

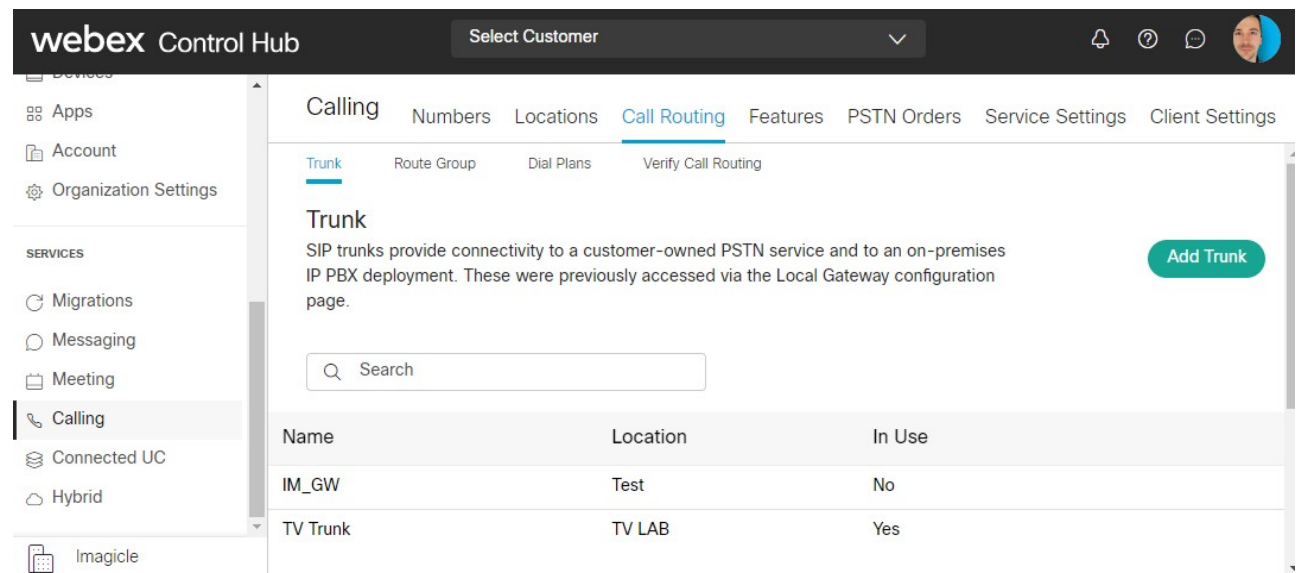
Cisco Webex Calling SIP Routing to Imagicle UC Cloud Suite

Cisco Webex Calling® & Configurations from Webex Control Hub

Imagicle UC Cloud Suite leverages dedicated/shared Cisco CUBE (or vCUBE) "Public SBC" deployed in Imagicle Cloud, to allow the Internet "OTT" Peering to Webex Calling cloud.

SIP Trunk Setup

Please access to [Webex Control Hub web portal](#) to define the Secure SIP Trunk which allows to route Advanced Queuing and Auto Attendant calls from Webex Calling to Imagicle Cloud. Please select Calling Service & Call Routing:



The screenshot shows the Webex Control Hub interface. The left sidebar contains navigation options: Devices, Apps, Account, Organization Settings, SERVICES (Migrations, Messaging, Meeting, Calling, Connected UC, Hybrid), and Imagicle. The main content area is titled 'Calling' and includes tabs for Numbers, Locations, Call Routing (selected), Features, PSTN Orders, Service Settings, and Client Settings. Under 'Call Routing', there are sub-tabs: Trunk (selected), Route Group, Dial Plans, and Verify Call Routing. The 'Trunk' section explains that SIP trunks provide connectivity to a customer-owned PSTN service and an on-premises IP PBX deployment. It includes an 'Add Trunk' button and a search bar. Below is a table listing existing trunks:

Name	Location	In Use
IM_GW	Test	No
TV Trunk	TV LAB	Yes

Hit "Add Trunk" and populate the following fields:

- **Location:** select the location where incoming calls for Imagicle Queues/AutoAttendant should land from pull-down menu
- **Name:** enter a name to identify the SIP Trunk. Max 12 characters.
- **Trunk Type:** select "Registration based" from pull-down menu
- **Dual Identity Support:** disabled

Add Trunk

Location

This location is where the trunk is physically connected. To create a new location, visit the [Locations](#) page.

Name

Trunk Type

Choose the right trunk type for this local gateway. [Learn more](#) on trunk type

Device Type

Dual Identity Support

The Dual Identity Support setting impacts the handling of the From header and P-Asserted-Identity (PAI) header when sending an initial SIP INVITE to the trunk for an outbound call. When enabled, the From and PAI headers are treated independently and may differ. When disabled, the PAI header is set to the same value as the From header. Please refer to the documentation for more details.

☐

Cancel

Save

Hit Save to display a Trunk recap page:

Add Trunk



Imagicle_trunk Successfully Created.

Visit [Route Group](#) page to add trunk(s) to a route group.
 Visit [Locations](#) page to configure PSTN connection to individual locations.
 Visit [Dial Plans](#) page to use this trunk as the routing choice for a dial plan.

Trunk Info

Status

● offline

Trunk Group OTG/DTG

imagicle_trunk7484_lgu

Outbound Proxy Address

fr09.sipconnect-eu.bcld.webex.com

Registrar Domain

79185619.eu10.bcld.webex.com

Line/Port

Imagicle_trunk3480_LGU@79185619.eu10.bcld.w
ebex.com

Authentication Information

Record the username and password below. If you lose this information, you need to retrieve the username and reset the password.

Username: Imagicle_trunk7484_LGU

Password: +c~1a}4HEn

As you notice in above sample, Trunk Status is "offline". That's because the destination gateway (Imagicle Public SBC) hasn't been configured yet. Please take note of the following info available in above Trunk recap page and send them to wbx.onboarding@imagicle.com:

- **Registrar Domain:** 123456.eu10.bcld.webex.com
- **Trunk Group OTG/DTG:** imagicle_trunk1234_lgu
- **Line/Port:** Imagicle_trunk1234_LGU@12345678.eu10.bcld.webex.com
- **Outbound Proxy Address:** cc11.sipconnect-eu.bcld.webex.com
- **Username:** Imagicle_trunk12345_LGU
- **Password:** +abcdef-

Once above info are correctly configured in Imagicle Cloud Public SBC, the Trunk turns to Active status.

Imagicle Public SBC Configurations

Once accomplished above Trunk configuration, Webex Calling Cloud knows that there is an Imagicle UC Cloud Suite somewhere in Internet and it is expecting to receive at least an "Option Ping" to declare the Trunk online and available.

Public SBC configuration is applied by Imagicle Cloud Services team, based on above Trunk parameters, retrieved in Trunk recap web page.

Once Imagicle CS has applied required SBC configurations, you can go back to Webex Control Hub web portal and check that SIP Trunk is Online. Calling Service â Call Routing â Trunk â Details:

Imagicle_trunk



Trunk > Details

Status

● online

Registrar Domain

79185619.eu10.bcld.webex.com

Trunk Group OTG/DTG

imagicle_trunk7484_lgu

Line/Port

Imagicle_trunk3480_LGU@79185619.eu10.bcld.webex.com

Outbound Proxy Address

fr09.sipconnect-eu.bcld.webex.com

Authentication Information

Retrieve the username and password for **Imagicle_trunk**. Each time authentication information is retrieved, a new password is generated. During the password generation, PSTN is disrupted until the new password is saved.

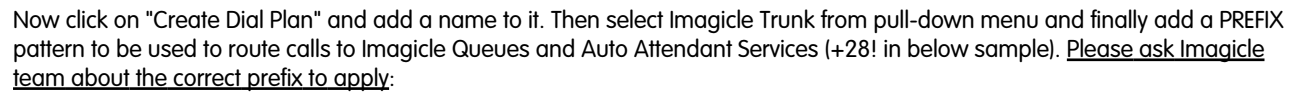
[Retrieve Username and Reset Password](#)

Dial Plans Setup from Webex Control Hub

Please access again to [Webex Control Hub web portal](#) and select Calling Service â Call Routing â Dial Plans:

The screenshot shows the Webex Control Hub interface. The top navigation bar includes 'webex Control Hub', a 'Select Customer' dropdown, and notification, help, and user profile icons. The left sidebar lists various settings categories: Account, Organization Settings, SERVICES (Migrations, Messaging, Meeting, Calling, Connected UC, Hybrid), and Imagicle. The main content area is titled 'Calling' and includes sub-tabs for Numbers, Locations, Call Routing (selected), Features, PSTN Orders, Service Settings, and Client Settings. Under 'Call Routing', there are sub-tabs for Trunk, Route Group, Dial Plans (selected), and Verify Call Routing. The 'Dial Plans' section has a description: 'Dial plans allow you to route calls to on-premises extensions via your trunk or route group.' and a 'Create Dial Plan' button. Below this is a search bar labeled 'Search dial plan'. A table lists existing dial plans:

Name	Routing Choice	Actions
TV dial plan	TV Trunk	...



✕

Name

×

When internal calls match with a pattern, calls will be routed to the specified trunk or route group.

Wildcards:

- [↑ Import CSV](#)

X

1 dial pattern

 Clear All

Save

webex Control Hub

Select Customer

Apps

Account

Organization Settings

SERVICES

Migrations

Messaging

Meeting

Calling

Connected UC

Hybrid

Imagicle

Calling

Numbers

Locations

Call Routing

Features

PSTN Orders

Service Settings

Client Settings

Trunk

Route Group

Dial Plans

Verify Call Routing

Dial Plans

Dial plans allow you to route calls to on-premises extensions via your trunk or route group.

Create Dial Plan

Search dial plan

Name	Routing Choice	Actions
Imagicle_dialplan	Imagicle_trunk	...
TV dial plan	TV Trunk	...

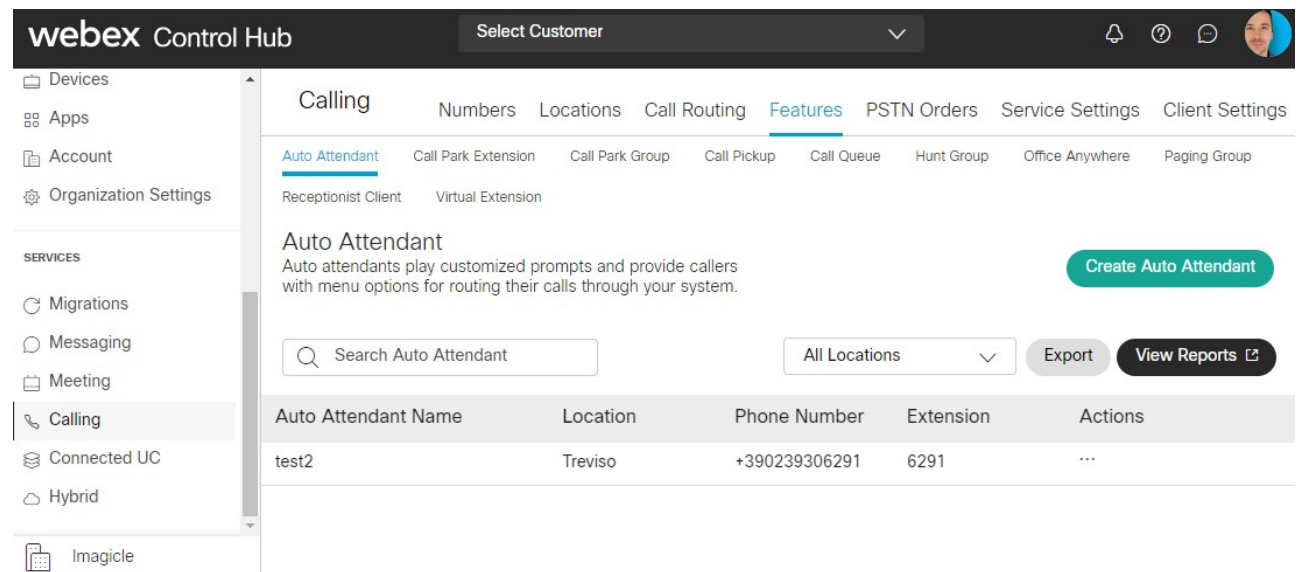
Cisco Webex Calling SIP Routing to Imagicle UC Cloud Suite

Webex Calling Auto-Attendant Service for call routing to Imagicle services

This configuration allows to assign a Public PSTN number to an Imagicle Queue or Auto Attendant Service. Webex Calling Auto-Attendant Service is therefore used only to bridge PSTN numbers to the previously defined internal Dial Plan range (numbers starting with assigned prefix).

If you are leveraging a multi-location Webex Calling environment, you can also create an Auto-Attendant Service for each location, associating local branch numbers to handle local Imagicle queue/IVR services.

Please access again to [Webex Control Hub web portal](#) and select Calling Service â Features â Auto Attendant:



The screenshot shows the Webex Control Hub interface. The top navigation bar includes 'webex Control Hub', a 'Select Customer' dropdown, and user profile icons. The left sidebar lists various settings categories: Devices, Apps, Account, Organization Settings, SERVICES (Migrations, Messaging, Meeting, Calling, Connected UC, Hybrid), and Imagicle. The 'Calling' section is expanded, showing sub-tabs: Calling, Numbers, Locations, Call Routing, Features (selected), PSTN Orders, Service Settings, and Client Settings. Under 'Features', there are sub-tabs: Auto Attendant (selected), Call Park Extension, Call Park Group, Call Pickup, Call Queue, Hunt Group, Office Anywhere, and Paging Group. The 'Auto Attendant' sub-tab is active, displaying a description: 'Auto attendants play customized prompts and provide callers with menu options for routing their calls through your system.' A 'Create Auto Attendant' button is visible. Below this is a search bar 'Search Auto Attendant', a 'All Locations' dropdown, and 'Export' and 'View Reports' buttons. A table lists existing Auto Attendants:

Auto Attendant Name	Location	Phone Number	Extension	Actions
test2	Treviso	+390239306291	6291	...

Please click on "Create Auto Attendant" and fill the form with Location (from pull-down menu), Auto Attendant name of your choice, PSTN Phone Number (from pull-down menu), Calling ID First Name & Last Name. These last two fields dictate the Caller ID that called number receives once a call is transferred from this Auto Attendant Service:

Create Auto Attendant



Location

Assign your auto attendant to a location

Auto Attendant Name

Enter a name. This name is used to identify the auto attendant later.

Phone Number

Assign the Auto Attendant to a primary phone number and/or extension

and/or

Language

Select the Auto Attendant language. This field is required by government regulation.

Calling Line ID

Caller ID is used when calls are transferred or forwarded out of this auto attendant.

Calling ID First Name

Calling ID Last Name

Cancel

Next

Hit Next and create a new Schedule with a name of your choice. Just keep all default values. This schedule config is actually ignored, so no need to worry about it.

Create Auto Attendant



Business Hours Schedule

Set the hours during which your Business Hours Auto Attendant operates. Your After Hours Auto Attendant operates during all the remaining non-business hours.

- ☐ Assign an existing schedule
- ☒ Create a new schedule

Schedule

The new schedule shows a default entry. You can modify the schedule to fit your organization's needs.

Imagicle_schedule

☐ Sunday

<input checked="" type="checkbox"/> Monday	<input type="text" value="9:00 AM"/>	to	<input type="text" value="5:00 PM"/>
<input checked="" type="checkbox"/> Tuesday	<input type="text" value="9:00 AM"/>	to	<input type="text" value="5:00 PM"/>
<input checked="" type="checkbox"/> Wednesday	<input type="text" value="9:00 AM"/>	to	<input type="text" value="5:00 PM"/>
<input checked="" type="checkbox"/> Thursday	<input type="text" value="9:00 AM"/>	to	<input type="text" value="5:00 PM"/>
<input checked="" type="checkbox"/> Friday	<input type="text" value="9:00 AM"/>	to	<input type="text" value="5:00 PM"/>

☐ Saturday

Lunch Break

<input checked="" type="checkbox"/> Lunch Break	<input type="text" value="12:00 PM"/>	to	<input type="text" value="1:00 PM"/>
---	---------------------------------------	----	--------------------------------------

* Applies to every Business Day.

Back

Next

Hit Next three times to skip unused Holidays, Menu options and greetings (voice prompts) options. Eventually you reach the Auto Attendant recap page:

Create Auto Attendant



Auto Attendant Settings Review

Review the settings for your new Auto Attendant to make sure everything is correct. You can go back and make changes now, or make edits, manage, and enable Advanced Features at any time by clicking the name of your Auto Attendant on the Features page.

General Settings Business Hours After Hours Holidays

Auto Attendant Name: Imagicle_services
 Location: Imagicle
 Phone Number: +390225067784
 Extension: N/A
 Language: English
 Calling ID First Name: Imagicle
 Calling ID Last Name: services

[Back](#)
[Create](#)

Hit Create to save and activate the Auto Attendant Service. Now, from Webex Control Hub menu, you can find newly created Auto Attendant Service:

webex Control Hub Select Customer

Calling Numbers Locations Call Routing **Features** PSTN Orders Service Settings Client Settings

Auto Attendant Call Park Extension Call Park Group Call Pickup Call Queue Hunt Group Office Anywhere Paging Group

Receptionist Client Virtual Extension

Auto Attendant
 Auto attendants play customized prompts and provide callers with menu options for routing their calls through your system.

Create Auto Attendant

Search Auto Attendant Imagicle Export View Reports

Auto Attendant Name	Location	Phone Number	Extension	Actions
Imagicle_services	Imagicle	+390225067784	7784	...

Associate additional PSTN numbers to the same Auto Attendant Service

If your Imagicle Advanced Queuing/Auto Attendant configuration just include a single PSTN number mapped to a single Imagicle service, then you can skip this paragraph and go straight to "Call Forwarding Setup" paragraph.

Otherwise, you can add up to 10 additional PSTN phone numbers to the same Webex Calling Auto Attendant Service, to grant the access to additional Imagicle queues and IVR services.

Please click on newly created Auto Attendant service to display the Service Overview:

webex Control Hub

Select Customer

Overview

MONITORING

Organization Health

Analytics

Troubleshooting

Reports

MANAGEMENT

Users

Workspaces

Devices

Apps

Account

Organization Settings

SERVICES

Migrations

Messaging

Meeting

Calling

Connected UC

Hybrid

Imagicle

Calling

Numbers

Auto Attendant

Call Park Extension

Paging Group

Receptionist Client

Auto Attendant

Auto attendants play customized with menu options for routing the

Search Auto Attendant

Auto Attendant Name

Imagicle_services

Imagicle_services

Overview

Enable Auto Attendant

General Settings

Phone Numbers

Call Forwarding

Dialing Options

Business Hours Auto Attendant

After Hours Auto Attendant

Holiday Auto Attendant

Now click on "Phone Numbers" to display the phone numbers currently associated to this Auto Attendant. Other than the Primary Phone Number, you can add up to 10 "Alternate Numbers". Once done, just hit Save:

Cisco Webex Calling SIP Routing to Imagicle UC Cloud Suite

10/19

Cisco Webex Calling SIP Routing to Imagicle UC Cloud Suite

Please go back to Auto Attendant Service Overview and click on "Call Forwarding" (Disabled by default):

Call Forwarding window appears. First of all, please enable Call Forwarding by clicking on relevant soft-switch. Then select "Selectively Forward Calls" and enter a number of your choice, prepending previously defined Dial Plan prefix (+28 in below sample):

Cancel

Save

Call Forwarding

Call Forwarding is a feature that allows the user to redirect the incoming call to another number based on schedules or preference.



☐ Always Forward Calls

☒ Selectively Forward Calls

An incoming call is forwarded or not forwarded to this number, based on the defined criteria.

Q +28390225067784 X

☐ Send to voicemail

Enable Rule	Rule Name	Rule Type	Incoming Calls From	Incoming Calls To	Actions
Please add a rule below to view the rule list.					

[+ Add When to Forward](#)

[+ Add When Not to Forward](#)

Now click on "Add When to Forward" to add forwarding rules:

Add When to Forward

Call Forwarding Selective Details

Rule Name

Service1 X

When To Forward

Calls will be forwarded according to the schedule set here.

Business Hours Schedule

Every Day All Day V

Holiday Schedule

None V

Forward To

Enter the number that your calls will be forwarded to.

☒ Default Phone Number

+28390225067784

☐ Different Phone Number

Calls From

Calls from the number(s) defined here will be forwarded.

☒ Any Number

☐ Selected Phone Numbers

Calls To

Calls to the number(s) defined here will be forwarded.

Select a number V

Cancel

Save

Please enter the following data:

- **Rule Name:** name of your choice
- **When To Forward:** leave the default "Every Day All Day" time table.
- **Forward To:** pre-compiled with previous PREFIX+Phone Number. Just leave the Default
- **Call From:** Select "Any number", unless you want to prevent the access to the specific service to some extensions
- **Calls To:** Select the actual Primary PSTN Phone Number where Call Forwarding rule is applied

Hit Save. Rule appears in the Call Forwarding list:

Cancel

Save

Call Forwarding

Call Forwarding is a feature that allows the user to redirect the incoming call to another number based on schedules or preference.



☐ Always Forward Calls

☒ Selectively Forward Calls

An incoming call is forwarded or not forwarded to this number, based on the defined criteria.

Q +28390225067784 X

☐ Send to voicemail

Enable Rule	Rule Name	Rule Type	Incoming Calls From	Incoming Calls To	Actions
<input checked="" type="checkbox"/>	Service1	Forward	All calls	Primary	<button>Edit</button>

Add When to Forward

Add When Not to Forward

From now on, you can keep on click "Add When to Forward" and add additional call forwarding rules for the previously added Alternate Numbers (if any). Please mind the following differences against first forwarding rule:

- **Forward To:** select "Different Phone Number" and add one of the Alternate Numbers.
- **Calls To:** This is the actual Alternate PSTN Phone Number where Call Forwarding rule is applied

After having applied a forward rule to all your PSTN numbers, you end up with a list such as below sample:

Call Forwarding

Call Forwarding is a feature that allows the user to redirect the incoming call to another number based on schedules or preference.



☐ Always Forward Calls

☒ Selectively Forward Calls

An incoming call is forwarded or not forwarded to this number, based on the defined criteria.

Q +28390225067784 X

☐ Send to voicemail

Ena... Rule	Rule Name	Rule Type	Incoming Calls From	Incoming Calls To	Actions
<input checked="" type="checkbox"/>	Service1	Forward	All calls	Primary	<button>Edit</button>

Add When to Forward

Add When Not to Forward

If you now go back to Auto Attendant Service Overview, you can see that Call Forwarding is Enabled:

Enable Auto Attendant



General Settings

Manage >

Phone Numbers

7784 or +390225067784 >

Call Forwarding

Enabled >

Dialing Options

Organization >

From now on, every time Webex Calling receives a call on one of the PSTN numbers associated to the Auto Attendant Service, the call is automatically forwarded to Imagicle Public SBC through Secure SIP Trunk (including Dial Plan prefix). Imagicle SBC in turns forward the call to Imagicle UC Cloud Suite.

Additional setting

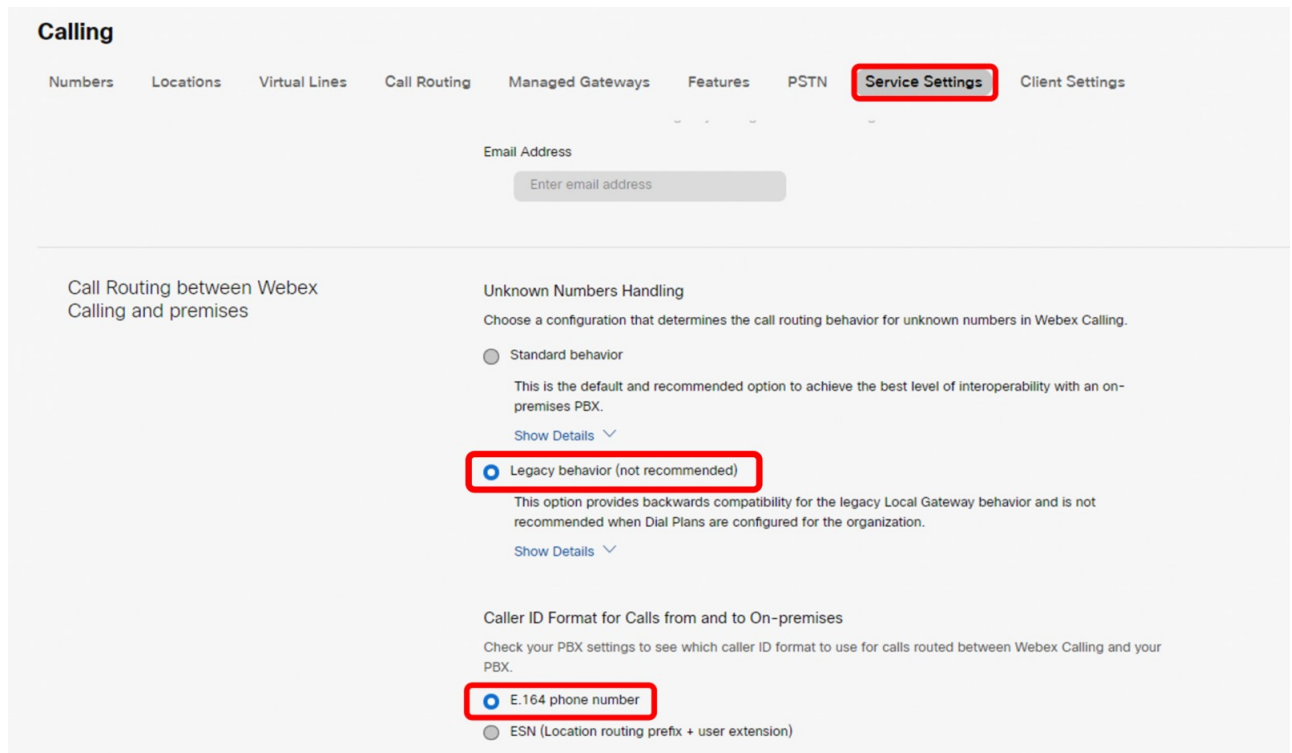
Service Settings

"Unknown Numbers Handling" section dictates how to route calls to unknown numbers, meaning those numbers not associated to a Webex device. By leaving this parameter to its default "Standard behavior", call routing is strictly tight to the dial plan, causing Imagicle Cloud to be kept in the loop once the call is transferred to the operator. As a consequence, additional latency and quality loss is added to call flow, becoming more and more annoying upon subsequent call transfers to other users.

That's why this parameter should be set to **Legacy behavior**.

Moreover, to properly display queue name in Imagicle Attendant Console, please make sure the Caller ID Format is set to **E.164 phone number**.

Both parameters are available in Calling > Service Setting, as per below screenshot:



Calling

Numbers Locations Virtual Lines Call Routing Managed Gateways Features PSTN **Service Settings** Client Settings

Email Address
Enter email address

Call Routing between Webex Calling and premises

Unknown Numbers Handling
Choose a configuration that determines the call routing behavior for unknown numbers in Webex Calling.

☐ Standard behavior
This is the default and recommended option to achieve the best level of interoperability with an on-premises PBX.
[Show Details](#) ▾

☒ **Legacy behavior (not recommended)**
This option provides backwards compatibility for the legacy Local Gateway behavior and is not recommended when Dial Plans are configured for the organization.
[Show Details](#) ▾

Caller ID Format for Calls from and to On-premises
Check your PBX settings to see which caller ID format to use for calls routed between Webex Calling and your PBX.

☒ **E.164 phone number**
☐ ESN (Location routing prefix + user extension)

Call Park Settings

To leverage Imagicle Attendant Console call park feature, all operators must be configured as a member of a same Call Park Group. Call Park at extension level is not supported. More details available [here](#).

Please note that parked calls are shared among all operators, thus visible in Attendant Console's "CALL PARKED" panel.

User's Settings

All Cisco Webex Calling registered users who actually need to leverage Imagicle Advanced Queuing application (as operators or calling/called parties) should have a specific license enablement and an extension number associated to relevant "Imagicle" Location.

From Cisco Webex Control Hub, please go to Users Management and click on one specific user to display a License summary:

webex Control Hub Select Customer

Users

Search: andrea All 4 Administrators 1 External A

First Name	Last Name	Display Name
Andrea	Zerbinati	Andrea Zerbinati
Andrea	Rivaben	Andrea Rivaben
Andrea	Sonnino	Andrea Sonnino
Andrea	Valleriani	Andrea Valleriani

Andrea Rivaben
andrea.rivaben@imagicle.com

Services [Edit Licenses](#)

- Messaging [Advanced Messaging >](#)
- Meeting [Cisco Webex Meetings >](#)
- Calling [Call on Webex \(1:1 call, non-PSTN\) >](#)
- Hybrid Services
- Calendar Service [Activated >](#)
- Call Service [Off >](#)

To display and/or amend a user's license, please click on "Edit Licenses":

Services enabled for Andrea Rivaben

Subscription IDs Subscription: Sub682375 - 10/13/2020

Messaging	Meeting	Calling
Free Public Collaboration Services		
Basic Messaging	Basic Space Meetings	Call on Webex (1:1 call, non-PSTN)
Licensed Collaboration Services		
Messaging <input type="checkbox"/> Advanced Messaging		Calling <input checked="" type="checkbox"/> Webex Calling <input checked="" type="checkbox"/> Professional

[Back](#) [Next](#)

Make sure that both "Webex Calling" and "Professional" flags are checked, then hit Next:

Assign Numbers

User	Location	Phone Number	Extension
Andrea Rivaben andrea.rivaben@imagicle.com	Imagicle	+390225067791	7791

[Back](#) [Finish](#)

Please make sure that User is properly associated to own Location, with an extension number and +E.164 DID phone number.

Finally, please make sure that User's Auto Attendant Privacy is disabled, as per below screenshot sample:



Nicola Boscolo
nicola.boscolo@imagicle.com



Cancel

Save

Privacy

Enable the user's line to be monitored by others and determine if they can be reached by Auto Attendant services.

Auto Attendant Privacy

- ☒ Allow this user to be dialed by extension
- ☒ Allow this user to be dialed by first or last name

Selective Line Status Sharing

☐ Enable Privacy

Currently everyone can monitor this users's phone status.

Select Enable Privacy to only allow specific users to monitor their phone status.

Troubleshooting

Call Routing Verification

If Call Routing is not behaving properly or simply if you wish to double check applied Dial Plans, you can access to [Webex Control Hub web portal](#) and select Calling Service â Call Routing â Verify Call Routing:

webex Control Hub Select Customer

Apps
Account
Organization Settings

SERVICES

- Migrations
- Messaging
- Meeting
- Calling
- Connected UC
- Hybrid

Imagicle

Calling Numbers Locations **Call Routing** Features PSTN Orders Service Settings Client Settings

Trunk Route Group Dial Plans **Verify Call Routing**

Verify How Calls Are Routed

Verify your call routing by choosing a cloud user or premises trunk and entering a number or URI that a user would dial. The routing result shows how a call will be translated (assuming that your on-premises configuration is correct).

Select a user or Select a trunk

Enter a number or URI

See Routing Result Clear All

Please fill above form with a selected user (from pull-down menu) and a Phone Number to test, including the Dial Plan prefix (+88

in below sample). Click "See Routing Result":

The screenshot shows the Cisco Webex Control Hub interface. On the left is a sidebar with navigation options: Users, Workspaces, Devices, Apps, Account, Organization Settings, and a SERVICES section containing Migrations, Messaging, Meeting, Calling (highlighted), Connected UC, Hybrid, and Imagicle. The main content area is titled 'webex Control Hub' and includes a 'Select Customer' dropdown. The 'Calling' tab is active, with sub-tabs for Trunk, Route Group, Dial Plans, and 'Verify Call Routing' (highlighted). Below the sub-tabs, the heading 'Verify How Calls Are Routed' is followed by a description: 'Verify your call routing by choosing a cloud user or premises trunk and entering a number or URI that a user would dial. The routing result shows how a call will be translated (assuming that your on-premises configuration is correct).' The input fields show 'Nicola Boscolo (+390416468465)' and '+88390225067784'. A 'See Routing Result' button is highlighted. The routing result states: 'The call to +88390225067784 routes to the dial pattern "+88!" in Imagicle_dialplan.' Below this, a table shows the routing path: From Nicola Boscolo (+390416468465) Treviso to To (Initial routing destination) Imagicle_trunk Imagicle.

Above screenshot sample shows a routing correctly applied, where the call is forwarded to Imagicle UC Cloud Suite, via Imagicle SIP Trunk.