if enabled, agent won't receive calls from queue(s) within the **wrap-up timeout** after terminating the last answered inbound call.
- **Wrap-up (Direct Outbound Calls)** – if enabled, agent won't receive calls from queue(s) within the **wrap-up timeout** after terminating the last placed outbound call.

**Note:** Agent will always receive **Direct Inbound Calls** during wrap-up timeout. Once the direct inbound call is answered, the agent's status will be changed from **Wrap-up** to **Busy**.

## Skills

Skills section consists of all skills created on the [ACD Skills](#) page. For each available skill, you should select the level of the skill (from 0 to 10, where 0 is for absence of that specific skill, 10 is for the highest level) matching to the corresponding agent. **TIP:** The Skills section will appear only if there is at least one skill defined in the [ACD Skills](#) page.

Newly added agent will appear in the [ACD Agents](#) table.

<input type="checkbox"/>	Agent Name	Username	Phone Username	Calling Address	ACD Admin	Wrap-up(Direct Inbound Calls)	Wrap-up(Direct Outbound Calls)	Receive Multiple Calls	Skills	Status
<input type="checkbox"/>	<a href="#">James Hunt</a>	james	103	PBX-103	Yes	10 sec	15 sec	Yes	<a href="#">English-10</a> , <a href="#">French-8</a> , <a href="#">Technical Skills-8</a> , <a href="#">Network-10</a> , ...	Online
<input type="checkbox"/>	<a href="#">Ciara</a>	ciara	120	PBX-120	No	10 sec	30 sec	No	<a href="#">English-3</a> , <a href="#">French-2</a> , <a href="#">Technical Skills-8</a> , <a href="#">Spanish-3</a> , ...	Online
<input type="checkbox"/>	<a href="#">Milla Brown</a>	milla	302	PBX-302	Yes	Off	Off	Yes	<a href="#">English-9</a> , <a href="#">French-5</a>	Offline
<input type="checkbox"/>	<a href="#">Kolly</a>	kolly	109	PBX-189	No	Off	Off	No	no skill assigned	Offline
<input type="checkbox"/>	<a href="#">Jasson</a>	jasson	106	PBX-106	Yes	Off	Off	Yes	no skill assigned	Away
<input type="checkbox"/>	<a href="#">Mia</a>	mia	104	PBX-104	No	Off	Off	Yes	no skill assigned	Meeting

Figure 13: ACD Agents page

## 6.3 ACD Status Codes

The [ACD Status Codes](#) page allows creating/modifying a new/existing status(es) in addition to the default ones (offline, online, away and DND).

To create a new status:

1. Click **Add** to create a new status.
2. Insert the **name** in the **Status** field.
3. Click **Save** to create the status.

Newly created status will be listed in the [ACD Status Codes](#) table and available to be used by agents.

<input type="checkbox"/>	Label
<input type="checkbox"/>	<a href="#">Meeting</a>
<input type="checkbox"/>	<a href="#">Coffee break</a>
<input type="checkbox"/>	<a href="#">Lunch</a>

Figure 14: ACD Status Codes page

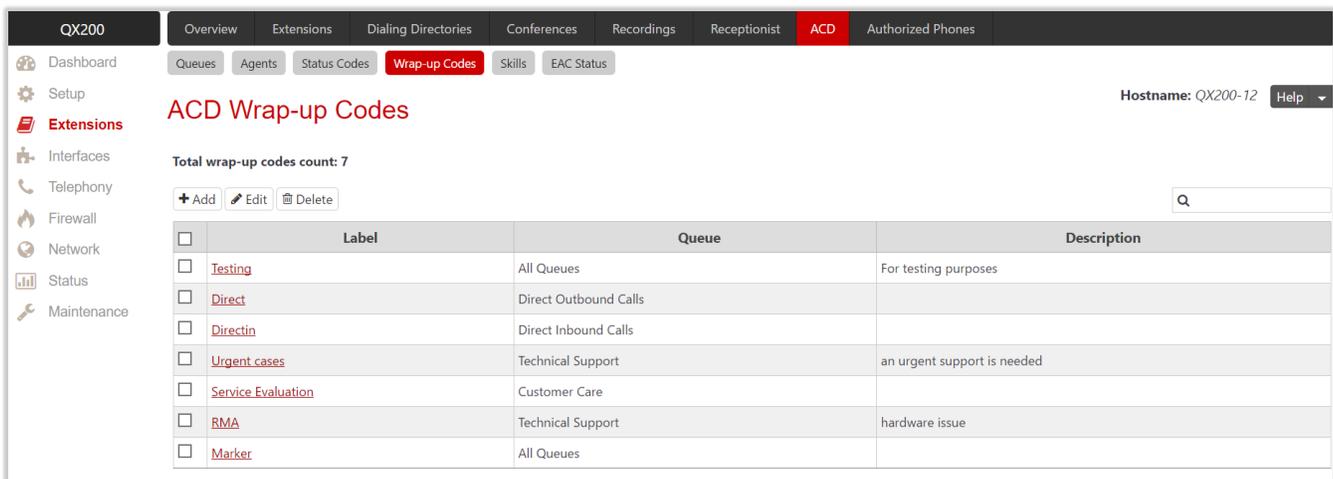
## 6.4 ACD Wrap-up Codes

**Wrap-up Codes** are used in **EAC** for labeling the calls. The **ACD Wrap-up Codes** page contains the list of labels for all available wrap-up codes with descriptions and queues assigned. This page allows creating/modifying new/existing codes.

To create a new Wrap-up Code:

1. Click **Add** to create a new wrap-up code.
  - Select the **ACD Queue** to assign the wrap-up code.
  - Insert a **Label** name and **description** if needed.
2. Click **Save** to create the wrap-up code.

Newly created wrap-up code will be listed in the **ACD Wrap-up Codes** table and will be available for labeling the calls on **EAC**.



The screenshot shows the 'ACD Wrap-up Codes' page in the EAC interface. The page has a navigation menu on the left with options like Dashboard, Setup, Extensions, Interfaces, Telephony, Firewall, Network, Status, and Maintenance. The main content area shows the title 'ACD Wrap-up Codes' and a 'Total wrap-up codes count: 7'. Below this is a table with columns for Label, Queue, and Description. The table contains the following data:

<input type="checkbox"/>	Label	Queue	Description
<input checked="" type="checkbox"/>	Testing	All Queues	For testing purposes
<input type="checkbox"/>	Direct	Direct Outbound Calls	
<input type="checkbox"/>	Directin	Direct Inbound Calls	
<input type="checkbox"/>	Urgent cases	Technical Support	an urgent support is needed
<input type="checkbox"/>	Service Evaluation	Customer Care	
<input type="checkbox"/>	RMA	Technical Support	hardware issue
<input type="checkbox"/>	Marker	All Queues	

Figure 15: ACD Wrap-up Codes page

### Note:

- The wrap-up code can be assigned to "All Queues" or to a particular queue.
- By default, the "All Queues", "Direct Outbound Calls" and "Direct Inbound Calls" options are available in the **ACD Queue** drop-down list.

## 6.5 ACD Skills

ACD skills are used when the **Skills** option is selected for **Call Distribution Type** in the [queue settings](#). The defined skills will then be used to distribute calls to agents by the skill level (Figure 11).

To create a new skill:

1. Click **Add** to create a new skill.
  - Insert a **Skill** name and **description** if needed.
2. Click **Save** to create the skill.

Newly created skills will be listed in the **ACD Skills** table and will be available for assigning to the agents.

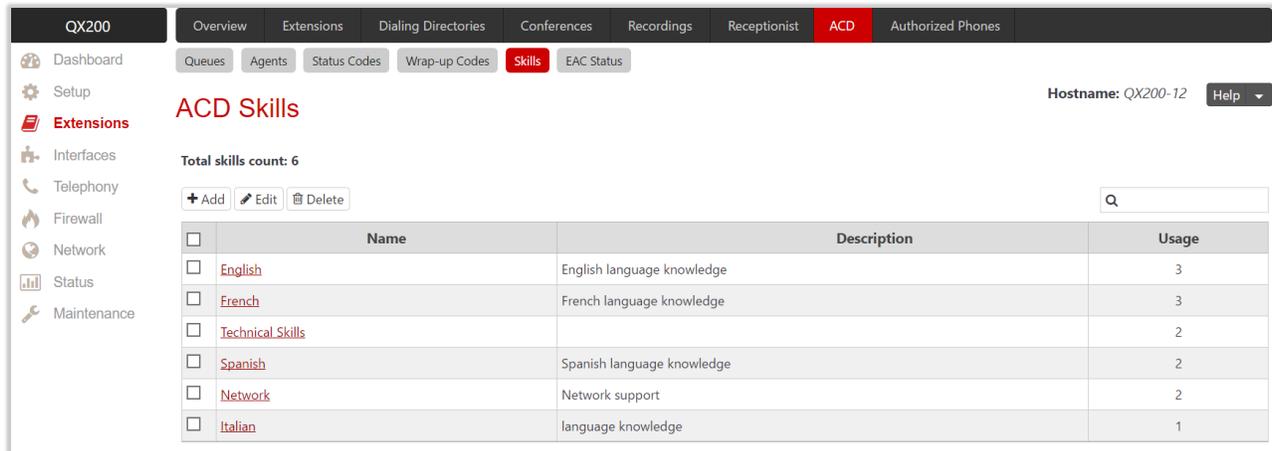


Figure 16: ACD Skills page

## 6.6 EAC Status

The **EAC Status** page provides information about the agents currently logged in the **Epygi ACD Console** application. This page offers the following components:

- **EAC license Used/Total** – the number of **EAC licenses**: all available on QX and currently in use.
- **Log Out** – is used to terminate the **EAC session** for the currently logged in agent(s).
- **EAC Status** table shows the following information for each active **EAC session**: gent name and agent username, the session start time, the IP address of the device agent is connected from and the browser used for the connection.

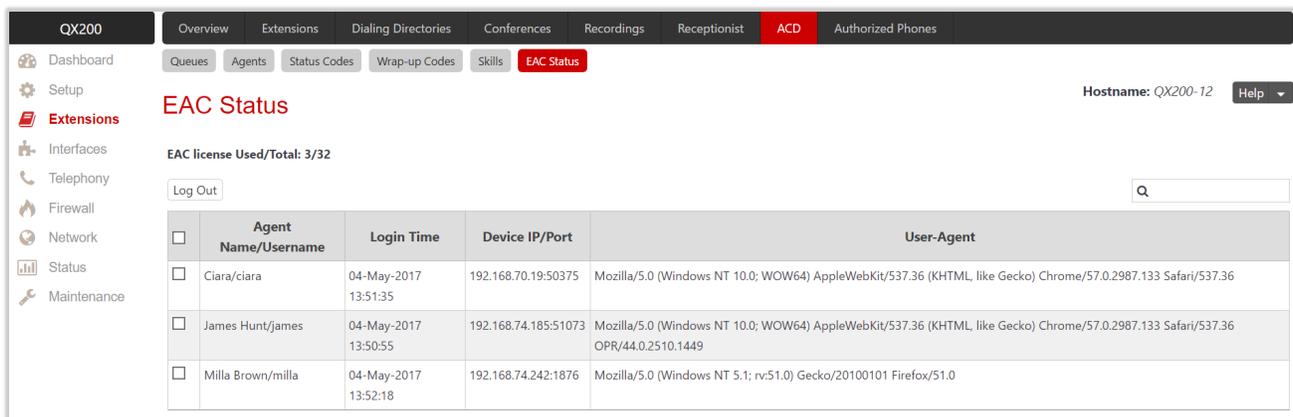


Figure 17: EAC Status page

## 7 Configuration Management

QX's configuration management service allows backup and restore configuration file with all configuration settings including **EAC data**.

The following data will be covered:

- Configuration Settings
- Custom and system messages
- EAC Chat database
- Agents Status Statistics
- Call Statistics

Click the **Download** button to back up and download the current configuration.

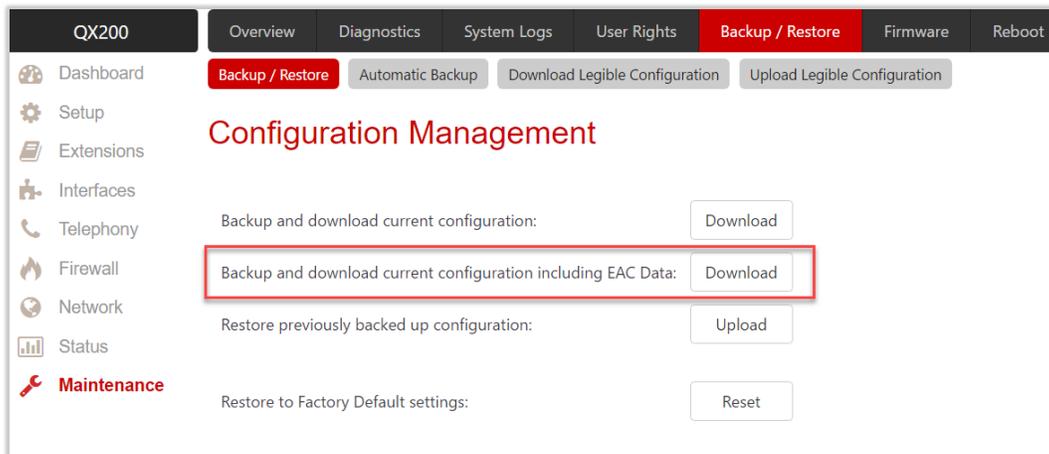


Figure 18: Configuration Management page

**Note:** You can also automatically back up and download the current configuration (including EAC data) from **Maintenance**→**Backup/Restore**→**Automatic Backup** page, by selection the "Include EAC Data" option.

The **Restore previously backed up configuration** service is used to restore earlier created backup file and replace the current configuration settings, system and custom voice messages as well as **EAC data**.

1. Click the **Upload** button.
2. Click **Choose File** to open the file chooser window and browse for the file.
3. Click **Save** to start configuration restore.

**Note:**

- The current **EAC data** with **system configuration** will be overwritten after configuration restore.
- QX doesn't allow to restore the earlier created backup in case it is running a firmware version lower than the version at the time of configuration backup.

## 8 EAC Web application

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**EAC** is a web application used for monitoring the call center activities by **ACD** agents. **EAC** stores and formats the **ACD** data, producing real-time and statistical reports on the **ACD** activities as well as creating an efficient management environment for admins and supervisors.

The main functions of **EAC** are as follows:

- Show the number of online agents per queue.
- Show the number of the answered, abandoned, rejected and queued calls per queue.
- Show the active calls per queue and allow the supervisor/admin to terminate them.
- Show the agent's status statistics per queue.
- Change the agent's status (controlled by admin and supervisor).
- Enable and disable the agent's capability to receive the calls from a specific queue.
- Show the call summary per queue and per agent: the number of answered calls, total and average duration of the calls.
- Show Call Details Records per queue.
- Show Wrap-up codes assigned to calls and Wrap-up code summary.
- Update Call Details: leave comments on the call and label it.
- Instant messaging between agents, create chat rooms.
- Generate and download different statistical reports.
- Create schedules for the reports, send them via e-mail or to FTP server.
- Make direct outbound calls.
- Make blind transfer to agents or other destination numbers.
- Allow supervisor and/or admin to Barge-In, Listen-In and Whisper active calls.

### 8.1 System Requirements to EAC

- **ACD** and **EAC** licenses installed on QX.
- **ACD** queue(s) and agent(s) configured on QX.
- Google Chrome, Opera, Microsoft Edge and Mozilla Firefox are the recommended WEB browsers for using **EAC**.
- The QX and the PC running **EAC** should be visible to each other. If user connects to the QX via the WAN interface, ensure a filtering rule is enabled on the QX firewall for the PC. **EAC** application will use port **8181**. Creating a rule is not required if the firewall on QX is disabled or set to **Low** level.

## 8.2 Login to EAC

Click the **Application**→**Epygi ACD Console** link from QX login page or enter the following line <http://xxx.xxx.xxx.xxx/acd> in the address bar of the browser to open **EAC**, where **xxx.xxx.xxx.xxx** is the IP address or host name of the QX.



Figure 19: EAC – Login page

Login to **EAC** using the [web authentication](#) credentials for the agent.

## 8.3 EAC Management

The following main menus are available on **EAC**:

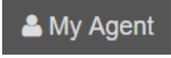
- [Top Menu Bar](#) – allows to quickly check/change the status of a logged in agent and displays agent related info.
- [Dashboard](#) – displays the active calls of the logged in agent and allows him/her to make an outbound call.
- [Queues](#) – displays current and statistical information about **Inbound Queue(s)** and **Direct Calls**.
- [Wrap-up Codes](#) – displays Wrap-up codes, Wrap-up code summary per agent and per queue.
- [Agents](#) – displays information about all agents, the current status for agent and the time period the agent is in that state.
- [Extensions](#) – displays the list of all current QX extensions and attached agents (if any). The list is used for making calls to those extensions (agents) and chatting with the agents.
- [Contacts](#) – shows all contacts (names, phone numbers and e-mail addresses) imported from the Phone Book directory of the QX. The list is used for making outbound calls to external parties.
- [Chat](#) – allows a logged in agent to chat with other agents.
- [Reporting](#) – allows to generate and download statistical reports for queues and agents for selected timeframe.
- [Settings](#) – allows a logged in agent to review some QX settings and configure the Marquee text.

### 8.3.1 Top Menu Bar

The **Top Menu Bar** shows the current status for logged in agent, allows to change it quickly and log out from EAC.



Figure 20: Top Menu Bar

- To change the status, click the **Status** selection launcher . The drop-down list with available statuses will appear, select any **Status**. **TIP:** All system default and user-defined [statuses](#) are available for selection.
- To log out from **EAC**, click the  at the top right of menu bar (next to the logged in agent's username). Select **Logout**.
- To quickly navigate your agent's page, click .

### 8.3.2 Dashboard menu

The **Dashboard** menu is used to display information on active calls and handle them. The **Active Calls** table shows the active calls of the logged in agent **only**. Calls not addressed to or not initiated by logged in agent wouldn't displayed in the **Dashboard**.

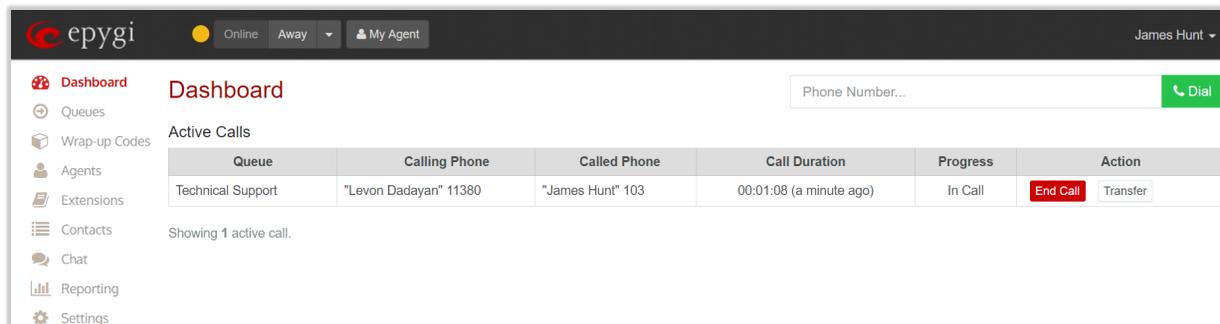


Figure 21: Dashboard menu

#### Make a Call

Make a call from **Dashboard** as follows:

1. Type the destination number in the "Phone number ..." field.
2. Click . The **agent's** phone will ring immediately.
3. Answer the call to dial out the destination number.

**Note:**

- Only agents with [PBX](#) call type are able to make outbound calls from **EAC**.
- The **QX** handles the outbound calls initiated by **EAC**. Therefore, the destination number dialed by **agent** should match the call routing rules specified on the QX's **Call Routing Table**.

## Blind Transfer

As soon as the call is answered, the **Transfer** action becomes available. Make a blind transfer as follows:

1. Click **Transfer** during an active call. **Transfer Call** window will be opened.
2. Type the destination number in the "Phone number ..." field.
3. Click **Dial** to complete the transfer.

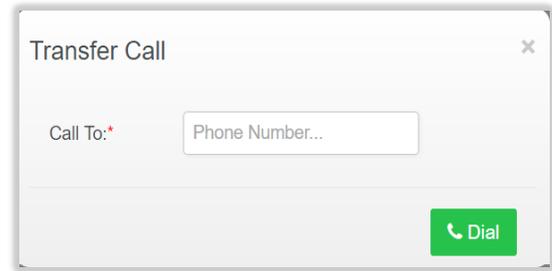


Figure 22: Transfer Call window

**Note:** The **QX** handles the outbound calls initiated by **EAC**. Therefore, the destination number dialed by **agent** should match the call routing rules specified on the **QX's Call Routing Table**.

## End a Call

Click **End Call** during an active call, to disconnect the call. **TIP:** Admin and/or supervisor can disconnect calls during connecting stage (when no one answers the call yet).

### 8.3.3 Queues menu

The **Queues** menu displays all user-defined **Inbound Queue(s)** as well as **Direct Calls**. The **Queues** table contains the following information for each queue: number of online agents of the queue, current number of queued and answered calls. **Membership** column shows the membership status of the logged in agent in each queue.

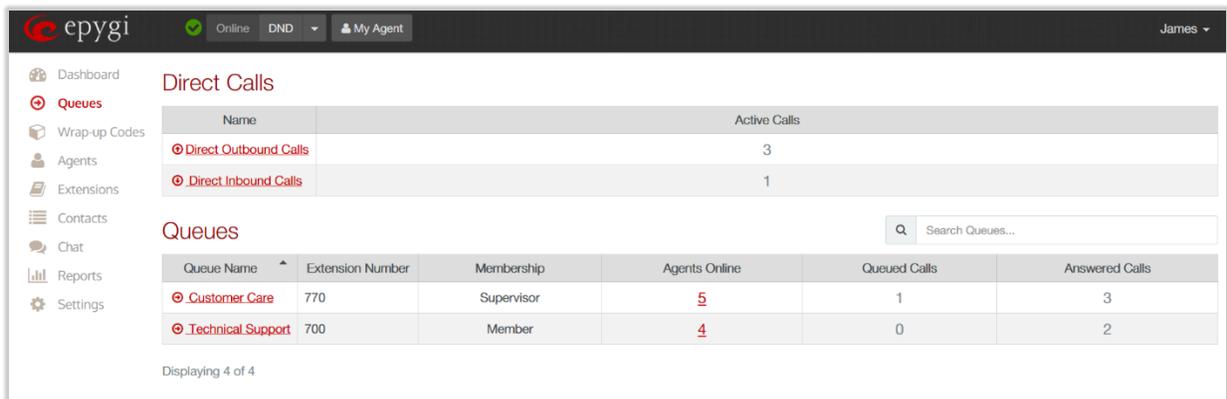


Figure 23: Queues menu

To access **Queue Statistics**, click the hyperlinked **Queue Name**. **TIP:** Detailed information on each **Inbound Queue** is accessible only for admin(s) and supervisor(s). Detailed information on the **Direct Inbound and Outbound Calls** is accessible only for **admin(s)**.

The **Queue Statistics** pages are used to display statistical information for each queue for the selected timeframe. **Queue Statistics** consists of the following pages:

- [Queue Summary](#)
- [Agents](#)
- [Live Calls](#)
- [Call Summary](#)
- [Call Details](#)
- [Wrap-up Codes Summary](#)

## Queue Summary

The **Queue Summary** page displays the call summary information for the selected timeframe (Figure 24):

- **Totals** – total number of calls (answered, abandoned or rejected) received in the queue:
  - **Wait Time in Queue (Total)** – total waiting time of the calls in the queue.
  - **Wait Time in Queue (Average)** – average waiting time of the calls in the queue.
  - **Wait Time in Queue (Maximum)** – the longest waiting time of the call in the queue.
- **Answered** – total number of calls answered by the queue's agent(s):
  - **Call Duration (Total)** – total duration of all answered calls.
  - **Call Duration (Average)** – average duration of answered calls.
  - **Call Duration (Maximum)** – the longest duration of the answered call.
  - **Wait Time in Queue (Total)** – total waiting time of the calls before being answered.
  - **Wait Time in Queue (Average)** – average waiting time of the calls before being answered.
  - **Wait Time in Queue (Maximum)** – the longest waiting time of the call before being answered.
- **Abandoned** – total number of abandoned calls:
  - **Wait Time in Queue (Total)** – total waiting time of the calls before being abandoned.
  - **Wait Time in Queue (Average)** – average waiting time of the calls before being abandoned.
  - **Wait Time in Queue (Maximum)** – the longest waiting time of the call before being abandoned.
- **Rejected** – total number of unanswered calls by queue's agents by reason of either the **Queue Ring Timeout** has expired or the number of calls waiting in the queue reached the **Max Queue Size**:
  - **Overflow** – the total number of calls that could not enter the queue because it was full with calls already waiting in the queue (**Max Queue Size**).
  - **Timeout** – the total number of calls received by the queue and not answered within the ringing timeout (**Queue Ring Timeout**).

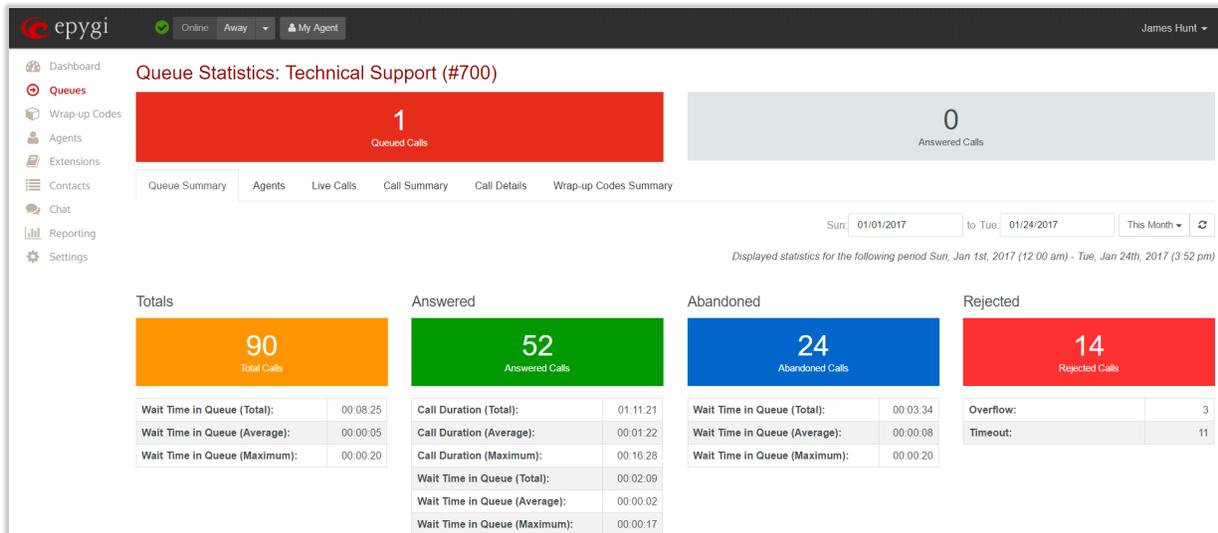


Figure 24: Queue Summary (for Inbound Queue) page

**For Direct Calls**

Only answered calls will be displayed in the Queue Summary page for Direct Inbound and Outbound Calls. The Queue Summary page displays the call summary information for the selected timeframe:

- **Totals** – total number of answered calls:
  - **Call Duration (Total)** – total duration of all answered calls.
  - **Call Duration (Average)** – average duration of answered calls.
  - **Call Duration (Maximum)** – the longest duration of the answered call.

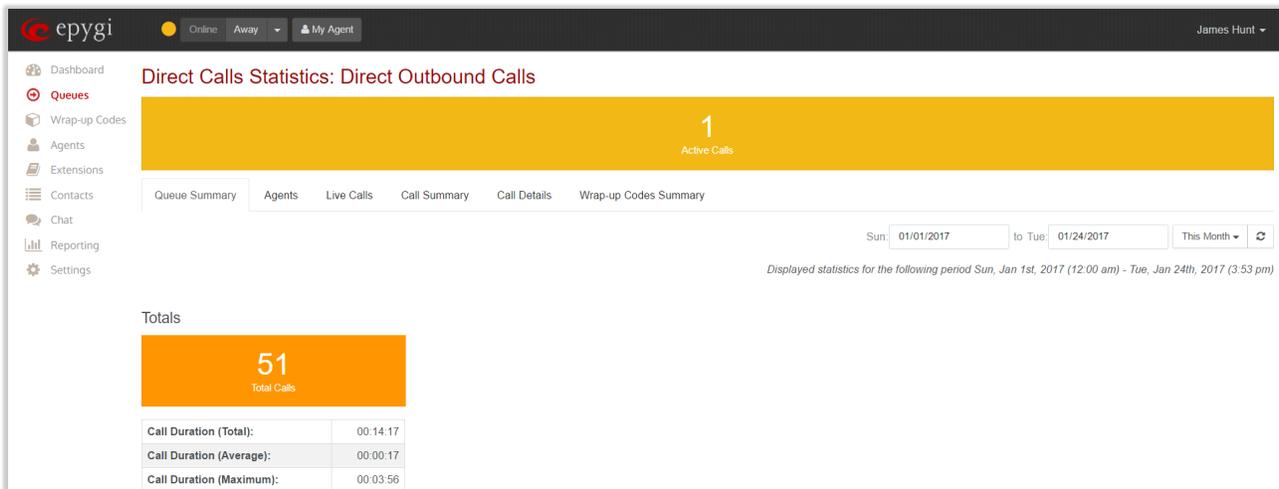


Figure 25: Queue Summary (for Direct Outbound Calls) page

## Agents

The **Agents** page displays the information concerning all agents of the queue (Figure 26):

- **Agent** – lists all agents assigned to the queue. **TIP:** All agents are automatically assigned to the **Direct Inbound** and **Outbound** queues.
- **Status** – shows the current status of the agent.
- **Status Time** – shows the time that has passed since the beginning of the displayed status.
- **Allow Receiving Calls** – shows the call receiving capability of an agent within this queue. When this setting is on the right (**Green**) then the agent will receive the calls if his/her status is Online. If the setting is on the left (**Red**) then the agent won't receive calls within this queue.
- **Queue Supervisor** – shows whether the corresponding agent has the supervisor permissions or not. **TIP:** The **Direct Inbound** and **Outbound** queues don't have a supervisor.

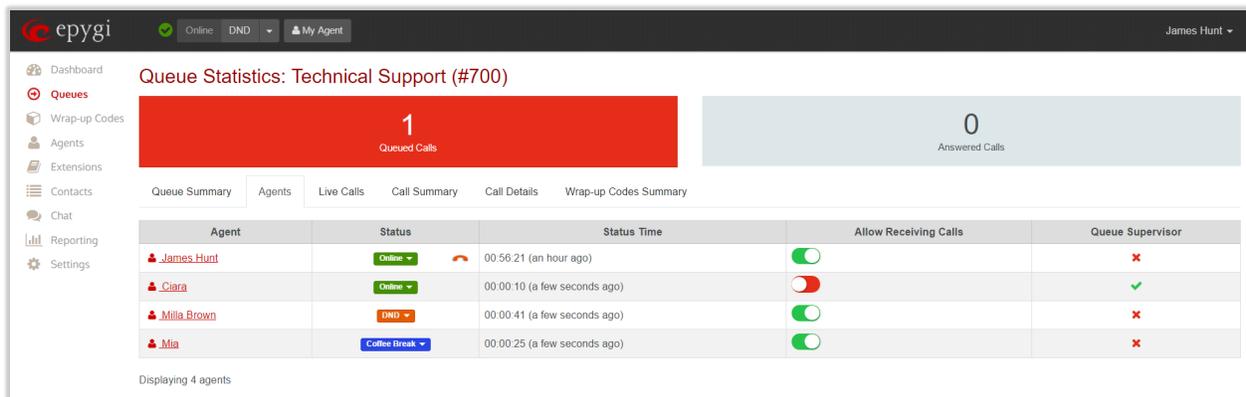


Figure 26: Queue Statistics – Agents page

## Live Calls

The **Live Calls** page is used to display the currently queued, answered calls and handle them (Figure 27). The following actions are available to handle calls:

- **End Call** – is used to disconnect active and queued calls.
- **Barge-In** – allows the supervisor/admin to participate (3-way call) the active call.
- **Listen-In** – allows the supervisor/admin to listen (without being identified) the active call.
- **Whisper** – allows the supervisor/admin to whisper the agent who initiated or answered the active call.

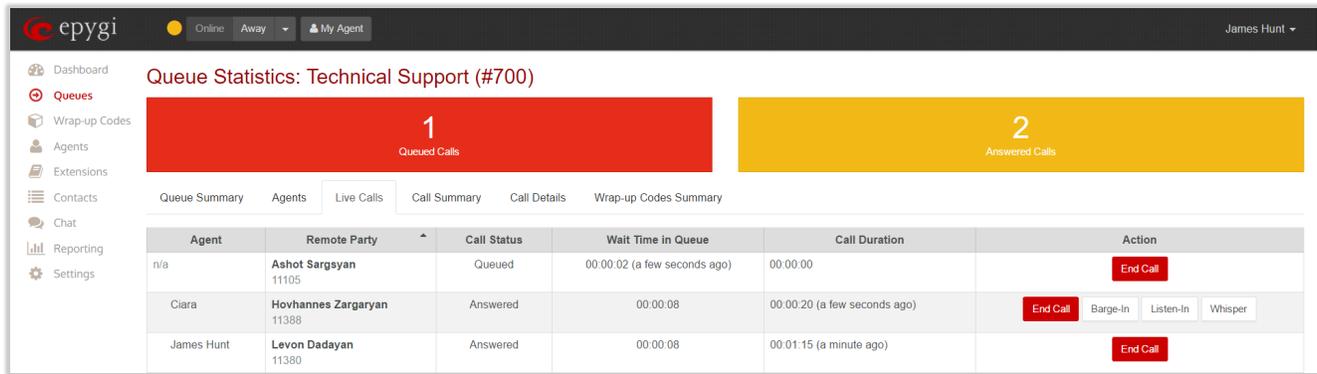


Figure 27: Queue Statistics – Live Calls page

## End a Call

Click **End Call** to disconnect the active or queued call.

## Barge-In, Listen-In and Whisper

**Barge-In** is a licensable feature on QX, which consists of Barge-In, Listen-In and Whisper features. To allow **Barge-In**, **Listen-In** and **Whisper** the active calls, define a list of extensions that are capable to Barge-In, Listen-In and Whisper the current extension calls (define the appropriate permissions) from QX WEB GUI. To enable **Barge-In** option and define access list on the extension, follow the steps below:

1. Login into QX WEB GUI. **Barge-In** license should be activated on the QX.
2. Go to the **Extensions**→**Extensions** page.
3. Select the extension and click "**Admin Settings**" icon.
4. Click "**Edit Call Barge-In / Intercept Access List**" link.
5. Define the access list who allowed to barge-in to the selected extension.

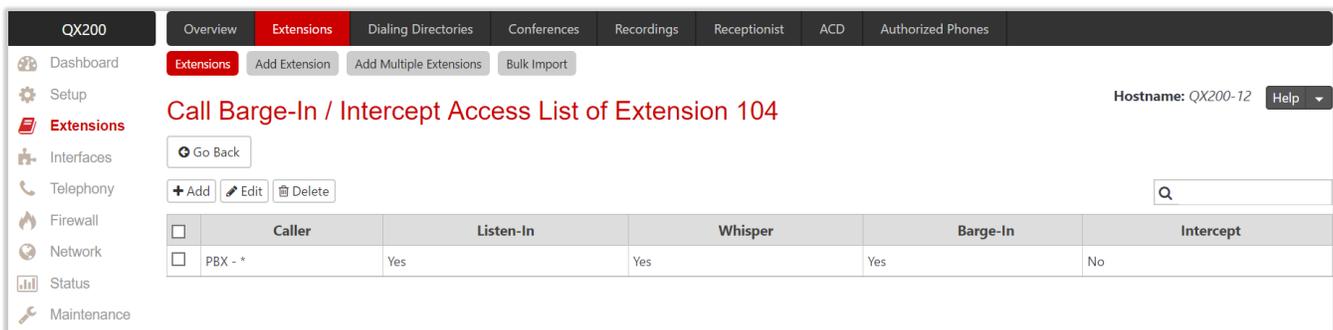


Figure 28: Call Barge-In / Intercept Access List of Extension

6. Go back and enable "**Allow other users to Barge-In to this extension**" checkbox from **General Settings** section.
7. Click **Save**.

Barge in (Barge-In, Listen-In and Whisper) to the active call as follows:

1. Click the **preferred** button during an active call, to establish call in selected mode.
2. The **logged in agent** phone will ring immediately.
3. Answer the call to connect to the existing call in the mode selected.

**Note:**

- Barge-in actions are available only when the **Barge-In** license key is activated on the QX.
- You can barge-in also to **Direct Inbound** and **Outbound** calls.

## Call Summary

The **Call Summary** page shows the number of answered calls (by each agent), the total and average duration of calls within the selected timeframe (Figure 29).

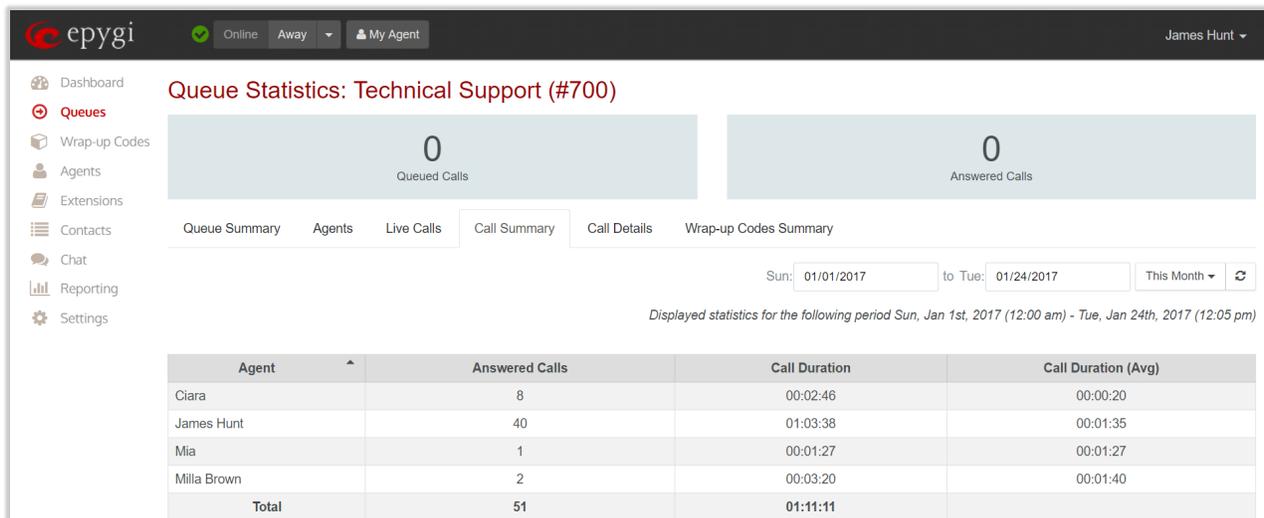


Figure 29: Queue Statistics – Call Summary page

## Call Details

The **Call Details** page allows to track and report the call detail records (CDRs) for the queue within the specified timeframe, as well as listen the recorded calls, label and comment them (Figure 30).

CDRs listed in the **Call Details** table are characterized by the following parameters:

- **Type** – shows the call state (**answered**, **abandoned** or **rejected**). **TIP:** Only answered calls will be displayed in **Call Details** page for **Direct Inbound** and **Outbound Calls**.
- **Agent** – the agent who answered the call.
- **Date/Time** – shows the date and time when call started.
- **Remote Party** – shows the caller's number, display name (if available).
- **Wait Time in Queue** – shows the waiting time of the call in the queue. **TIP:** **Direct Inbound** and **Outbound Calls** don't have "Wait Time".
- **Call Duration** – shows the duration of the call (doesn't include the **Waiting Time in Queue**).
- **Close Reason** – call close reason (closed by Agent/Caller, Abandoned, Timed Out and Transferred).
- **Recording** – shows the link(s) for Call Recording(s).
- **Wrap-up Code** – shows the wrap-up label attached to the call.

- **Comment** – shows the comment left on the call.

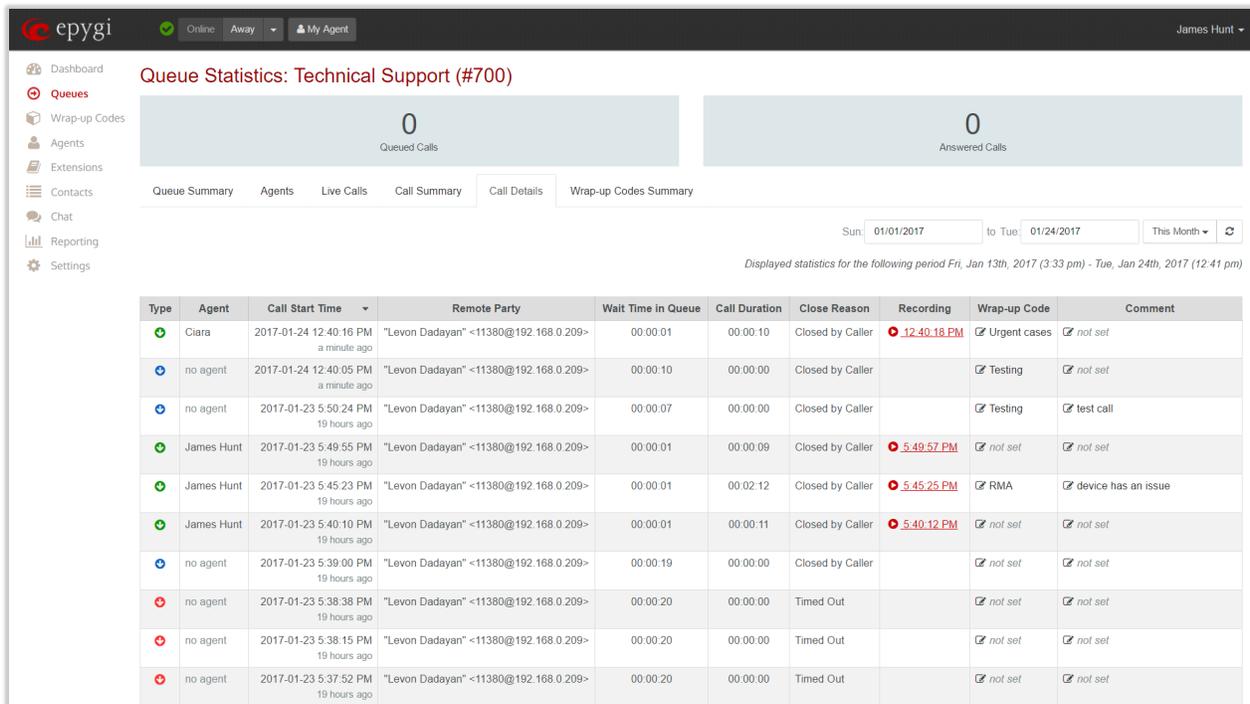


Figure 30: Queue Statistics – Call Details page

The following actions are available:

- [Playing and downloading recorded calls](#)
- [Updating Call Details](#)

## Recording

**Call Recording** is a licensable feature on QX. To show recorded calls in the **Call Details** page, the corresponding call recording rules must be configured on QX and also recorded calls should be kept on QX. The link(s) for recorded calls will disappear as soon as the recorded calls have been deleted or moved to FTP server from QX. QX doesn't record the call while in hold, so in case of holding/resuming the call, two different links will be shown (the first link – before holding the call, the second one after resuming the call).

For more information on **Call Recording** feature, please refer to the [Call Recording Feature on QX IP PBXs](#) guide.

Listen the recorded call as follows:

1. Click the **link** for the call from **Recording** column.
2. **Recording Details** window will be opened.
3. You may **Play/Pause**, **Stop** and **Download** the recorded file.

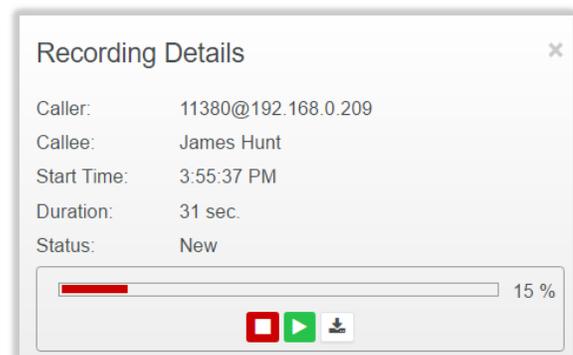


Figure 31: Recording Details window

## Update Call Details

The **Update Call Details** window is used to label calls and leave comments. The corresponding labels will be available in the drop-down list for each queue.

Update call details as follows:

1. Click the  icon for the call from **Wrap-up Code** or **Comment** column.
2. The **Update Call Details** window will be opened.
3. Select a label from the **Wrap-up Code** drop-down list.
4. Leave a note in the **Comment** field.
5. Click **Save** to update call details.

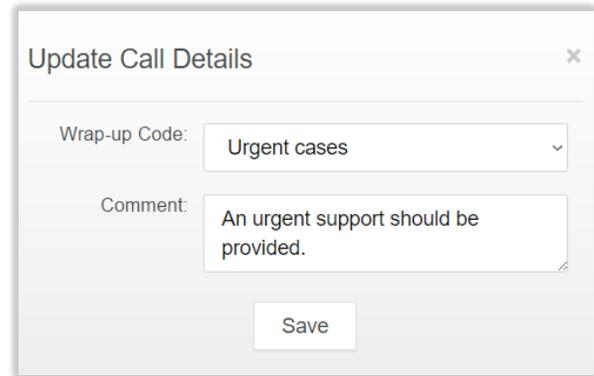


Figure 32: Update Call Details window

## Wrap-up Codes Summary

**Wrap-up Codes Summary** displays the summary of the **Wrap-up codes** used for labeling the calls by agents within the selected timeframe (Figure 33). The **Agent** column will show "no agent" if the labelled call has been rejected or abandoned.

Agent	Label	Count
no agent	<a href="#">Testing</a>	3
no agent	<a href="#">Urgent cases</a>	2
no agent	<a href="#">RMA</a>	1
no agent	<a href="#">Marker</a>	3
Ciara	<a href="#">Urgent cases</a>	2
Ciara	<a href="#">Marker</a>	1
James Hunt	<a href="#">Urgent cases</a>	1
James Hunt	<a href="#">RMA</a>	1
James Hunt	<a href="#">Marker</a>	1
<b>Total</b>		<b>15</b>

Figure 33: Queue Statistics – Wrap-up Codes Summary page

Click the hyperlinked **Label** to access the **Wrap-up Codes Statistics** page for the selected label.

### 8.3.4 Wrap-up Codes menu

The **Wrap-up Codes** menu displays all Wrap-up code labels, their descriptions and assigned queues (Figure 34). Detailed information on each Wrap-up code label is accessible only to the admin(s) and supervisor(s). Click the hyperlinked **Label** to access the **Wrap-up Code Statistics**.

Label	Queue	Description
<a href="#">Direct</a>	Direct Outbound Calls	
<a href="#">DirectIn</a>	Direct Inbound Calls	
<a href="#">Marker</a>	all queues	
<a href="#">RMA</a>	Technical Support	hardware issue
<a href="#">Service Evaluation</a>	Customer Care	
<a href="#">Testing</a>	all queues	For testing purposes
<a href="#">Urgent cases</a>	Technical Support	an urgent support is needed

Figure 34: Wrap-up Codes menu

Wrap-up Codes Statistics consists of two sections:

- **Queue Summary** – shows the number of calls that have been assigned with the selected label in each queue within the selected timeframe (Figure 35).
- **Agent Summary** – shows the number of calls that have been assigned with the selected I by agent(s) within the selected timeframe (Figure 36).

Queue	Count
Direct Inbound Calls	1
Direct Outbound Calls	1
Technical Support	4
<b>Total</b>	<b>6</b>

Figure 35: Wrap-up Codes Statistics – Queue Summary page

Agent	Count
no agent	3
Ciara	1
James Hunt	2
<b>Total</b>	<b>6</b>

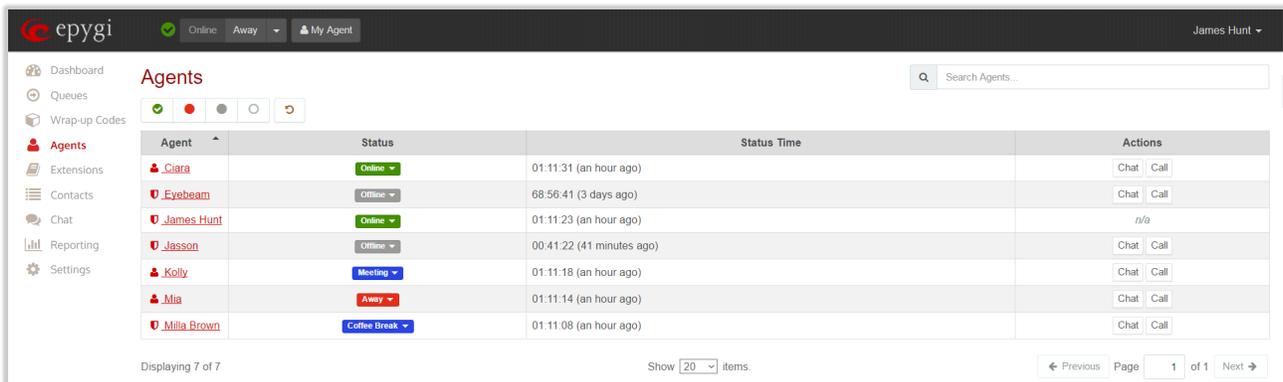
Figure 36: Wrap-up Codes Statistics – Agent Summary page

**Note:**

- Supervisor is able to access the Wrap-up codes' detailed information if the wrap-up codes are assigned to **All Queues** or to those where the supervisor is a member of. Wrap-up codes assigned to the **Direct Calls** are only accessible to the **admin(s)**.
- The **Agent** column will show "no agent" if the labelled call has been rejected or abandoned.

### 8.3.5 Agents menu

The **Agents** menu contains the following information about each agent: agent name, current status, how long the agent has been in the current status. The logged in agent can also call and chat with other agents by clicking on the corresponding button.



Agent	Status	Status Time	Actions
<a href="#">Clara</a>	Online	01:11:31 (an hour ago)	Chat Call
<a href="#">Eyebear</a>	Offline	08:56:41 (3 days ago)	Chat Call
<a href="#">James Hunt</a>	Online	01:11:23 (an hour ago)	n/a
<a href="#">Jasson</a>	Offline	00:41:22 (41 minutes ago)	Chat Call
<a href="#">Kolly</a>	Meeting	01:11:18 (an hour ago)	Chat Call
<a href="#">Mia</a>	Away	01:11:14 (an hour ago)	Chat Call
<a href="#">Milla Brown</a>	Coffee Break	01:11:08 (an hour ago)	Chat Call

Figure 37: Agents menu

#### Make a Call

Make a call from the **Agents** menu as follows:

1. Click . The **agent's** phone will ring immediately.
2. Answer the call to dial out the destination number.

**Note:**

- Only agents with **PBX** call type are able to make outbound calls from **EAC**.
- The **QX** handles the outbound calls initiated by **EAC**. Therefore, the destination number dialed by **agent** should match the call routing rules specified on the QX's **Call Routing Table**.

#### Chat with Agent

Click the  button from the **Actions** column, next to the selected agent. The chat window with that agent will be opened.

To access **Agent Statistics**, click the hyperlinked **Agent**. Detailed information on each agent will be displayed. The **admin(s)** and **supervisor(s)** can monitor other agents' statistics.

The **Agent Statistics** pages are used to display statistical information on each agent for the selected timeframe. **Agent Statistics** consists of the following pages:

- [Status Statistics](#)
- [Call Summary](#)
- [Call Details](#)
- [Wrap-up Codes Summary](#)

## Status Statistics

The **Status Statistics** tables show how long the agent was in each state(status) during the specified timeframe. This information is shown in the form of separate sector graph for each queue (Figure 38). **TIP:** The values may be rounded.

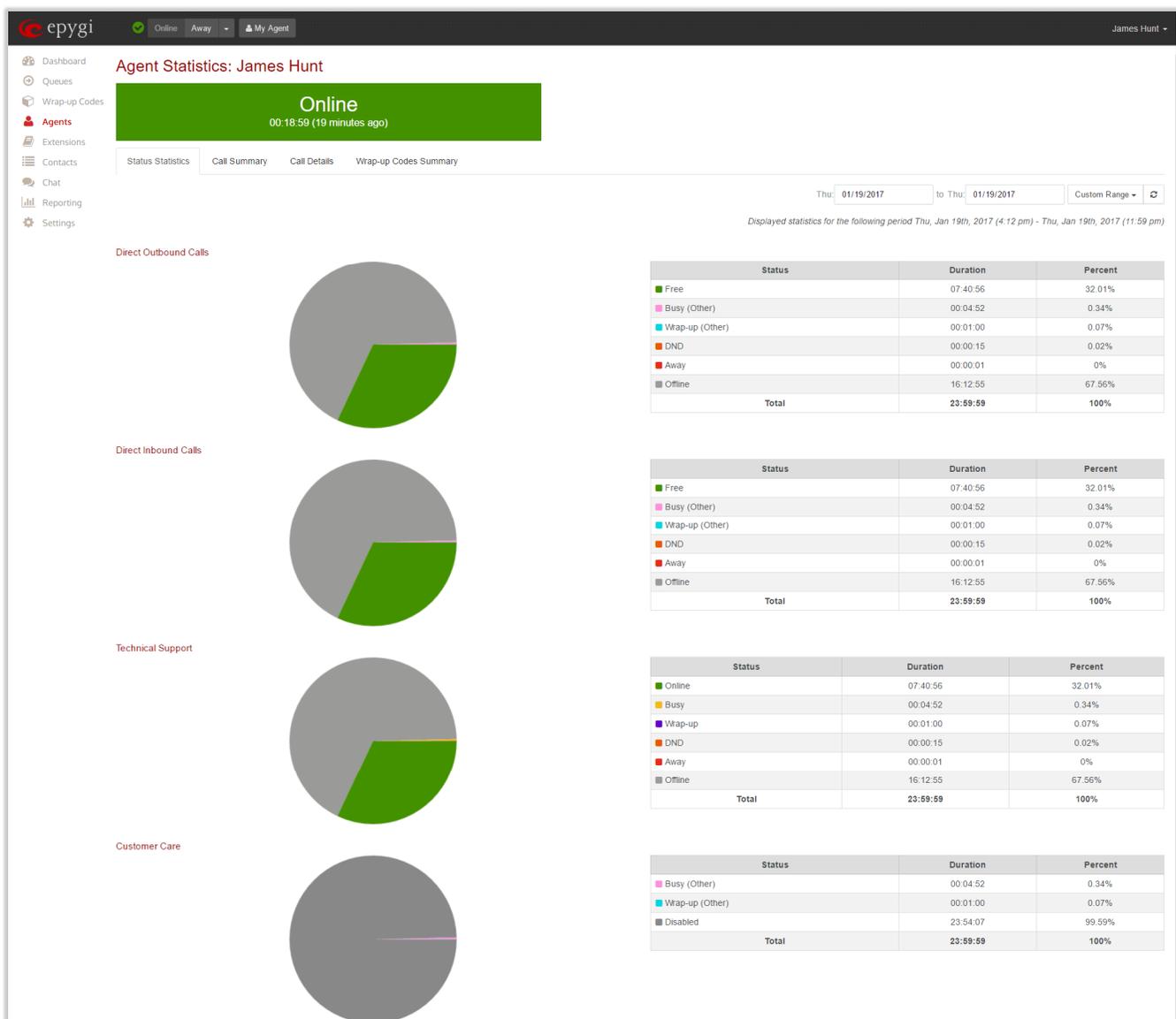


Figure 38: Agents Statistics – Status Summary page

## Call Summary

**Call Summary** displays the total number of calls handled by the agent, total and average duration of those calls for a specific queue and within a selected timeframe (Figure 39).

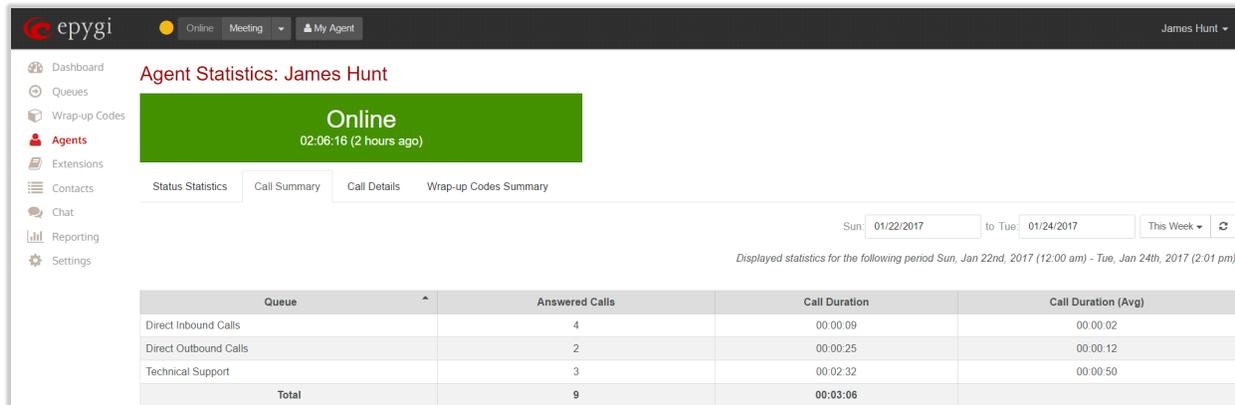


Figure 39: Agents Statistics – Call Summary page

## Call Details

The **Call Details** page allows to track and report the call detail records (CDRs) for the agent within the specified timeframe, as well as listen, label and comment the recorded calls (Figure 40).

CDRs listed in the **Call Details** table are characterized by the following parameters:

- **Type** – shows the call state (**answered**). **TIP:** Only answered calls will be displayed in the **Call Details** page.
- **Agent** – the agent who answered the call.
- **Date/Time** – shows the date and time call started.
- **Remote Party** – shows the caller's number, display name (if available).
- **Wait Time in Queue** – shows the waiting time of the call in the queue. **TIP:** Direct Inbound and Outbound Calls don't have "Wait Time".
- **Call Duration** – shows the duration of the call (doesn't include the **Waiting Time in Queue**).
- **Close Reason** – call close reason (closed by Agent/Caller, Abandoned, Timed Out and Transferred).
- **Recording** – shows the link(s) for Call Recording(s).
- **Wrap-up Code** – shows the wrap-up label attached to the call.
- **Comment** – shows the comment left on the call.

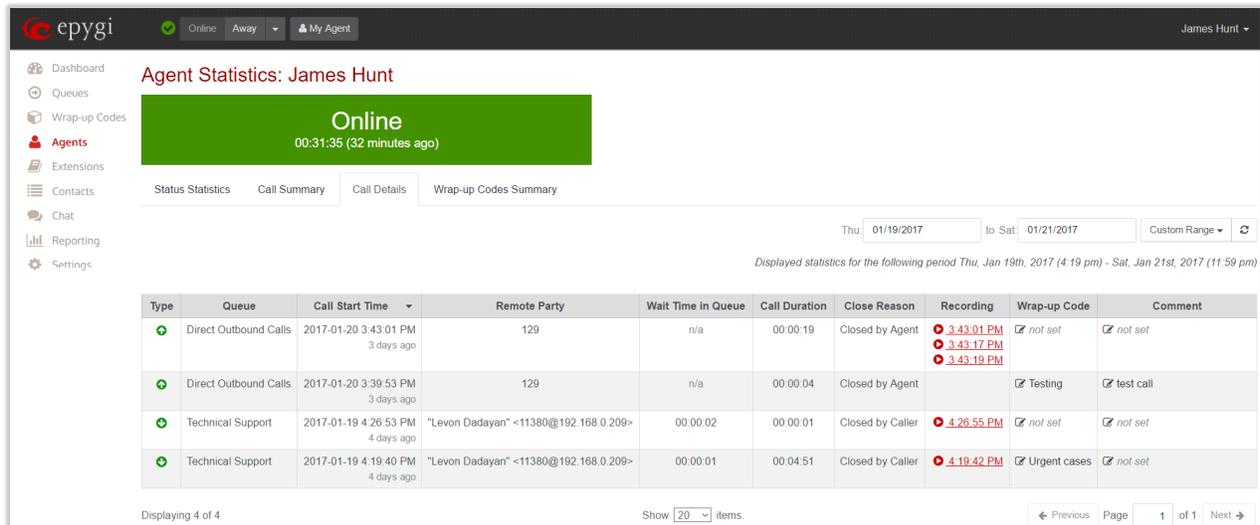


Figure 40: Agent Statistics – Call Details page

The following actions are available for agent(s):

- [Playing and downloading recorded calls](#)
- [Updating Call Details](#)

## Recording

**Call Recording** is a licensable feature on QX. To show recorded calls in the **Call Details** page, the corresponding call recording rules must be configured on QX and also recorded calls should be kept on QX. The link(s) for recorded calls will disappear as soon as the recorded calls have been deleted or moved to FTP server from QX. QX doesn't record the call while in hold, so in case of holding/resuming the call, two different links will be shown (the first link – before holding the call, the second one after resuming the call).

For more information on **Call Recording** feature, please refer to the [Call Recording Feature on QX IP PBXs](#) guide.

Listen the recorded call as follows:

1. Click the **link** for the call from **Recording** column.
2. **Recording Details** window will be opened.
3. You may **Play/Pause**, **Stop** and **Download** the recorded file.

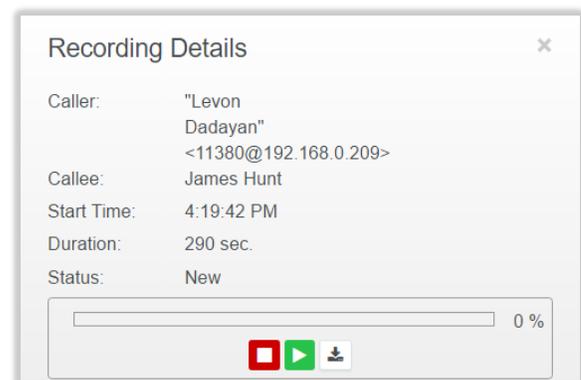


Figure 41: Recording Details window

## Update Call Details

The **Update Call Details** window is used to label calls and leave comments. The corresponding labels will be available in the drop-down list for each queue.

Update call details as follows:

1. Click the  icon for the call from **Wrap-up Code** or **Comment** column.
2. The **Update Call Details** window will be opened.
3. Select a label from the **Wrap-up Code** drop-down list.
4. Leave a note in the **Comment** field.
5. Click **Save** to update call details.

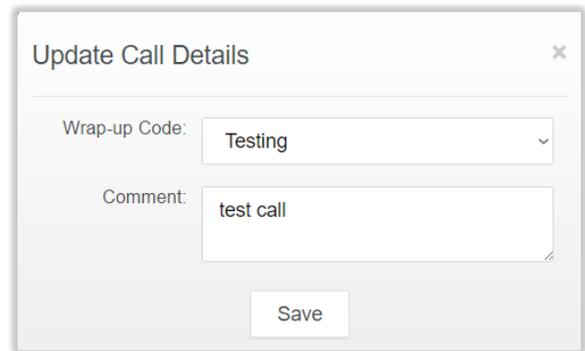
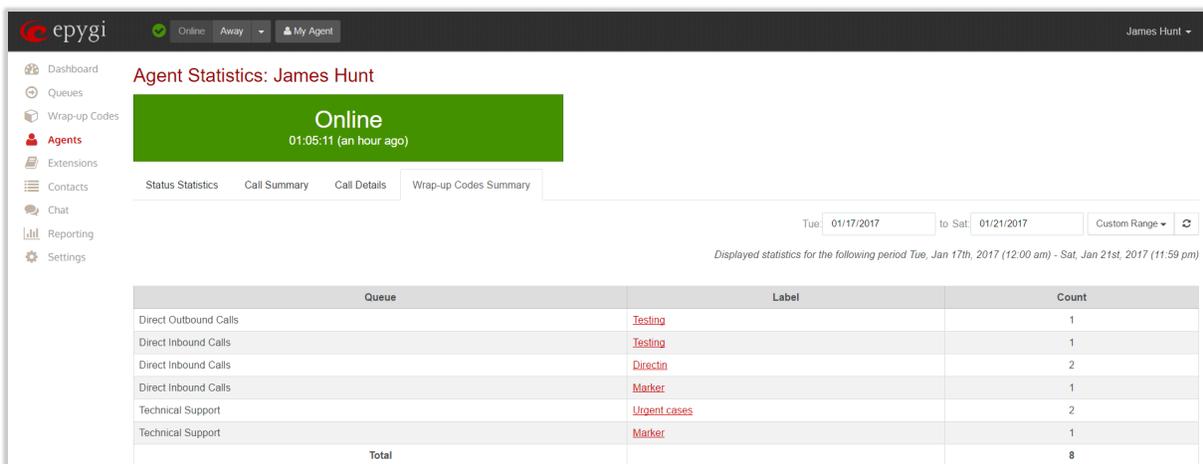


Figure 42: Update Call Details window

## Wrap-up Codes Summary

The **Wrap-up Codes Summary** table displays the summary of the **Wrap-up codes**, used for labeling the calls by the agent, within the selected timeframe.



Queue	Label	Count
Direct Outbound Calls	<a href="#">Testing</a>	1
Direct Inbound Calls	<a href="#">Testing</a>	1
Direct Inbound Calls	<a href="#">Directin</a>	2
Direct Inbound Calls	<a href="#">Marker</a>	1
Technical Support	<a href="#">Urgent cases</a>	2
Technical Support	<a href="#">Marker</a>	1
<b>Total</b>		<b>8</b>

Figure 43: Agent Statistics – Wrap-up Codes Summary page

Click the hyperlinked **Label** to access the **Wrap-up Codes Statistics** page for the selected label.

### 8.3.6 Extensions menu

The **Extensions** menu displays all user extensions on the QX. Agents attached to extensions will be shown in the **Agent** column (Figure 44). The logged in agent can also call and chat with other agents by clicking on the corresponding button.

#### Make a Call

Make a call from the **Extensions** menu as follows:

1. Click Call. The agent phone will ring immediately.
2. Answer the call to dial out the destination number.

#### Note:

- Only agents with **PBX** call type are able to make outbound calls from **EAC**.
- The **QX** handles the outbound calls initiated by **EAC**. Therefore, the destination number dialed by agent should match the call routing rules specified on the QX's **Call Routing Table**.

Display Name	Extension Number	Agent	Actions
Test Agent	150	Agent A	Chat Call
Ciara	120	Ciara	Chat Call
James Hunt	103	James Hunt	n/a
Jasson	106	Jasson	Chat Call
Extension 189	189	Kolly	Chat Call
Mia	104	Mia	Chat Call
Extension 302	302	Milla Brown	Chat Call
Extension 208	208	no agent	Chat Call
Ann Davis	109	no agent	Chat Call
Armine Davtyan	110	no agent	Chat Call
Kyle Walker	111	no agent	Chat Call
Susan Jackson	112	no agent	Chat Call
John Gold	113	no agent	Chat Call
Garry Peghosyan	114	no agent	Chat Call
James McLaren	115	no agent	Chat Call
user24	116	no agent	Chat Call
Jennifer5	117	no agent	Chat Call
Ext 118	118	no agent	Chat Call
Extension 119	119	no agent	Chat Call
Johnny Walker	105	no agent	Chat Call

Figure 44: Extensions menu

#### Chat with Agent

Click the Chat button from the **Actions** column, next to the selected agent. The chat window with that agent will be opened.

### 8.3.7 Contacts menu

The **Contacts** menu displays all contacts imported from the **Phone Book Directory** of the QX. The **Contacts** table contains the following information about each contact: first and last name, contact number(s) and e-mail address (if applicable). The **logged in agent** can call the contact by clicking on the corresponding button as well as e-mail by clicking the **e-mail address** link.

For more information on configuration of contacts on the QX, please refer to the [Dialing Directories on QX IP PBXs](#) guide.

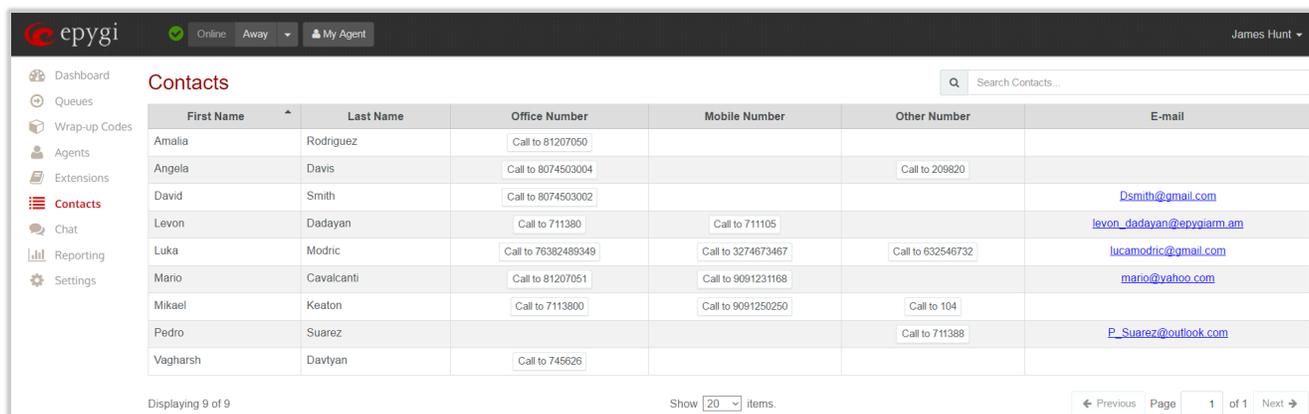
#### Make a Call

Make a call from the **Contacts** menu as follows:

1. Click . The **agent's** phone will ring immediately.
2. Answer the call to dial out the destination number.

#### Note:

- Only agents with **PBX** call type are able to make outbound calls from **EAC**.
- The **QX** handles the outbound calls initiated by **EAC**. Therefore, the destination number dialed by **agent** should match the call routing rules specified on the QX's **Call Routing Table**.



The screenshot shows the Epygi web interface with the 'Contacts' menu selected. The table below represents the data shown in the interface:

First Name	Last Name	Office Number	Mobile Number	Other Number	E-mail
Amalia	Rodriguez	Call to 81207050			
Angela	Davis	Call to 8074503004		Call to 209820	
David	Smith	Call to 8074503002			<a href="mailto:Dsmith@gmail.com">Dsmith@gmail.com</a>
Levon	Dadayan	Call to 711380	Call to 711105		<a href="mailto:levon_dadayan@epygiarm.am">levon_dadayan@epygiarm.am</a>
Luka	Modric	Call to 76382489349	Call to 3274673467	Call to 632546732	<a href="mailto:lucamodric@gmail.com">lucamodric@gmail.com</a>
Mario	Cavalcanti	Call to 81207051	Call to 9091231168		<a href="mailto:mario@yahoo.com">mario@yahoo.com</a>
Mikael	Keaton	Call to 7113800	Call to 9091250250	Call to 104	
Pedro	Suarez			Call to 711388	<a href="mailto:P.Suarez@outlook.com">P.Suarez@outlook.com</a>
Vagharsh	Davlyan	Call to 745626			

Figure 45: Contacts menu

### 8.3.8 Chat menu

**Chat** opens an instant messaging dialogue session for agents to be able to quickly chat with another agent(s). To create a chat with an agent, select that agent from the **Agents** drop-down list.

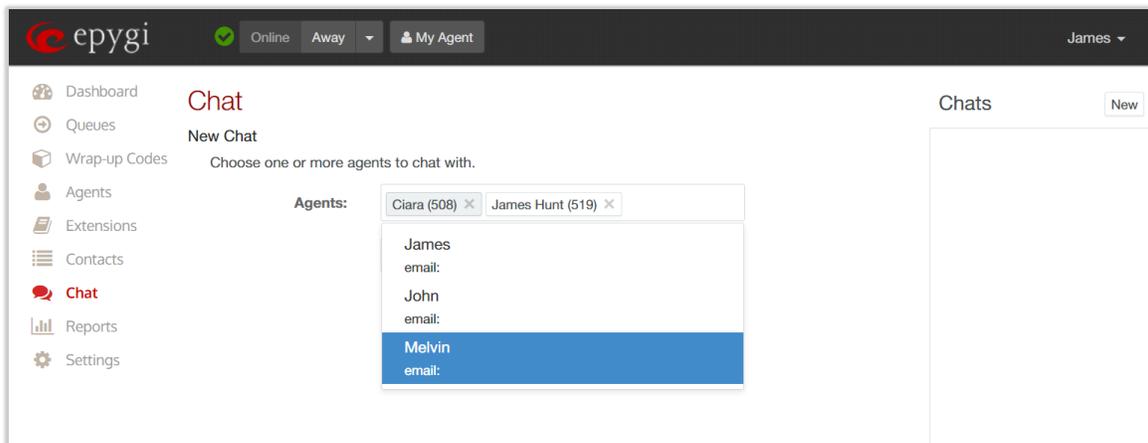


Figure 46: Chats – New Chat group

A new chat window with the selected agent will appear. In the main window the agent can see the active conversation with the selected agent. To send a new message, enter the text in the message box and click **Send**.

You can also create chat groups simply by selecting two or more agents.

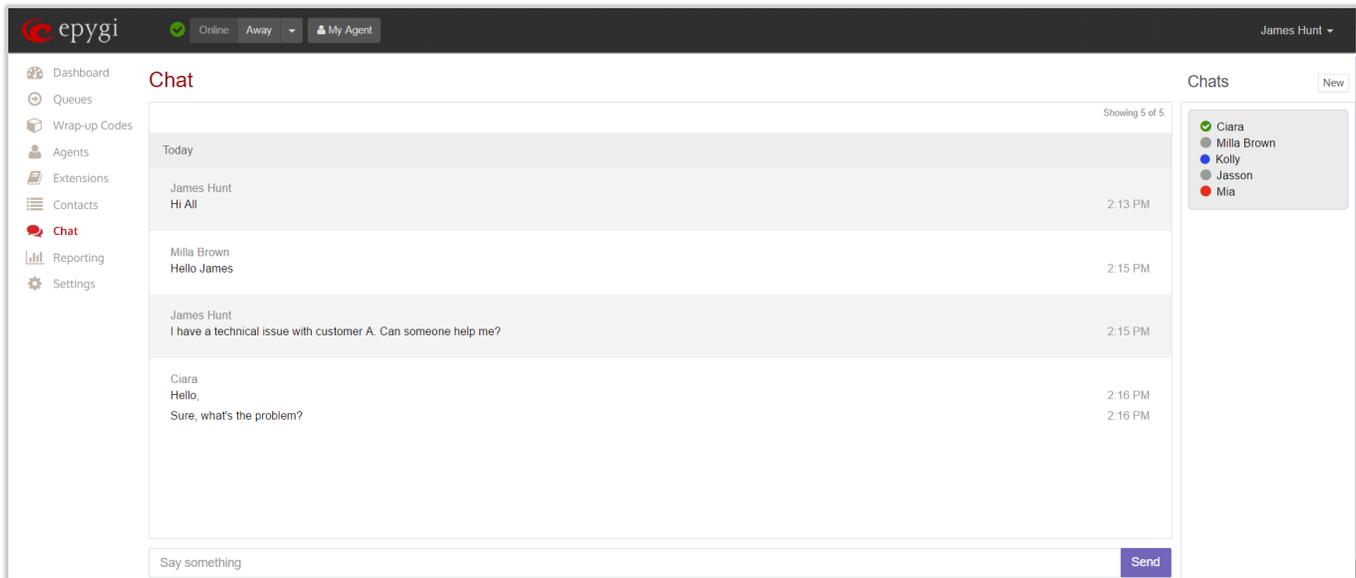
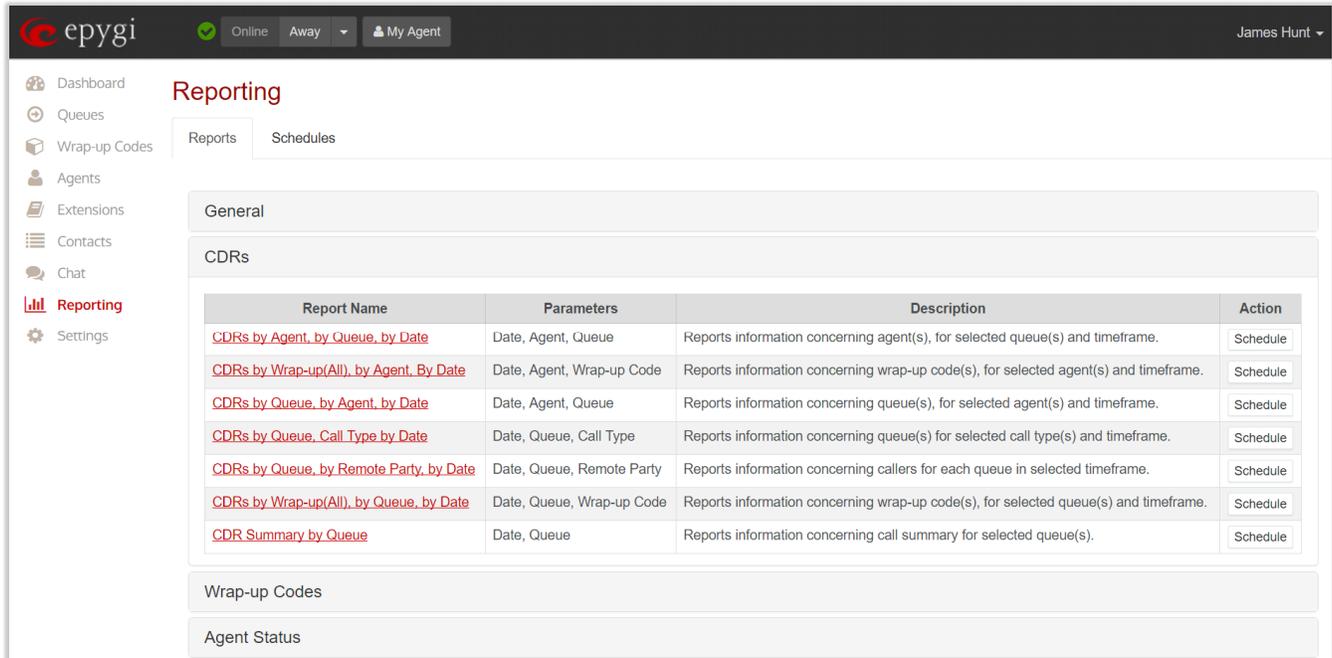


Figure 47: Chat – Chat with agents

### 8.3.9 Reporting menu

The **Reporting** menu offers a way to gather expansive statistical data concerning agents, queues and calls for selected timeframe. The reports can be generated and downloaded either manually or automatically in CSV format. Reports can be generated only by **admin(s)** and **supervisor(s)**. Admins have access to all reports while supervisors to the reports referring to the queues with their membership. **Admin(s)** and **supervisor(s)** can schedule receiving reports automatically via e-mail or to FTP Server.



Report Name	Parameters	Description	Action
<a href="#">CDRs by Agent, by Queue, by Date</a>	Date, Agent, Queue	Reports information concerning agent(s), for selected queue(s) and timeframe.	<a href="#">Schedule</a>
<a href="#">CDRs by Wrap-up(All), by Agent, By Date</a>	Date, Agent, Wrap-up Code	Reports information concerning wrap-up code(s), for selected agent(s) and timeframe.	<a href="#">Schedule</a>
<a href="#">CDRs by Queue, by Agent, by Date</a>	Date, Agent, Queue	Reports information concerning queue(s), for selected agent(s) and timeframe.	<a href="#">Schedule</a>
<a href="#">CDRs by Queue, Call Type by Date</a>	Date, Queue, Call Type	Reports information concerning queue(s) for selected call type(s) and timeframe.	<a href="#">Schedule</a>
<a href="#">CDRs by Queue, by Remote Party, by Date</a>	Date, Queue, Remote Party	Reports information concerning callers for each queue in selected timeframe.	<a href="#">Schedule</a>
<a href="#">CDRs by Wrap-up(All), by Queue, by Date</a>	Date, Queue, Wrap-up Code	Reports information concerning wrap-up code(s), for selected queue(s) and timeframe.	<a href="#">Schedule</a>
<a href="#">CDR Summary by Queue</a>	Date, Queue	Reports information concerning call summary for selected queue(s).	<a href="#">Schedule</a>

Figure 48: Reporting – Reports page

Following groups of reports are available:

#### General

The **General** section is used to report information concerning agents, queues, contacts, wrap-up codes, etc. These reports mainly include uploaded and created data from QX. This section is available only for **admin(s)**.

#### CDRs

The **CDRs** section allows admin(s) and supervisor(s) to generate and download diverse information concerning **Call Details** for selected agents, queues, call types and etc. for selected timeframe, as well as summarized information for selected queue(s). For example, you can create a simple report of "**Direct Outbound Calls**" by all agents during January or summary of calls for a "**Technical Support**" queue for the last week.

#### Wrap-up Codes

The **Wrap-up Codes** section allows admin(s) and supervisor(s) to generate and download information concerning used **Wrap-up Codes** for selected timeframe, as well as summarized information per queue and per agent. For example, you can create a summary report of used wrap-up codes (labels) in the "**Marketing**" queue for the last fortnight or summary of labels used by the agent "**James**" yesterday.

## Agent Status

The **Agent Status** section allows admin(s) and supervisor(s) to generate and download information concerning agent's status summary for each queue for selected timeframe. Example, you can create a report on status for the agent "Ciara" in "Customer Care" queue for today.

### To Create and download a Report (manually)

1. Go to **Reporting**→**Reports** page.
2. Click on the **Section** name (General, CDRs, Wrap-up Codes and Agent Status) to show available reports within section.
3. Click the hyperlinked report name. The **Generate Report** page will be opened.
4. Configure report parameters (select timeframe, queues, agents, etc.). **TIP:** Depending on the selected report the available parameters will vary.
5. Click  to generate and download the report in CSV format.

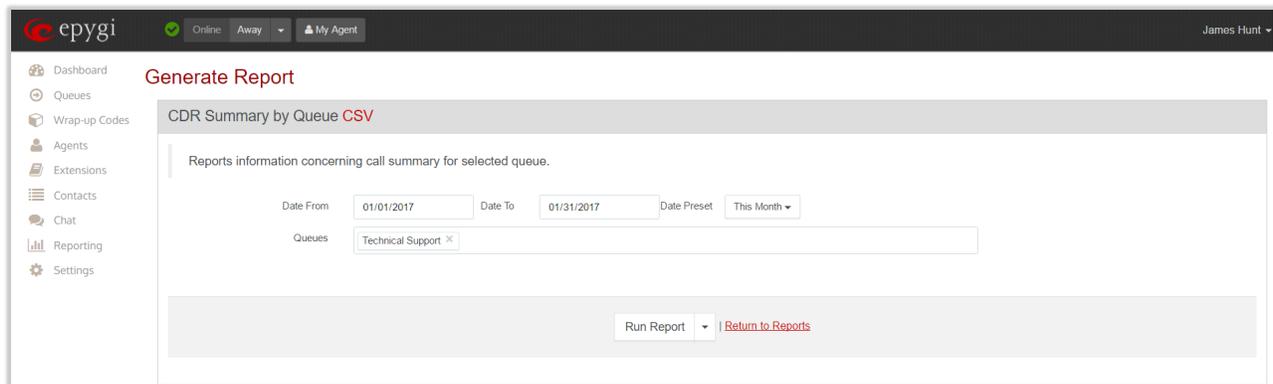


Figure 49: Generate Report page (for CDR Summary by Queue report)

### To Schedule a Report (automatically)

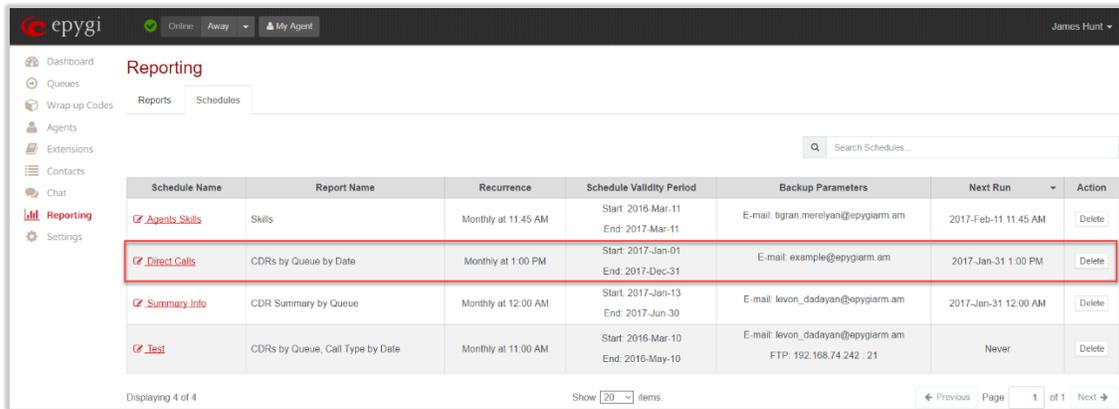
1. Go to **Reporting**→**Reports** page.
2. Click on the **Section** name (General, CDRs, Wrap-up Codes and Agent Status) to show available reports within section.
3. Click the  button from the **Action** column, next to the selected report. **Add schedule** page will be opened. Configure "schedule" parameters (Figure 50). This page consists of the following sections:
  - **General section** – name the schedule (if needed), select the "**Validity Period**" to define how long the schedule will run.
  - **Report section** – is used to configure report parameters. **TIP:** Depending on the selected report the available parameters will vary.
  - **Recurrence section** – is used to select the frequency of running the schedule and the time.
  - **Backup section** – is used to configure backup settings (E-mail or FTP Server). You can send the report to provided e-mail address and/or to the configured FTP server. **TIP:** The "**Via e-mail**" mode will work only when **SMTP Service** is enabled and properly configured on the QX.

The screenshot shows the 'Add schedule' page in the epygi interface. The page is titled 'Add schedule' and is divided into several sections: General, Report, Recurrence, and Backup. The General section includes fields for Name (Direct Calls) and Valid from (01/01/2017 to 12/31/2017). The Report section includes Name (CDRs by Queue by Date), Date Preset (This Month), Queues (Direct Outbound Calls, Direct Inbound Calls), and a checked Summary checkbox. The Recurrence section has radio buttons for Daily, Weekly, and Monthly (selected), with fields for Day (Last Day), of (Select month ...), month(s), and Time (01:00 PM). The Backup section includes a File Pattern field (\$[name]\_[date]\_[time]), radio buttons for E-mail (selected) and FTP, and an E-mail Address field (example@epygiarm.am). A Save button is at the bottom.

Figure 50: Add schedule page (for CDRs by Queue by Date report)

4. Click  to apply settings.

The **Schedules** table lists all configured schedules with parameters. Logged in agent can review, modify or delete them (Figure 51). **TIP:** This table shows only the schedules configured by **logged in agent**.

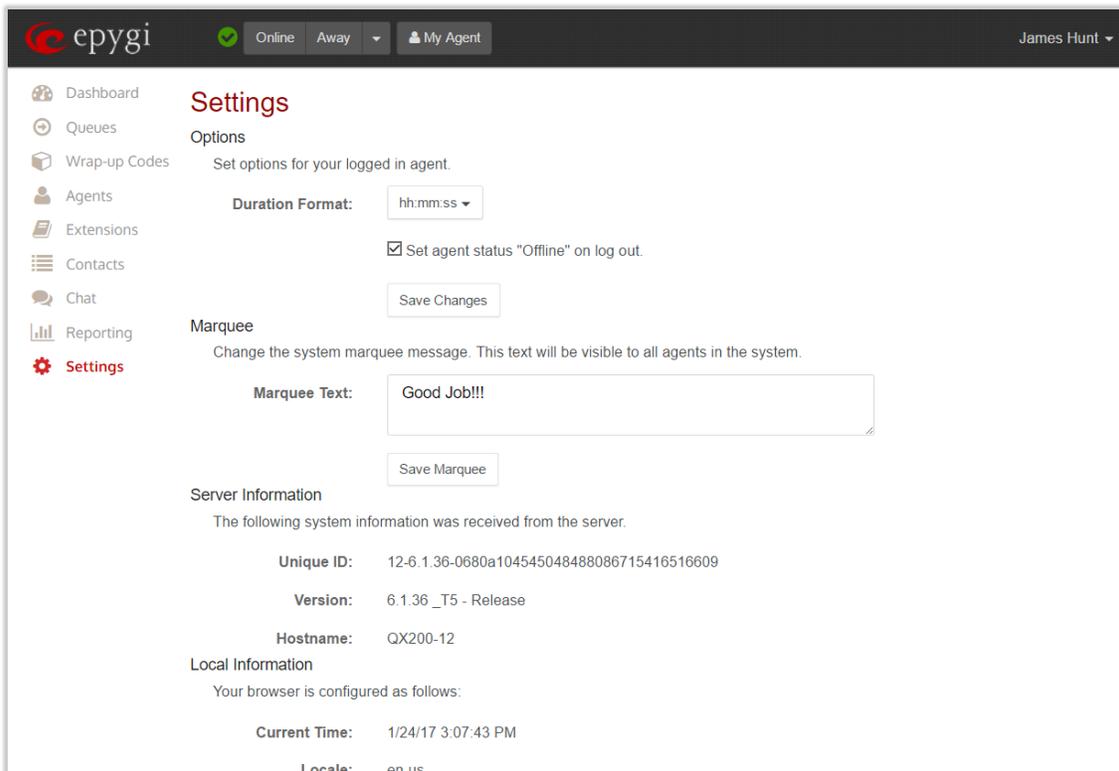


Schedule Name	Report Name	Recurrence	Schedule Validity Period	Backup Parameters	Next Run	Action
Agents Skills	Skills	Monthly at 11:45 AM	Start: 2016-Mar-11 End: 2017-Mar-11	E-mail: tigran.merelyan@epygiam.com	2017-Feb-11 11:45 AM	Delete
Direct Calls	CDRs by Queue by Date	Monthly at 1:00 PM	Start: 2017-Jan-01 End: 2017-Dec-31	E-mail: example@epygiam.com	2017-Jan-31 1:00 PM	Delete
Summary Info	CDR Summary by Queue	Monthly at 12:00 AM	Start: 2017-Jan-13 End: 2017-Jun-30	E-mail: levon_dadayan@epygiam.com	2017-Jan-31 12:00 AM	Delete
Test	CDRs by Queue, Call Type by Date	Monthly at 11:00 AM	Start: 2016-Mar-10 End: 2016-May-10	E-mail: levon_dadayan@epygiam.com FTP: 192.168.74.242 : 21	Never	Delete

Figure 51: Reporting – Schedules page

### 8.3.10 Settings menu

The **Settings** menu allows the logged in agent to configure the **status change option on log out**, set the **Marquee** text and select **Duration Format** in reports.



**Settings**

**Options**  
Set options for your logged in agent.

**Duration Format:** hh:mm:ss

Set agent status "Offline" on log out.

Save Changes

**Marquee**  
Change the system marquee message. This text will be visible to all agents in the system.

**Marquee Text:** Good Job!!!

Save Marquee

**Server Information**  
The following system information was received from the server.

**Unique ID:** 12-6.1.36-0680a104545048488086715416516609

**Version:** 6.1.36\_T5 - Release

**Hostname:** QX200-12

**Local Information**  
Your browser is configured as follows:

**Current Time:** 1/24/17 3:07:43 PM

**Locale:** en-us

Figure 52: Settings menu

- **Duration Format** – is used to select duration format (in seconds or hh:mm:ss) in reports. **TIP:** This option is available only for **admin(s)** and **supervisor(s)**.
- **Set agent status Offline on log out** – checkbox enabled will automatically change the agent's status to **Offline** when the agent logs out from **EAC**.
- **Marquee Text** – is used to send a broadcast message to all agents. The running line message would appear on the top of each EAC page.

## 9 References

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Refer to the below listed recourses to get more details about the configurations described in this guide:

- Manual-II: Administration Guide for QX IP PBXs
- Licensable Features on QX IP PBXs
- Call Recording on QX IP PBXs
- Dialing Directories on QX IP PBXs

Find the above listed documents on [Epygi Support Portal](#).

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