

Configure Extend and Connect Feature for UCCX

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Introduction

This document describes how to configure Extend and Connect Feature for Cisco Unified Contact Center Express (UCCX).

With the Extend and Connect feature, Unified Contact Center Express agents and supervisors can work from a remote location using any device. This feature gives the user (agent or supervisor) the flexibility to answer or make calls using devices that are connected to the PSTN or to mobile or other PBX networks.

Extend and Connect functions by leveraging CTI remote device and persistent connection features of the Cisco Unified Communications Manager (CUCM)

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Unified Communications Manager (CUCM)
- Cisco Jabber
- Cisco Unified Contact Center Express

Components Used

The information in this document is based on these software and hardware versions:

- Cisco Unified Communications Manager (CUCM) 12.5
- Cisco Jabber 12.5.1
- Cisco Unified Contact Center Express (UCCX) 12.5(1)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configure

Configurations

Step 1. Create an Enduser with these parameters.

1. Enable Mobility.
2. Add these roles to Access Control Group:

- Standard CCM End-Users
- Standard CTI Enabled

The screenshot displays the 'End User Configuration' interface. At the top, there is a header bar with the title 'End User Configuration' and three action buttons: 'Save' (floppy disk icon), 'Delete' (red X icon), and 'Add New' (plus icon). Below the header, the 'Status' section shows an information icon and the text 'Status: Ready'. The 'User Information' section includes 'User Status' set to 'Enabled Local User' and 'User ID*' with the value 'remoteuser'. The 'Permissions Information' section features a 'Groups' list containing 'Standard CCM End Users' and 'Standard CTI Enabled', along with two buttons: 'Add to Access Control Group' and 'Remove from Access Control Group'. A 'View Details' link is also present.

Step 2. Create a Cisco Unified Client Services Framework (CSF) Device.

1. Associate the Device to the end-user created in Step 1.
2. Associate the line to the same end-user.

Phone Configuration

Save Delete Copy Reset Apply Config Add New

Modify Button Items

- 1 Line [1] - 1400 (no partition)
- 2 Line [2] - Add a new DN
- 3 Line [3] - Add a new DN
- 4 Line [4] - Add a new DN
- 5 Line [5] - Add a new DN
- 6 Line [6] - Add a new DN
- 7 Line [7] - Add a new DN
- 8 Line [8] - Add a new DN

Product Type: Cisco Unified Client Services Framework
Device Protocol: SIP

Real-time Device Status

Registration: Unknown
IPv4 Address: None

Device Information

- Device is Active
- Device is trusted
- Device Name* csfdevice1
- Description
- Device Pool* g711New
- Common Device Configuration < None >
- Phone Button Template* Standard Client Services Framework
- Common Phone Profile* Standard Common Phone Profile
- Calling Search Space < None >
- AAR Calling Search Space < None >
- Media Resource Group List < None >
- User Hold MOH Audio Source < None >
- Network Hold MOH Audio Source < None >
- Location* Hub_None
- AAR Group < None >
- User Locale < None >
- Network Locale < None >
- Built In Bridge* Default
- Device Mobility Mode* Default
- Owner User Anonymous (Public/Shared Space)
- Owner User ID* remoteuser

Users Associated with Line

	Full Name	User ID
<input checked="" type="checkbox"/>	remoteuser,	remoteuser

Associate End Users Select All Clear All Delete Selected

Step 3. Create a CTI Remote Device.

1. Select the Enduser Created in Step 1.
2. Add the line. Associate the line to the end-user created in Step 1.
3. In the CTI Remote Device Configuration page. Click on **Add a New Remote Destination** under **Associated Remote Destinations**.
4. In order to use the remote destination with Cisco Jabber clients must configure the destination name as *JabberRD*.
5. In the **Remote Destination Configuration** window, enter the External number for the user in the **Destination** field.

For instance, the external number is the mobile number of the Agent with Route Pattern Prefix if any.

Enable Extend and Connected field is checked by default.

Phone Configuration

Save Delete Copy Reset Apply Config Add New

Association

- 1 [Line \[1\] - 1401 \(no partition\)](#)
- 2 [Line \[2\] - Add a new DN](#)

Phone Type

Product Type: CTI Remote Device

Real-time Device Status

Registration: Registered with Cisco Unified Communications Manager 10.106.104.220

IPv4 Address:

Device Information

Device is Active

Device is not trusted

Active Remote Destination: none

Owner User ID*:

Device Name*:

Directory Number Configuration

Save Delete Reset Apply Config Add New

Status

Status: Ready

Directory Number Information

Directory Number*: Urgent Priority

Users Associated with Line

	Full Name	
<input checked="" type="checkbox"/>	remoteuser,	remoteuser

Remote Destination Configuration

Save Delete Copy Add New

Status: Ready

Line	Line Association
Line [1] - 1401 (no partition)	<input checked="" type="checkbox"/>

Remote Destination Information

Name: JabberRD

Destination*: 92401

Mobility User ID*: remoteuser

Enable Unified Mobility features

Remote Destination Profile*: -- Not Selected --

Single Number Reach Voicemail Policy*: Use System Default

Enable Single Number Reach
Ring this phone and my business phone at the same time when my business line(s) is dialed.

Enable Move to Mobile
If this is a mobile phone, transfer active calls to this phone when the mobility button on your Cisco IP Phone is pressed.

Enable Extend and Connect
Allow this phone to be controlled by CTI applications (e.g. Jabber)

CTI Remote Device*: CTIRDremoteuser

Step 4. Go to the end-user configured in Step 1.

1. Associate both the CSF and CTI Remote device.
2. Select the Primary and IPCC Extension. IPCC Extension is the DN of the CTI Remote Device.

Device Information

Controlled Devices

CTIRDremoteuser
csfdevice1

Directory Number Associations

Primary Extension: 1400

IPCC Extension: 1401

Step 5. Navigate to the rmcm application user. In Device Association, associate the CTI Remote device.

Step 6. Configuration in CCX.

1. In order to select Persistent Connection or Call by Call mode, under CCX administration page, navigate to **System > System Parameters > Persistent Connection**.

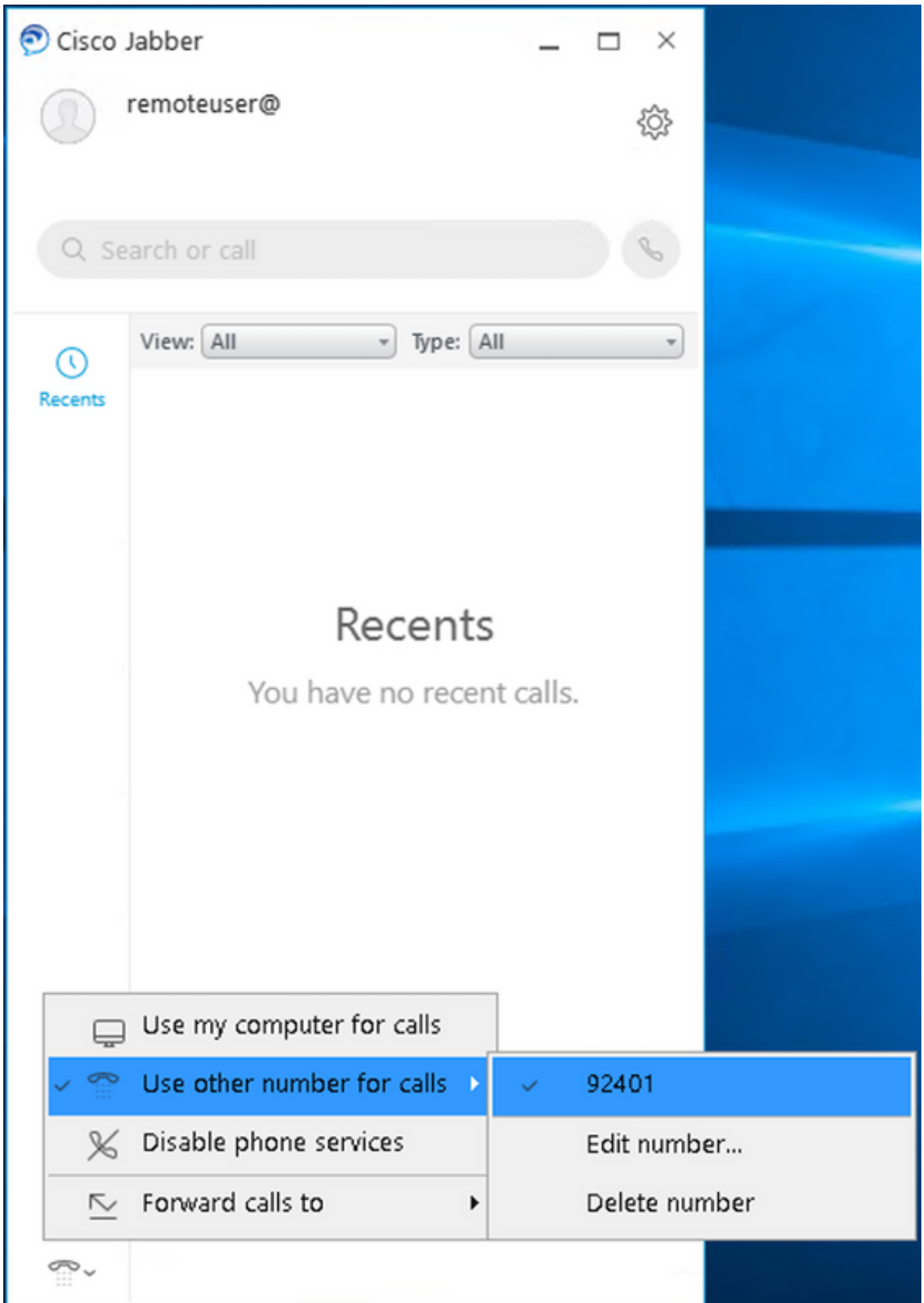
If you select disable on the persistent connection, it by default enables call by call mode. Refer UCCX design guide to understand the difference between persistent and call by call mode.

2. Configure the resource for required skills, resource group, team and etc.

Verify

Step 1. Log in to Jabber Device with the use of how the end-user is configured in Step 1.

In **Use other number of calls**, Select the external number configured for Remote Destination, as shown in this image.



Step 2. Verify that CTI Remote device shows registered and external number shows up as Active

Remote destination number.

Phone Configuration

Save Delete Copy Reset Apply Config Add New

Status: Ready

Association

- 1 Line [1] - 1401 (no partition)
- 2 Line [2] - Add a new DN

Phone Type

Product Type: CTI Remote Device

Real-time Device Status

Registration: Registered with Cisco Unified Communications Manager 10.106.104.220
IPv4 Address:

Device Information

Device is Active
 Device is not trusted

Active Remote Destination: 92401

Owner User ID*: remoteuser

Device Name*: CTIRDremoteuser

Description:

Device Pool*: g711New [View Details](#)

Calling Search Space: < None >

User Hold MOH Audio Source: < None >

Network Hold MOH Audio Source: < None >

Location*: Hub_None

User Locale: < None >

Network Locale: < None >

Mobility User ID: remoteuser

Ignore Presentation Indicators (Internal calls only)

Number Presentation Transformation

Caller ID For Calls From This Phone

Calling Party Transformation CSS: < None >

Use Device Pool Calling Party Transformation CSS (Caller ID For Calls From This Phone)

Remote Number

Calling Party Transformation CSS: < None >

Use Device Pool Calling Party Transformation CSS (Device Mobility Related Information)

Protocol Specific Information

BLF Presence Group*: Standard Presence group

SUBSCRIBE Calling Search Space: < None >

Rerouting Calling Search Space: < None >

Associated Remote Destinations

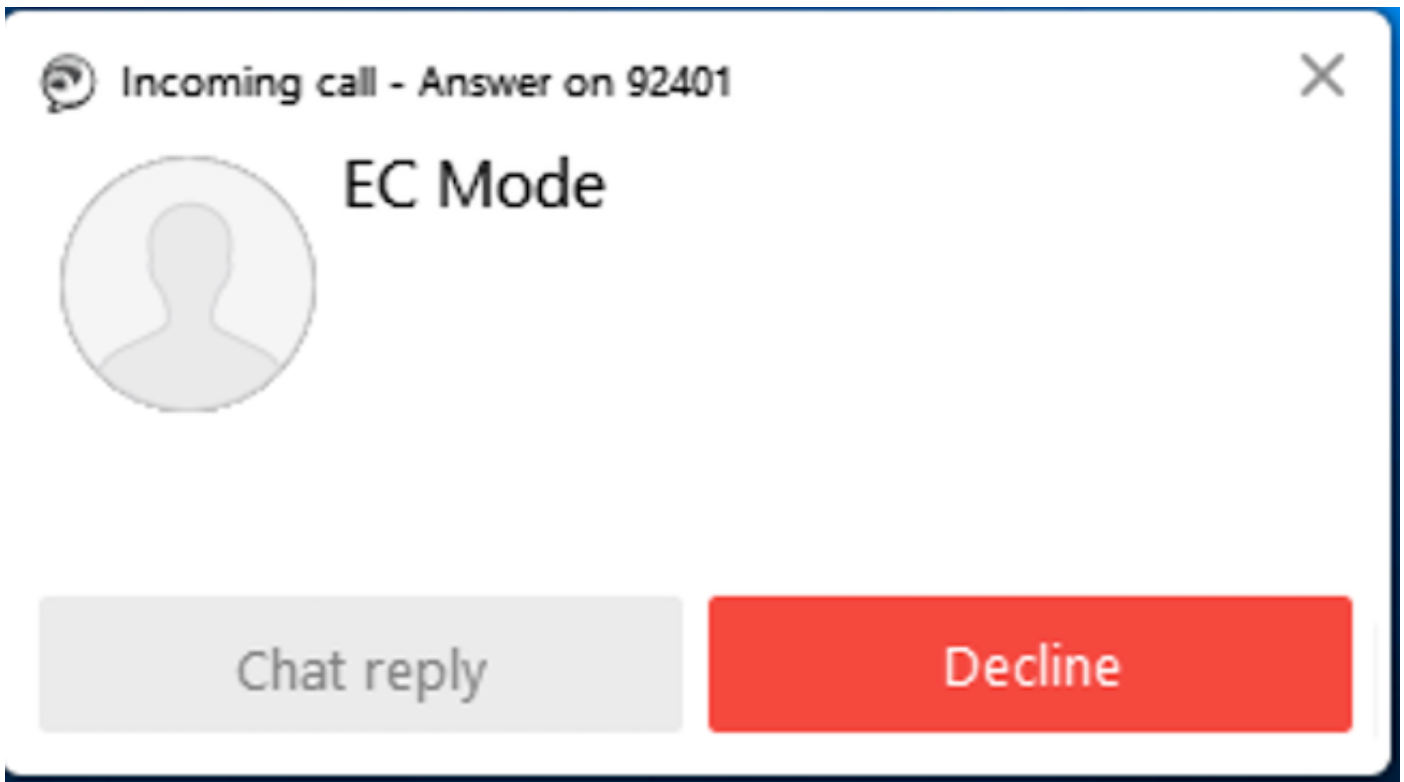
Route calls to all remote destinations when client is not connected

Name	Destination
JabberRD	92401
Add a New Remote Destination	

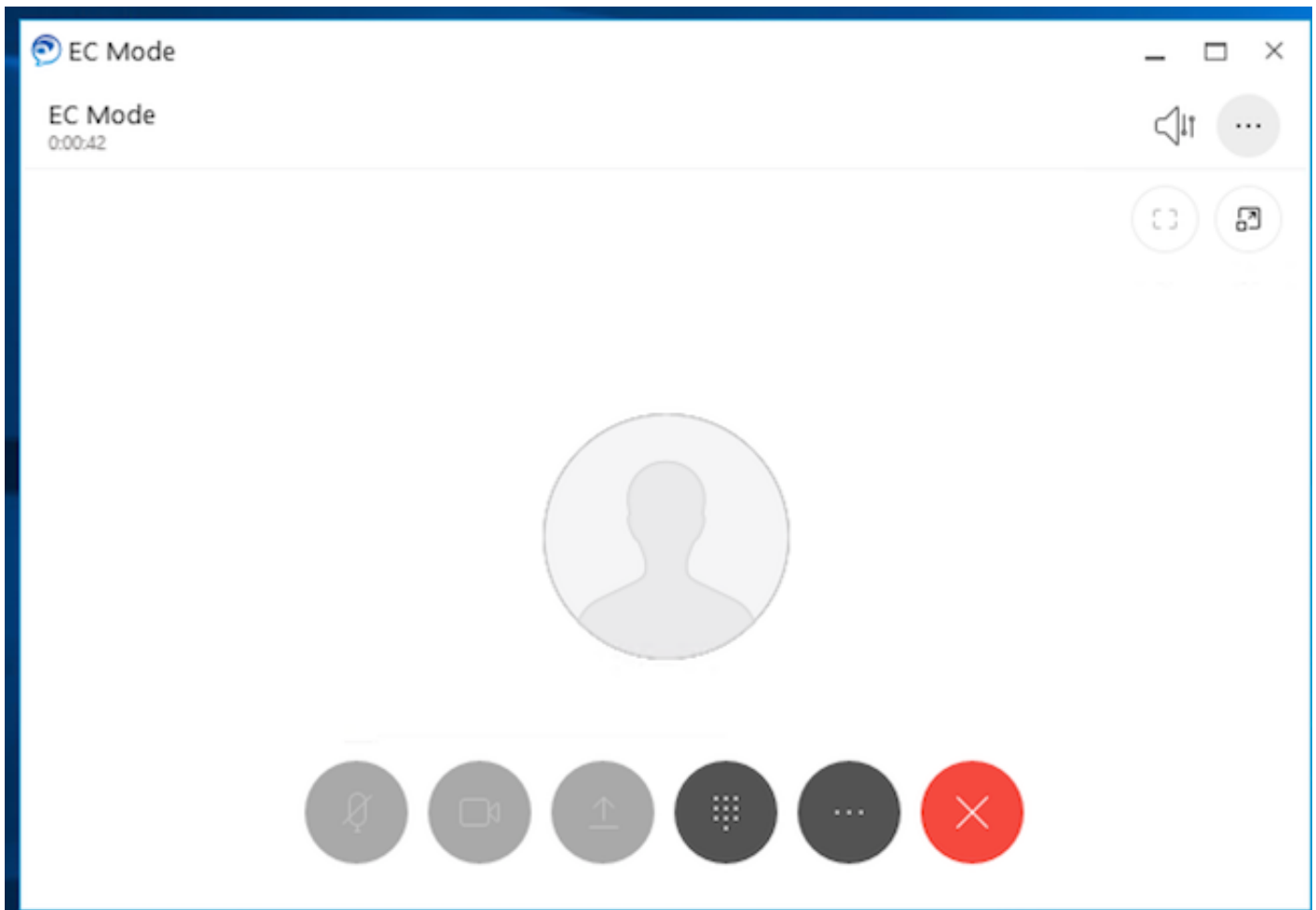
Step 3. The procedure to verify the Cisco Finesse Desktop Login to extend and connect feature in persistent mode is below

1. Log in to Cisco Finesse Desktop using credentials for the end-user created in Step1 and CTI RD extension.
2. Verify that External Number for the CTI RD gets the call when you click the login button on finesse.
3. At the same time, Jabber Device shows "EC Mode" with an indication that incoming call is on the external number.

Note: In Call By Call Mode, the external number doesn't get this call during agent login.



4. Jabber shows EC Mode after the call answered at the external device.



5. In the Cisco Finesse Desktop, change the state to Ready. Verify that able to answer calls using Cisco Finesse Desktop.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

- [Home Agent with Extend and Connect](#) in Solution Design Guide for Cisco Unified Contact Center Express.
- [Extend and Connect](#) in Cisco Unified Contact Center Express Administration and Operations Guide
- [Extend and Connect](#) in Feature Configuration Guide for Cisco Unified Communications Manager.