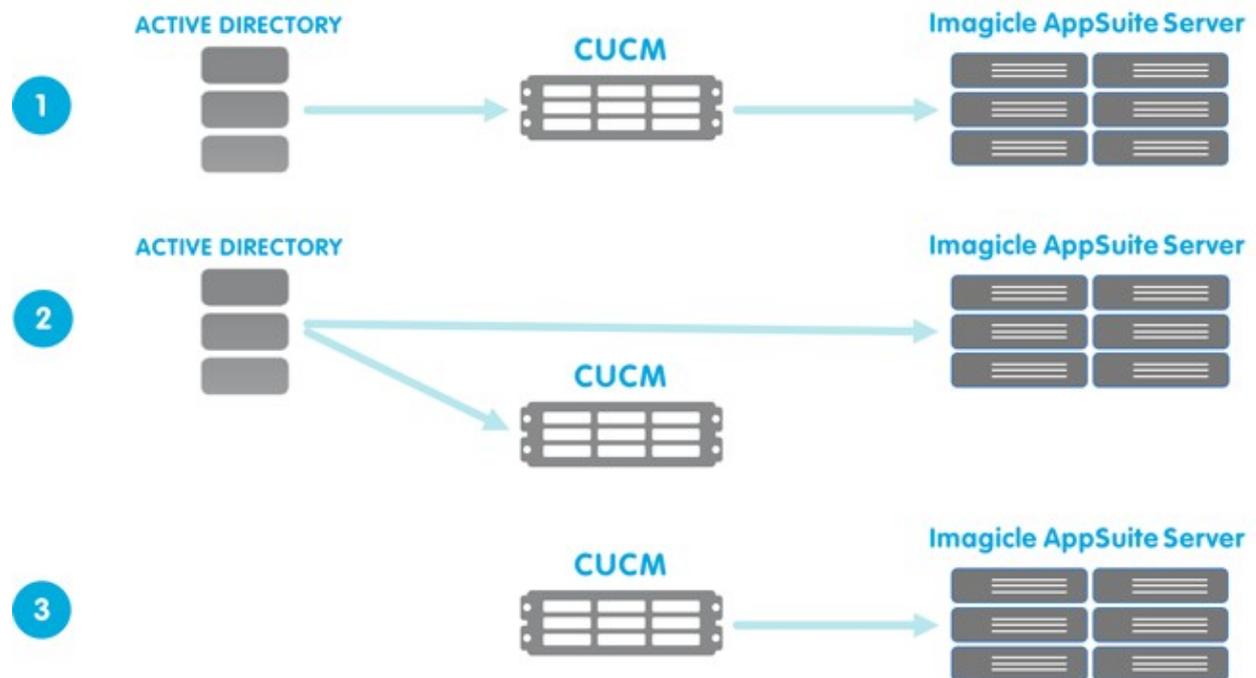


## Sync Users with CuCM

**Warning:** user synchronization is available **only** for Cisco unified CallManager **7.x and above**. You cannot automatically synchronize the users list with CCM 4.x and CuCM 5.x.

**Warning:** If a Cisco Unified Call Manager rel. 14.x is in place, please update your Imagicle UC Suite to ver. 2021.Summer.3.h4 or above.

The UC Suite Synchronization Service can keep the users list aligned with the CuCM **End User** directory. Since CuCm in turn supports Synchronization with Active Directory, we can have one of the following cases.



In **Scenario 1**, CuCm is synchronized with Active Directory. You manage users (add, edit, remove) in Active Directory and changes are propagated through the PBX to the UC Suite. Not all the AD account information is available to the UC Suite, since some properties are not reflected into the CuCm End user directory. The primary extension will be read from CallManager.

In **Scenario 2**, you manage users through AD. More information is available but it is up to you to ensure that the user's primary extension is stored in AD and that it is consistent with the CuCm data.

In **Scenario 3** you manage users only by the CuCm interface, regardless Active Directory users availability.

### Architecture

The CallManager architecture imposes limits on the rate and the size of the queries made by external applications towards the users list. For this reason, user synchronization is performed in two steps.

- Imagicle AXL client service continuously updates a temporary table in the database, containing the list of CUCM users and their details ([add Application User in the CUCM configuration to import users](#))
- When user synchronization is requested (by pressing the Run now button or at the scheduled time) the service actually copies the data from the temporary table to the Application Suite Users list

Since filling the local temporary table can take a long time, if you make changes on the CUCM and press "run now" you won't see the changes for a while.

### Synchronization Key

A user in the UC Suite list is considered to be the same as a CUCM user when the "PBX username" field value is the same as the username in the PBX (i.e. in the end users list of the CUCM).

**Procedure**

To properly configure CUCM user synchronization, you have to:

- Check that the CUCM IP addresses and password in [IP Telephony system parameters](#) page are correctly set
- Select the data source
- Configure the import rules

To select the Data source connection, use the drop down list on the "Configure Data Source" page.

**Configuring Synchronization Rules**

The CUCM End User directory does not contain all the information needed to fill the Users profile properties. You have to provide the missing values through the web interface. On the "Configure Data Source" page, select CUCM as the source you want to configure the rules for.

For each field (user property) you have the various choices similar to the ones available for other data sources. Please read the [how to synchronize the users list with an external source](#) section.

Three things are worth mentioning.

1. The First extension number can be set in the CUCM end user from "Primary Extension" or "Telephone number" fields. The rules allow you to select the source you prefer. Note that only DNs associated with the associated Devices of the User can be selected as primary extension in CUCM end users management web page. You can also import from CUCM a First Extension Number Alias, useful for Call Analytics.

The screenshot shows two configuration rows. The first row is for 'First extension number' with options: 'Import every time' (selected), 'Use Microsoft URI (see below)', and 'Keep existing value'. A dropdown menu is open showing 'Telephone number', 'Primary extension', and 'Telephone number' (highlighted). The second row is for 'First extension number Alias' with options: 'Import every time from CuCM field' and 'Keep existing value' (selected). A dropdown menu is open showing 'pager'.

2. First Extension Number Alias can be populated with the following four possible CUCM End User's fields:

- Pager
- telephoneNumber
- Primary Extension
- mail

The screenshot shows two configuration rows. The first row is for 'First extension number Alias' with options: 'Import every time from CuCM field', 'Use Microsoft URI (see below)', and 'Keep existing value' (selected). A dropdown menu is open showing 'pager', 'telephoneNumber', 'Primary Extension', and 'mail'. The second row is for 'Enable billing for first extension number' with options: 'Only when adding, set this value' (selected) and 'Import every time from source'.

3. The email may not be available in CUCM in scenario 3. In this case you can let the synchronization service compose it by the username and domain.

The screenshot shows a configuration row for 'Email' with options: 'Import every time from UserId+Domain', 'Import every time from source' (selected), and 'Keep existing value'.

**User Information**

User ID\*

Password

Confirm Password

PIN

Confirm PIN

Last name\*

Middle name

First name

Telephone Number

Mail ID

Manager User ID

Department

User Locale

Associated PC

Digest Credentials

Confirm Digest Credentials

**User Information**

User ID\*

Password

Confirm Password

PIN

Confirm PIN

Last name\*

Middle name

First name

Telephone Number

Mail ID

Manager User ID

Department

User Locale

Associated PC

Digest Credentials

Confirm Digest Credentials

CCM End User Table Display Name	UC Suite Label	UC Suite Database name	Example Value
First Name	First Name	user_nome	John
Last Name	Last Name	user_cognome	Smith
Office	Office location	user_office_location	London Office
Telephone Number/ Primary Extension	First Extension Number*	user_telnum, user_amnum	0123 456 789
Telephone Number, Primary Extension, pager, mail	First Extension Number Alias	user_TelNumAlias	JSmith@domain.com



Mail ID	Email, "Voicemail Address", "Fax to Email Address"	user_mail, user_voicemailaddr, user_pref_fax_mailinaddr	JSmith@domain.com
Mail ID	Single Sign-On Id**	ssoid	JSmith@domain.com
User ID	Active Directory username, PBX username, ConvAI Username	userPrincipalName, user_ad (without domain), user_authname, user_ccmname	JSmith
User ID	Cdr User ID****	CdrUserId	JSmith
(First associated device)	Device Name	-	SEP00FF233CEB6E
Department	Department	user_department	Sales
Department	Cost Center	-	Marketing
Department	Site Name***	-	Boston
Department	Recording Group name	-	Sales

\*The First Extension number can be gathered from the Telephone Number or from the Primary Extension number of the first device associated to the user. The Device Name field in the User List can be extracted from the first device associated to the user.

\*\* Starting from Imagicle UCX Suite 2022.Winter.1, we can import Single Sign-On User ID from CUCM's Mail field.

\*\*\* Starting from Imagicle UCX Suite 2021.Summer.1, we can import Site Name from CUCM, to enable overlapping dial plan across multiple gateways or CCMEs.

\*\*\*\* Starting from Imagicle UCX Suite 2024.Spring.1, we can populate Cdr User ID from CUCM, to support CDRs related to Ext. Mobility users.

It is also possible to import the "partition" from CUCM in case of an overlapping dial plan. The procedure to do so is described in [this](#) KB article.