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Synchronizing CUCM Hunt Pilots and Orphan extension numbers

Applies to

Imagicle UCX Suite Winter 2024 and above.

Description:

This article explains how to automatically provision in the Imagicle UCX Suite specific dummy users corresponding to the CUCM "orphan" directory numbers, meaning extension numbers not associated to any CUCM end-user (meeting rooms, fax lines, etc.).

The purpose of this solution is processing the calls originated/terminated by such numbers, typically discarded by Imagicle Call Analytics due to missing Imagicle users.

NOTE: This solution only applies to UCX Suite synchronized against Cisco UCM.

In particular two kind of dummy users can be created:

- **Hunt Pilot numbers**: if enabled, a dummy user is created for every Hunt Pilot defined in the CUCM. Such user has:
    - Username: **hp_<DirectoryNumber>** where <DirectoryNumber> is the DN of the hunt pilot (for instance 'hp_6450').
    - First extension number: the hunt pilot DN
    - First name: 'Pilot'
    - Last name: the hunt pilot description, from CUCM (for instance 'Help Desk')
    - Partition: the correct partition information, from CUCM
- **Orphan phone numbers**: if enabled, a dummy user is created for any directory number associated in the CUCM to IP phones or analog phones and not associated to any CUCM end-user. Such user has:
    - Username: **dn_<DirectoryNumber>** where <DirectoryNumber> is the phone directory number in the CUCM (for instance 'hp_6450').
    - First extension number: the CUCM Directory Number
    - First name: 'Phone'
    - Last name: the directory number's <u>alerting name</u>, from CUCM (for instance 'meeting room #4')
    - Partition: the correct partition information, from CUCM

How to enable it:

Edit the file C:\Program Files (x86)\Stonevoice AS\Apps\ApplicationSuite\Component\Native\SvSasAXL**SvSasAxl.ini** and amend the following parameters under `[Settings]` statement:

RetrieveUsers=1 (default=1 â enabled)
ImportHuntPilotExtensionsAsVirtualUsers=1 (default=0 â disabled)
ImportPhoneExtensionsAsVirtualUsers=1 (default=0 â disabled)

Moreover, if you set the UCX Suite synchronization rules to retrieve the users first extension number from CUCM "Primary Extension" field (instead of the "Telephone number"), you also need to set the following parameter:

CheckPrimaryLinesForVirtualUsers=1

If required, Last Name field for orphan DNs can be populated with CUCM "Description". Just add the following parameter:

PhoneDNNumPlanFieldForLastName=description

No service restart is needed.

Notes and known limitations

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Notes

- The dummy users are added in the UCX Suite SQL table "CCMUsers", used by the Imagicle Synchronization service to collect users/devices from CUCM.
- The mechanism supports multiple CUCM clusters configurations, with not overlapping dial plans.
- By default, the phone dummy users corresponds to CUCM Directory numbers assigned to IP Phones, Analog phones and FXS lines.
- The number of Imagicle users might substantially increase: please remember to evaluate the impact on purchased Imagicle licenses.
- It is possible to customize the first name of such created dummy users by setting the following optional parameters (def. values are reported here):
  - HuntPilotsVirtualUserFirstName=Pilot
  - PhoneVirtualUserFirstName=Phone
- If the directory number or HG pilot number is in +E.164 format, the resulting dummy user is stored with an username replacing the "+" with a "P". For instance: the phone number +44020287283 creates a dummy username dn_P44020287283.
- If an orphan directory number is eventually associated to an end user in the CUCM, the corresponding dummy user is removed and the directory number is associated to the actual end-user. This is happening during next synchronization.

Known Limitations

- Overlapped dial plan are <u>not</u> supported. In the case the same "orphan" directory number is present in multiple different partitions or sites, only one of them will be inserted as dummy user.
- If the Department field is synchronized from regular end-users, the department field of such dummy users is blanked during the synchronization (DNs do not have a department property on CUCM). As a consequence, you can't manually amend the Department field of dummy users, or by CSV import.

Synch sequence

When the mechanism is enabled, the following steps are executed:

1. The Imagicle AXL client first collects all CUCM end-users information, as it normally does.
2. The Imagicle AXL client collects from the CUCM the list of Hunt Pilots and Phone DNs.
3. For each collected DN that is not associated to an existing CUCM end-user, a dummy end-user is created and added to the list of end-users
4. The end-users list (including dummy end-users) is written into the SQL table "CCMUsers"
5. The Imagicle Synchronization service synchronize Imagicle users from CCMUsers SQL table, as usual.