Manual: ACD and EAC User's Guide

Edition 1, October 2015

SW Release 6.1.10 and higher

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1 Introduction

Epygi's **Automatic Call Distribution (ACD)** feature is a complete solution for today's call centers. ACD Queues receive high-volume inbound calls and distribute them to the available call center agents.

ACD collects information about agents and provides real-time and statistical reports on various performance measurements.

ACD helps administrators and supervisors to create an efficient call management environment for monitoring contact center activities, changing agent statuses, collecting and reporting information about ACD Queues' and agents' activities.

2 Requirements

Epygi's ACD (herein ACD) solution is composed of the following two licensable features available on all QX IP PBX (herein QX) models:

- The **ACD** license is a single license to enable the ACD feature for handling inbound call queuing and distributing the calls to the agents.
- The **Epygi ACD Console** (herein EAC) is a per seat license to enable the Web application used by call center agents, supervisors and administrators for monitoring the queues and agents, watching the call statistics, updating the agents' status, etc. **EAC** stores and formats the data and produces real-time information and statistical reports on **ACD** activities. EAC is an annually renewable license. The number of EAC licenses required is determined by the number of ACD Agents and Supervisors that will be connected simultaneously to the system.

Attention: The ACD feature can be used on its own, in cases when the application only requires the automatic call distribution, whereas EAC relies on ACD and works only if ACD is active.

- **ACD** is available on the following QX models: QX50, QX200 and QX2000.
  Please Note: It is strongly recommended to use an SD memory card when using **ACD** with or without **EAC** on QX50/QX200 for expanding the system memory and improving its stability.
- Google Chrome, Mozilla Firefox and Opera are the recommended WEB browsers for using the **EAC**.
- **ACD** and **EAC** are supported by Epygi QX software version 6.1.10 and higher.

3 ACD and EAC Capacities

ACD and EAC capacities differs for each particular QX model. Follow the list below to find out the capacity of the QX models.

Model	Simultaneous Calls	Recorded Calls	Number of Parallel Active EAC
QX50	12	12	12
	16	4	16
QX200	12	12	12
	30	No recording	30
	30	8	4

Model	Simultaneous Calls	Recorded Calls	Number of Parallel Active EAC
QX2000	300	150	300

Table 1: ACD and EAC capacities

Please Note: These numbers can be achieved if ACD call archiving is on and call records count in the archiving settings is less than 40000 for QX50/QX200 and 500000 for QX2000.

4   Installing the ACD and EAC Feature Keys

Feature keys should be purchased to make the **ACD** and **EAC** functional on the QX. To purchase a feature key, please contact your distributor and provide them with the serial number of the QX. Optionally, the **Unique ID** displayed on the **Features** page of the QX web management can be used (Figure 1).
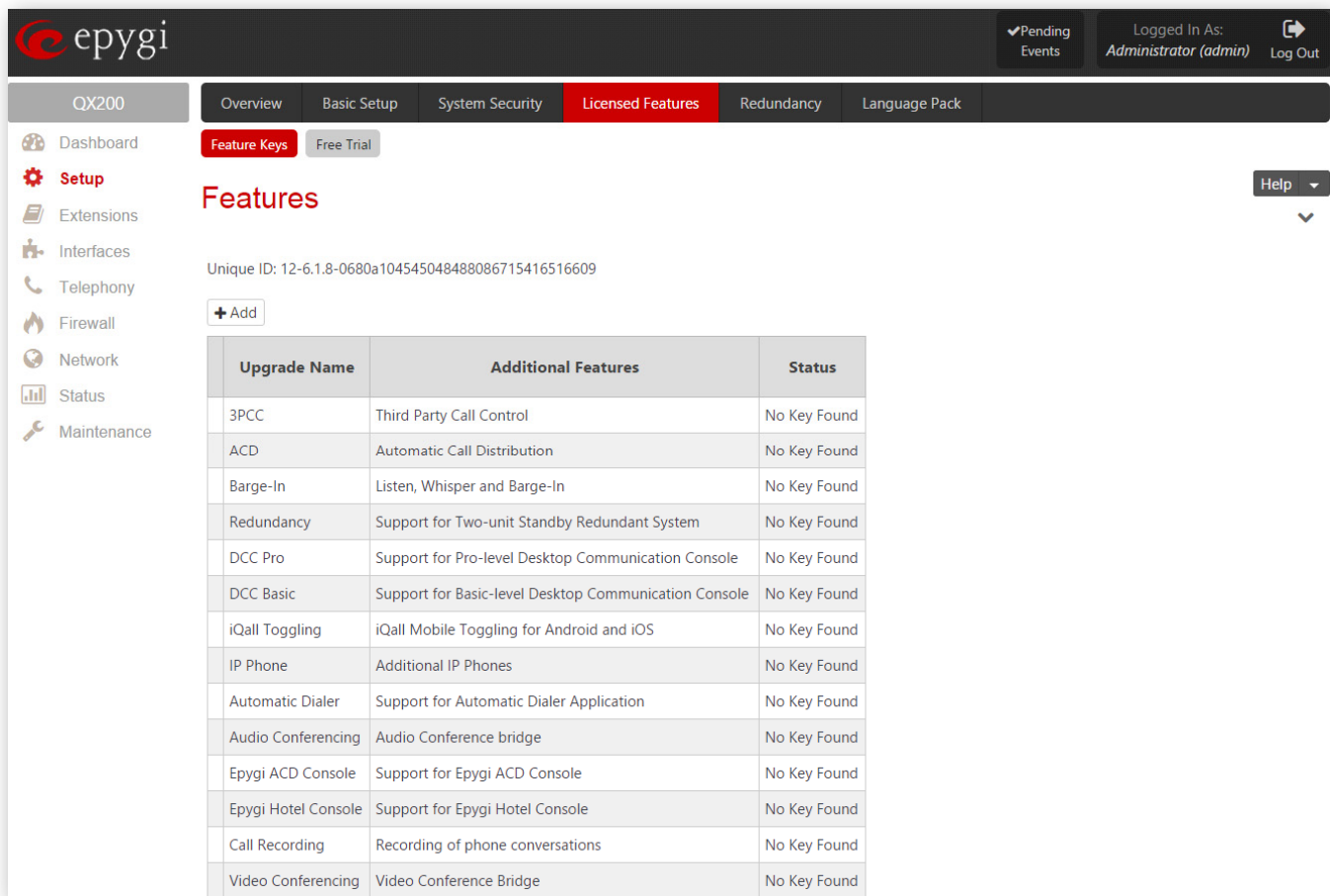

Figure 1: Features page

Install the feature keys as follows:

1. Go to the **Features** page and click on the **Add** button (Figure 1).
2. Enter the key in the **Feature Key** text field and click the **Save** button (Figure 2).
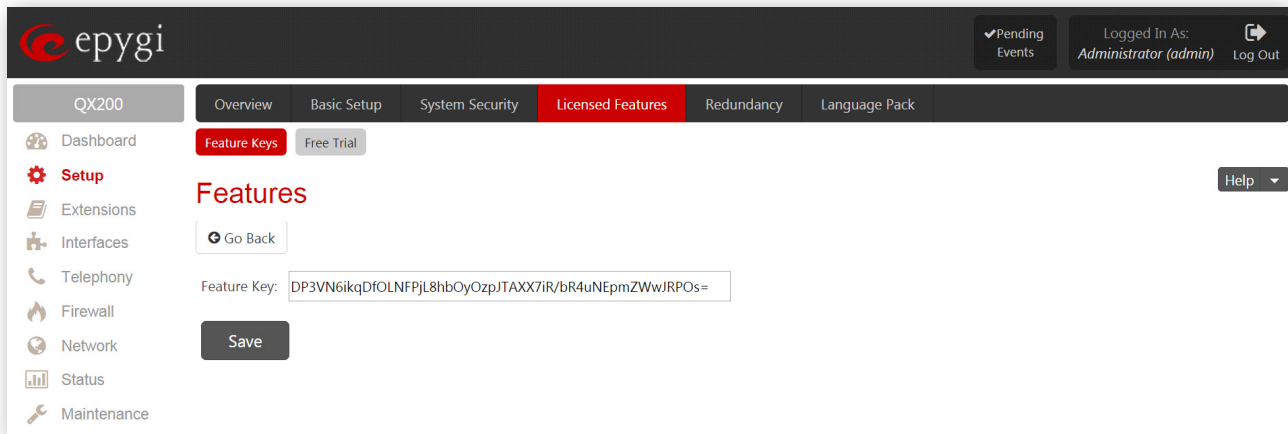
Figure 2: Activating ACD and EAC support

After activation the ACD and EAC features will change their statuses from *No Key Found* to *Activated* and number of supported users respectively (Figure 3).
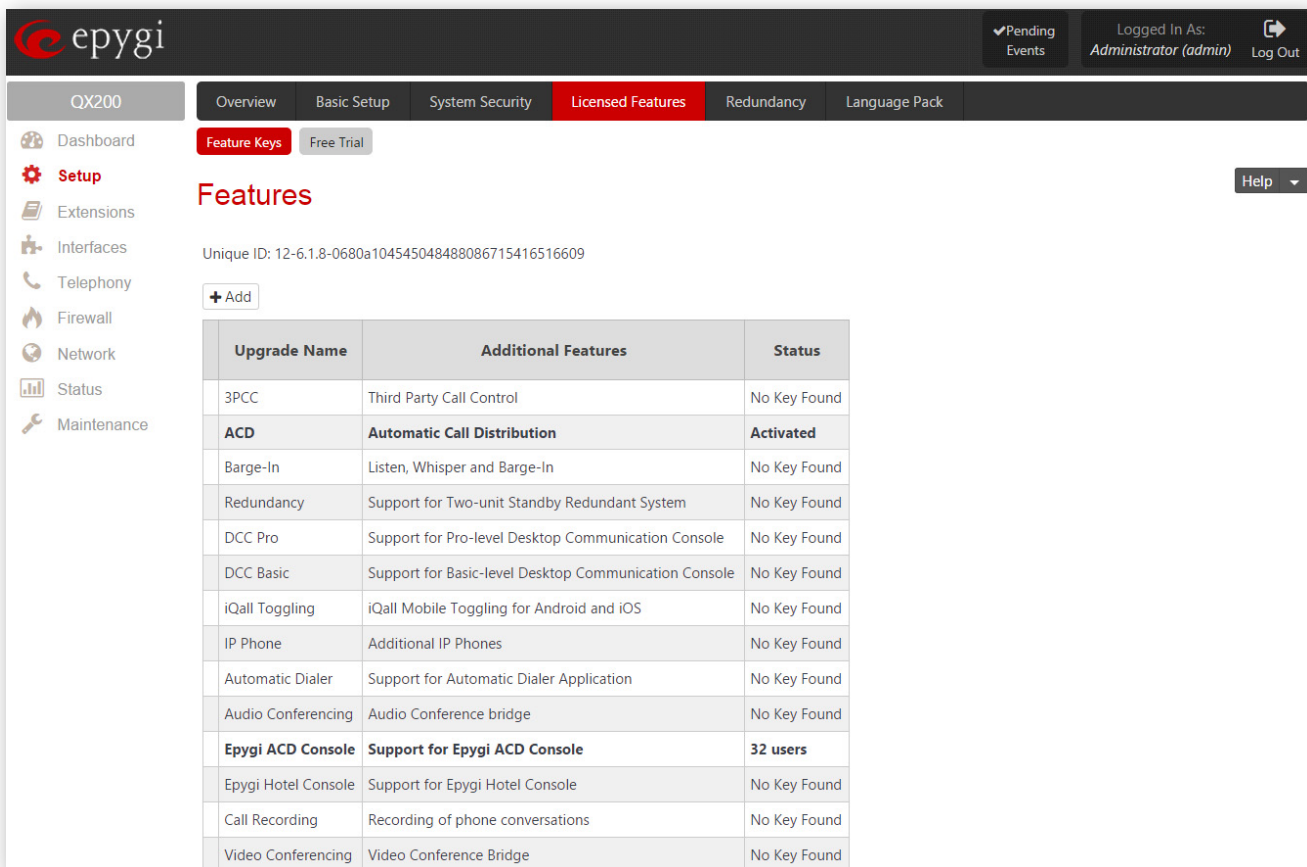

Figure 3: Activated ACD and EAC support

To get more information regarding the activation of licensable features, refer to the Activating Epygi QX Licensable Features document.

The **Extensions→ACD** menu pages become available right after successful activation of the **ACD**.

5 ACD Configuration

5.1 ACD Queue

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

5.1.1 Creating the ACD Queue

Create and configure an ACD Queue as follows:

1. Go to the **Extensions→ACD Management→ACD Queue** page and click the **Add** button to open the **ACD Management – Add Entry** page (Figure 4).
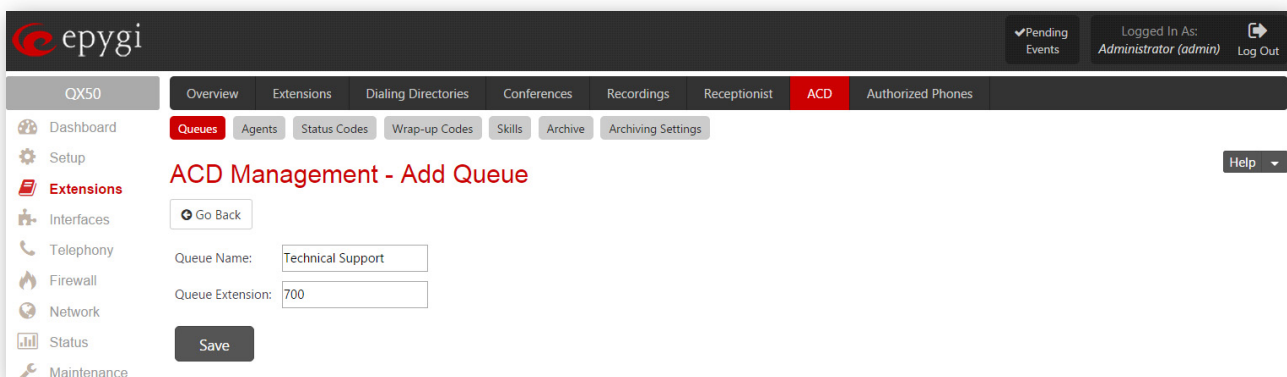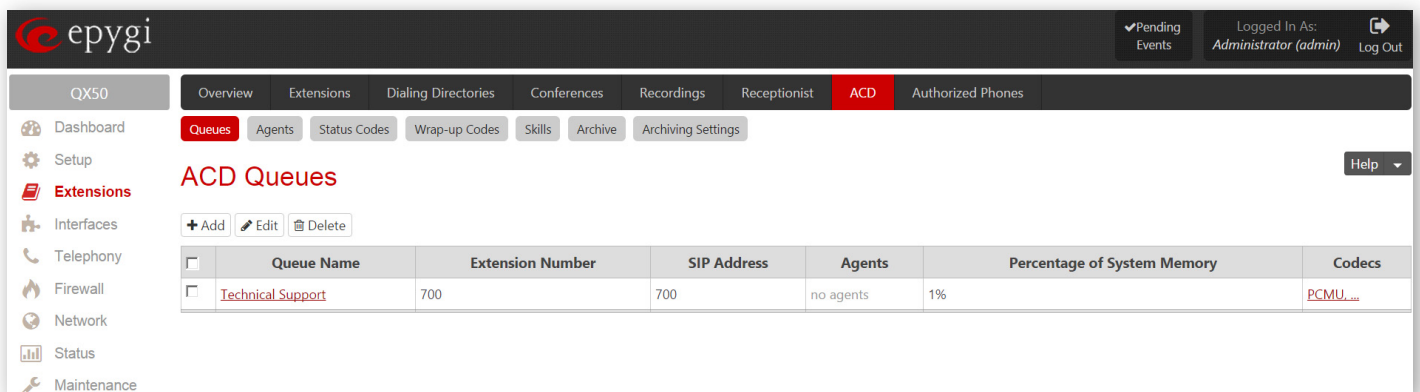

Figure 4: ACD Management - Add Entry page

2. Define the queue name and the queue extension in the corresponding fields.

   Please Note: All inserted values in this page must be unique.

   Please Note: Queue Names **Direct Inbound Calls** and **Direct Outbound Calls** have been reserved for making and receiving direct calls.

Recently created ACD Queue will appear in the ACD Queues table (Figure 5).

Figure 5: ACD Queues table

To adjust or check settings of any queue, select it and click the **Edit** button or simply click on the desired hyperlinked queue name. The opened **ACD Management – Edit Queue** page allows the ACD Queue settings to be changed.

General Settings

This section allows the following parameters of the ACD Queue extension to be configured:

- To show the extension in the **Phone book (Directory)** or **Extension Directory** of the QX, enable the **Show on Public Directory** checkbox.
- Adjust the **total memory size** assigned to the Queue extension for storing the **Custom Queue messages**.
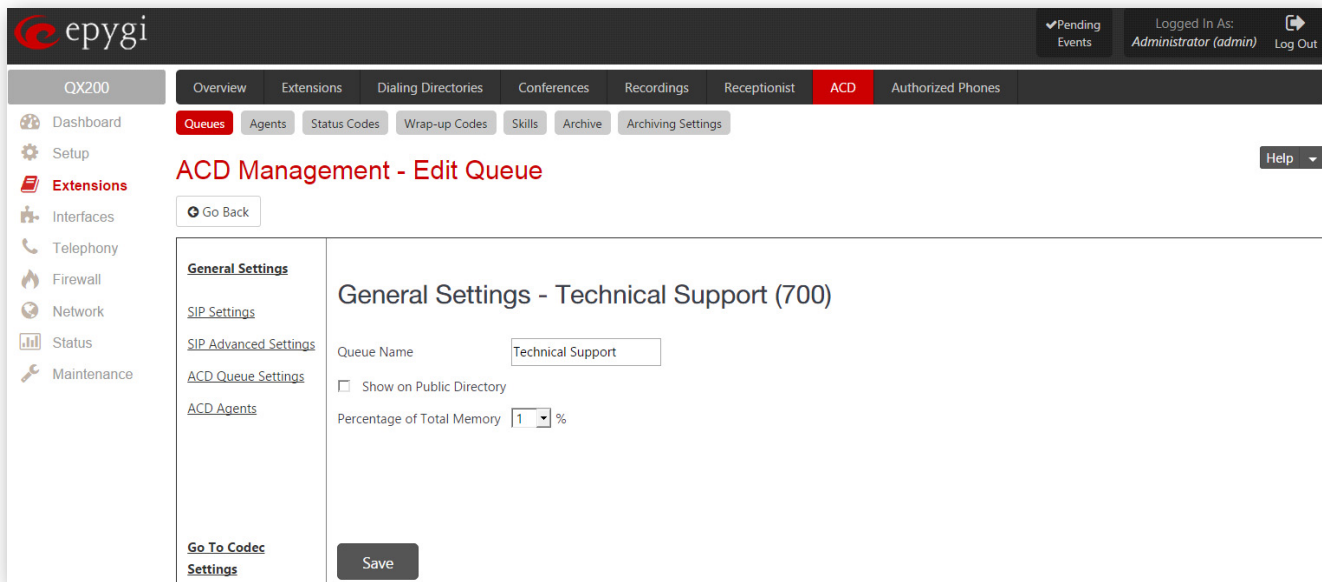

Figure 6: ACD Management – Edit Queue – General Settings page

Please Note: The **SIP Settings** and **SIP Advanced Settings** configuration settings are the same as for the regular extension (see Administrator's Guide).

ACD Queue Settings

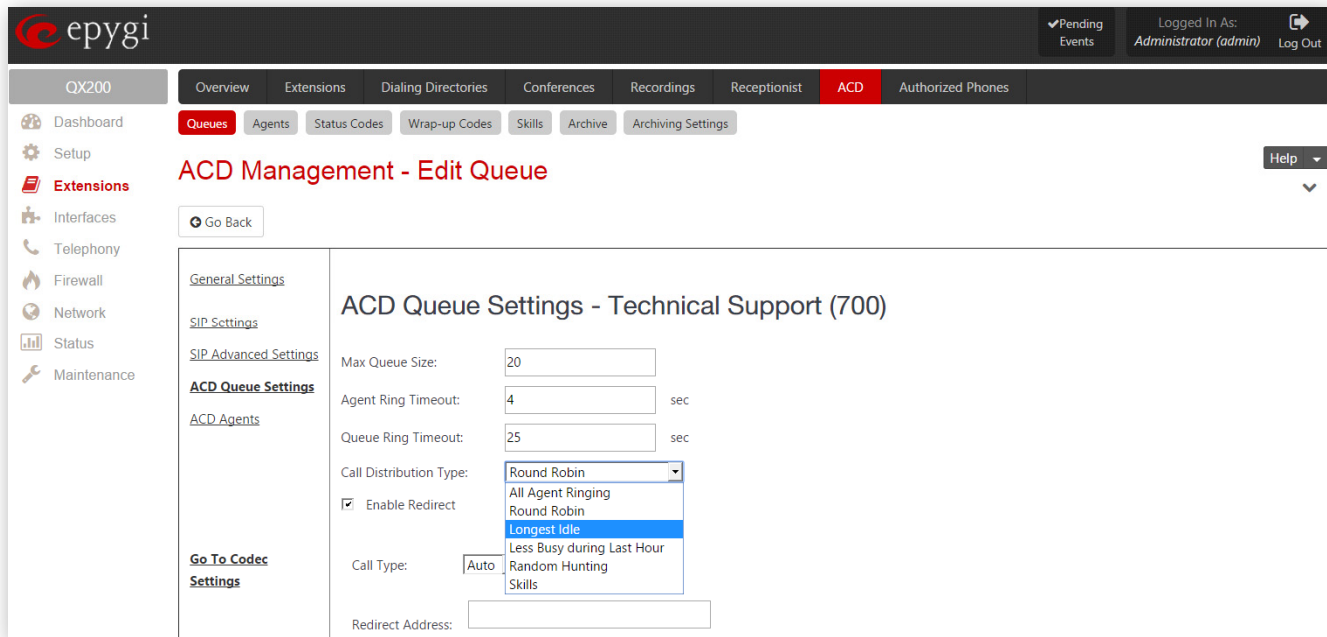This section describes the ACD Queue specific settings (Figure 7):

Figure 7: ACD Management–Edit Queue – ACD Queue Settings page

- **Max Queue Size** defines the maximum number of calls waiting in the queue. If all positions of the queue size are occupied and a new call arrives, it will be rejected by the ACD Queue.
- **Agent Ring Timeout** defines the maximum ringing time to a specific agent's phone. If the call is not answered before this timer expires, the system will try to connect the call to another agent in that queue. The agent's status will be changed to **Away** if the agent doesn't answer within the **Agent Ring Timeout**.
- **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 is not answered by any agent within the defined timeout, then it will be disconnected unless call redirection is enabled as shown on the Figure 7.
- **Call Distribution Type** allows selecting one of the following options from the drop down list:
  - **All Agents Ringing** – ACD rings the phones of all available agents in the Queue for connecting the call. Right after the first answer, ACD cancels the calls to the other agents (similar to Many Extension Ringing on the QX, see Manual III – Extension User's Guide). If no one answers within the predefined Queue Ring Timeout, ACD either disconnects or redirects the call (if redirection is enabled).
  - **Round Robin** – ACD tries to connect an inbound call to the first available agent in the list of agents configured in the Queue. If the 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 list it starts from the beginning. If the call is not answered and the Queue Ring Timeout has expired, the system either disconnects or redirects the call (if redirection is enabled).
  - **Longest Idle** – ACD will call to the first available agent who was idle the longest since the last answered call. If the agent doesn't answer within the Agent Ring Timeout, ACD tries to connect to the next available longest idle agent, etc. If the call is not answered by some agent within the Queue Ring Timeout, ACD either disconnects or redirects the call (if redirection is enabled).
  - **Less Busy During Last Hour** – ACD will call to the first available agent who was the least busy during the last hour (in average). If the 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 by some agent within the Queue Ring Timeout, ACD either disconnects or redirects the call (if redirection is enabled).

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

- • **Enable Redirect** checkbox enables the call redirection to another destination if the call is not answered by the Queue agents within the **Queue Ring Timeout** (Figure 8). Thus allowing a non-answered call to be answered by someone else out of the Queue.

- • **Call Type** lists the following options available for call redirection:
  - ➢ PBX – local calls to QX extensions.
  - ➢ SIP – calls via SIP.
  - ➢ PSTN – calls to a legacy telephony network through the onboard FXO ports (available only for QX50 and QX200).
  - ➢ Auto – calls to a destination as determined by the **Call Routing Table**.
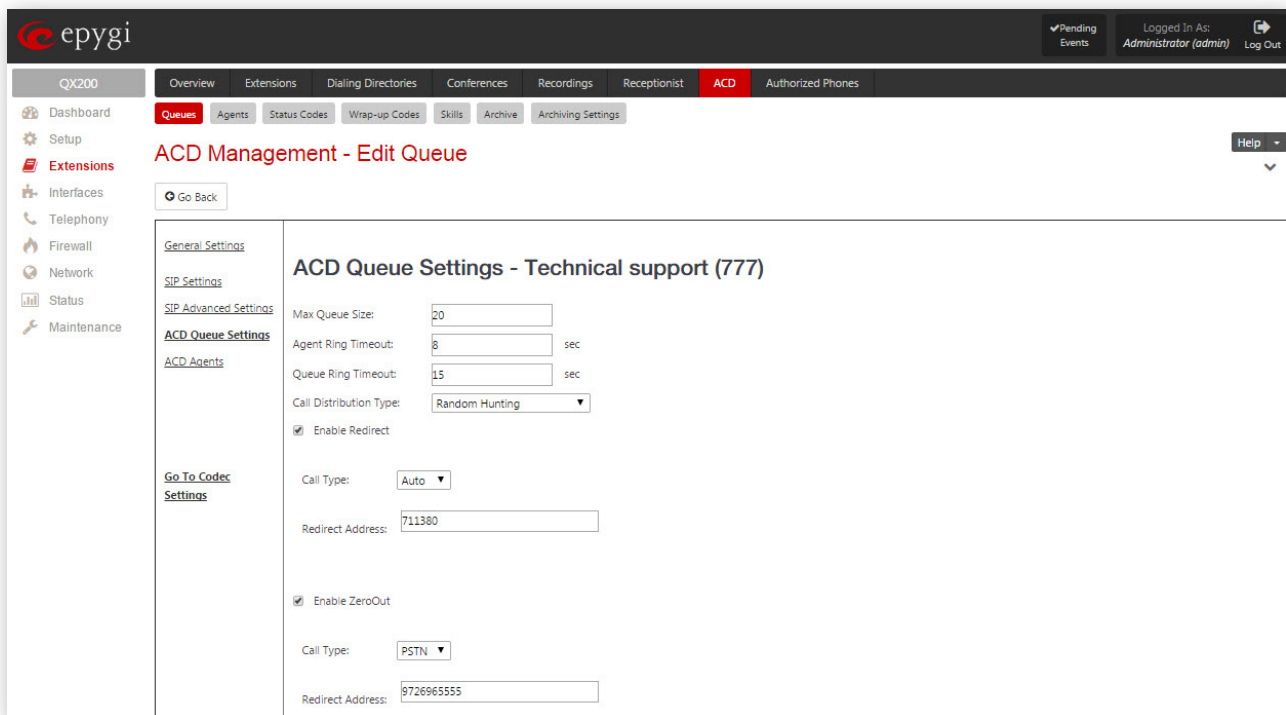

Figure 8: ACD Management–Edit Queue – ACD Queue Settings page

Redirect Address field specifies the new destination address of the call. It might be the address of another ACD Queue, or another destination (like the address of a voice mailbox).

- • **Enable ZeroOut** checkbox enables the ZeroOut feature which allows the caller waiting in the Queue to exit the Queue by dialing 0. After exiting the Queue, the call is being redirected to a new destination specified by **Call Type** and **Redirect Address** fields following the **ZeroOut** checkbox.

  Please Note: The **Call Type** defines the destination address type and **Redirect Address** defines the specific destination (see Call Type and Redirect Address).

- **Customize Queue Scenario** settings define custom audio files to be played to callers waiting in the ACD Queue. By selecting this option, the default ACD Queue messages will be replaced by custom messages as described below.
- **Custom Queue Messages** table lists all custom audio files. Each custom audio file is characterized by the number of repeats and the timeouts between them. The custom audio files are played in the order they are listed in the table. Using **Move Up** and **Move Down** functional buttons you can change the file order. The message playback will start with the first audio file in this table and continue in the order the audio files are listed. Upon reaching the last file the playback will start from the beginning.
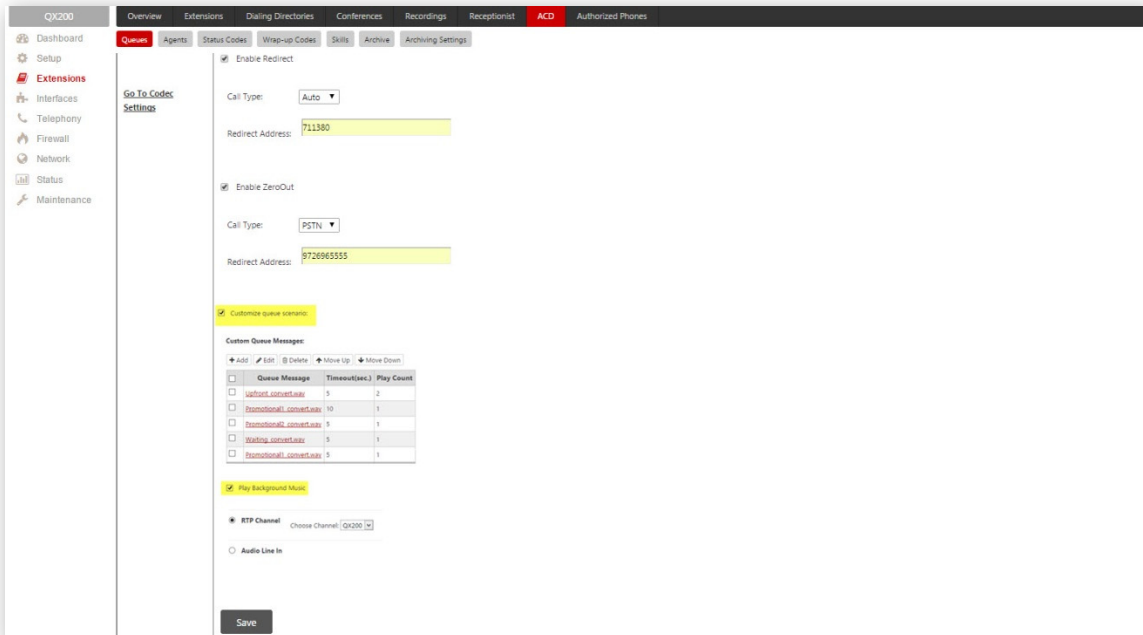

Figure 9: ACD Management - Edit Queue - ACD Queue Settings page

Attention: Allocate sufficient memory on the General Settings section to be able to upload custom audio file(s) for the selected Queue.

- ➢ **Play Count** specifies how many times the audio file will be played.
- ➢ **Timeout** indicates the duration of the silence (in seconds) from the end of the previous message playback and beginning of the next playback. For the first playback this timeout equals to the silence duration before starting next one.
- ➢ **Play Background Music** checkbox enables the background streaming to fill the silence periods between the audio playback files. This option requires choosing the **Audio Line In** (supported on QX50/QX200) or the **RTP Channel** of the broadcast streaming.

ACD Agents

This section is used to add a new agent to the selected ACD Queue or adjust an existing agent's settings (Figure 10).
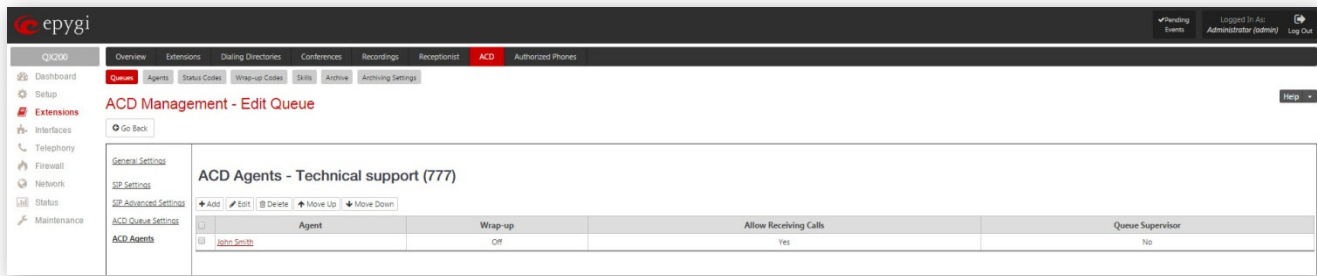
Figure 10: ACD Management - Edit Queue - ACD Agents page

To add a new agent to the selected queue, click the **Add** button to enter the **Agents Table of Queue – Add Entry** page (Figure 11).
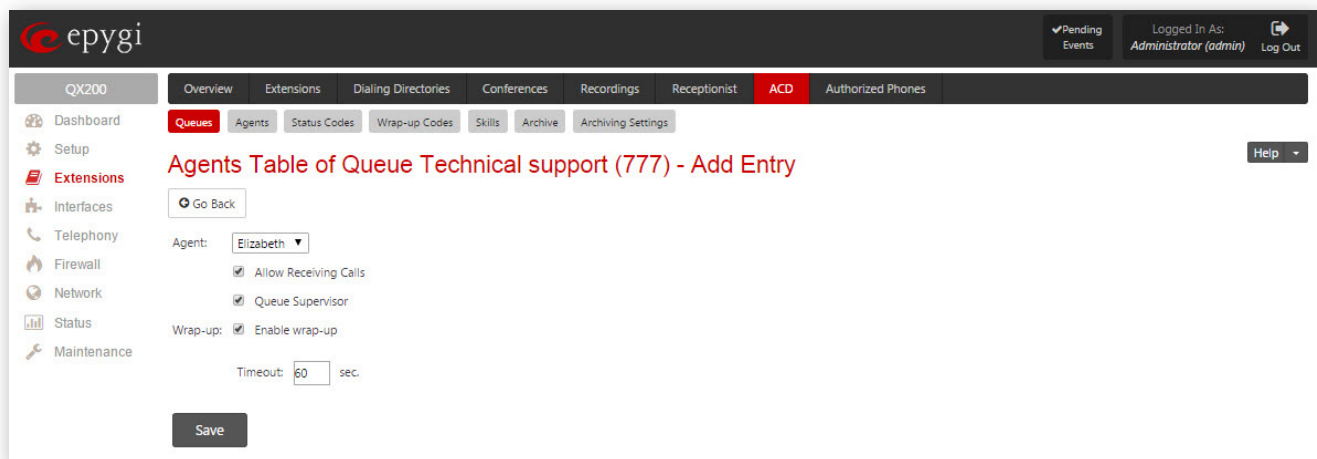

Figure 11: Agents Table of Queue – Add Entry page

Agent drop down list presents all previously created ACD Agent(s) available in the ACD Agents table(Figure 14).

- **Allow Receiving Calls** checkbox enables/disables the call receiving capability of the selected agent within this queue. When this feature is enabled, agent will receive calls if the agent global status is online. If disabled, agent won't receive calls from this queue.
  Please Note: Queue Supervisor or ACD Admin can enable/disable this setting from the **EAC** application.
- **Queue Supervisor** allows the selected agent to become a Supervisor within this queue for controlling, managing and reporting the queue activities from the EAC.
- **Wrap–up** enabled checkbox prevents the ACD Queue from sending new calls to the agent within the wrap-up **Timeout** after the last answered call. Unlike **Do Not Disturb** (DND), the agent's status does not change during the **Timeout** period, which activates automatically every time after finishing the call. The wrap-up time is used, for example, by the agent for updating the customer's records after the call.

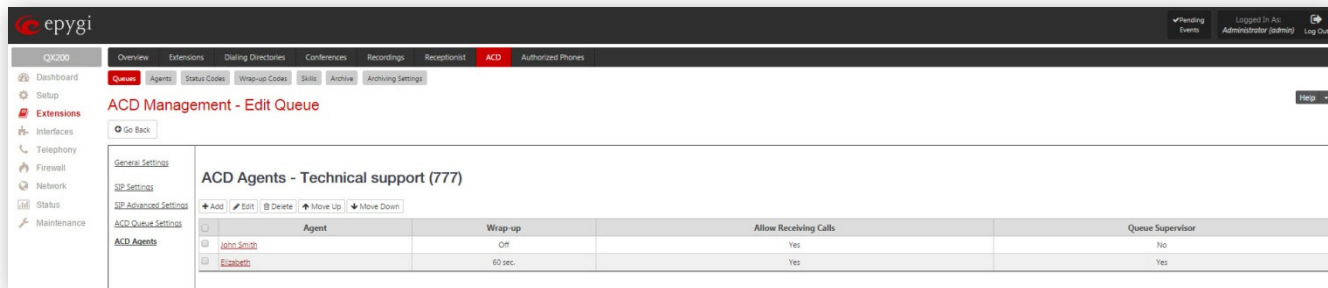New agent added to the queue will appear in the ACD Agents table (Figure 12).

Figure 12: Agents Table of Queue

5.2 ACD Agents

Agent is a call center person responsible for answering calls. Agents are bounded to the QX. To receive the calls, the agent needs to be assigned to one or many ACD Queues. An agent is characterized by the agent name, web and phone authentication credentials, agent global status, skills' levels and phone number.

Please Note: Agent's name must be unique in the system.

5.2.1 Creating ACD Agent

To add a new ACD Agent, go to the Extensions→ACD Management→ACD Agents page, click the Add button to enter the ACD Management – Add Agent page (Figure 13) and configure the following parameters.
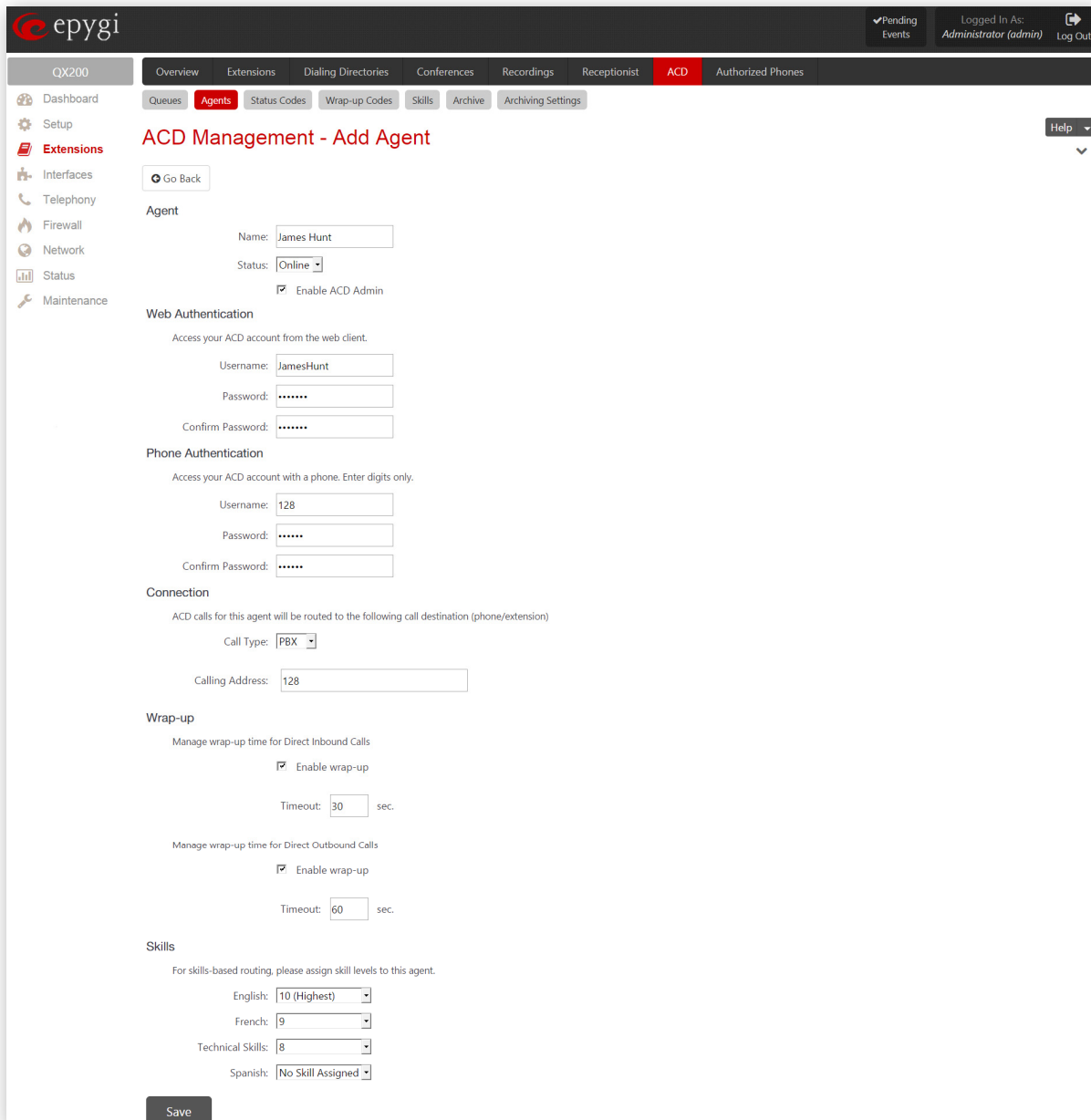
Figure 13: ACD Management - Add Agent page

- **Agent's Name** - unique identifier of the Agent in ACD and EAC.
- **Agent's status** - defines the Agent's global status. By default, the Status drop down list offers the following options:
  - **Online** – the agent can receive calls from his/her Queue(s).
  - **Offline** – the agent cannot receive calls from his/her Queue(s).
  - **Away** – the 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).

  Please Note: The Agent's status is the same in all Queues.

> **Please Note:** In addition to the above listed default statuses the QX's admin can define new status codes that will then appear in the **Status** drop down list (see <u>ACD Status Codes</u>).

- **Enable ACD Admin** – enables Admin privileges for the selected agent to manage all agents and queues from the **EAC**.

<u>Web Authentication</u>

Web Authentication parameters are used for the Agent's login to the **EAC**.

- **Username** – Agent's login name for the **EAC**.
- **Password** and **Confirm Password** - defined password and its confirmation respectively.

<u>Phone Authentication</u>

Phone Authentication parameters are used to change the Agent's status from the phone. Calling to the ACD predefined Auto Attendant and successfully passing authentication the agent can change his status by dialing corresponding digits (only the default statuses are available).

- **Username** – Agent's ID for phone authentication.
- **Password** and **Confirm Password** - defined password and its confirmation.

<u>Connection</u>

This section defines how ACD calls will be routed to the Agent's phone.

- **Call Type** lists the following options available for call destination:
  - ➢ **PBX** – local calls to QX extensions.
  - ➢ **SIP** – calls via SIP.
  - ➢ **PSTN** – calls to a legacy telephony network through the onboard FXO ports (available only for QX50 and QX200).
  - ➢ **Auto** – calls to destination as determined by the Call Routing Table.

Calling Address defines the Agent's phone number. The format of this field is depends on the **Call Type** selected from the drop down list above.

<u>Wrap-up</u>

- Wrap-up enabled checkbox for **Direct Inbound Calls** forbid ACD Queue(s) sending new calls to the agent within the wrap-up **Timeout** after the last answered call.
- Wrap-up enabled checkbox for **Direct Outbound Calls** forbid ACD Queue(s) sending new calls to the agent within the wrap-up **Timeout** after the last placed call.

Versus DND, the agent's status does not change during Timeout period which activates automatically every time after finishing the call. That period is used, for example, by the agent for updating the customer's records after the call.

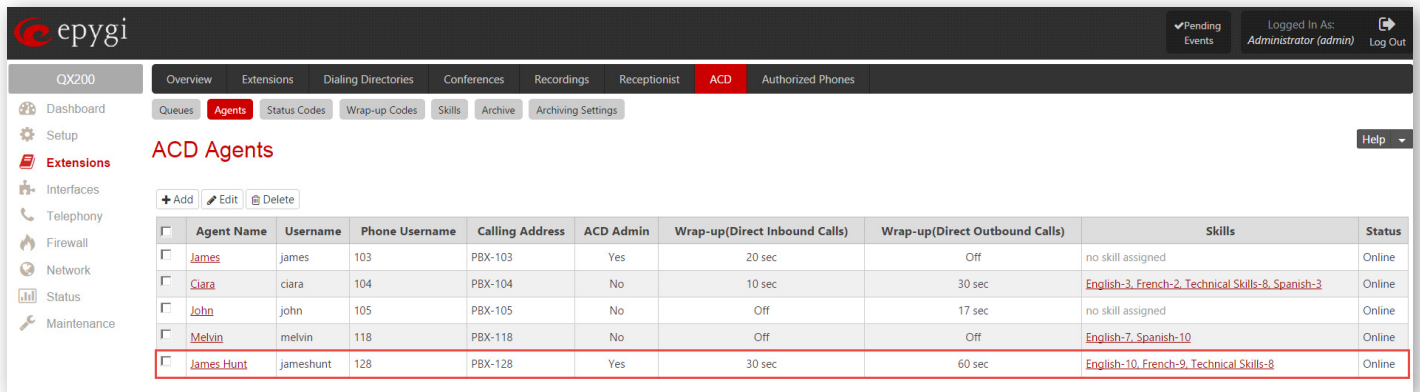Newly added agent will appear in the ACD Agents table (Figure 14).

Figure 14: ACD Agents page

5.3 ACD Status Codes

ACD **Status Codes** page creates a new status in addition to the default ones (offline, online, away and DND).

To create a new status, go to the **Extensions→ACD Management→Status Codes** page and click the **Add** button to open the **ACD Management – Add Status** page (Figure 15). Input the new status label on the **Status** field.
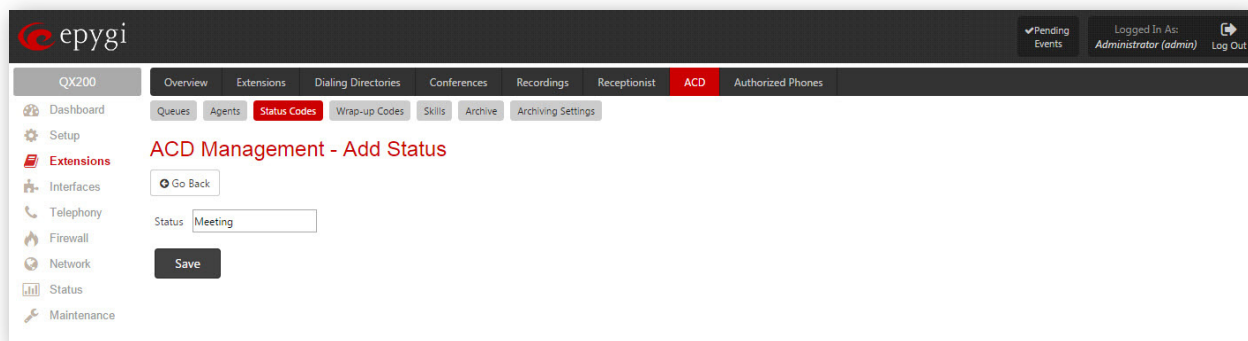

Figure 15: ACD Management - Add Status page

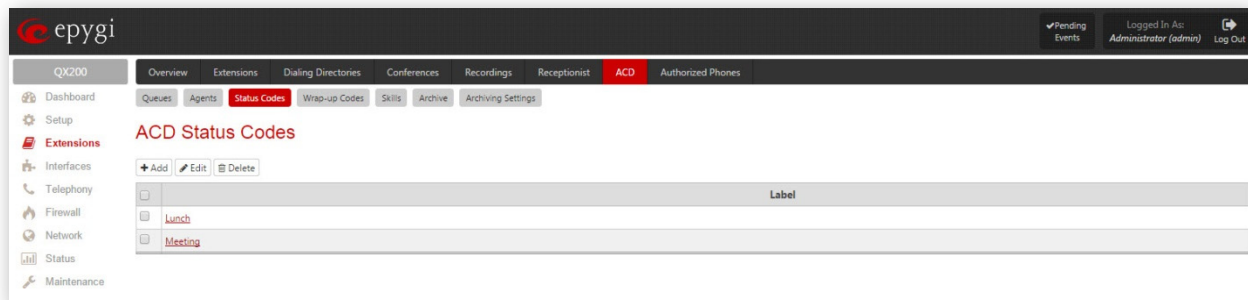Recently created status name will appear in the ACD Status Codes table (Figure 16).

Figure 16: ACD Status Codes page

Please Note: The **Lunch** status code exists by default.

5.4 ACD Wrap–up Codes

The Wrap–up Codes are used in the **EAC** for labeling the calls.

ACD Wrap–up Codes page contains a list of all available wrap–up code labels with the descriptions and assigned queues.

To create a new wrap-up code, go to the **Extensions→ACD Management→Wrap-up Codes** page and click the **Add** button to open the **Add Wrap-up Code** page (Figure 17). Select the Queue to be used with the created wrap-up code from the **ACD Queue** drop down list. If all queues can use this wrap-up code, then select **All Queues**. Then input the wrap-up code label, fill in the optional **Description** field.
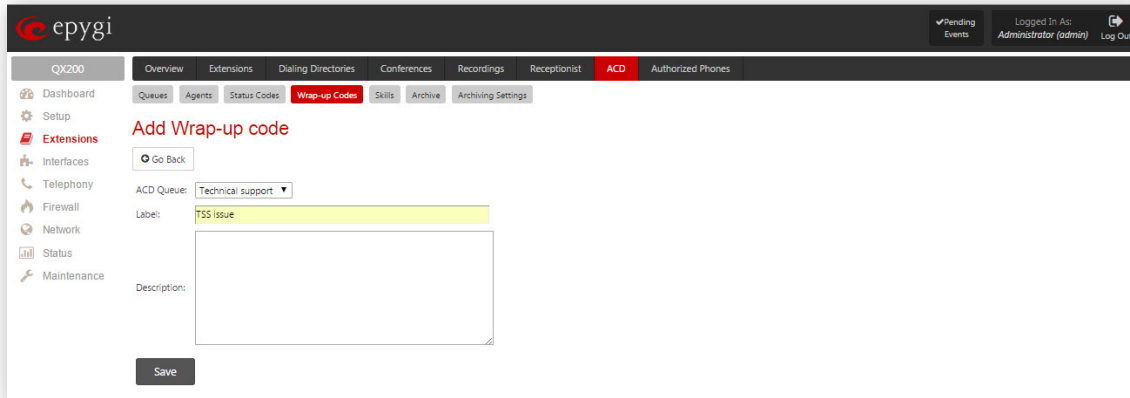

Figure 17: Add Wrap-up code page

5.5 ACD Skills

ACD Skills page is only required if incoming calls will be presented to agents using the Skills Based Routing distribution type. The defined skills will then be used to connect callers to the agent that has the best skills to speak with the caller. Agents with similar skill sets should be grouped in similar queues (Figure 13).

ACD Skills page contains a list of all available skills, their descriptions and number of agents having the corresponding skill (Figure 19).

To create a new skill, go to the **Extensions→ACD Management→Skills** page (Figure 18) and click the **Add** button to open the **ACD Management – Add Skill** page. Input the new skill's name and fill the optional **Description** field.
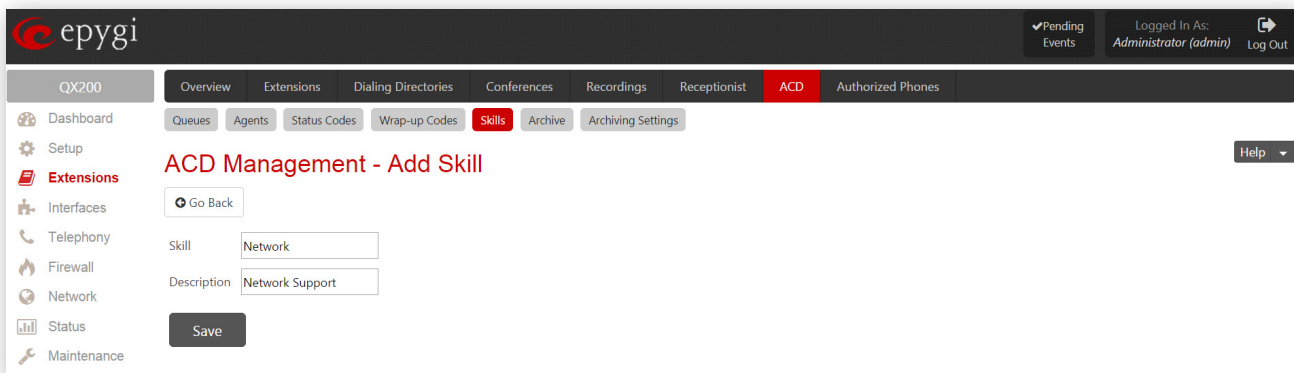

Figure 18: ACD Management - Add Skill page

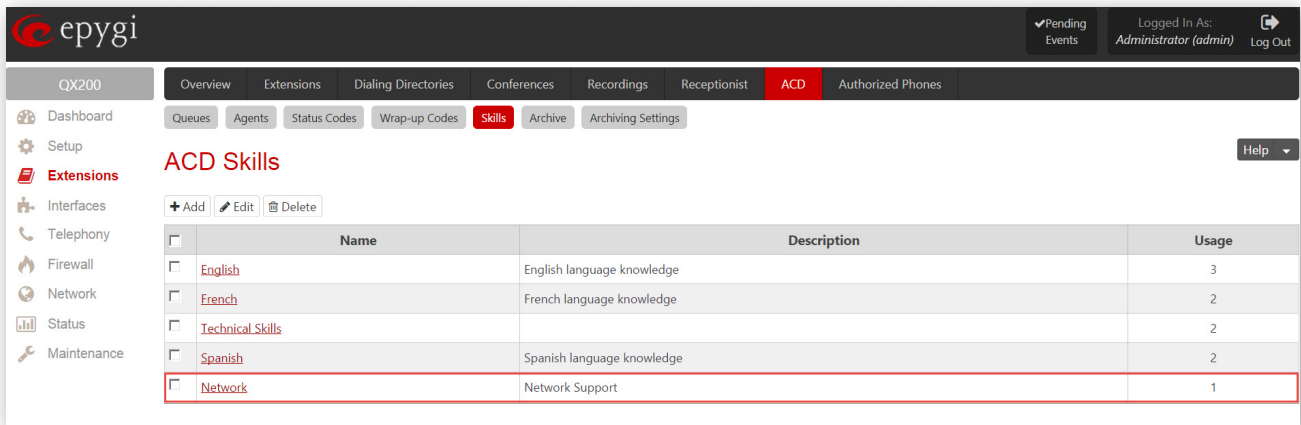Recently created skill will appear in the **ACD Skills** table.

Figure 19: ACD Skills page

5.6 ACD Archive

ACD Archive page shows the **Call Details Record (CDR)** and **Agent Status Record (ASR)** archived files and allows to downloaded them in **CSV** (Comma Separated Value) format.
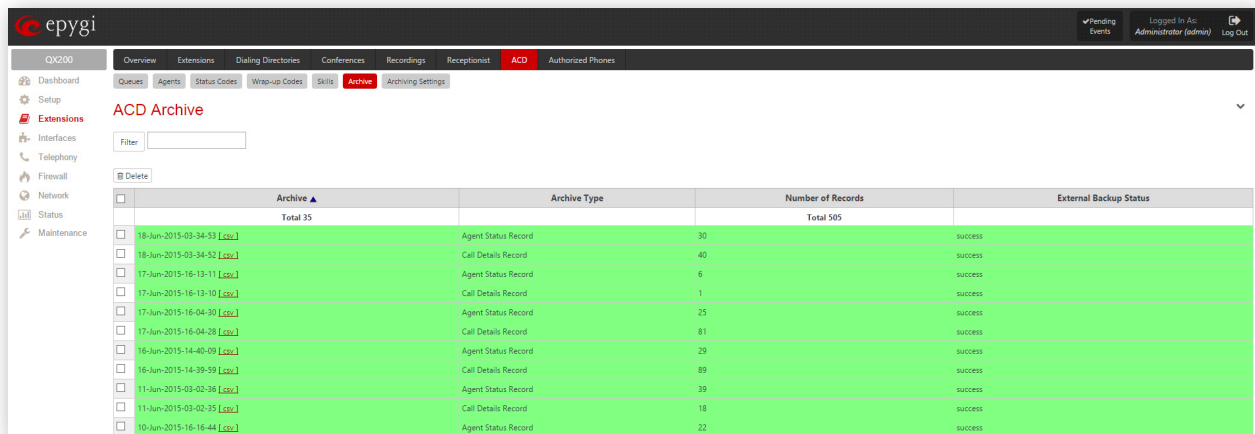

Figure 20: ACD Archive page

Filter button allows searching for the needed archive files by entering some part of the file name (shown in the **Archive** column of the table).

Delete removes the selected record(s) from the system and **Archive** table.

The following information about the archived files is available in the **Archive** table:

- **Archive** field shows the archived file name which is actually the archiving date and time of the file. The hyperlink imposed on **[csv]** file extension allows downloading the archived file.
- **Archive Type** specifies the type of the archived information. The following types are available:
  - **Call Detail Records** - archives the following details of the calls handled by ACD Queues during the archiving period: ACD Queue, Date/Time, Remote Party, ACD Agent, Call Duration (in seconds), assigned Wrap-up Codes, Comments, etc.

➢ **Agents Status Records** - archives information on how long the agent was in each status for each Queue during the archiving period.

- **Number of Records** shows the number of records for the CDR or ASR archived files.
- **External Backup Status** shows the status of the file backup to the external device. The following statuses are available on this page:

  ➢ **Success** - if the archived file has been successfully sent to the external backup device (e-mail address, FTP or TFTP server).

  ➢ **Failed** - if the file failed to be sent to the external backup device (e-mail address, FTP or TFTP server). The **Try to send now** link will appear next to this status allowing the backup process to be repeated.

5.7 ACD Archiving Settings

ACD Archiving Settings page configures the following parameters related to ACD automatic archiving (Figure 21).
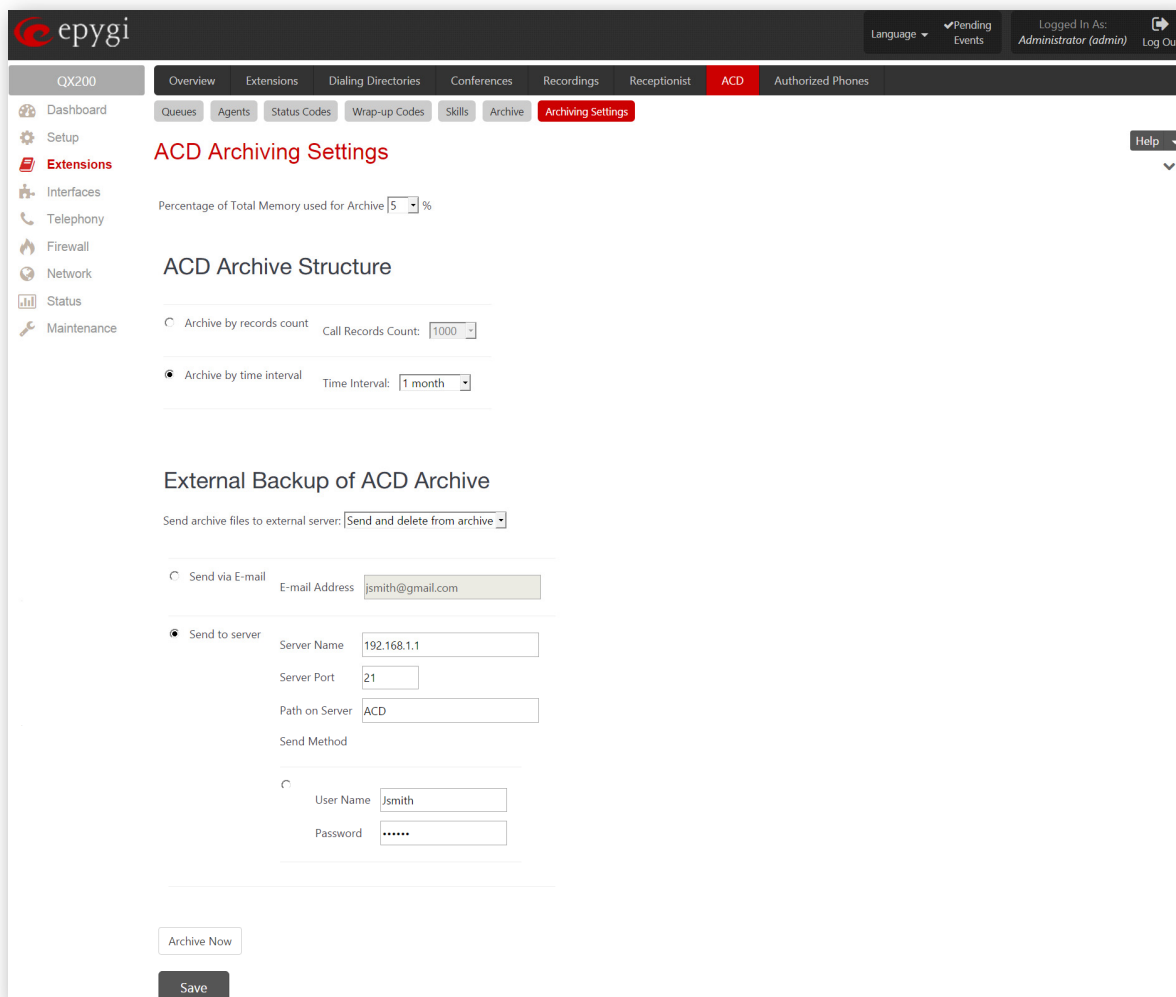

Figure 21: ACD Archiving Settings page

Percentage of Total Memory used for Archive drop down list specifies a percentage of the system memory allocated for archiving.

Please Note: ACD Archiving is disabled since the percentage is set to **0** by default.

Attention: The archived ACD information will be automatically erased from the database and not available in the **EAC**. No recovery is possible.

ACD Archive Structure

This part configures the archiving intervals. Two methods are available:

- **Archive by Records Count** - file is being archived as soon as the number of records specified in the drop down list is collected.
- **Archive by Time Interval** - file is being archived as soon as the timeframe specified in the drop down list is elapsed from the last archiving. If no CDRs were produced during that timeframe, archive file for that period will not be generated.

External Backup of ACD Archive

This part configures the backup settings.

Send archive files to external server drop down list allows choosing of the archiving option. The following options are available:

- **Do not send** – the CDRs and ASRs will be archived and kept locally,
- **Send and keep locally** – the CDRs and ASRs will be sent via E-mail or to the server and kept locally,
- **Send and delete from archive** – the CDRs and ASRs will be sent via E-mail or to the server and removed from the archive.

Attention: If the **Send and delete from archive** option is selected the archived ACD information will be automatically erased from the database and not available in the **EAC**. No recovery is possible.

The following group of radio buttons allows to choose whether send the archived files by email or via FTP/TFTP to external server:

- **Send via E-mail** – allows sending the archived files by email. If this option is chosen, then the destination email address has to be entered in the E-mail Address field.
- **Send to Server** - allows sending the archived files to an external server. This selection enables the following fields to be filled in:
  - ➢ **Server Name** - IP address or host name of the server,
  - ➢ **Server Port** - port number of the server,
  - ➢ **Path on Server** - the path on the server to store the archived files,
  - ➢ **Send Method** - allows choosing the server type: **TFTP** or **FTP**. Specify the authentication **User Name** and **Password** in case of the **FTP**. If these fields are left empty, anonymous authentication will be used.
- **Archive Now** button manually initiates archiving only for **Call Details Records**. This archiving method will not remove the records from the **EAC** database.

6 EAC Web application

The **EAC** is a web application used for monitoring the **ACD** activities by ACD Agents. The **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 ACD Admins and Supervisors. ACD Supervisors and Admins may change the agent statuses, enable and disable agents in specific queues, collect and report information about ACD Queues' and Agents' activities in the EAC.

Some of the main functions of the **EAC** are as follows:

- Display the number of online agents per ACD Queue.
- Display the number of the answered, abandoned, rejected and queued calls per ACD Queue.
- Display the active calls per ACD Queue and allow the Supervisor/Admin to terminate them.
- Display the statuses of the agents per ACD Queue.
- Change the agent status (controlled by ACD Admin and Queue Supervisor).
- Enable and disable the agents' capability to receive the calls from a specific ACD Queue.
- Display the call summary per ACD Queue and per Agent: the number of answered calls, total and average duration of the calls.
- Display Call Details Records per ACD Queue.
- Display Call Details Records for Direct Inbound and Outbound Calls.
- Display Wrap-up codes assigned to calls and Wrap-up code summary.
- Chat with Agents and keep chat history.
- Display marquee.
- Generate and download statistical reports for queues and agents for predefined time period.
- Make direct outbound calls.
- Receive direct inbound calls.
- Make blind transfer to ACD Agents or other destination numbers.
- Allow the Supervisor/Admin to Barge-In, Listen-In and Whisper all active calls.

6.1 EAC Configuration

EAC is a licensable feature. To be functional, EAC requires the ACD license to be installed on the QX first. The EAC license is granted for a certain number of active users (Agents, Supervisors or Admins) for a one-year period. After one year the license has to be renewed.

After successful activation of the ACD and EAC licenses, you will be able to navigate to the EAC login page (Figure 22). To do it:

- Either press 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 the EAC, where xxx.xxx.xxx.xxx is the IP address or host name of the QX.
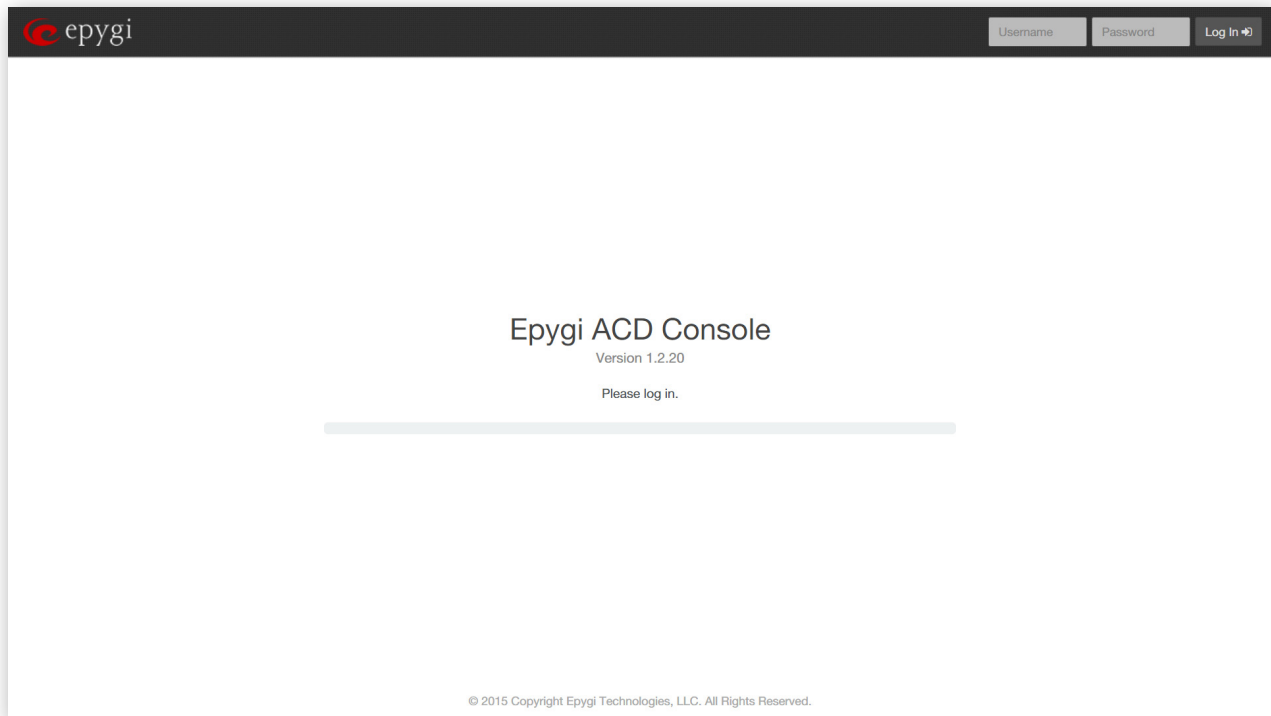
Figure 22: EAC – Login page

To log in to the EAC the ACD Agents, Supervisors and Admins will use the defined credentials (web authentication) configured while creating agents on QX (see Creating ACD Agent).

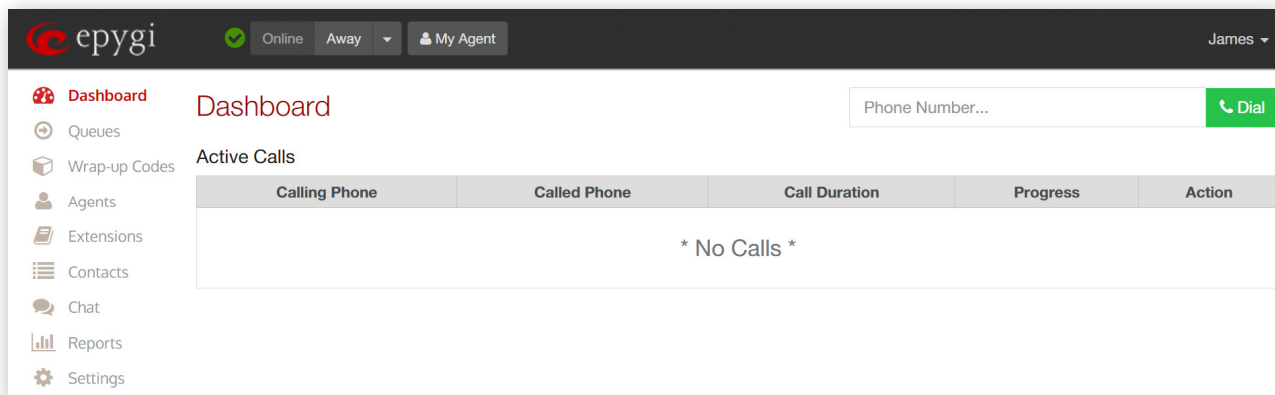Figure 23: EAC – Dashboard

6.2 EAC Definitions

ACD Agent roles

There are three roles that can be bound to an ACD Agent during configuration on the QX:

- **ACD Admin** – if this role is bound with the ACD Agent then he/she has full permissions to watch and manage all ACD Agents and Queues.
- **ACD Queue Supervisor** – if this role is bound with ACD Agent then he/she has full permissions within the scope of the specified queue(s). The Supervisor can see information related to his queue(s), can

change the statuses of the agents of that queue and can enable or disable the agents' capability to receive the calls from his queue(s).

- **ACD Agent** – this is the default role of the agent. This role allows the agent to receive the calls from his queue(s), watch and modify information pertaining to him/her.

Please Note: The EAC window content and available actions depend on the roles bound to the agent.

An agent can be a member of one or many queues and receive the calls from them.

Agent status

These are the following agent statuses available in the default configuration:

- **Online** – the agent can receive calls from his/her queue(s). **Free** status is displayed instead of **Online** in **Direct Inbound Calls** and **Direct Outbound Calls** Queues.
- **Offline** – the agent cannot receive calls from his/her queue(s).
- **Away** – the 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).
- **Busy** – agent is currently on the phone. This status cannot be set manually by the user; it is being set automatically by ACD 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. Wrap-up period starts immediately after finishing the call and lasts for the wrap-up Timeout configured for each agent in the queue individually.

Disabled – a supervisor can put an agent in the Disabled state for one or more queues, preventing the agent from receiving calls from that queue.

Please Note: Besides the above mentioned default statuses, the QX administrator may create additional statuses (like **Meeting**, **Lunch**, etc.) reflecting the specific state of the agent. These new states are the equivalent to setting the agent in the **Away** state.

Direct Calls

Direct calls are those received or placed by an agent bypassing Queues. The **EAC** differentiates the following two **Direct Call** types for **Inbound** and **Outbound** calls:

Direct Inbound Calls – default and the only queue used for receiving direct inbound calls to ACD Agents. Similar to other queues, the **Direct Inbound Calls** queue will group information about inbound call details, call summary, agents who receive the inbound calls, etc.

Calls received by ACD Agents directly from other parties (non-agents) are considered as ACD calls and will also be shown in the **Direct Inbound Calls** statistics.

Direct Outbound Calls – default and the only queue used by all ACD Agents for making outbound calls. Similar to queues for inbound calls, the **Direct Outbound Calls** queue will group information about outbound call details, call summary, agents who made the outbound calls, etc.

Calls made by ACD Agents directly from the phone are considered as ACD calls and will also be shown in the **Direct Outbound Calls** statistics.

<u>Call States</u>

The **EAC** differentiates the following call types for **Inbound Queue** calls and **Direct Calls**:

For Inbound Queue Calls

- **Answered call** – a call that reached the queue and has been answered by an 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 (Direct Inbound Calls).
- **Answered call** – a call answered by remote party (Direct Outbound Calls).
- **Abandoned call** – not applicable.
- **Rejected calls** – not applicable.

6.3 EAC Management

The **EAC** consists of the following configuration pages:

- **Main Menu** – allows for being able 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 and Outbound queues.
- **Wrap-up Codes** – displays user-defined Wrap-up codes, Wrap-up code summary per agent and per queue.
- **Agents** – displays information about all agents, their current status and the length of time the agent is in that state.
- **Extensions** – displays the list of all current QX extensions and attached ACD Agents (if any). The list is used for making outbound calls to those extensions and chatting with the agents and agent groups.
- **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 and agent groups.
- **Reports** – allows to generate and download statistical reports for queues and agents for predefined time period.
- **Settings** – allows a logged in agent to view some QX settings and configure the Marquee text.

6.3.1 Main Menu

The **Main Menu** page allows the logged in agent to see his current status as well as being able to quickly change it by clicking on a drop down list (Figure 24).
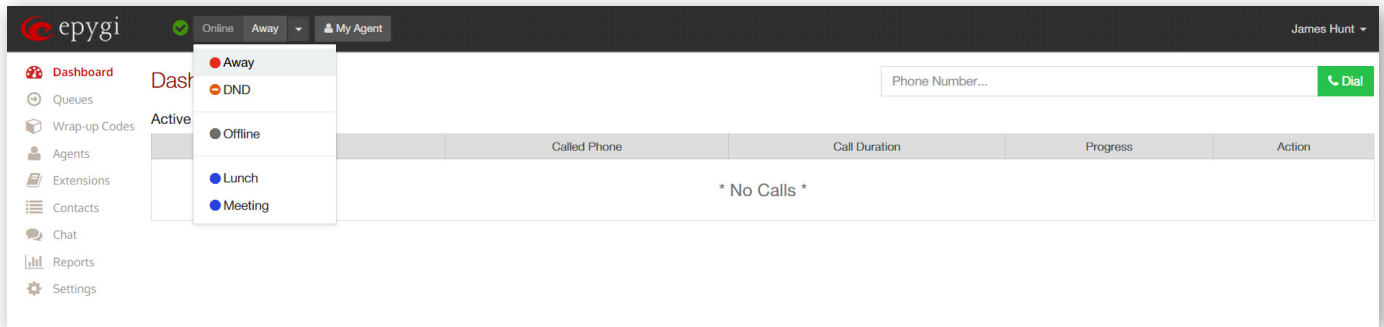

Figure 24: EAC – Main Menu

Please Note: All system default and user-defined statuses are available for the agent to choose from (see Creating ACD Agent).

My Agent – shows all information (Status Statistics, Call Summary, etc.) concerning the logged in agent in one click.

6.3.2 Dashboard

Dashboard displays information related to the logged in agent and consists of the following two parts:

- **Active Calls** - shows information related to active calls of the logged in agent and for the calls to be handled.
- **Dial** - allows the agent to make outbound calls.
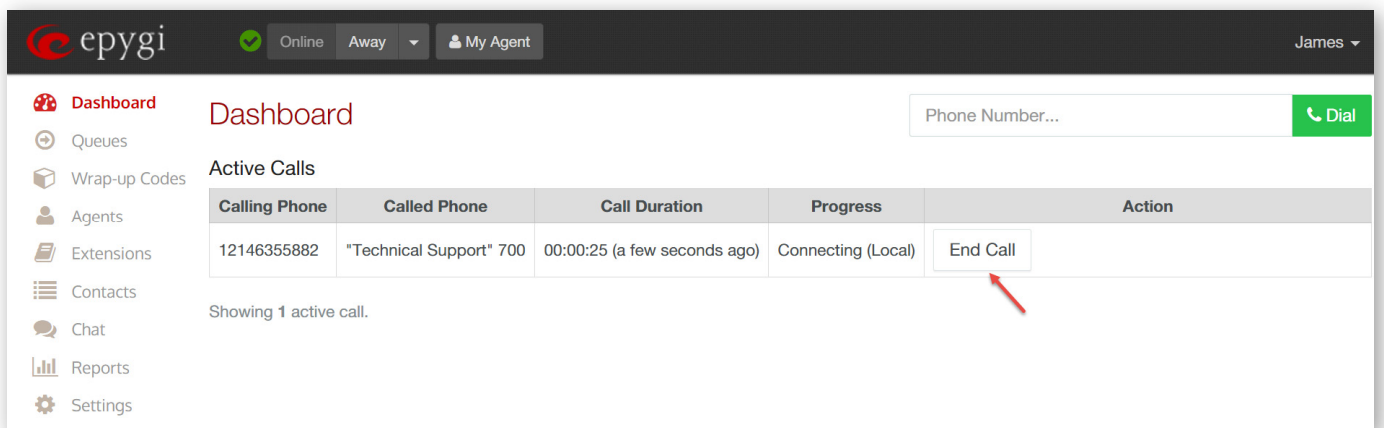
Figure 25: EAC – Dashboard – Inbound Call

For example, Figure 25 shows an inbound call from a remote party at 12146355882. The call has been waiting in the **Technical Support** queue, ringing the queue agents' phones, but is not yet answered. In the current state the **End Call** action is only available for the logged in agent for terminating the call if the Admin or Supervisor roles are bound to that agent.
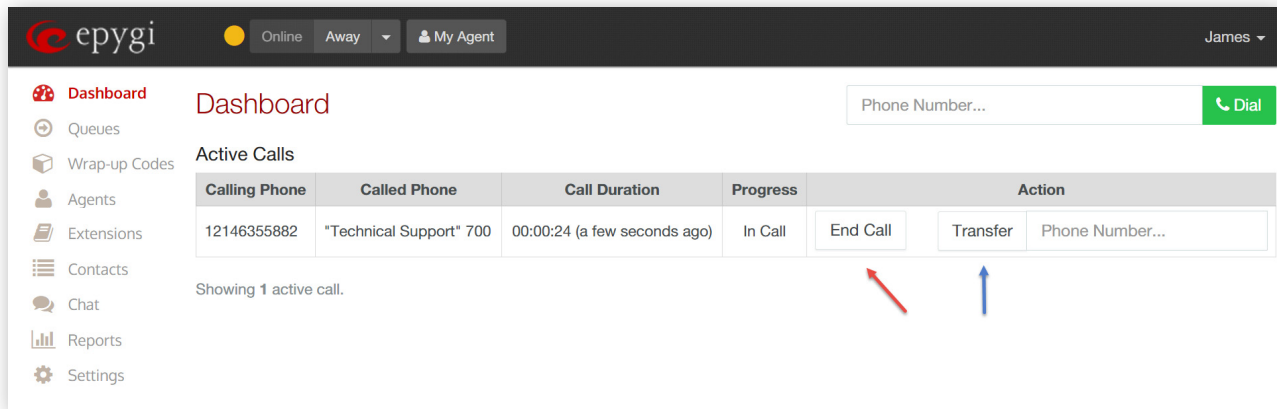
Figure 26: EAC – Dashboard – Answered Inbound Call

As soon as the call is answered by the logged in agent, the new action appears on the screen for making blind transfer (Figure 26). To make the transfer:

In the **"Phone Number…"** dial box, enter the number you want to transfer the call to and press the **Transfer** button. The current call will be transferred and erased from the **Dashboard**.

Dial button – allows the agent to make an outbound call by simply entering a destination number in the **"Phone Number…"** dial box and pressing the **Dial** button. Once the **Dial** button is pressed, the agent's phone starts ringing. Upon answering that call the QX will automatically connect it to the entered destination number (Figure 27).

Please Note: Only the agents located on a PBX extension are allowed to make the **Direct Outbound Calls** via EAC (see Creating ACD Agent).
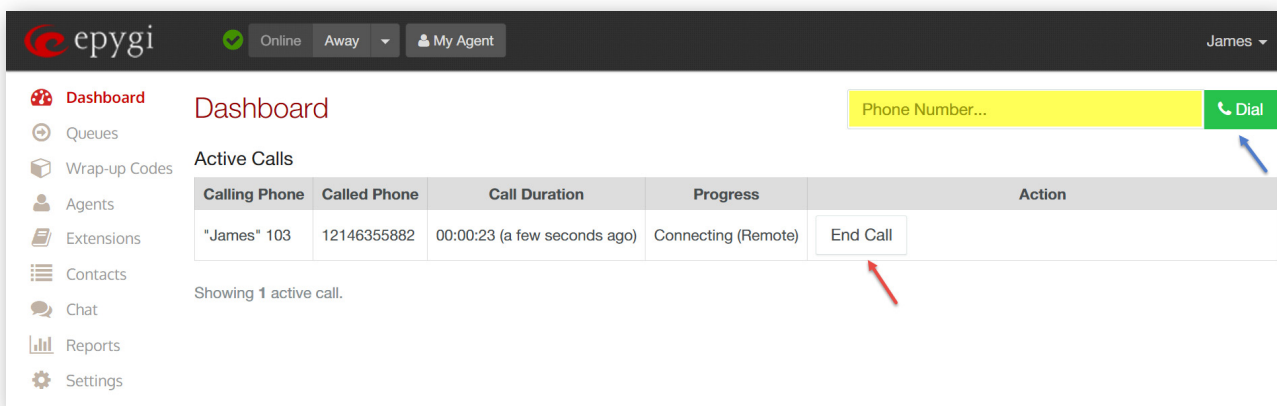
Figure 27: EAC – Dashboard – Establishing outbound call

Please Note: The QX handles the outbound calls initiated by the EAC. Therefore, the entered destination phone numbers must comply with the call routing rules specified in the **Call Routing Table** of the QX.

The call **Transfer** becomes available right after the remote party answers the call (Figure 28).
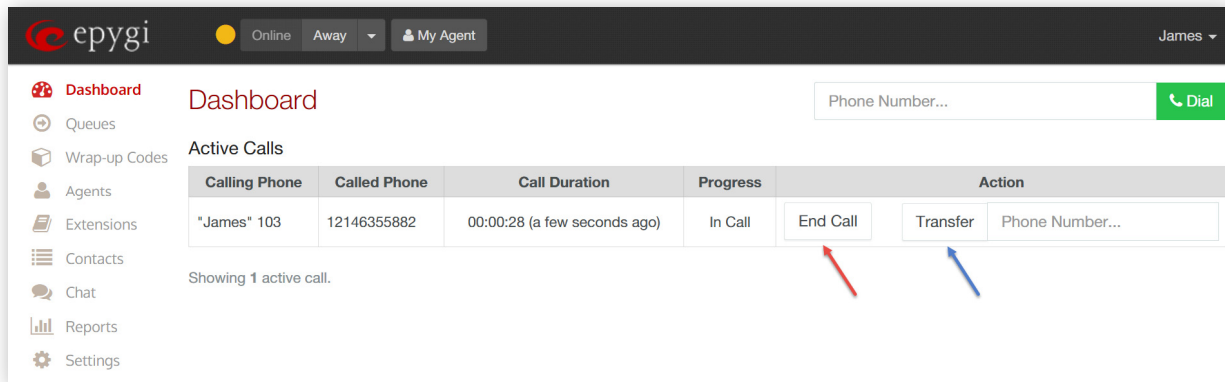
Figure 28: EAC – Dashboard – Answered outbound call

6.3.3 Queues

The **Queues** page displays all user-defined Inbound queues as well as the **Direct Calls**. All agents by default are members of the **Direct Inbound** and **Outbound Calls**, regardless of their membership in the other queues.

The Queues table contains the following information about each queue: number of online agents of the queue, current number of queued and answered calls (Figure 29). **Membership** column shows the membership status of the logged in agent in each queue.
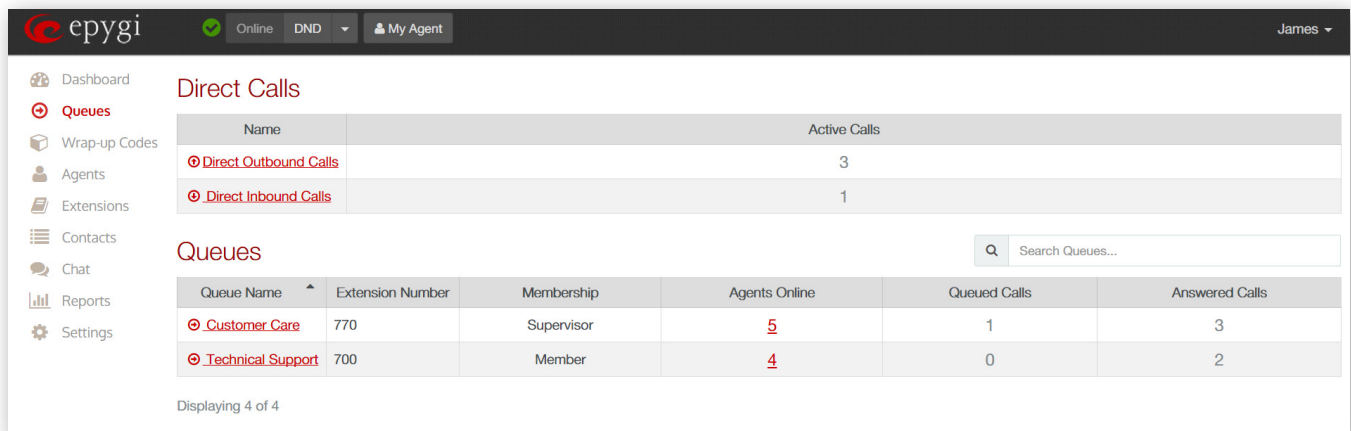
Figure 29: EAC – Queues

To access the Queue Statistics, press the hyperlinked **Queue Name**. Detailed information about each queue is accessible only for ACD Admin(s) and Queue Supervisor(s).

Please Note: Detailed information about the **Direct Inbound** and **Outbound Calls** is accessible only for ACD Admin(s).

Queue Statistics consists of the following pages:

- Queue Summary
- Agents
- Live Calls
- Call Summary
- Call Details
- Wrap-up Codes Summary

Queue Summary

Queue Summary page displays the following information for the selected timeframe (Figure 30):

- **Totals** – total number of calls (answered, abandoned or rejected) received in the queue:
  - ➢ **Wait Time** – total waiting time of the calls in the queue.
  - ➢ **Wait (Average)** – average waiting time of the calls in the queue.
  - ➢ **Max Wait** – maximum waiting time of the calls in the queue.
- **Answered** – total number of calls answered by the queue agents:
  - ➢ **Duration** – total duration of all answered calls.
  - ➢ **Duration (Average)** – average duration of answered calls.
  - ➢ **Max Duration** – maximum duration of answered call.
- **Abandoned** – total number of abandoned calls:
  - ➢ **Wait Time** – total wait duration for all calls before being abandoned.
  - ➢ **Wait (Average) –** average waiting time for all calls before being abandoned.
- **Rejected** – total number of unanswered calls by queue' agents for the reason that 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** of calls waiting in the queue).
  - ➢ **Timeout** – the total number of calls received by the queue and not answered within the ringing timeout (**Queue Ring Timeout**).
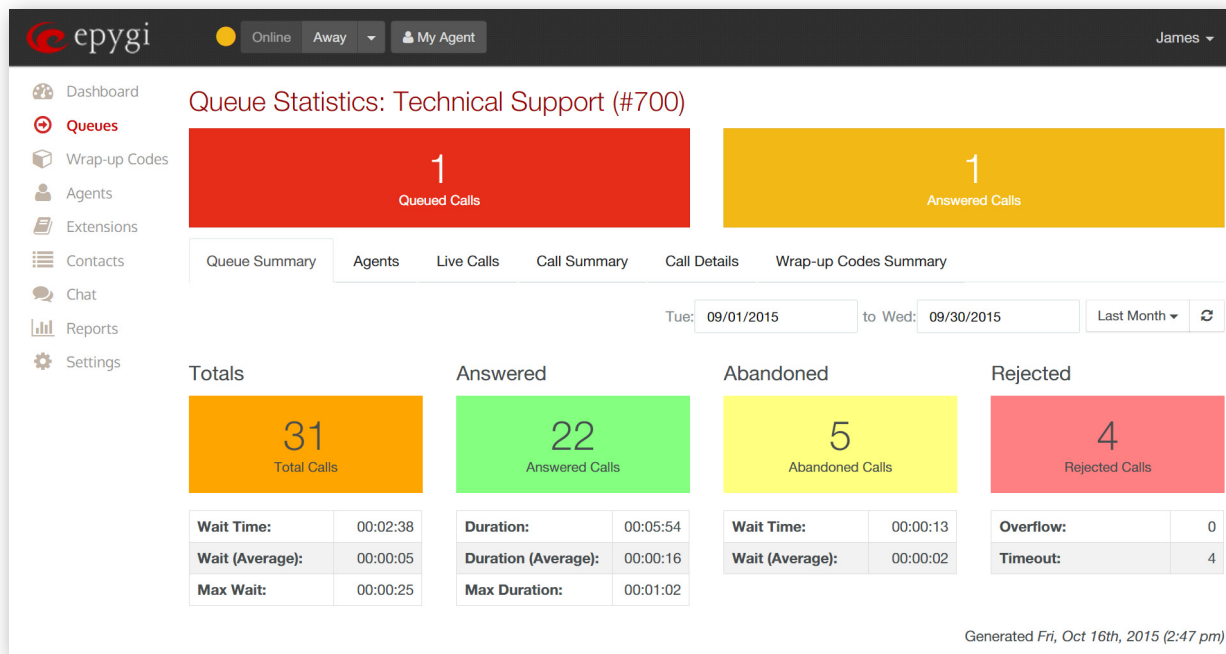
Figure 30: EAC – Queue Statistics – Queue Summary

Please Note: The displayed information concerning **Direct Calls** should be interpreted differently (see EAC Definitions).

Agents

Agents page displays the following information (Figure 31):

- **Agent** – shows the list of all agents assigned to a queue.
- **Status** – shows the current status of an 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.

  Please Note: Only the Queue Supervisor or ACD Admin can enable/disable this setting.

- **Queue Supervisor** – shows whether the corresponding agent has the Queue Supervisor permissions or not.
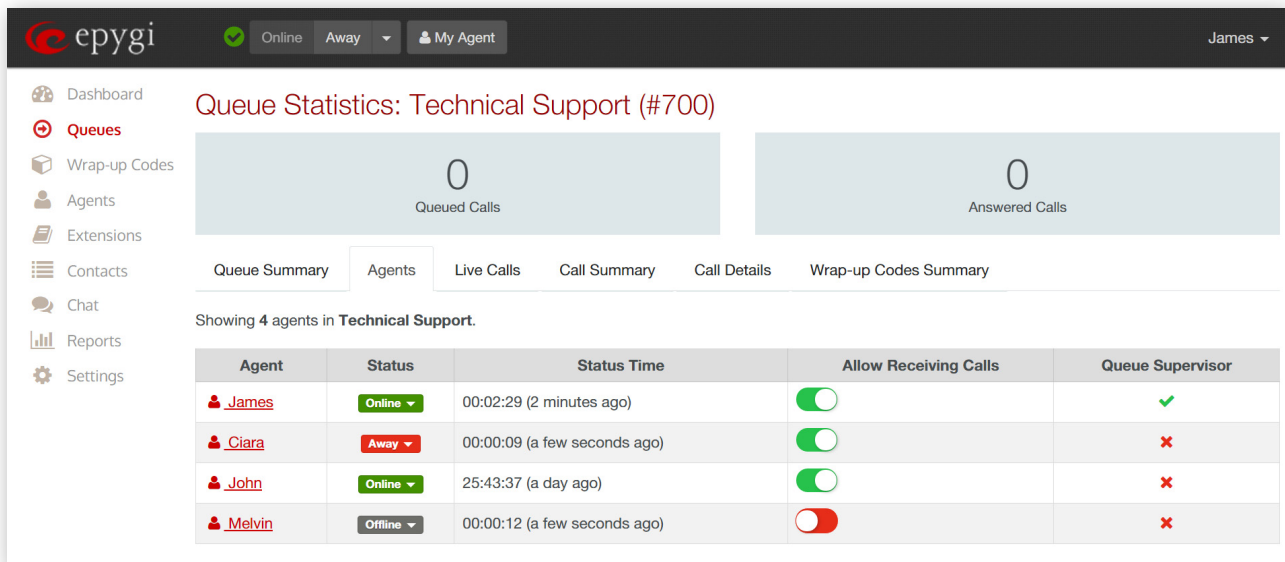
Figure 31: EAC – Queue Statistics – Agents

Please Note: The **Direct Calls** don't have a Queue Supervisor.

Live Calls

Live Calls page displays the currently queued and answered calls within the selected queue (Figure 32).

Please Note: Only the answered calls are displayed in the **Live Calls** page for the **Direct Inbound** and **Outbound Calls** (Figure 33).

As soon as the call is initiated or answered by the logged in agent, the new actions appear on the screen to allow **Barge-In**, **Listen-In** and **Whisper** (Figure 32 and Figure 33).

Barge-In button – allows the Supervisor/Admin to Barge-In the selected active call. Once the **Barge-In** button is pressed, the phone starts ringing. Upon answering that call the Supervisor/Admin will automatically barge-In the active call.

Listen-In button – allows the Supervisor/Admin to listen the selected active call. Once the **Listen-In** button is pressed, the phone starts ringing. Upon answering that call the Supervisor/Admin will automatically listen the active call.

Whisper button – allows the Supervisor/Admin to whisper the agent who initiated or answered the selected active call. Once the **Whisper** button is pressed, the phone starts ringing. Upon answering that call the Supervisor/Admin will automatically be connected to the active call and whisper the agent.

Please Note: To allow Barge-In, Listen-In and Whisper the active calls initiated or answered by agents, define a list of extensions that are capable to Barge-In, Listen-In and Whisper the current extension calls and to define the appropriate permissions from QX GUI.
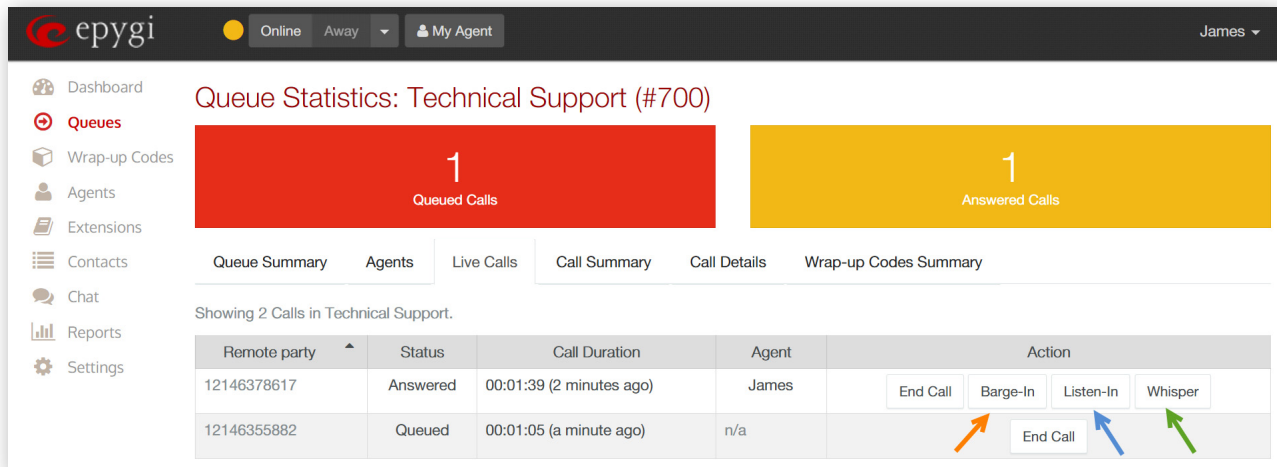
Figure 32: EAC – Queue Statistics – Live Calls for Queue
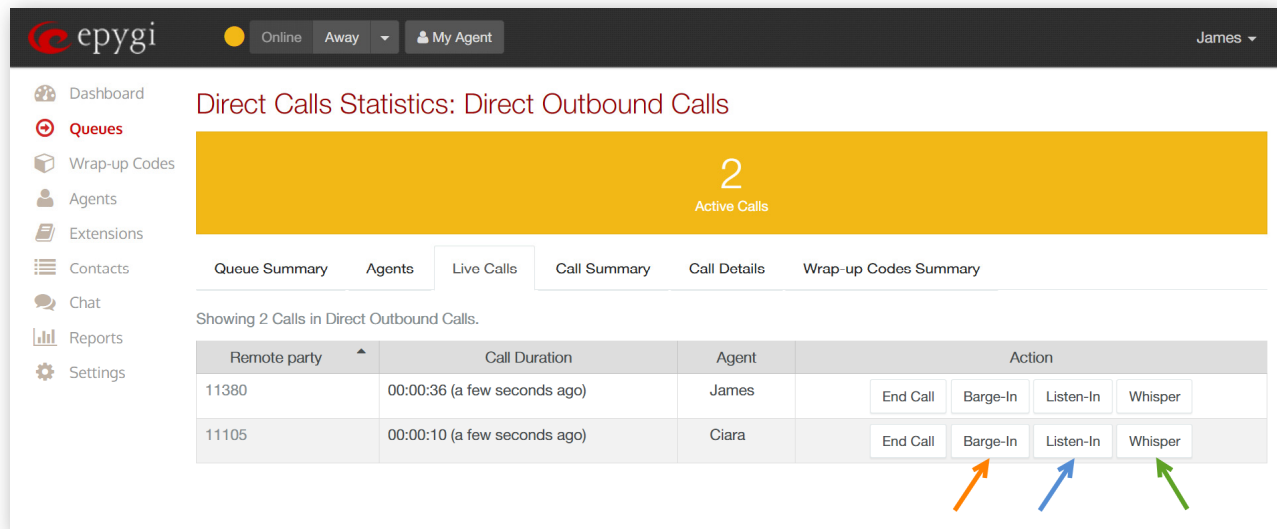
Figure 33: EAC – Direct Calls Statistics – Live Calls for Direct Outbound Calls

Call Summary

Call Summary page shows the number of answered calls, the total and average duration of calls for each agent of the queue within the selected timeframe (Figure 34).
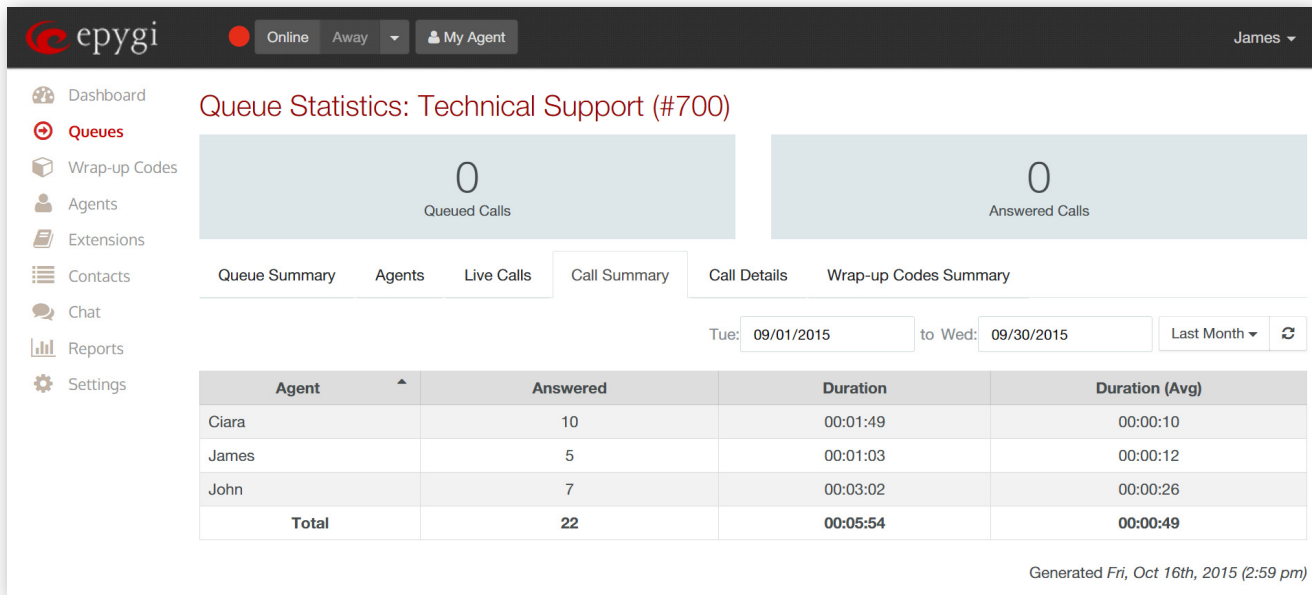
Figure 34: EAC – Queue Statistics – Call Summary for Queue

For **Direct Calls** the **Call Summary** page also shows the number of calls, their total and average duration for each agent within the selected timeframe (Figure 35).
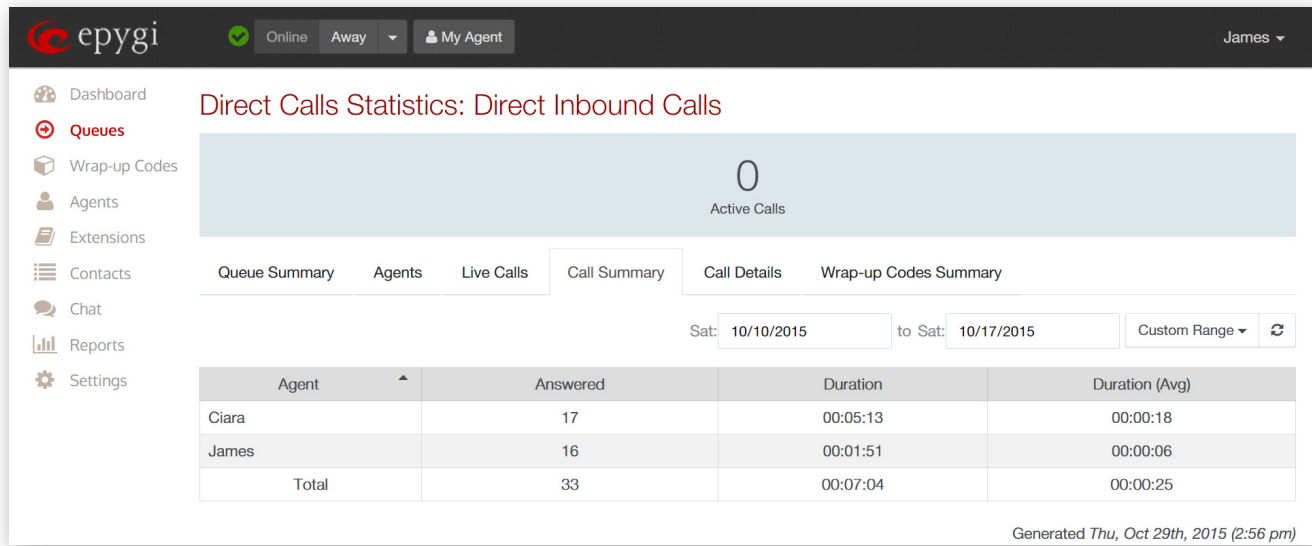
Figure 35: EAC – Direct Calls Statistics – Call Summary for Direct Inbound Calls

Call Details

Call Details page displays the call history for the queue within the specified timeframe (Figure 36). ACD Admin(s) and Queue Supervisor(s) may label the calls by wrap-up codes and leave textual comments.

The **Call Details** table contains the following call related information:

- **Type** – call state type (answered (↓), abandoned (↓) or rejected (↓)).
- **Agent** – the queue agent name who answered the call.
- **Date/Time** – call start date/time.

- **Remote Party** – caller ID of the calling party and the call type (SIP, PSTN or PBX).
- **Duration** – call duration.
- **Close Reason** – call close reason (closed by Agent/Caller, Abandoned, Timed Out and Transferred).
- **Wrap-up Code** – shows the wrap-up label (code) attached to the call.
- **Comment** – shows the comment left on the call (during wrap-up processing).
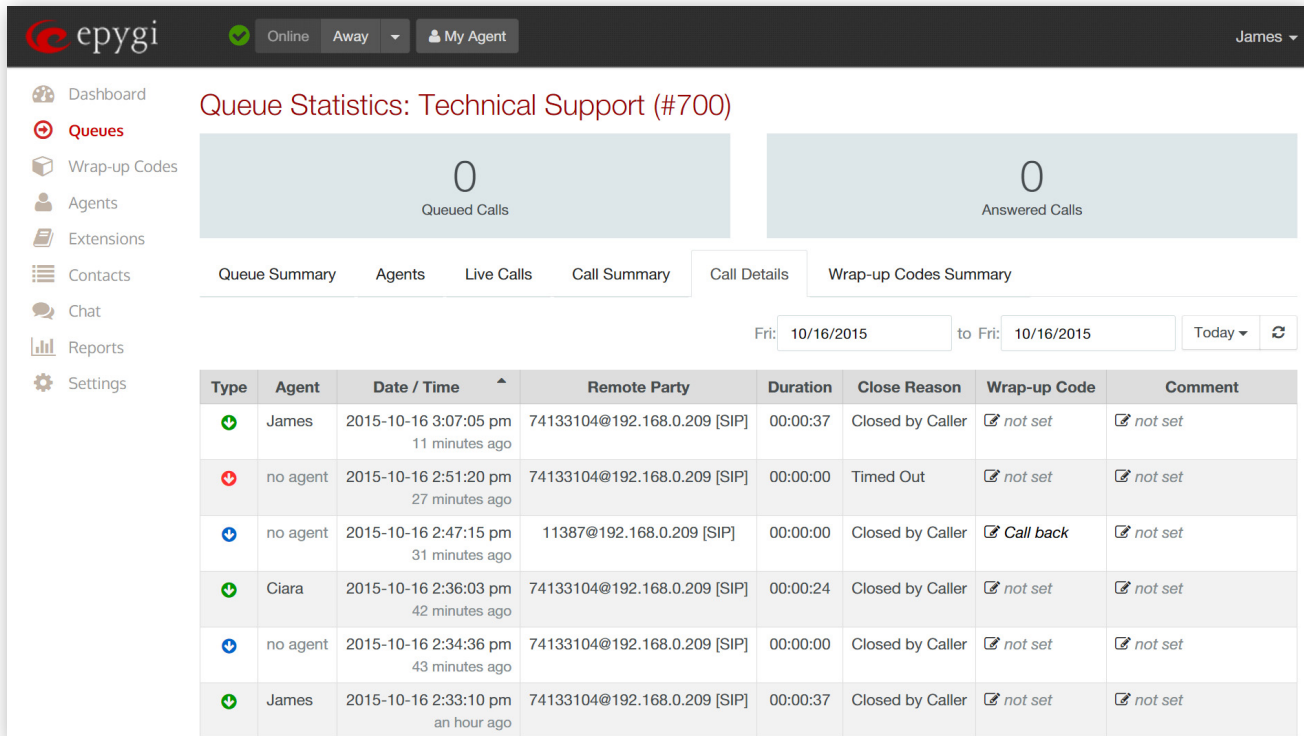
Figure 36: EAC – Queue Statistics – Call Details

Please Note: Calls labelled by the ACD Admin(s) and Queue Supervisor(s) will be attached to the agent (answering the call) in the **Wrap-up Codes Summary** page.

Wrap-up Codes Summary

Wrap-up Codes Summary displays the summary of the **Wrap-up codes** used for labeling the calls by agent within the selected timeframe (Figure 37). The **Agent** column will be empty if the call has been rejected or abandoned.
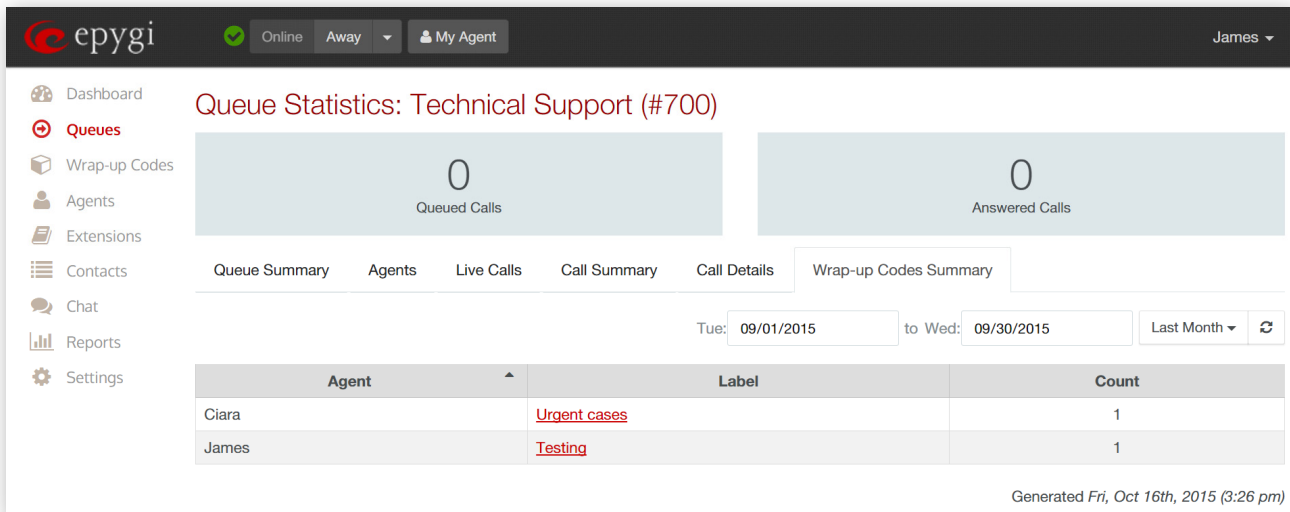
Figure 37: EAC – Queue Statistics – Wrap-up Codes Summary

Detailed information on each **Wrap-up code** label is accessible only for the ACD Admin(s) and Queue Supervisor(s). Press the hyperlinked **Label** to access the **Wrap-up Code Statistics**.

Please Note: Detailed information on the **Direct Calls** Wrap-up codes is accessible only to the ACD Admin(s).

6.3.4 Wrap-up Codes

Wrap-up Codes page displays all Wrap-up code labels, their descriptions and assigned queues (Figure 38). Detailed information for each Wrap-up code label is accessible only to the ACD Admin(s) and Queue Supervisor(s). Press the hyperlinked **Label** to access the **Wrap-up Code Statistics**.
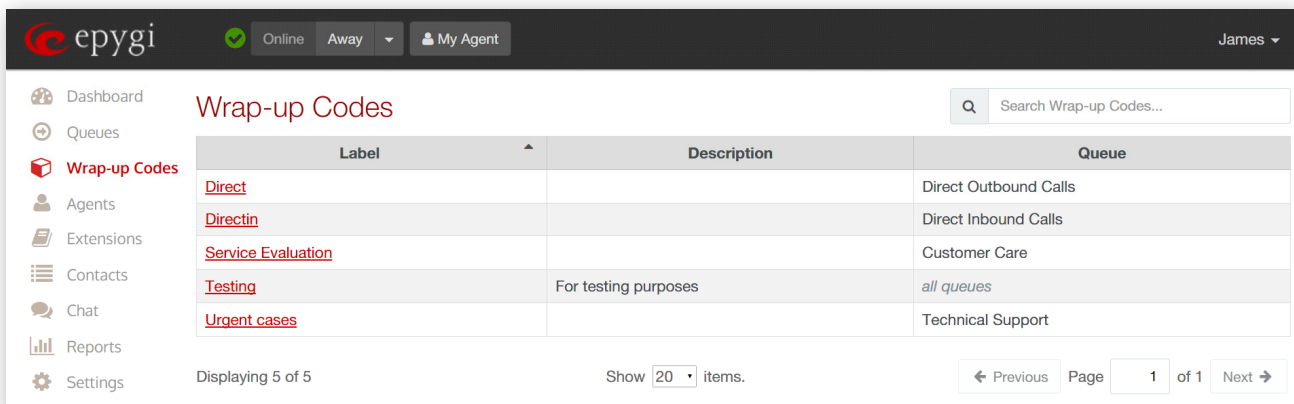
Figure 38: EAC – Wrap-up Codes

Wrap-up Codes Statistics consists of two sections:

- **Queue Summary** – shows the number of calls that have been assigned with the selected Wrap-up Code label in each queue within the predefined timeframe (Figure 39).
- **Agent Summary** – shows the number of calls that have been assigned with the selected Wrap-up Code label by agent(s) within the predefined timeframe (Figure 40).
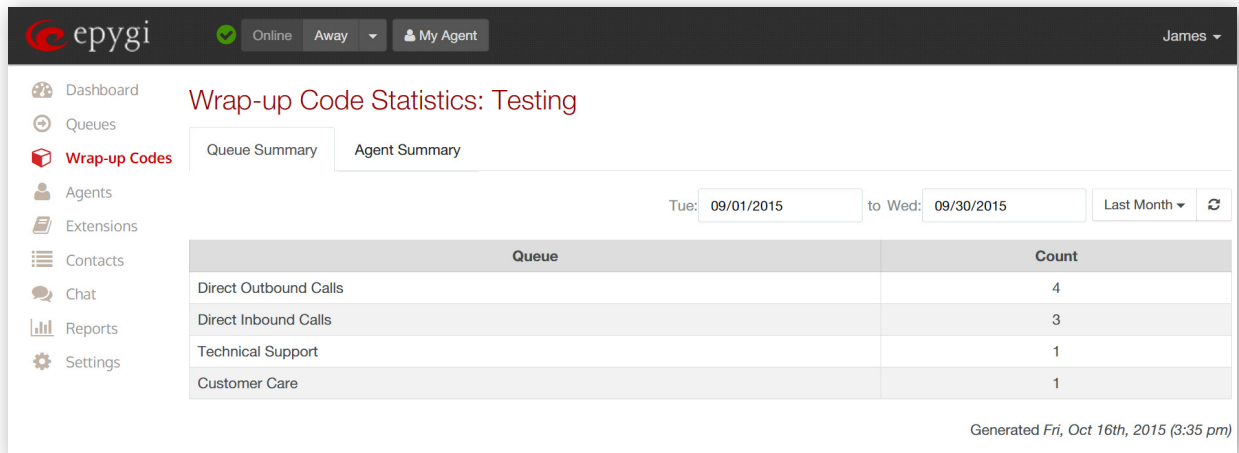
Figure 39: EAC – Wrap-up Codes Statistics – Queue Summary
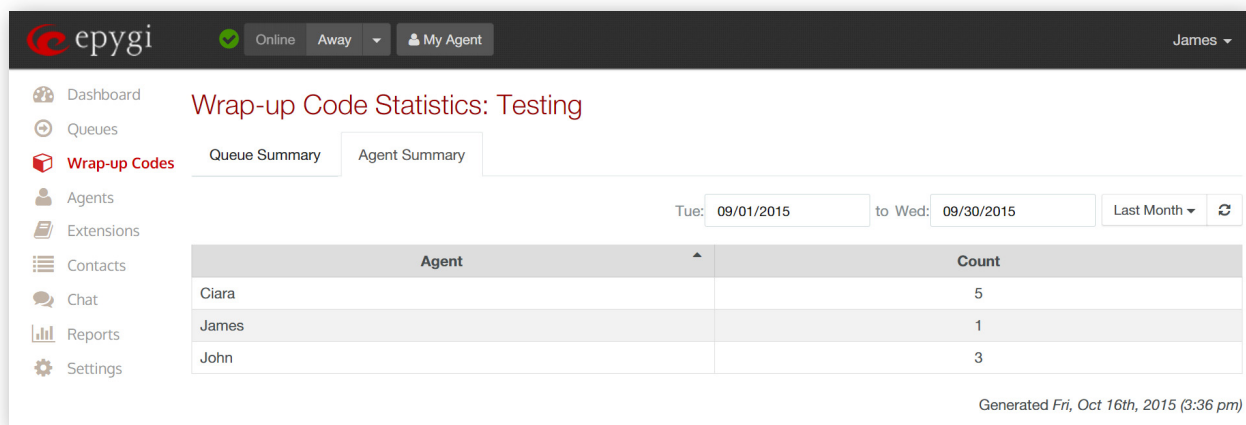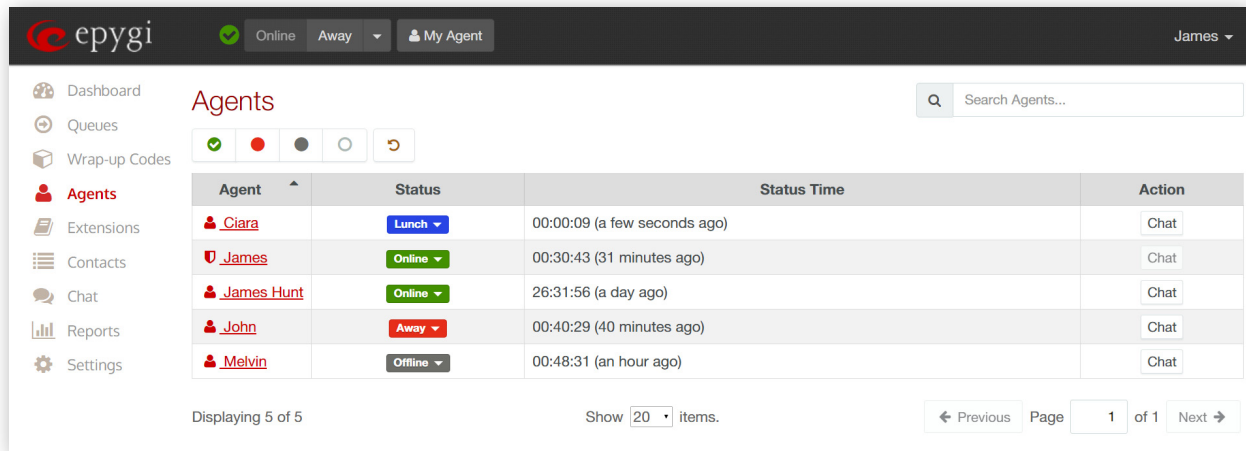
Figure 40: EAC – Wrap-up Codes Statistics – Agent Summary

Please Note: Queue 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 **ACD Admin**(s).

6.3.5 Agents

Agents page shows the following info (Figure 41):

- **Agent** – the list of names of all agents created on the QX (see Creating ACD Agent),
- **Status** – the agent's current status,
- **Status Time** – the length of time the agent has been in the current status,
- **Action** – pressing button in this column allows the logged in agent to chat with other agents (see Chat).

Figure 41: EAC – Agents

Press the hyperlinked agent name to access the **Agent Statistics** page. Detailed information on each agent is accessible only for the ACD Admin and Queue Supervisor.

Agent Statistics consists of the following pages:

- Status Statistics
- Call Summary
- Call Details
- Wrap-up Codes Summary

<u>Status Statistics</u>

Status Statistics shows how long the agent was in each of his states during the specified timeframe. This information is shown in the form of separate sector graph for each queue (Figure 42).
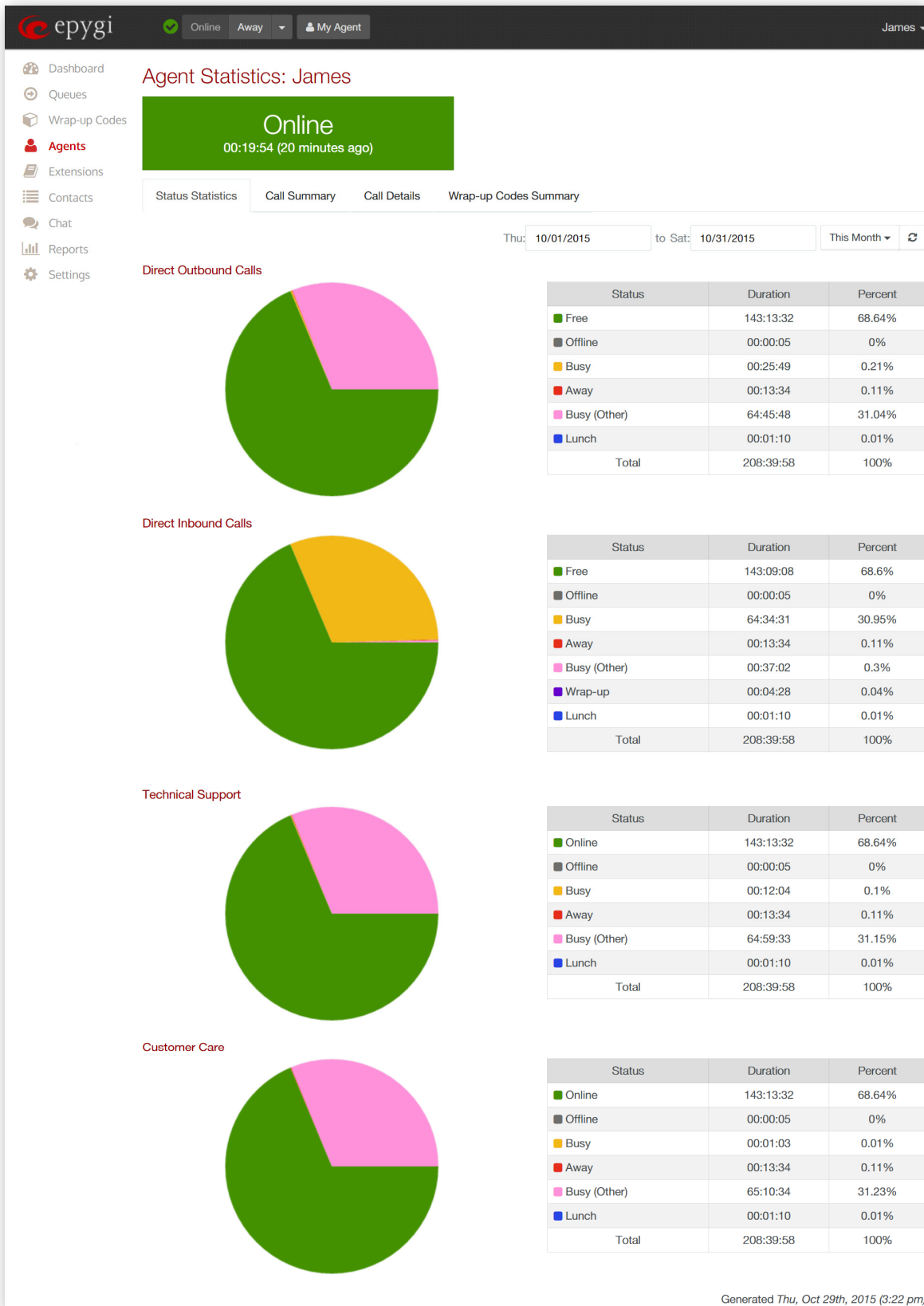
Figure 42: EAC – Agents Statistics – Status Summary

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 43).
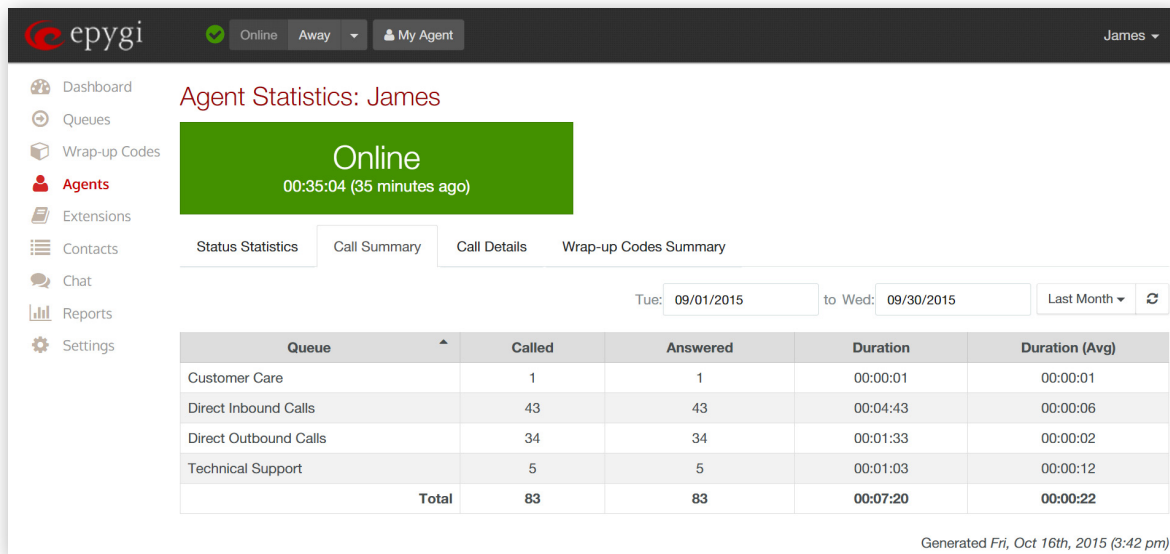
Figure 43: EAC – Agents Statistics – Call Summary

Call Details

Call Details page displays the call records for all answered and outbound calls within the selected timeframe (Figure 44). Agent may label the calls and leave comments for each call.

The **Call Details** table includes the following call related info:

- **Type** – call completion type (answered (⬇), abandoned (⬇) or rejected (⬇)).
- **Date/Time** – call start time.
- **Remote Party** – Caller ID of the calling party and call type (SIP, PSTN or PBX).
- **Duration** – the call duration.
- **Close Reason** – call's close reason (Closed by Agent/Caller, Abandoned, Timed Out and Transferred).
- **Wrap-up Code** – wrap-up label attached to the call.
- **Comment** – the comment left for the call by the agent.
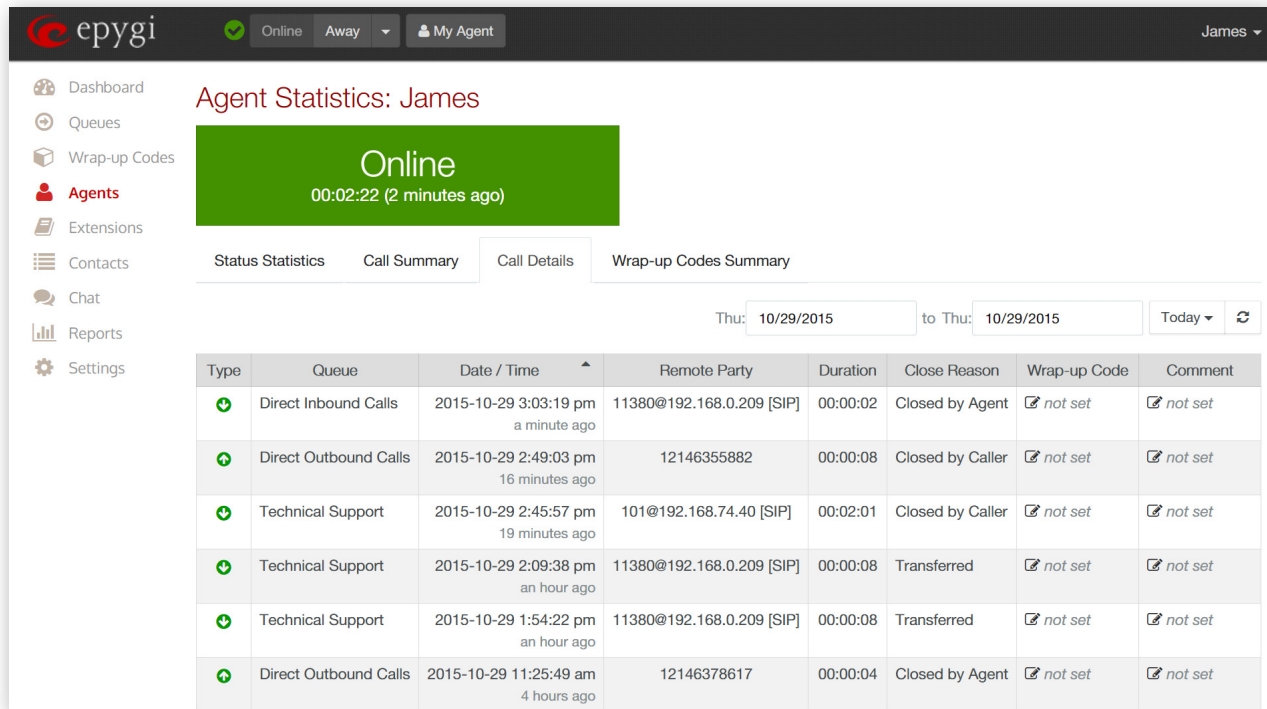
Figure 44: EAC – Agents Statistics – Call Details

Wrap-up Codes Summary

Wrap-up Codes Summary displays the **Wrap-up codes** summary used by the agent to label calls within the selected timeframe (Figure 45).
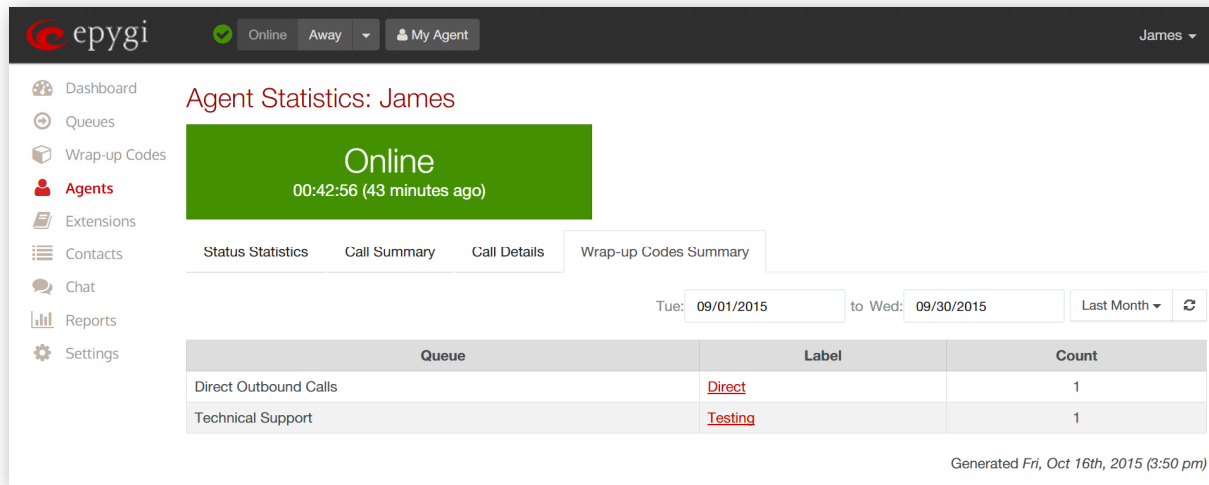

Figure 45: EAC Queue Statistics – Wrap-up Codes Summary

Press the hyperlinked **Label** to access the **Wrap-up Codes Summery** page. Detailed information regarding each Wrap-up code label is accessible only for the ACD Admin(s) and Queue Supervisor(s).

Please Note: Detailed information on the **Direct Calls'** Wrap-up codes is accessible for the ACD Admin only.

6.3.6 Extensions
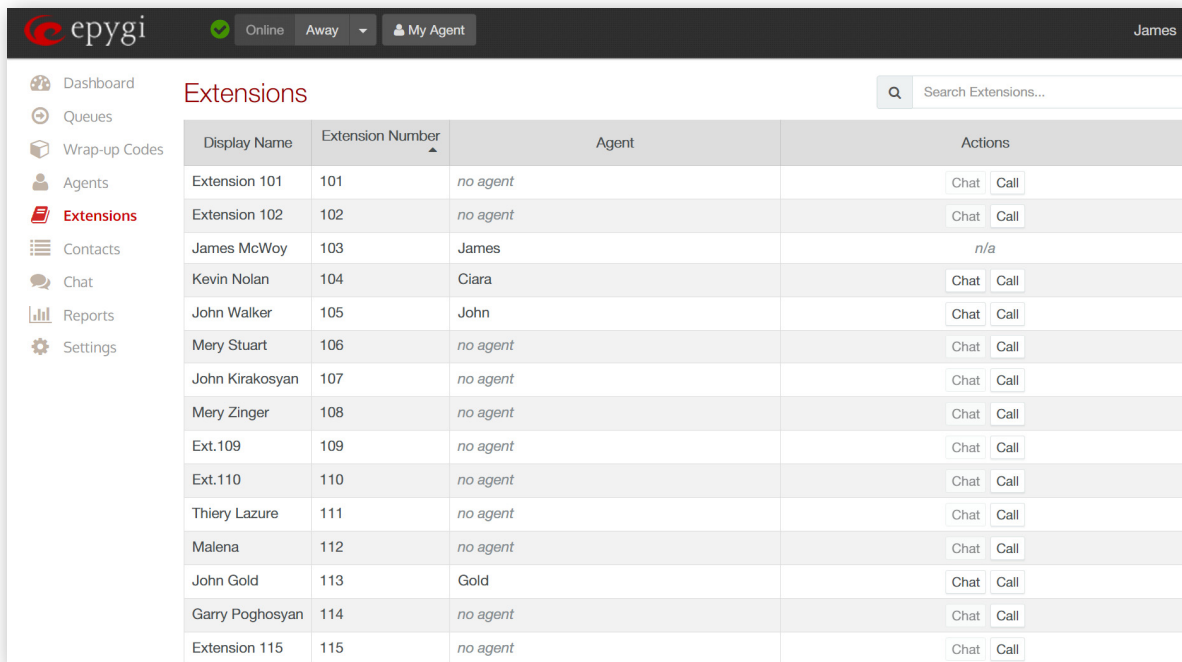
Extensions page displays all user extensions on the QX. ACD Agents attached to extensions will be shown in the **Agent** column (Figure 46).

The **Extensions** table includes the following info:

- **Display Name** – shows the display name of an extension configured on the QX.
- **Extension Number** – shows the corresponding extension numbers.
- **Agents** – shows the names of the agents bound to the extensions.
- **Actions** – allows the logged in agent to chat with other agents and call to extensions.

Press the **Call** button to place a call to the desired extension. Once the **Call** button is pressed, the agent's phone will start ringing. The QX will automatically dial the destination extension number right after the call has been picked up by the calling agent.

Please Note: These calls will be registered as outbound calls and displayed in the **Direct Outbound Calls'** call details as well as in the agent's call details.

Figure 46: EAC – Extensions

6.3.7 Contacts

Contacts displays all contacts imported from the **Phone Book Directory** of the QX.

Please refer to the Dialing Directories on the Epygi QX IP PBX Guide to get more information on configuration of contacts on the QX.

Contacts table shows the following info (Figure 47).

- **First Name** – contact's first name.
- **Last Name** – contact's last name.
- **Office Number** –office number.
- **Mobile Number** – mobile number.

- **Other Number** – other number.
- **E-mail** – e-mail address.

Contacts page allows an agent to call the contact by pressing the **Call to Number** button. Once the **Call to** button is pressed, the agent's phone starts ringing. As soon as the agent picks up the phone, the QX automatically dials the selected contact's number.

Please Note: These calls will be registered as outbound calls and be displayed in the **Direct Outbound Calls'** call details as well as in the agent's call details.

Pressing the **E-mail** link will open the default mail application on the agent's PC to send an E-mail.
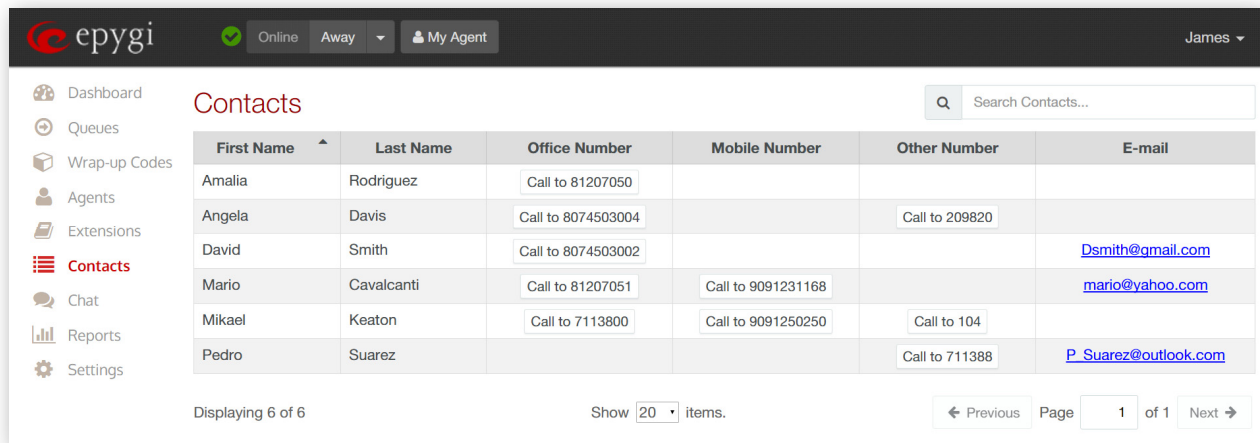
Figure 47: EAC – Contacts

6.3.8 Chat

Chat opens an instant messaging dialogue session for agents to be able to quickly chat with other agents while on an ACD call.

To create a chat with an agent, select an agent from the **Agents** drop down list (Figure 48).
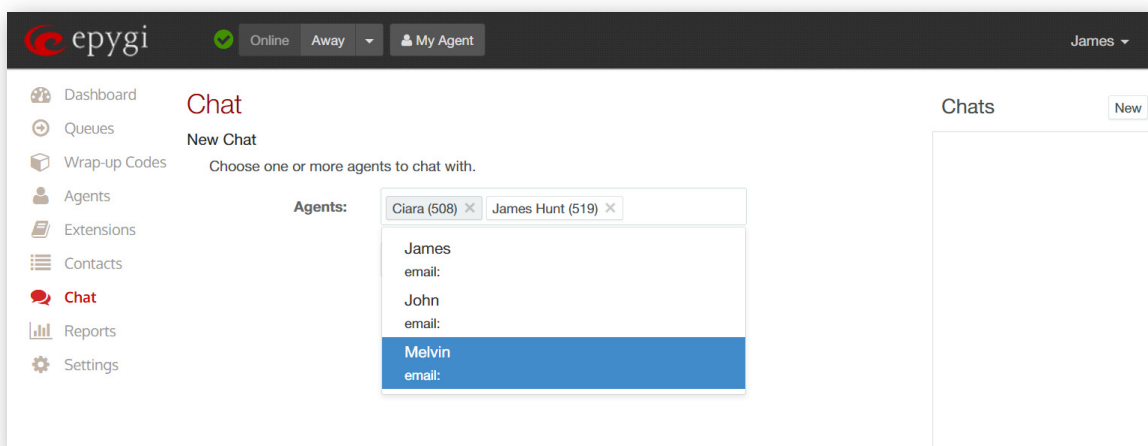

Figure 48: EAC – Chats – New Chat group

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 press **Send** (Figure 49).

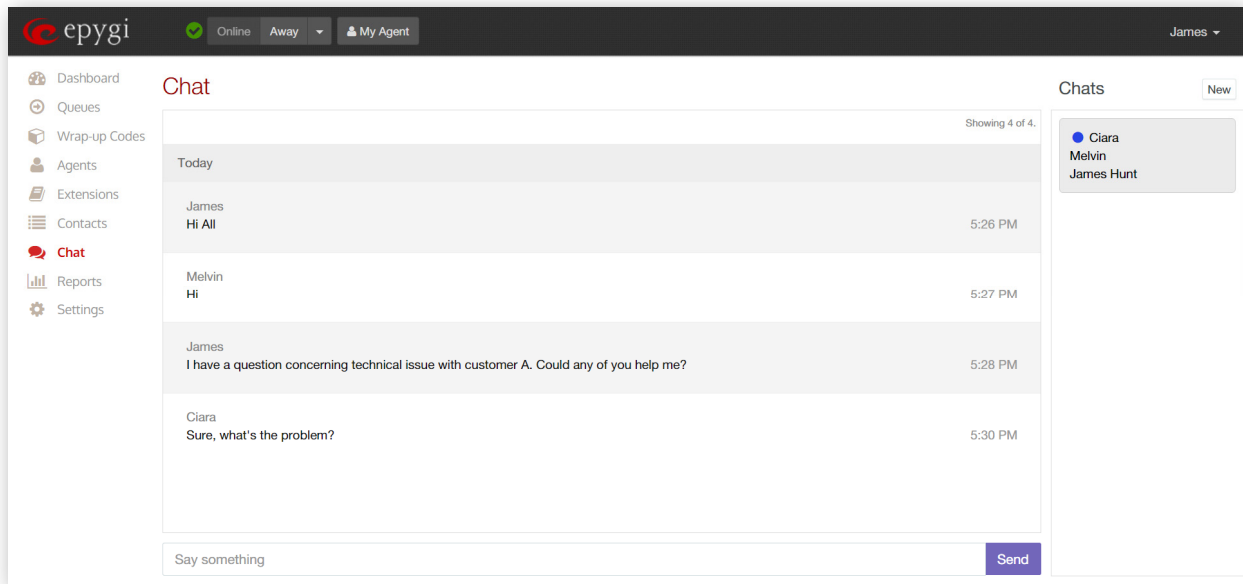You can also create chat groups simply by selecting two or more agents.

Figure 49: EAC – Chats – Chat with selected agent

6.3.9 Reports

Reports allows the ACD Admin(s) and Supervisor(s) to generate and download statistical data concerning ACD activities in CSV format.
Reports can be generated only by ACD Admin(s) and Supervisor(s). ACD Admins have access to all reports while Supervisors to the reports referring to the queues they are member of.

Following types of records are available:

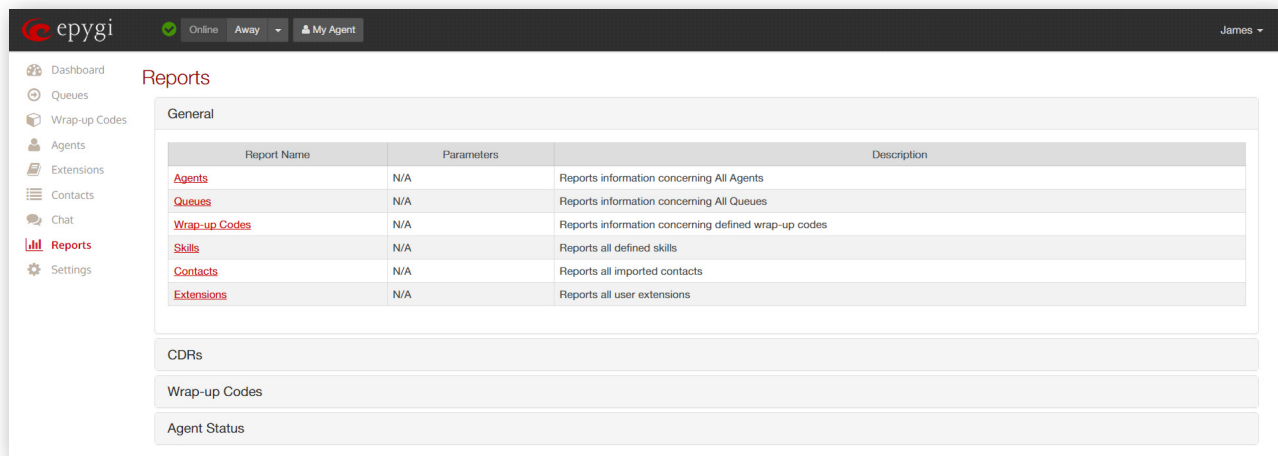- General
- CDRs
- Wrap-up Codes
- Agent Status

Figure 50: EAC – Reports

General Section

General section allows ACD Admin(s) to generate and download static information concerning agents, queues, contacts, wrap-up codes, etc. These reports include uploaded and created data from QX.

CDRs Section

CDRs section allows ACD Admin(s) and Supervisor(s) to generate and download diverse information concerning Call Details for selected agents, queues, call types and etc. for selected timeframes. Besides these, queue's summary and Direct Calls' summary reports are available for selected timeframes.

Wrap-up Codes Section

Wrap-up Codes section allows ACD Admin(s) and Supervisor(s) to generate and download information concerning Wrap-up Codes summary per Queue and per Agent for selected timeframes.

Agent Status Section

Agent Status section allows ACD Admin(s) and Supervisor(s) to generate and download information concerning agent status summary for each queue for selected timeframes.

6.3.10 Settings

Settings allows the logged in agent to configure the status change options on log out as well as to set the Marquee text.
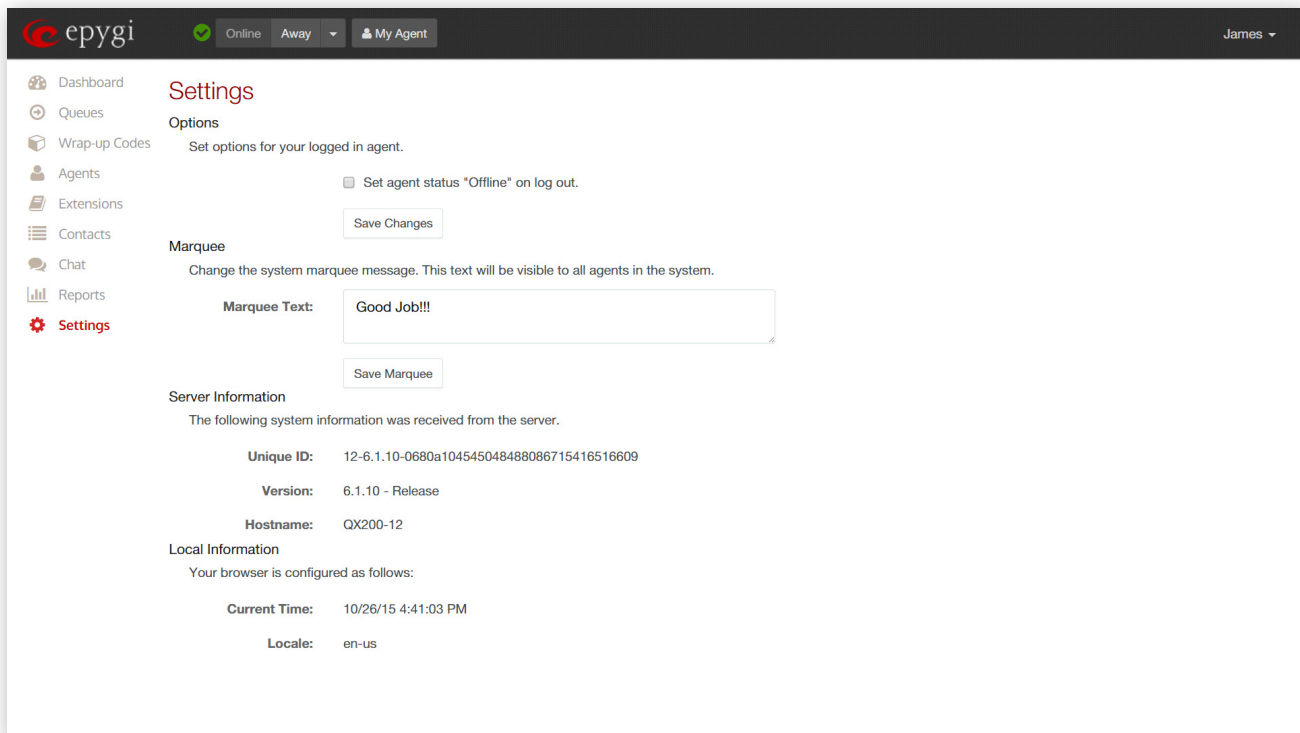

Figure 51: EAC – Settings

- **Set agent status Offline on log out** – enabled checkbox will automatically change the agent's status to Offline when the agent logs out from the EAC.
- **Marquee Text** – Allows an ACD Admin(s) and Queue Supervisor(s) to send a broadcast message to all ACD Agents. The running line message would appear on the top of each EAC page.

7 References

- Manual – II: Administrators Guide
- Activating Epygi QX Licensable Features
- Dialing Directories on the Epygi QX IP PBX