

# OpenACD Setup

This set of instructions are for sipXecs 4.4 or newer. For older versions of sipXecs see [OpenACD Setup for sipXecs 4.2](#). For an overview see [OpenACD](#).

## Environment Notes

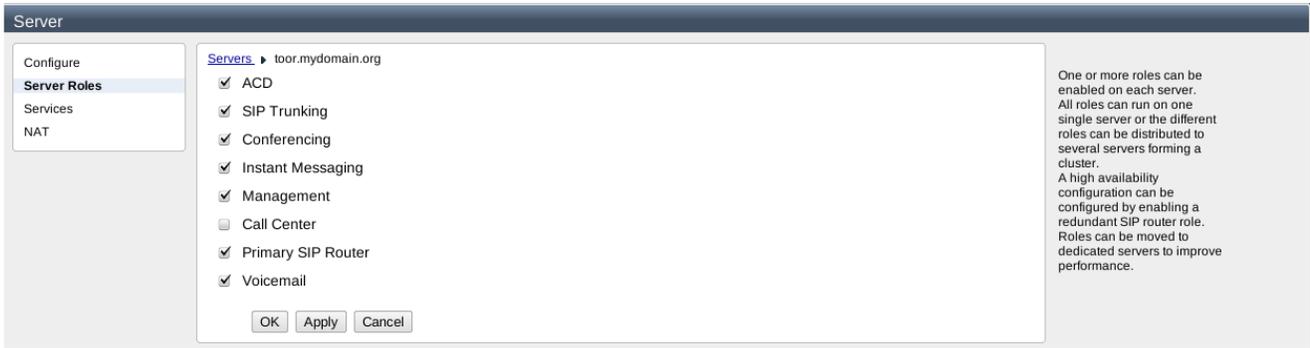
For simplicity I've not configured domain name resolution of sip addresses (i.e. DNS does not have SRV records) so in my example i use either hostname or FQDN, never the domain name.

## Install OpenACD

```
yum install sipxopenacd
service mongod start
service sipxecs restart
```

## Enabling OpenACD role

For enabling OpenACD Call Center role navigate to System > Servers page and choose the location you want Call Center to run on. On the Server Role tab enable Call Center option - the service will be listed under Services tab in Running status.



After enabling Call Center role one can access OpenACD configuration pages by navigating to Features > Call Center. A table listing locations where OpenACD is installed is shown on the main page:



## OpenACD to FreeSWITCH SIP communication

You need to configure OpenACD to be able to contact FreeSWITCH when calling agents registered on sipXecs. Navigate to System > Servers > Services > Call Center service.

FreeSWITCH Enabled: Must be checked

C Node: freeswitch@toor  
Dial String: {ignore\_early\_media=true}sofia/toor.mydomain.org/\$1  
where you replace:

toor.mydomain.org with your FQDN  
toor with your host name.

**NOTE** Make sure your FQDN that you enter as dial string matches your domain name (sipXconfig UI > System > Domain > Domain name). If it doesn't you will get an DESTINATION\_OUT\_OF\_ORDER from Freeswitch.

The screenshot shows a web-based configuration interface for a Call Center. The title bar reads "Call Center". The breadcrumb navigation is "Servers > toor.mydomain.org > Call Center".

**FreeSWITCH Media Manager Configuration**

- FreeSWITCH enabled:** A checkbox is checked. To its right, it says "(Default: unchecked)". Below this, a note states: "If selected OpenACD will be able to contact FreeSWITCH when calling agents registered on sipXecs".
- C Node:** A text input field contains "freeswitch@toor". Below it, an example is given: "Example: freeswitch@starling".
- Dial string:** A text input field contains "{ignore\_early\_media=true}sof". Below it, a note states: "This should be a valid FreeSWITCH dialstring. Example: {ignore\_early\_media=true}sofia/mydomain.com/\$1".

**Agent Configuration**

- Dialplan Listener:** A checkbox is unchecked. To its right, it says "(Default: unchecked)". Below this, a note states: "Select this option in order to allow OpenACD commands".

At the bottom of the configuration area, there are three buttons: "OK", "Apply", and "Cancel".

**NOTE** For sipXecs 4.2 and 4.4 versions you have to enable FreeSWITCH module using openACD interface.

Log into <http://your-server-name:9999/> with default user name *administrator* and password *Password123*.

Go to Modules tab, select freeswitch\_media\_manager node

FreeSWITCH Enabled: Must be checked

C Node: freeswitch@toor  
Dial String: {ignore\_early\_media=true}sofia/toor.mydomain.org/\$1  
where you replace:

toor.mydomain.org with your FQDN  
toor with your host name.

**NOTE** Make sure your FQDN that you enter as dial string matches your domain name (sipXconfig UI > System > Domain > Domain name). If it doesn't you will get an DESTINATION\_OUT\_OF\_ORDER from Freeswitch.

Agents | Queues | Skills | Clients | Modules

- [-] testme@toor
  - [-] cpx\_monitor\_grapher
  - [-] cpx\_monitor\_passive
  - [-] cpx\_supervisor
  - [-] email\_media\_manager
  - [-] freeswitch\_media\_manager
  - [-] gen\_cdr\_dumper
  - [-] cpx\_monitor\_kgb\_eventlog
  - [-] cpx\_monitor\_odbc\_supervisor
  - [-] cpx\_web\_management
  - [-] agent\_web\_listener
  - [-] agent\_tcp\_listener
  - [-] agent\_dialplan\_listener

FreeSWITCH Enabled

**C Node:**

**Dial string:**

**Agent Endpoint Dialstrings**

**Sip Endpoint:**

**Iax2 Endpoint:**

**H323 Endpoint:**

Do SIP authentication

## Queues and Queue Groups Configuration

Managing Call Center Queue Groups can be done from Call Center > Queue Groups tab and access *Add new Queue Group* link. *Default* queue group is already configured at startup and cannot be edited or removed. You have to provide a name, sort and select the desired skills (multiple selections are allowed).

**Call Center Queue Group**

Queue Group Name:

Sort:

Description:

Skills: 

- Language
- English
- German
- Magic
- Brand
- Node
- Queue
- All
- Agent Groups
- Default

For configuring a new Call Center queue go to Queues tab and access *Add new Queue* link. *default\_queue* is already configured at startup and cannot be edited or removed. You will be asked to configure the queue by providing a name, queue group, weight and select the desired skills (multiple selections are allowed).

Call Center Queue

Queue Name:

Description:

Queue Group:

Skills: 

- English
- German
- Magic**
- Brand
- Node
- Queue
- All
- Agent Groups**
- Default

Weight:

## Clients Configuration

For configuring a new Call Center client go to Clients tab and access *Add new Client* link. You have to provide a name and a identity.

Client

Name:

Identity:

Description:

## Lines Configuration

For configuring a new Call Center line go to Lines tab and access *Add Line* link. You will be asked to configure the line by providing a name, line extension, queue, client and additional options. You also have to specify the welcome message to be played when line is called. Advanced users familiar with Freeswitch project could manage lines by adding / removing actions.

**NOTE** Please check the values for **erlang\_sendmsg** and **erlang** actions and specify your OpenACD configured node name (by default sipXconfig suggest **testme** as a value for OpenACD node)

Call Center Line

Name: SalesLine

Description:

Extension: 333

Queue: SalesQueue

Client: Client1

Allow voicemail:

Answer supervision:

Welcome message: welcome.wav [Listen](#) [Delete](#)

Choose File: No file chosen

**Options**

|                    |                |      |                            |                        |
|--------------------|----------------|------|----------------------------|------------------------|
| Action application | set            | data | domain_name=\${domain}     | <a href="#">Delete</a> |
| Action application | erlang_sendmsg | data | freeswitch_media_manager.t | <a href="#">Delete</a> |
| Action application | erlang         | data | freeswitch_media_manager!  | <a href="#">Delete</a> |

[Add new action](#)

OK Apply Cancel

Edit call center lines

After adding / editing a line you will be warned that Freeswitch configuration should be reloaded so the changes to take effect (by a message saying *One or more services need to be reloaded. For details click: here*)

## Agent and Agent Groups Configuration

Managing Call Center Agent Groups can be done from Call Center > Agent Groups tab. *Default* group is already configured at startup and cannot be edited or removed.

Call Center Agent Group

Agent Group Name: SalesGroup

Description:

Skills:

- Language
  - English
  - German
- Magic
  - Agent Name
  - Agent Profile
  - Node
- All
- Queues
  - SalesQueue
  - default\_queue
- Clients
  - Client1

Agent ID: Aliases: Security:

Delete More actions...

OK Apply Cancel

[Add Agent](#)

An agent cannot be assigned to multiple agent groups.

## Add Agents to Agent Group 1 user found.

[Advanced Search](#)

User

Enter user ID, name or alias and press Search button. Leave empty and press Search to display all users.

| <input type="checkbox"/> | User ID   | Last Name | First Name | Aliases |
|--------------------------|---|-----------|------------|---------|
| <input type="checkbox"/> |  200 | Test1     | Test2      |         |

Upon creation, all Call Center agents are assigned a random password (used to log in OpenACD UI). An user with admin rights can change this password by clicking the name of the agent:

Call Center Agent

|                  |  |  |
|------------------|--|--|
| Agent ID         | <input type="text" value="200"/>   | <b>Inherited Skills:</b> English, All, SalesQueue, default_queue |
| First Name       | <input type="text" value="John"/>  |  |
| Last Name        | <input type="text"/>   |  |
| Agent password   | <input type="password" value="*****"/>   |  |
| Confirm password | <input type="password" value="*****"/>   |  |
| Security         | <input type="text" value="AGENT"/>   |  |
| Skills           | <div style="border: 1px solid gray; padding: 2px;"><b>Language</b><br/>English<br/>German<br/><b>Magic</b><br/>Agent Name<br/>Agent Profile<br/>Node<br/>All<br/><b>Queues</b><br/>SalesQueue<br/>default_queue<br/><b>Clients</b><br/>Client1</div> |  |

If you want to move agents from an agent group to another you have to select targeted agents and choose the new destination group from "More Actions > Move to:" combobox:

Agent Group Name

Description

[Add Agent](#)

| <input type="checkbox"/> | Agent ID            | Aliases | Security |
|--------------------------|---------------------|---------|----------|
| <input type="checkbox"/> | <a href="#">200</a> |         | AGENT    |
| <input type="checkbox"/> | <a href="#">202</a> |         | AGENT    |

**NOTE** Please mind that in 4.4 version agent gets created with no skills assigned. In order to assign skills should access openACD UI.

Agents Queues Skills Clients Modules

Agent Modules

Release Codes

- Default
  - 200
  - administrator
  - agent

Login Name:   
 Last Integrated: undefined  
 Password:   
 Confirm:   
 First name:   
 Last name:   
 Profile Name:    
 Security:    
 Skills: 

- English
- German
- Magic
  - Agent Name
  - Agent Profile
  - Node
  - All
- \_queue
  - default\_queue

## User Portal - password change

An user configured as Call Center agent can also change his password from My Information > Call Center tab:

SIPX ECS Test2 Test1 | Tue, 30 Nov 2010 12:10 AM | Home ? Help Logout

Voicemail My Information Call Forwarding Speed Dial Call History Phonebook Phones

My Information

- Contact Information
- Unified Messaging
- Distribution List
- Conferences
- Instant Messaging
- Music On Hold
- Attendant
- MyBuddy
- Call Center**

Agent password:   
 Confirm password:

sipXconfig (0.0.4.5.1-2010-11-29T16:37:29 dizzy)  
 Copyright (C) SIPfoundry 2004-2010. Licensed to the User under the LGPL license.

# Commands Configuration

Sipxecs - openACD integration address also commands configuration, that is the ability to define short codes for agents to *login*, *logout*, *go*, *available* or *release* by dialing from their phone. A prerequisite for this feature is to enable the Agent Dial Plan Listener feature. Navigate to System > Servers > Services > Call Center service and check *Dialplan Listener*.

The screenshot shows the 'Call Center' configuration page. It includes a breadcrumb trail: Servers > toor.mydomain.org > Call Center. The 'FreeSWITCH Media Manager Configuration' section has 'FreeSWITCH enabled' checked (Default: unchecked). Below it, 'C Node' is set to 'freeswitch@toor' (Example: freeswitch@starling) and 'Dial string' is set to '{ignore\_early\_media=true}sof' (Example: {ignore\_early\_media=true}sofia/mydomain.com/\$1). The 'Agent Configuration' section has 'Dialplan Listener' checked (Default: unchecked) with the note 'Select this option in order to allow OpenACD commands'. Buttons for 'OK', 'Apply', and 'Cancel' are at the bottom.

**NOTE** For sipXecs 4.4 version you have to enable *Dialplan Listener* using openACD interface.

For adding a new command navigate to Call Center > Commands tab - all short codes configured will be list in the table

The screenshot shows the SIPXCECS interface with the 'Call Center' section selected. The 'Commands' tab is active, displaying a table of configured commands. The table has columns for 'Command type' and 'Command'. The commands listed are: login (\*87), available (\*90), release (\*91), and logoff (\*89). There is an 'Add Command' link and a 'Delete' button. The footer shows 'sipXconfig (0.0.4.5.1-36ba837 2010-12-03T15:02:03 fedorabox.mydomain.org) Copyright (C) SIPfoundry 2004-2010. Licensed to the User under the LGPL license.'

| Command type | Command |
|--------------|---------|
| login        | *87     |
| available    | *90     |
| release      | *91     |
| logoff       | *89     |

You can add commands by accessing [Add Command](#) link or you can edit an existing one by clicking its name:

The screenshot shows the 'Call Center Command' configuration page for the 'login' command. The 'Name' field contains 'login'. The 'Extension' field contains '\*87'. Under the 'Options' section, there are three actions: 'erlang\_sendmsg' with data 'agent\_dialplan\_listener testn', 'sleep' with data '2000', and 'hangup' with data 'NORMAL\_CLEARING'. Each action has a 'Delete' link. There is an 'Add new action' link and 'OK', 'Apply', and 'Cancel' buttons. The footer shows 'sipXconfig (0.0.4.5.1-36ba837 2010-12-03T15:02:03 fedorabox.mydomain.org) Copyright (C) SIPfoundry 2004-2010. Licensed to the User under the LGPL license.'

**NOTE:** In next releases the usual commands like login, logout, go available and go released will be preconfigured (and user will have the ability to choose a predefined command to create), however for this release they should be manually configured as follows:

## Login:

edit *erlang\_sendmsg* action and specify data as:

```
agent_dialplan_listener testme@fedorabox agent_login ${sip_from_user}
```