



The bridge to possible

Understanding Voice Media and Real-time Media Handling for Webex Contact Center

How to connect PSTN to Webex Contact Center

Bryan Morris
Product Manager
BRKCCT-2723

CISCO *Live!*

#CiscoLive

Your Speaker

Name:

Bryan Morris

Attending Cisco Live from:

United Kingdom

Role in Cisco:

Product manager for Webex
Contact Center Media services.

Career at Cisco:

25 years of service, Systems Engineer,
Technical Marketing Engineer/Manager
and Product Manager

Products I've worked on and presented at Cisco live:

Webex Contact Center Real time Media,
Webex Directory Service, Cisco Jabber,
Communication Manager & Presence server

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Cisco Webex App

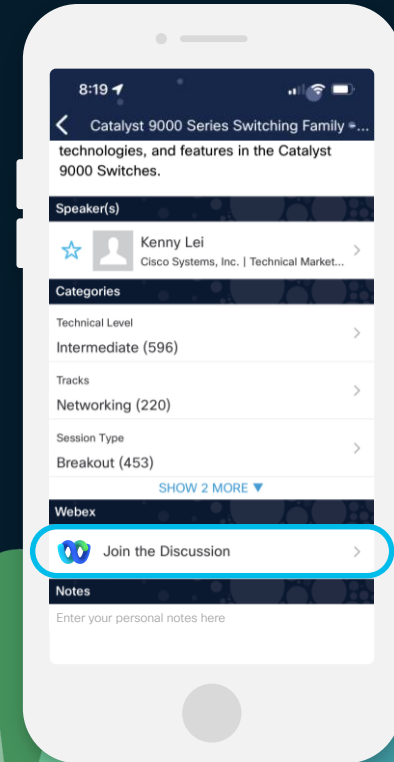
Questions?

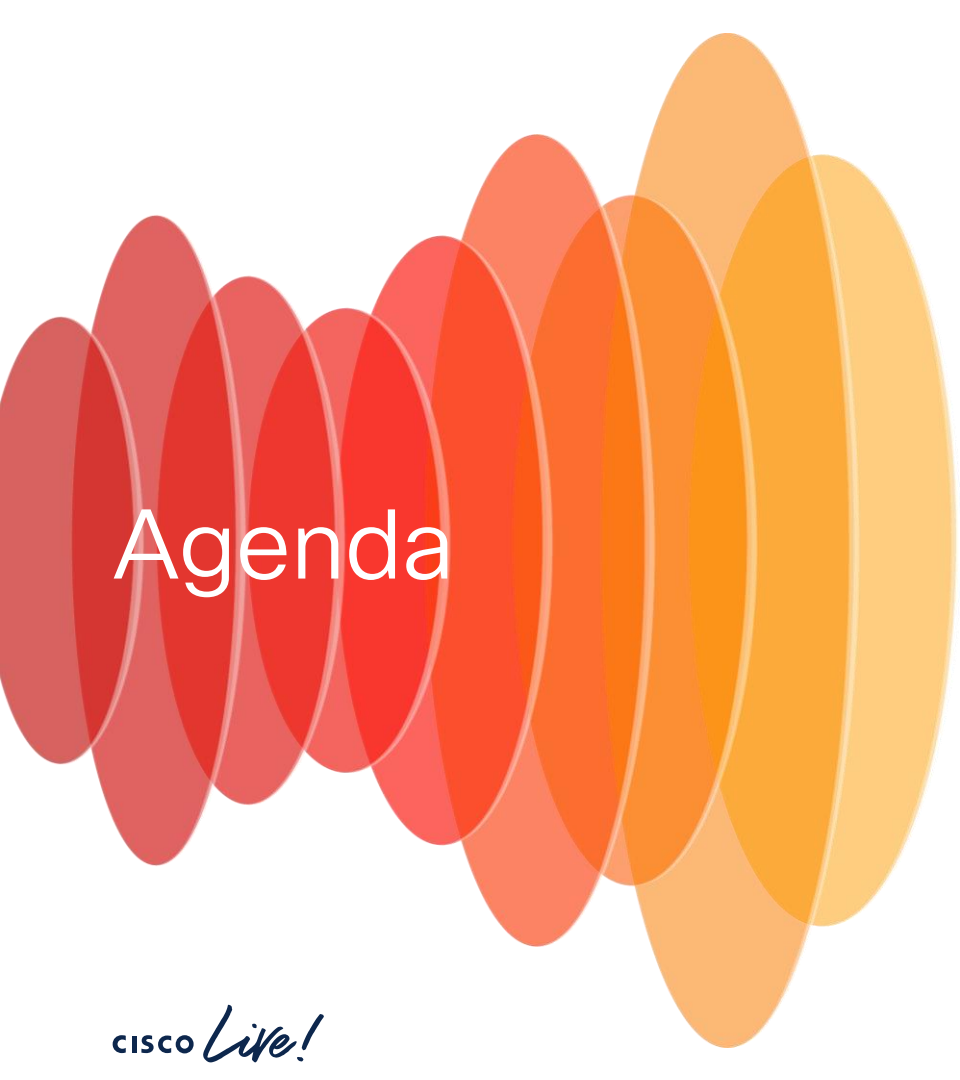
Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 7, 2024.



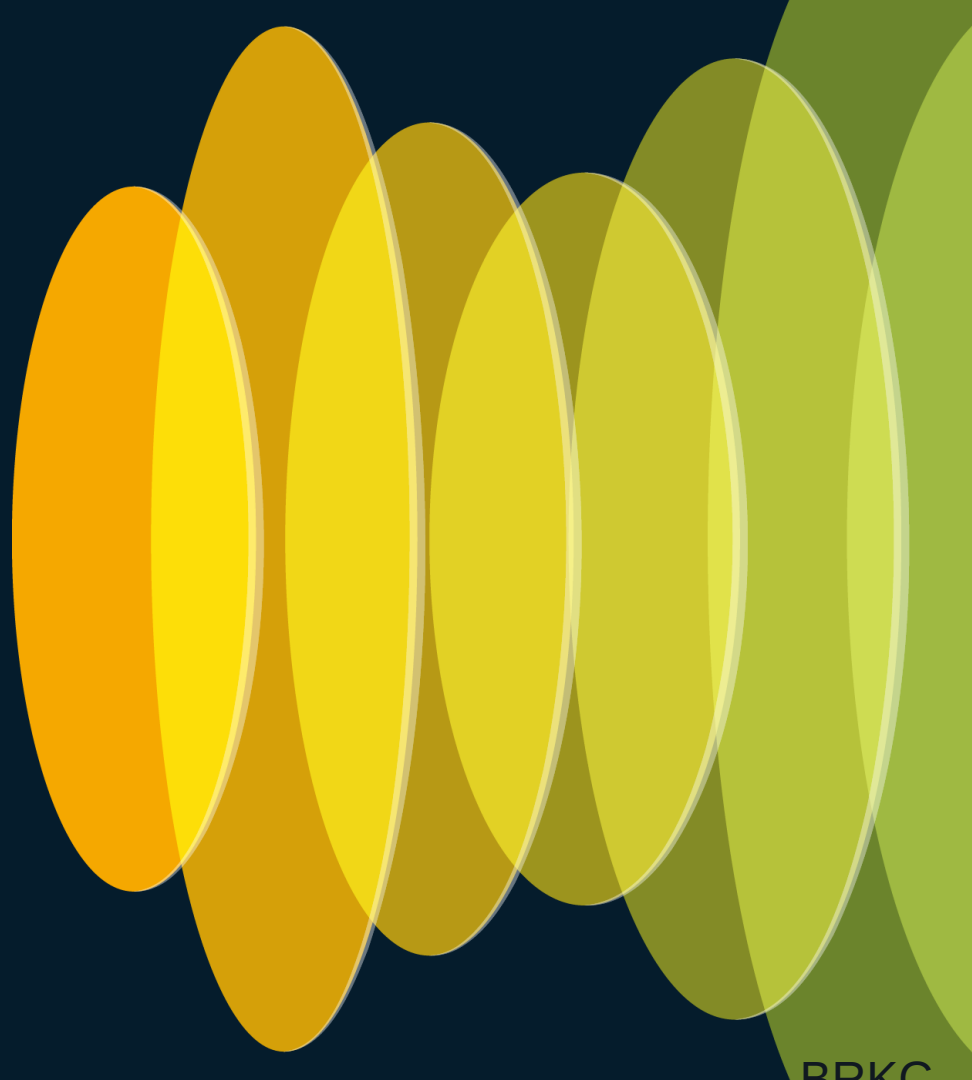


Agenda

- What is Webex Contact Center
- Webex Global media network
- Voice Channel Integration Options
- Deploying Voice Channels with Webex Common Edge Services
- Connecting Contact Center Agents
- Summary and Q&A

Webex Contact Center

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BRKC

Webex Contact Center
is a **cloud-based**
enterprise Contact
Center solution.



Webex Contact Center
is a **cloud-based**
enterprise Contact
Center solution.



We need to route calls in
and out of the cloud

Voice processing is
performed in the cloud



Voice In



Voice Out



Receive and make calls to PSTN



Interactions

- Answer/Make calls, Play Prompts,
- DTMF Input, Virtual Agent....



Recording and Reporting

- Review data and media from interactions



Agent

Deliver calls to agents

Voice Media in Webex Contact Center



Delivering PSTN services to Contact Center

Receive and make calls to PSTN

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Webex provides access to a global network of service providers



Bring Your Own

Route calls into Webex from your on-premise environment



Have an your existing service provide deliver service to Webex Cloud



Receive and make
calls to PSTN

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Interactions

- 📞 Answer/Make calls, 🔊 Play Prompts,
- 📞 DTMF Input, 🧠 Virtual Agent....

Recording and Reporting

- 📄 Review data and media from interactions

Media Processing layer will terminate media in the cloud

- Hosts a conference session which can
 - Play Media to a calling
 - Collect Input from a user
 - Provide Virtual Agent services
 - Hold calls in a queue
 - Record media streams
 - Report on Interactions
 - Extend a call leg out to an agent or supervisor.....



The Contact Centre can instruct the Media processing layer to add Agents and Supervisors to an interaction



3



Agent

Deliver calls to
agents

The Contact Centre can
instruct the Media processing
service to add Agents and
Supervisors to an interaction

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PSTN based Agent

Calls routed over PSTN to
agent location (Office, Home etc)



On Premise Telephony

Calls routed via SIP trunk to your
data center (could be Cisco
Communication Manager)



Webex Telephony

Calls routed to Webex Calling
registered phones or app



WebRTC

Web browser-based audio



3rd Party Solution

Example, Microsoft Teams



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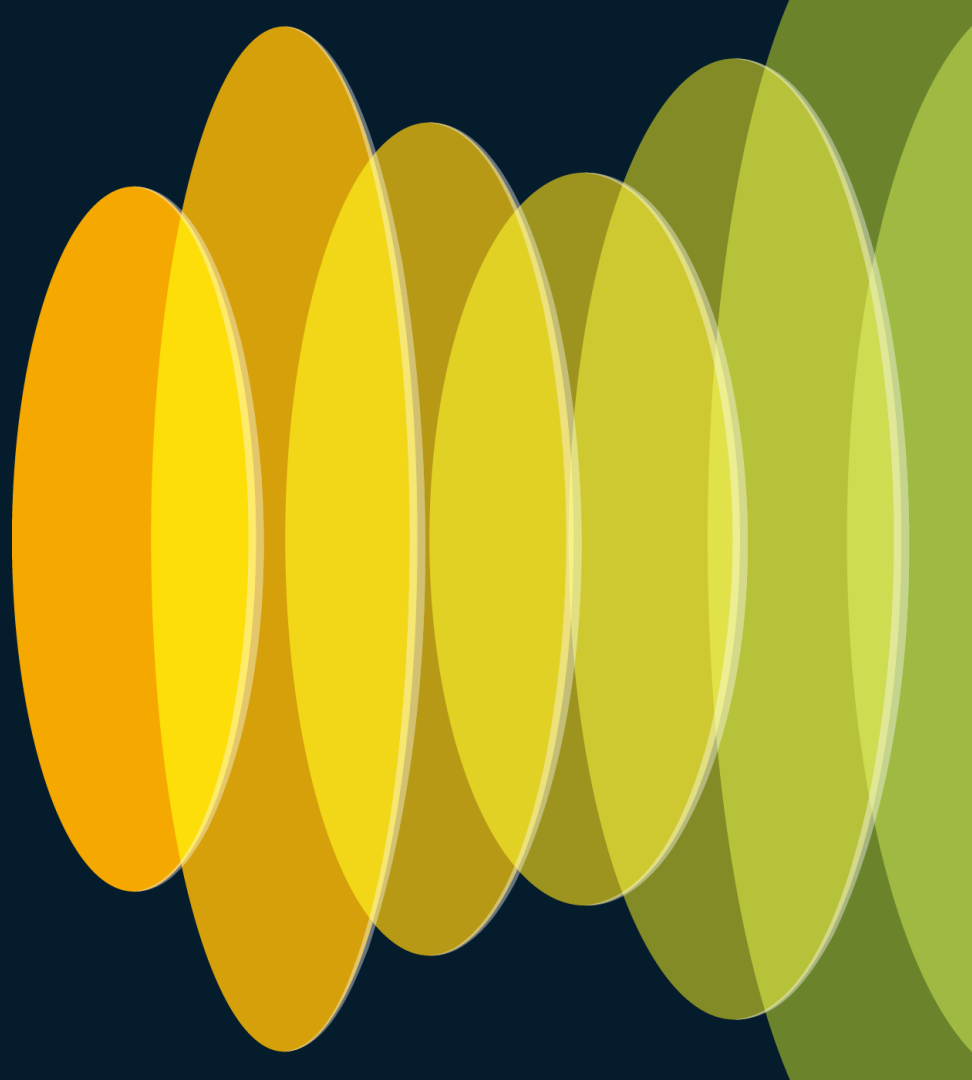
Web browser-based audio



3rd Party Solution

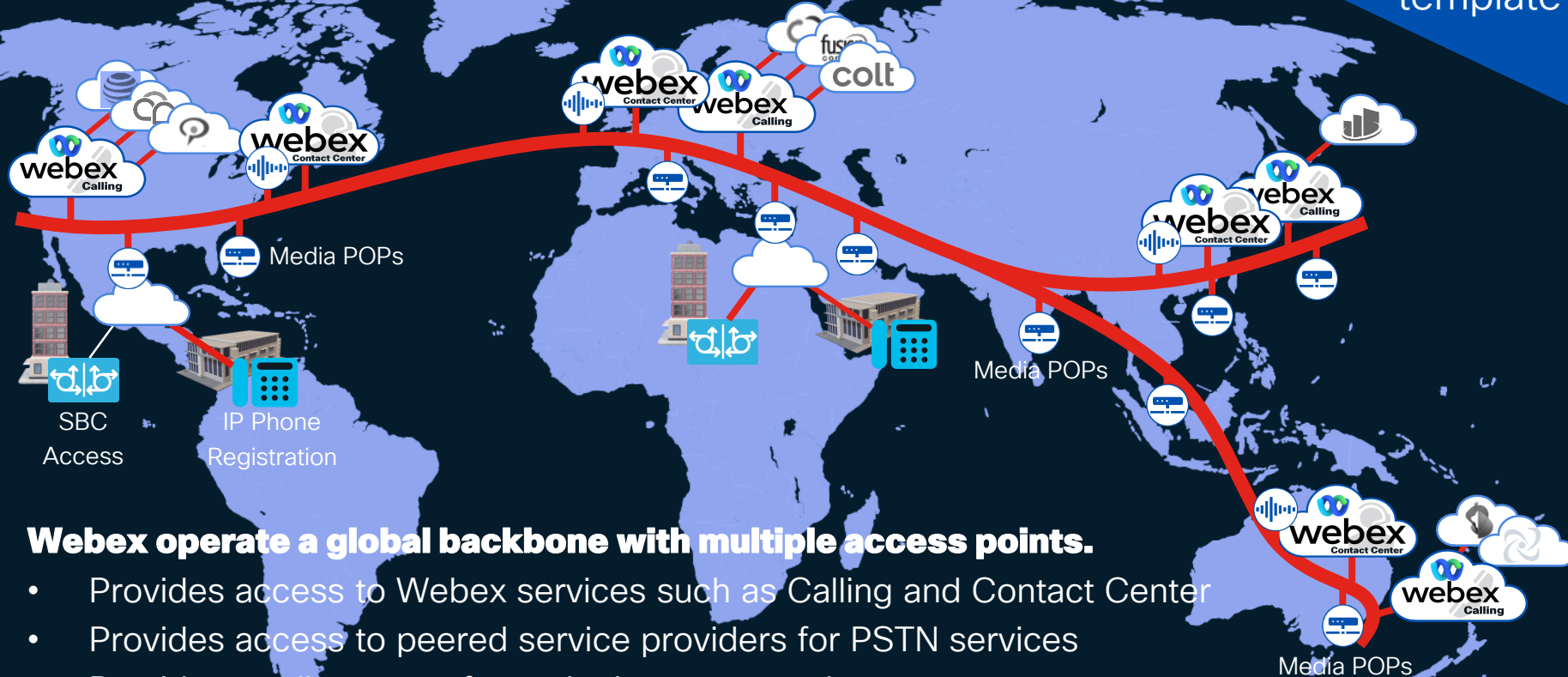
Example, Microsoft Teams

Webex Global Media Network



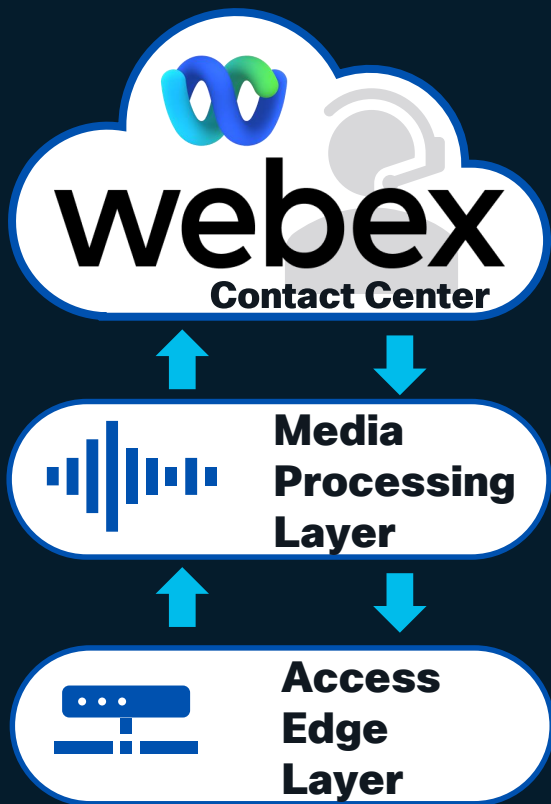
NOTE: Example Locations only

Key Concepts
use dark
template



Webex operate a global backbone with multiple access points.

- Provides access to Webex services such as Calling and Contact Center
- Provides access to peered service providers for PSTN services
- Provides media access for endpoints, apps and customer gateways....



Webex Contact Center Voice processing layers...

Application Layer (Webex Contact Center)

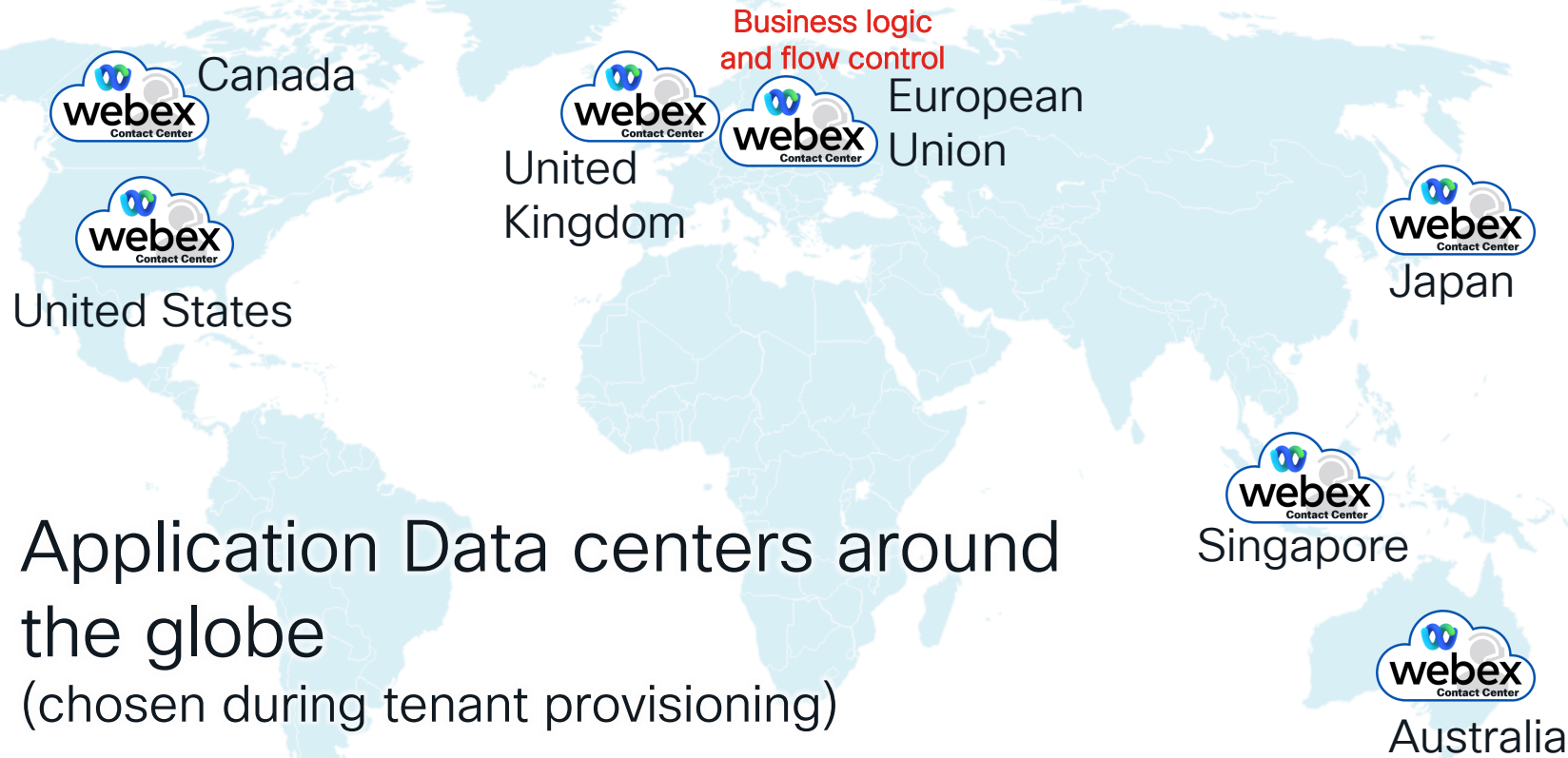
- Business Logic, Routing, Queuing, Flows and Agents management

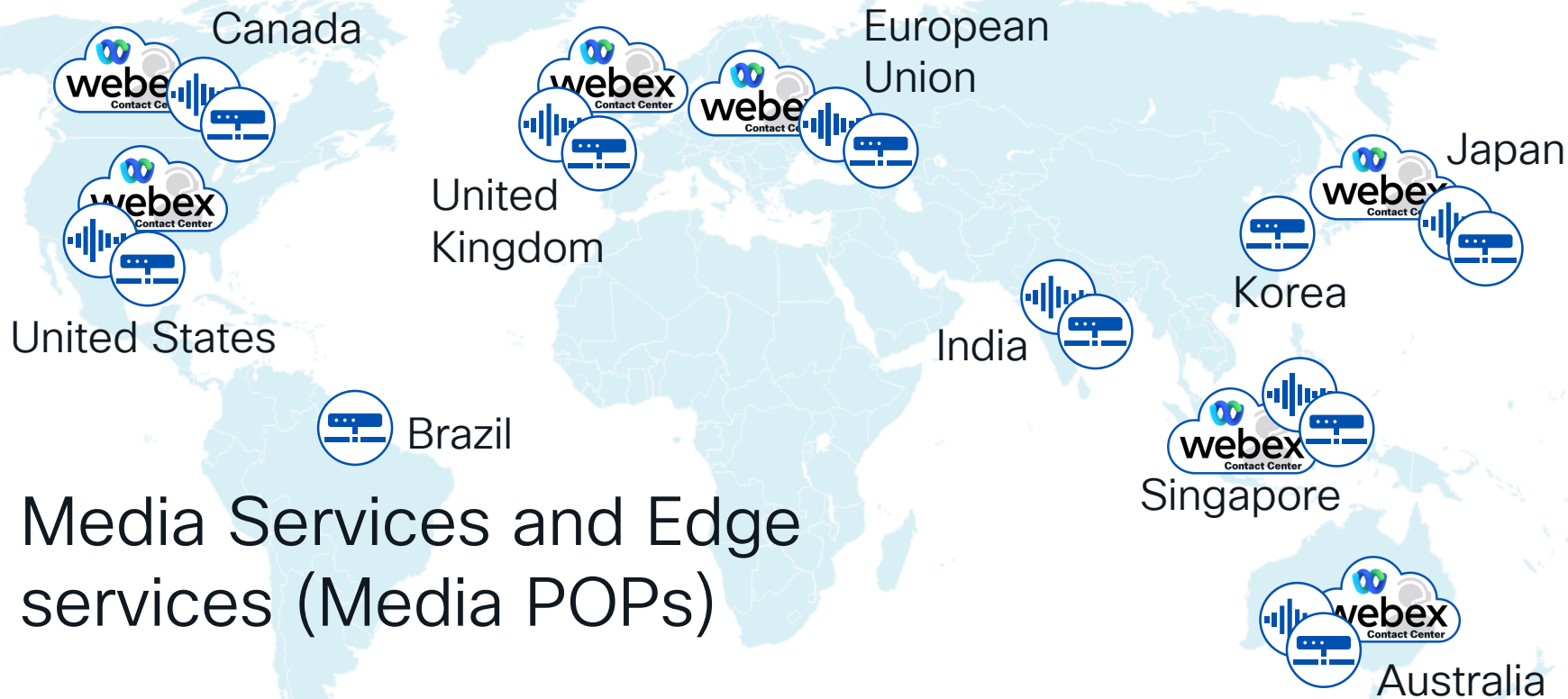
Media Processing Layer

- Voice termination, Media playout, capture input, agent connection and recording

Voice Edge Layer

- Customer/SP Voice connections
- SIP Trunk / Webex Calling







Webex Calling available, Contact Center Edge planned



Webex Contact Center Media Service in U.A.E. (Q2 CY24)

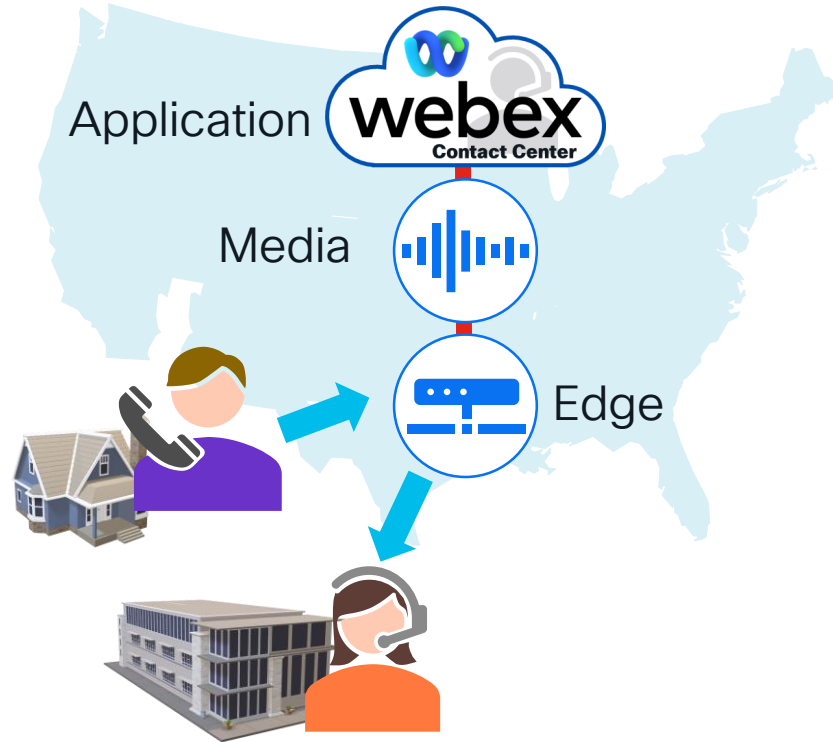


Webex Contact Center Media Service in South Africa (H2 CY24)

Coming Soon

Global Network Expansion

Deployment to a **single region**

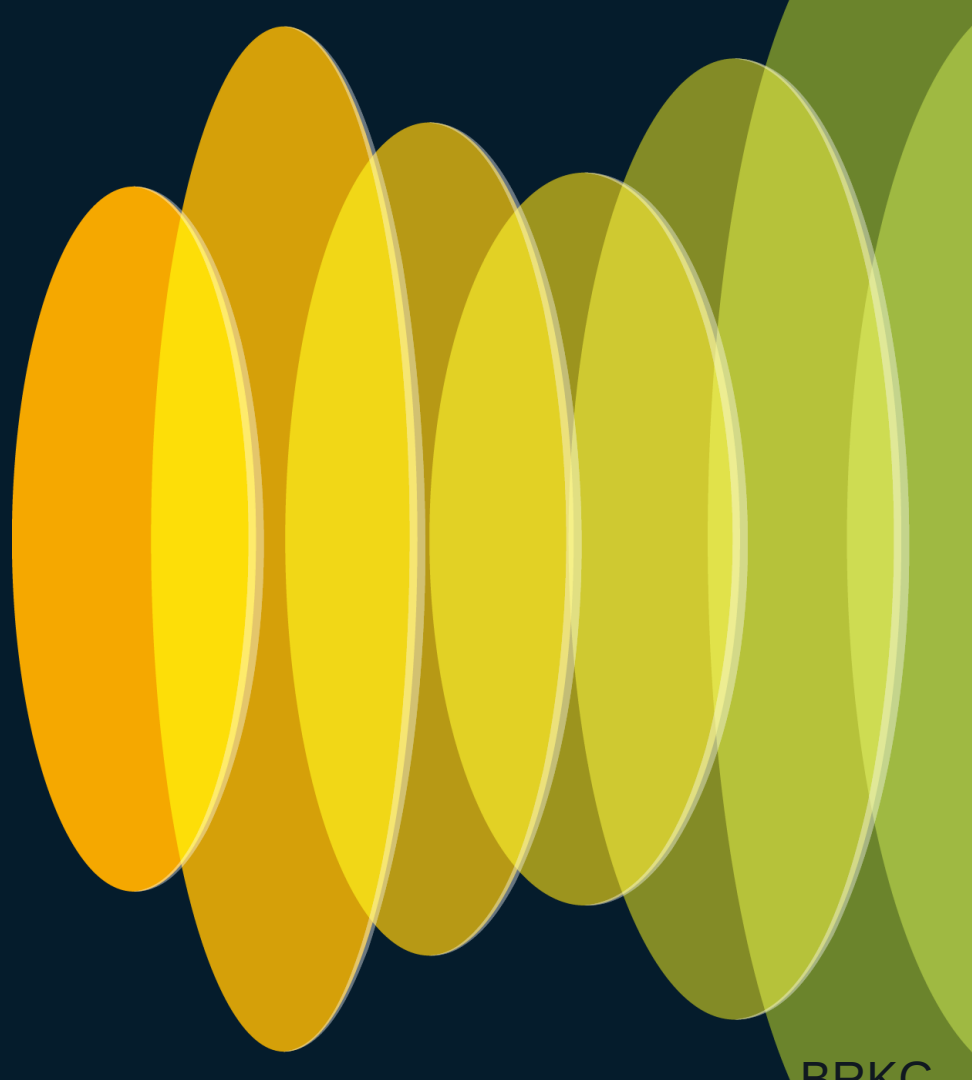


- A contact center service can be deployed to a region.
- Calls delivered via edge layer
- Processed in media layer
- Managed by Application layer
- Solution deployed to be highly resilient and scalable
 - High availability application services
 - Highly availability/scalable Media services
 - Deployed across multiple DCs

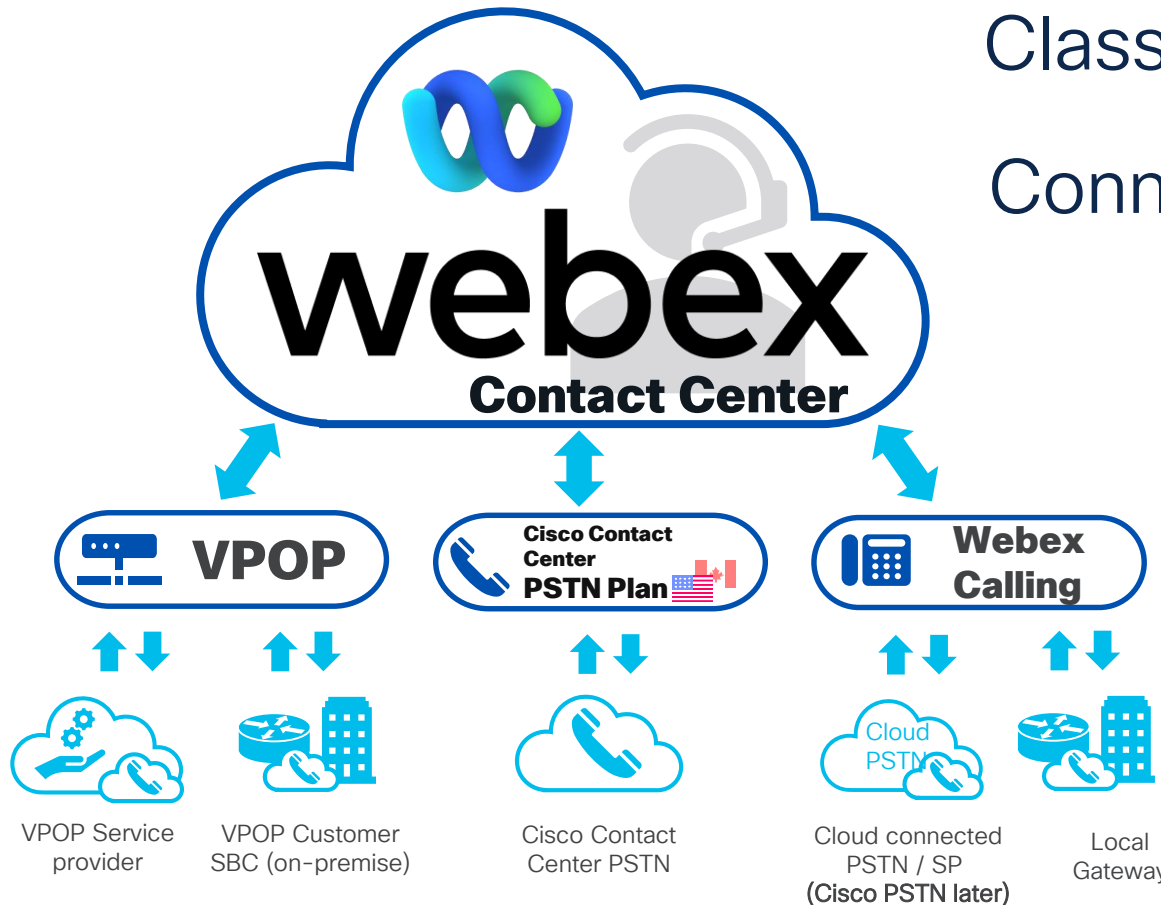
Global deployment with Regional Media



Voice Channel Integration Options

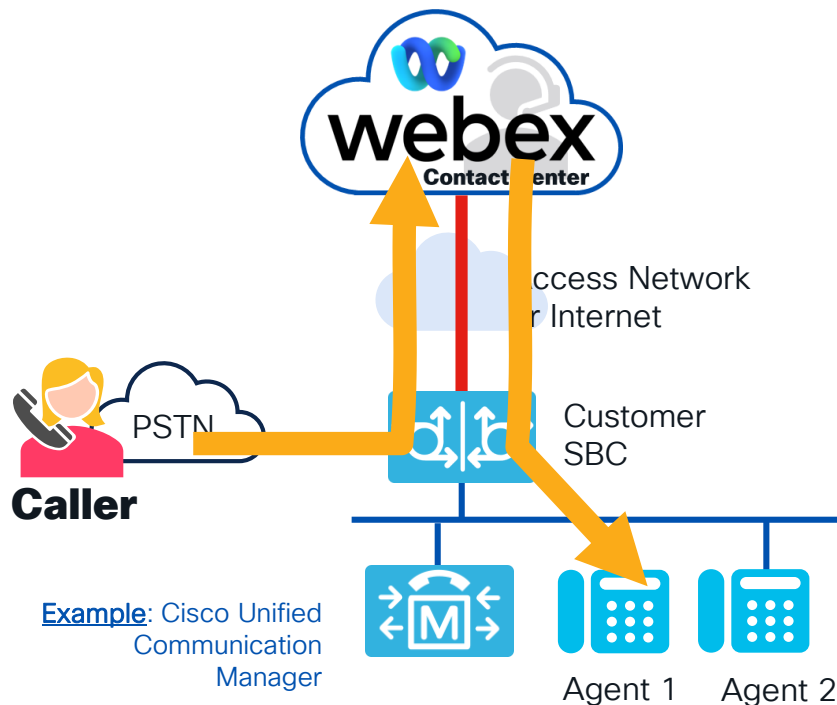


Classic Webex Contact Center PSTN Connectivity Options....



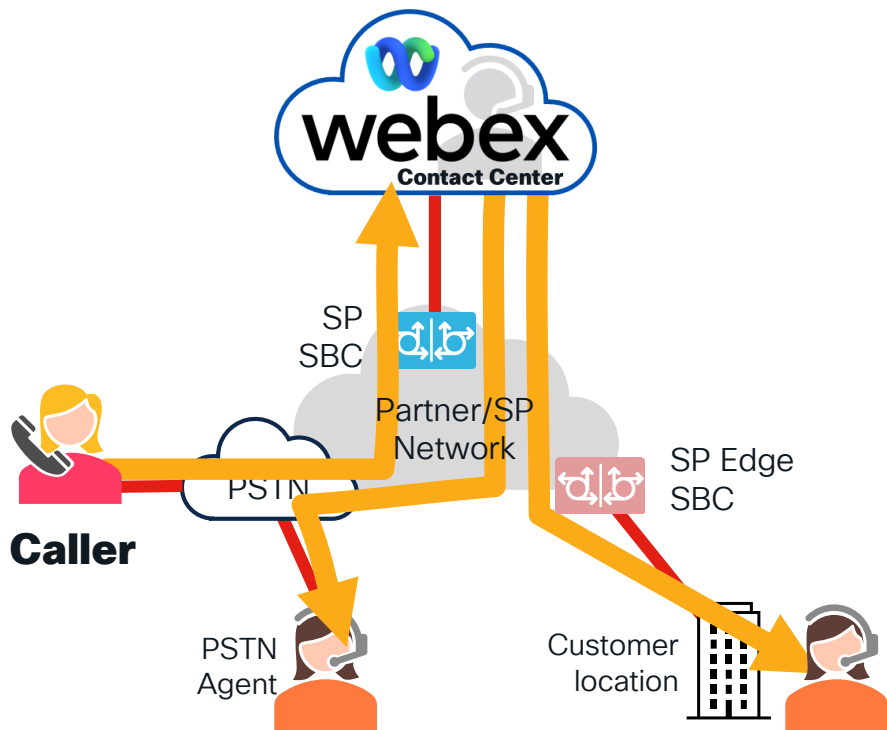
- **VPOP (Legacy Mode)**
 - Provides SIP Trunk Integration
 - Support Customer/SP connection
 - Must bring your own PSTN
- **Cisco Contact Center PSTN Plan**
 - PSTN Plan for US/Canada only
 - VPOP only today (WxC planned)
- **Webex Calling**
 - Required WxC subscription
 - Provides access to Cloud PSTN and local gateway (SIP Trunk)

VPOP Customer Example



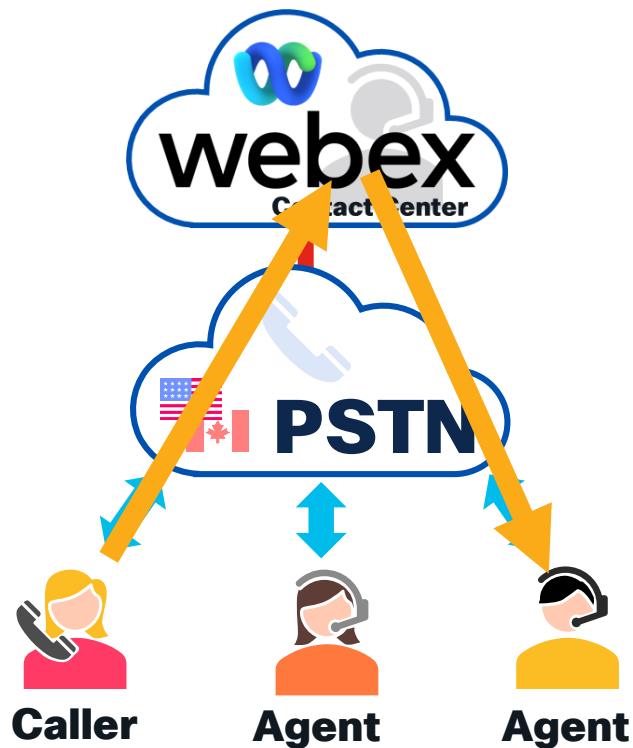
- **SIP Trunk from customer SBC to Webex VPOP (requires provisioning request)**
- 3rd Party Telephony solution
 - Cisco Communication Manager
 - Microsoft Teams
 - Other solution
- Bring Your Own PSTN (BYO)
 - Inbound calls routed to VPOP
 - Agent calls delivered to on premise telephony

VPOP Service Provider Example



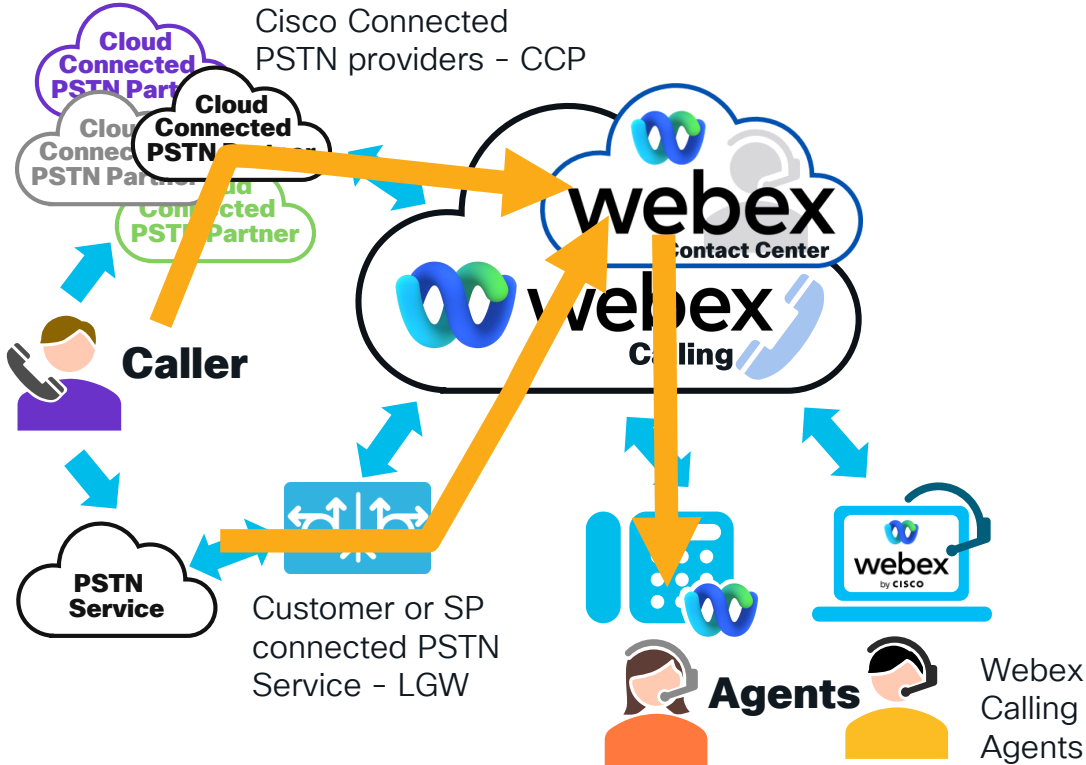
- **Partner/Service Provider provides customer service**
- Partner may provide PSTN services
- Agent could be PSTN or SIP based
- Multiple customers could share trunk into Webex.

Contact Center PSTN Example



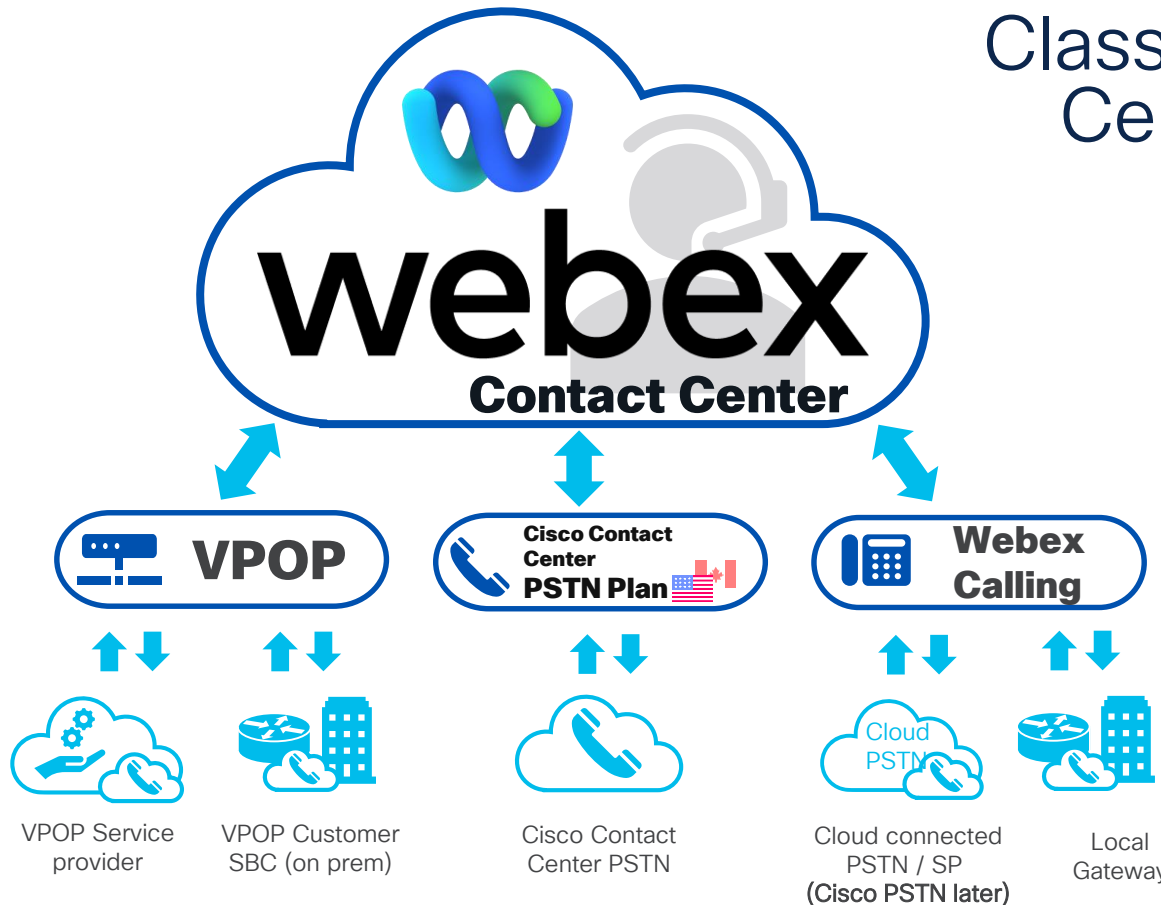
- **Webex Contact Center connected directly to PSTN**
- Available in contiguous US and Canada only, No international dialing.
- Inbound calls are received from PSTN
- Calls are routed to agent DDI over the PSTN for a fixed monthly cost.
- No customer infrastructure required

Webex Calling Example



- **Webex Contact Center with Webex Calling**
- Previously required Webex Calling subscription
- Multiple PSTN options
 - Cloud connected PSTN
 - Local Gateway connected PSTN
- Flexible agent options
 - Webex registered endpoint
 - Webex App
 - On-premise endpoint

Classic Webex Contact Center Connection Options....



- **VPOP (Legacy Mode)**

- Provide SIP Trunk Integration
- Support Customer/SP connection
- No access to Cloud PSTN plans

- **Webex Calling**

- Required WxC subscription
- Provides access to Cloud PSTN and local gateway (SIP Trunk)

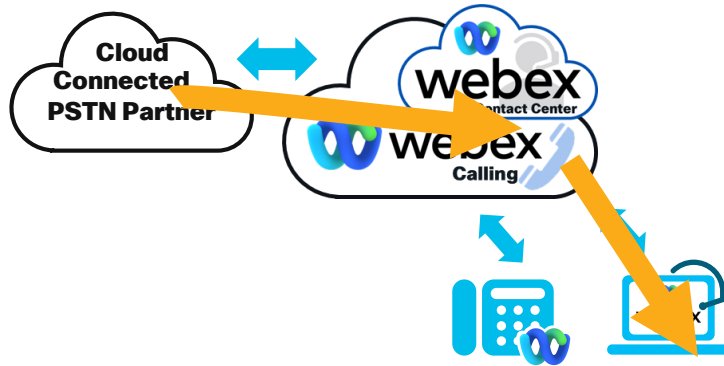
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- PSTN Plan for US/Canada only
- VPOP only today (WxC planned)

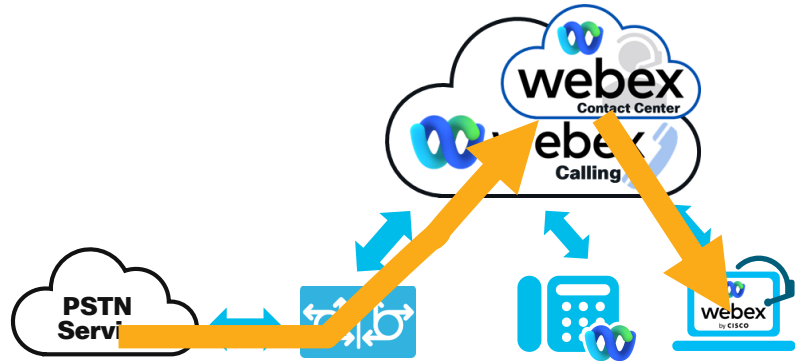


- **Simplification** of Edge services for Webex Contact Center
- **Common Edge connection** for **Webex Calling** and **Webex Contact Center**.
- Plus, **No** Webex Calling Subscription required for Webex Contact Center access.
- Faster deployment with self service provisioning in control hub
- Access to Cisco Cloud Connected PSTN providers for Webex contact center
- Deployment with multiple service providers and/or multiple regions.
- **Cisco Contact Center PSTN and Cisco Calling plan options for both knowledge workers and service numbers (CC) – PLANNED**

Webex Common Edge services supports Webex Contact Center with Webex Calling...

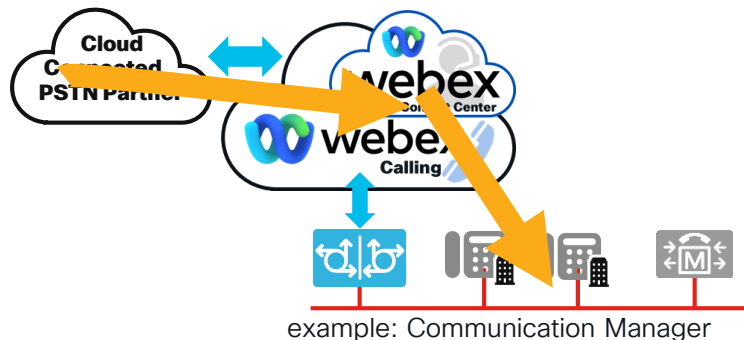


Webex Contact Center with
Cloud PSTN and **Webex
Calling Endpoints**

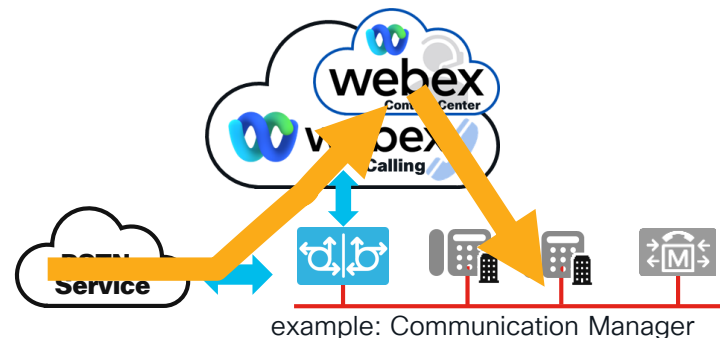


Webex Contact Center
with **Local Gateway/B.Y.O. PSTN**
and **Webex Calling Endpoints**

Webex Common Edge services supports Webex Contact Center with external telephony (Previously VPOP)



Webex Contact Center
with **Cloud PSTN** and
**External/3rd party
telephony**



Webex Contact Center
with **B.Y.O. PSTN** and
**External/3rd party
telephony**

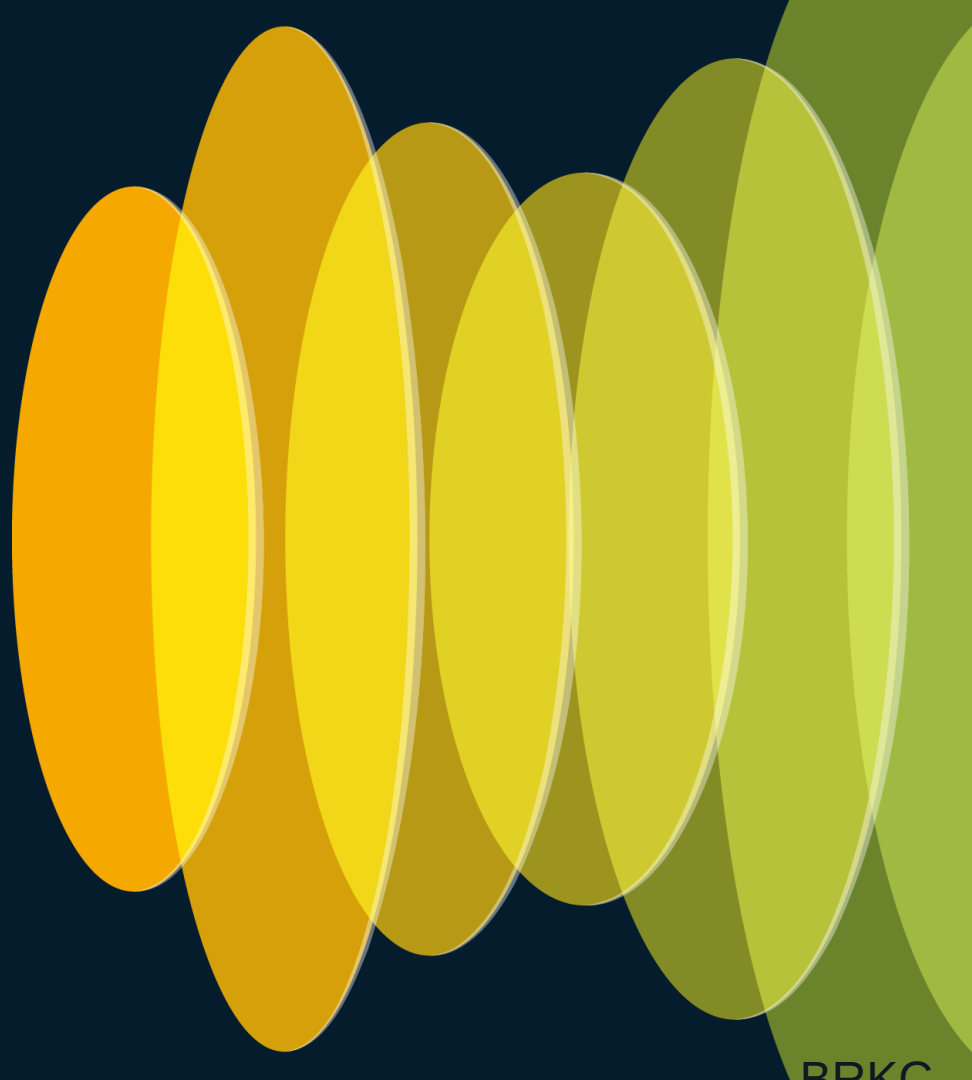
So what is happening to VPOP Deployments



- For new customers we WILL recommend using common edge configuration.
- For existing customers no change in VPOP at this time, we are currently planning migration strategy for VPOP customers.
- New VPOP deployments will be by exception in A2Q process.
- New media regions will only provide common edge support (no new VPOP locations)

Deploying Voice Channels with Webex Common Edge Services

(Webex Calling Common Edge services)





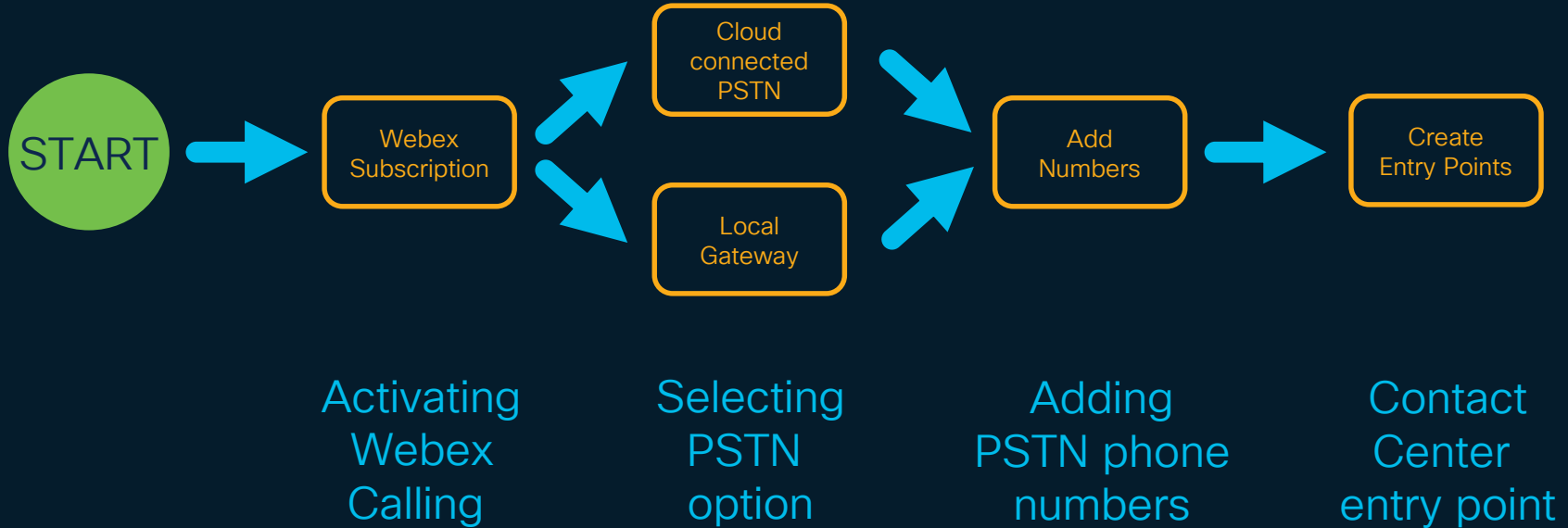
- Cisco is recommending **all new** Webex Contact Center deployments use Webex Calling edge services for...

- Webex Calling integrated Contact centers
- SIP Trunk integrated with external telephony environments (On Premise / Other)

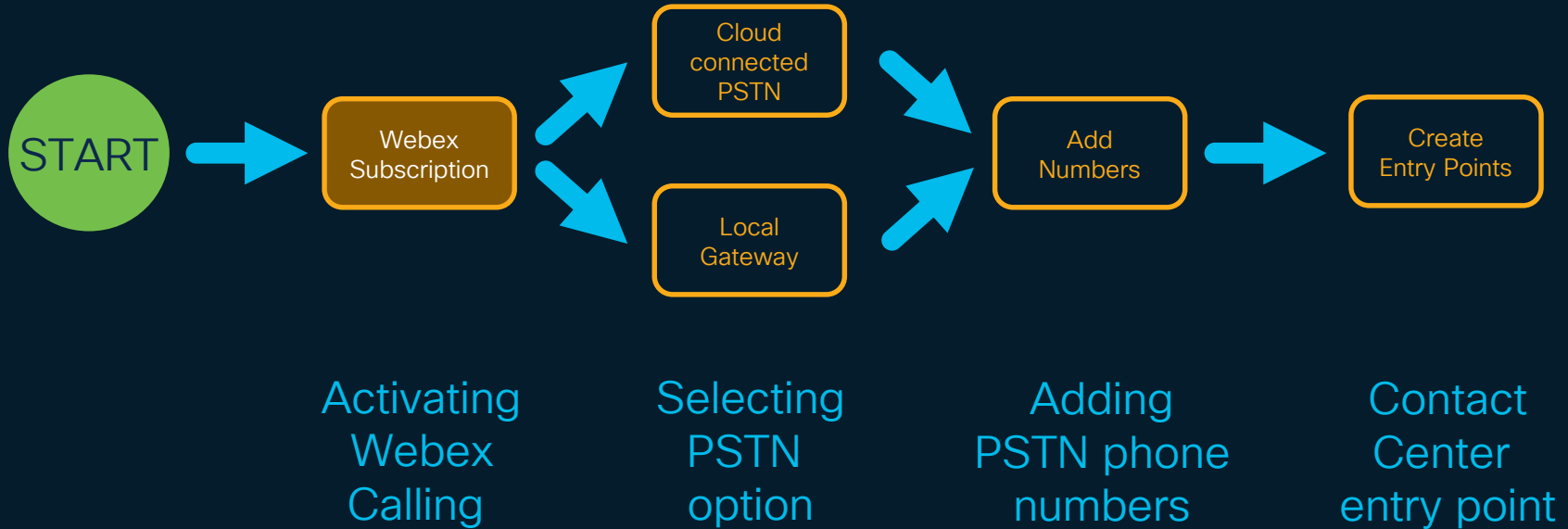
Future Roadmap

- Cisco Contact Center PSTN will be available in the future as a Cloud Connected PSTN option
- Microsoft Teams based Webex Contact Center agents currently going through verification (VPOP Model supported today)

Deploying Webex Calling Common Edge services

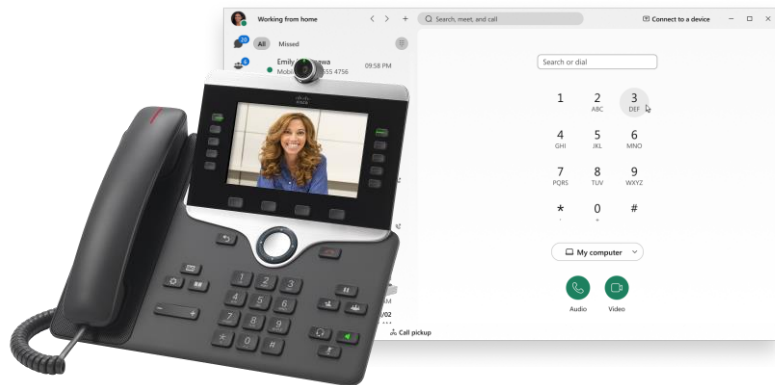


Deploying Webex Calling Common Edge services



Firstly.... Confirm Subscription or Contact Center addin

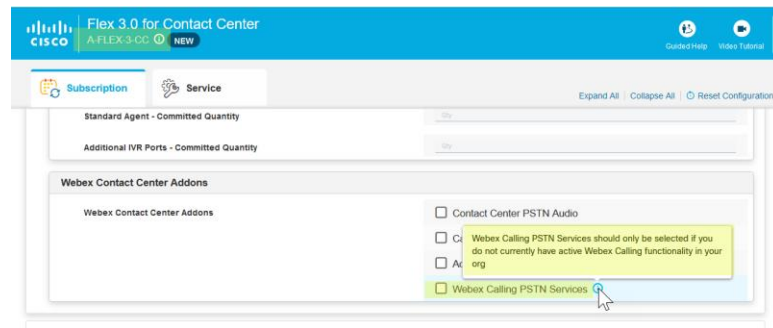
- Webex Calling Subscription



Provides full calling service with device registration, routing and PSTN/Local gateway services

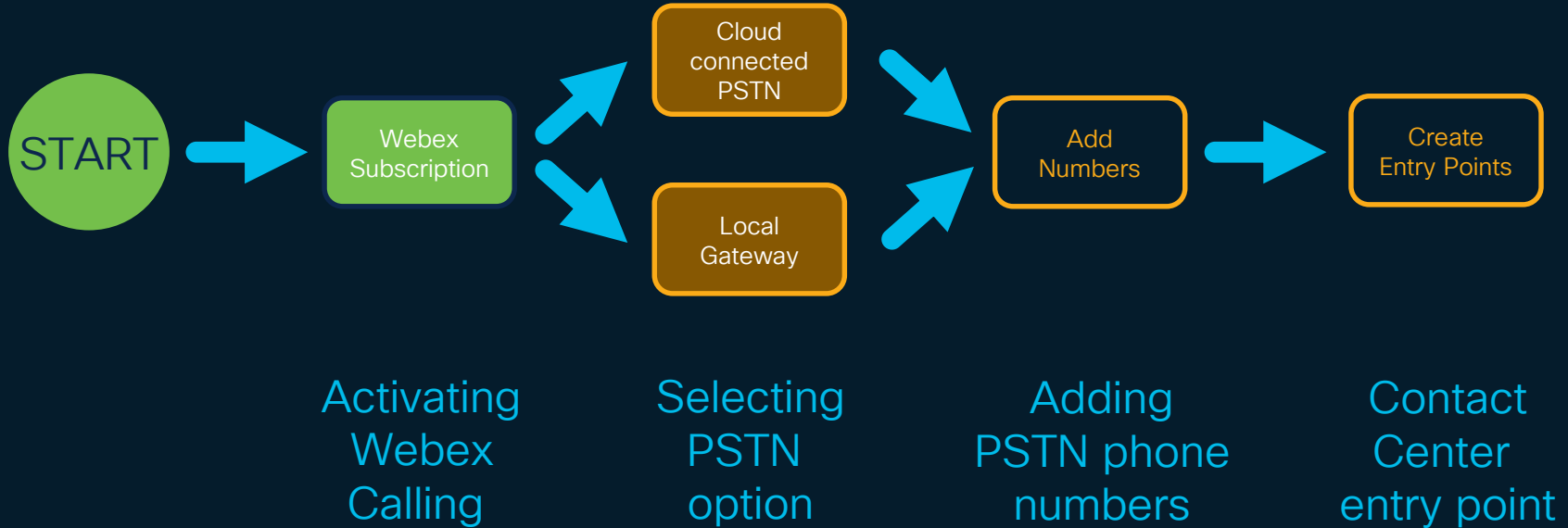
- Webex Calling PSTN Services

OR



Provides call routing and access to PSTN (CCP) and Local gateway services (BYO PSTN & On premise)

Deploying Webex Calling Common Edge services



Webex Calling Key Concepts



Location

- Calling and phone number management
- Organize your Webex Calling features
- Support different PSTN options



Trunk

- SIP trunks provide connectivity to a customer-owned PSTN service and to an on-premises IP PBX deployment.



Route Group

- A group of trunks that allows further scale and redundancy with the connection to the premises.

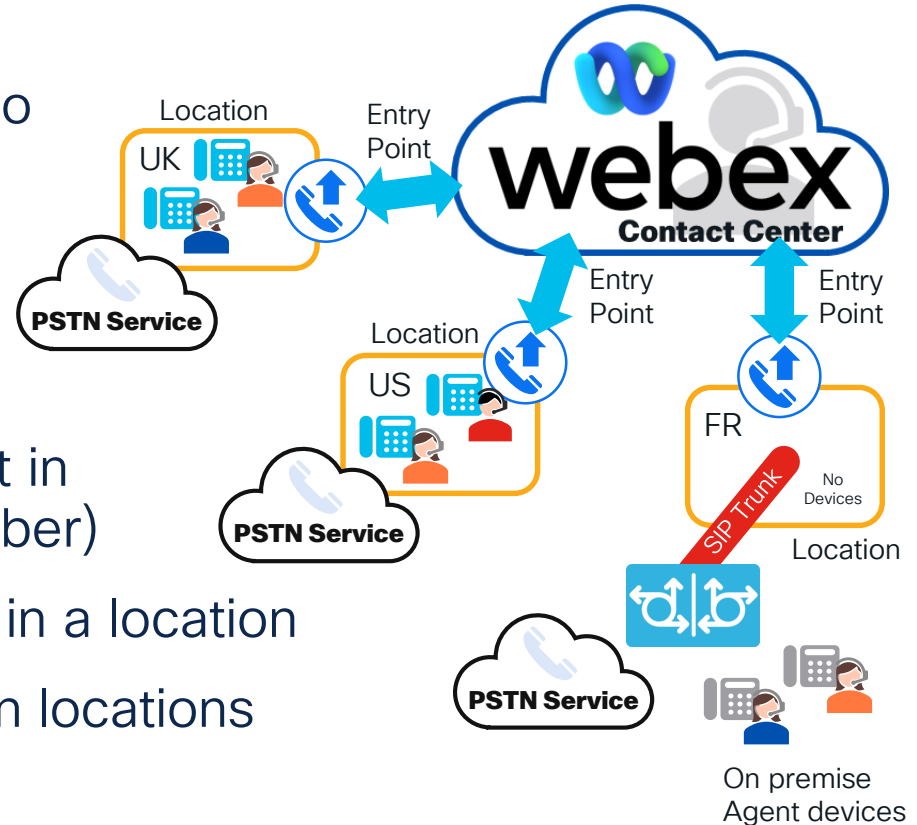


Dial Plan

- Typically, not required but allows custom routing policies

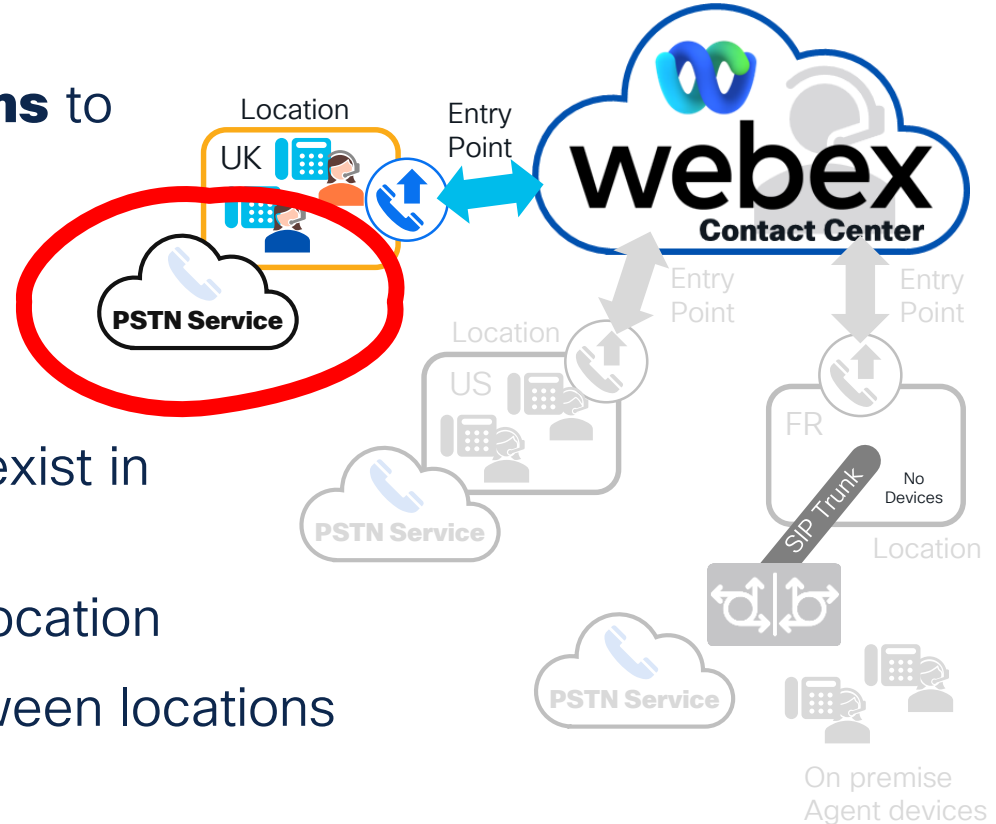
Understanding Webex Calling Locations

- Webex Calling uses **Locations** to allow you to organize users, workspaces and services.
- Locations will have a PSTN service (CCP or LGW)
- Contact Center Entry Points exist in a location (with a telephone number)
- Users/Agents devices may exist in a location
- Webex Calling will route between locations



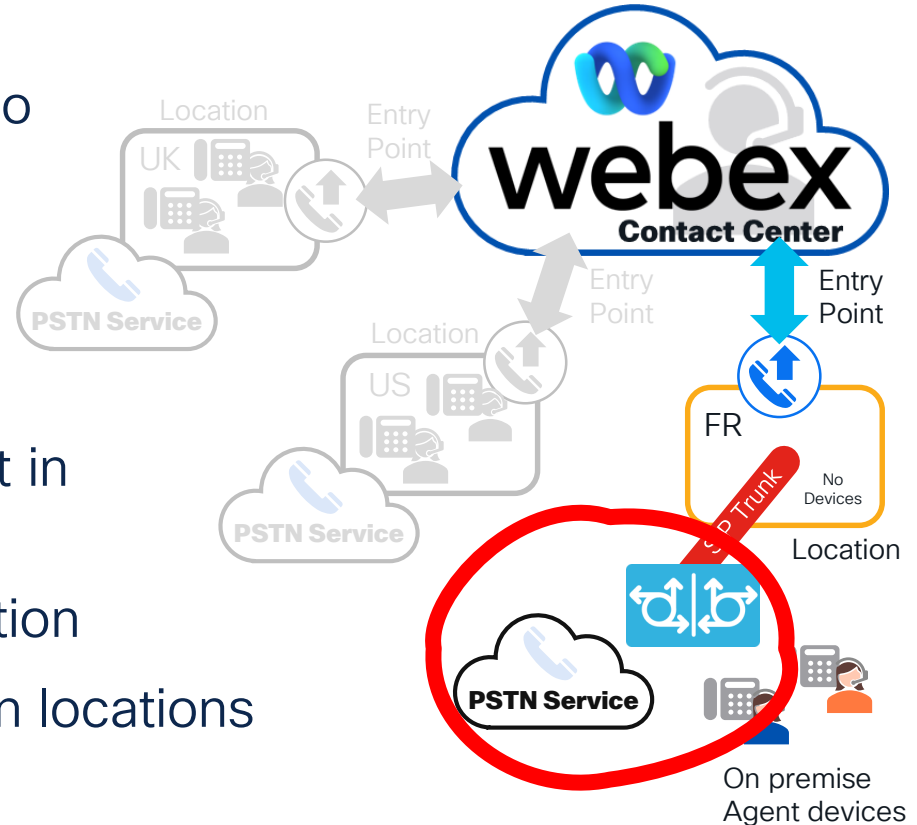
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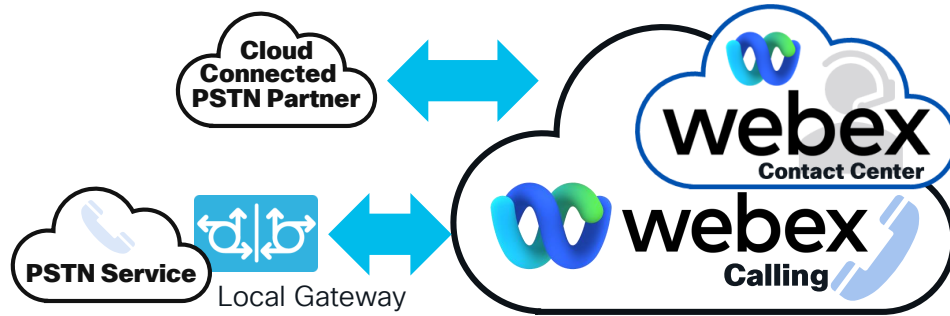


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Choose a PSTN option for your location



Connection Type

Choose the connection type for all phone numbers associated with Cisco.

 **Cloud Connected PSTN**

Select Cisco Cloud Connected PSTN partners that provide flexible global PSTN solutions fully integrated with Cisco's Webex Calling cloud.

 **Premises-based PSTN**
(formerly local gateway)

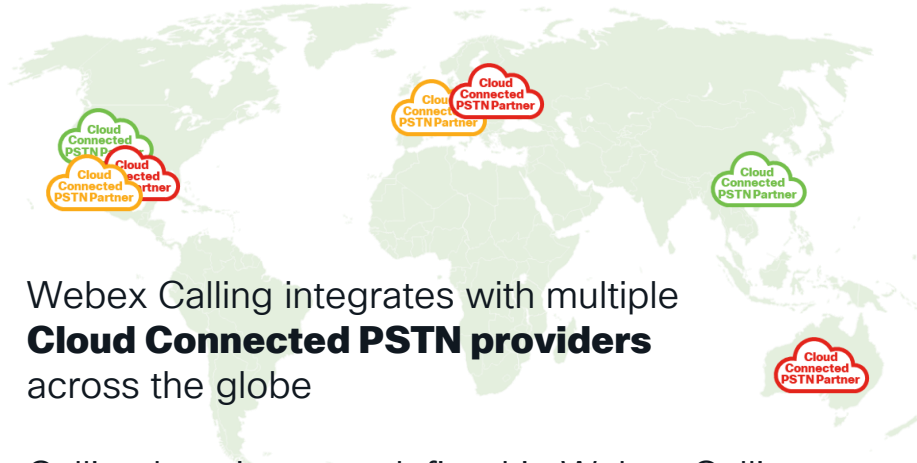
Bring Your Own Carrier by interconnecting any Service Provider's PSTN with a premises-based local gateway that tightly integrates to Cisco's Webex Calling cloud.

 **Cisco PSTN**

Cisco-provided PSTN provides a bundled Cisco solution that simplifies your calling experience with easy PSTN ordering and full support from Cisco and our Partners.

- **Locations have a default PSTN connection for routing calls in and out**
- Cloud Connected PSTN – Access to global network of PSTN partners peered with Webex cloud
- Premises-based PSTN / LGW
- **Cisco PSTN – Not supported with Webex Contact Center today (Except Trials)**

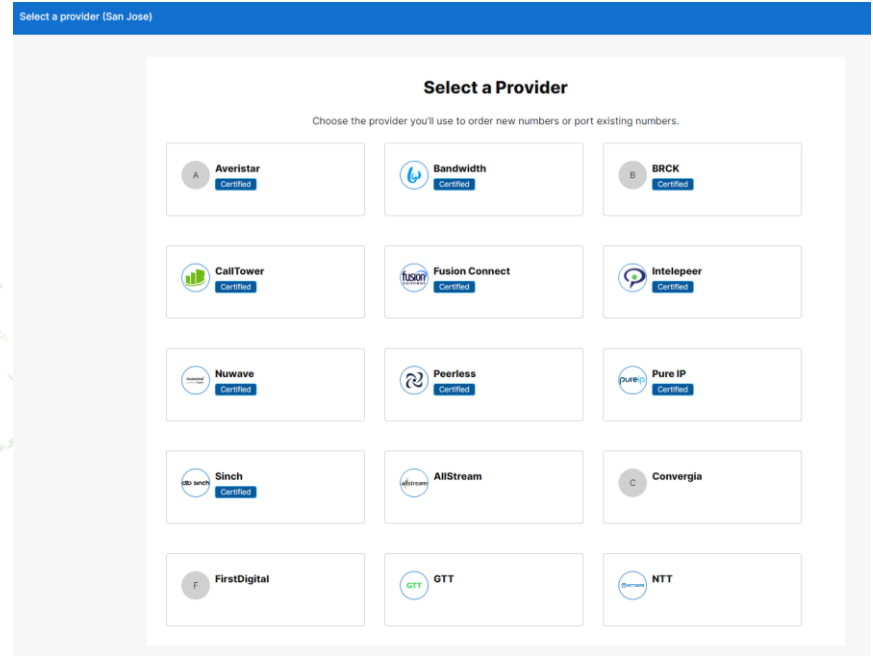
Adding **Cloud Connected PSTN** service



Webex Calling integrates with multiple **Cloud Connected PSTN providers** across the globe

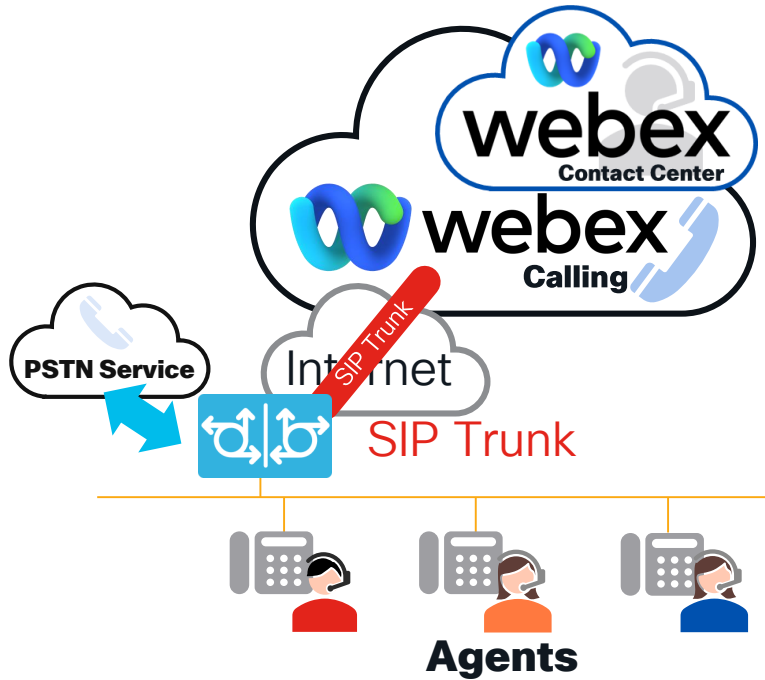
Calling locations are defined in Webex Calling, The geolocation you define for the location will dictate which service providers are available.

Some service providers are only accessible when they are the partner.



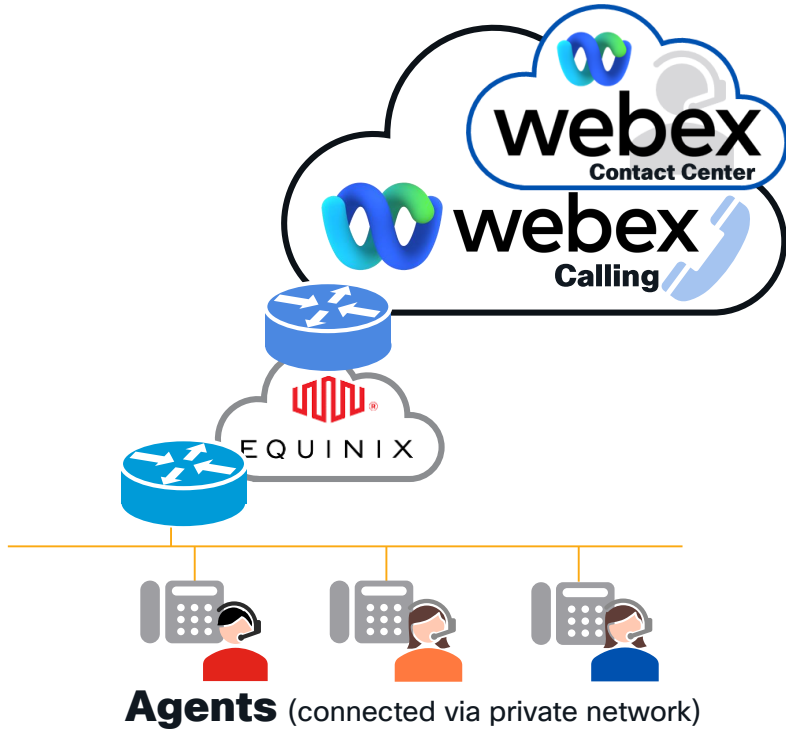
Webex Control Hub

Understanding Webex Calling **Local Gateway**



- The Local Gateway, which is the customer's **Session Border Controller (SBC)**, registers with Webex Calling.
- The local gateway provides a number of functions
 - Allows customers to provide their own PSTN service (Bring Your Own)
 - Allows connection from On-Premise calling solutions such as UC manager
- All communication to and from the cloud is secured using **TLS transport** for SIP and **SRTP for media**.

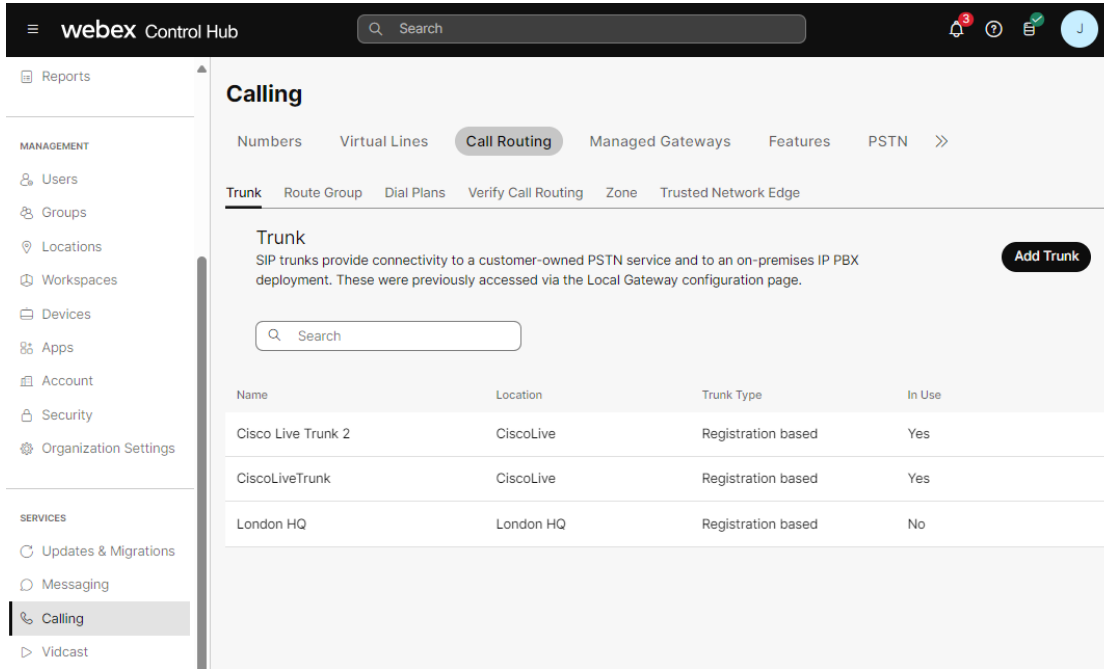
Local Gateway via a Private Connection



- Webex Contact Center access is also available via **Webex Edge Connect**
- Webex Edge Connect peering is a private point-to-point link that bypasses the public Internet and connects your network directly to Webex Meetings and Webex Calling Data Centers.
- Note: Media and Signalling traffic is routed via Edge Connect, Other services such as Agent desktop traffic is always via Internet connectivity.

Webex Calling Local Gateway **SIP Trunks**

- SIP trunks are created in Calling>Call Routing>Trunk



The screenshot shows the Webex Control Hub interface. The top navigation bar includes the 'webex Control Hub' logo, a search bar, and user profile information. The left sidebar contains a 'MANAGEMENT' section with links to Reports, Users, Groups, Locations, Workspaces, Devices, Apps, Account, Security, and Organization Settings. Below this is a 'SERVICES' section with links to Updates & Migrations, Messaging, and Calling (which is highlighted). The main content area is titled 'Calling' and has tabs for Numbers, Virtual Lines, Call Routing (selected), Managed Gateways, Features, and PSTN. Under the 'Call Routing' tab, there is a 'Trunk' sub-tab. The 'Trunk' section includes a description: 'SIP trunks provide connectivity to a customer-owned PSTN service and to an on-premises IP PBX deployment. These were previously accessed via the Local Gateway configuration page.' and an 'Add Trunk' button. Below this is a search bar and a table listing existing trunks.

Name	Location	Trunk Type	In Use
Cisco Live Trunk 2	CiscoLive	Registration based	Yes
CiscoLiveTrunk	CiscoLive	Registration based	Yes
London HQ	London HQ	Registration based	No

- Adding a SIP trunk will generate configuration information for trunk including authentication information
- SIP trunks can be associated with multiple locations

SIP Trunk Deployment models

- **Registration based Trunks**



- Supports up to 250 concurrent calls
- Supports Cisco Cube SBCs
- Digest based authentication (Username/password)

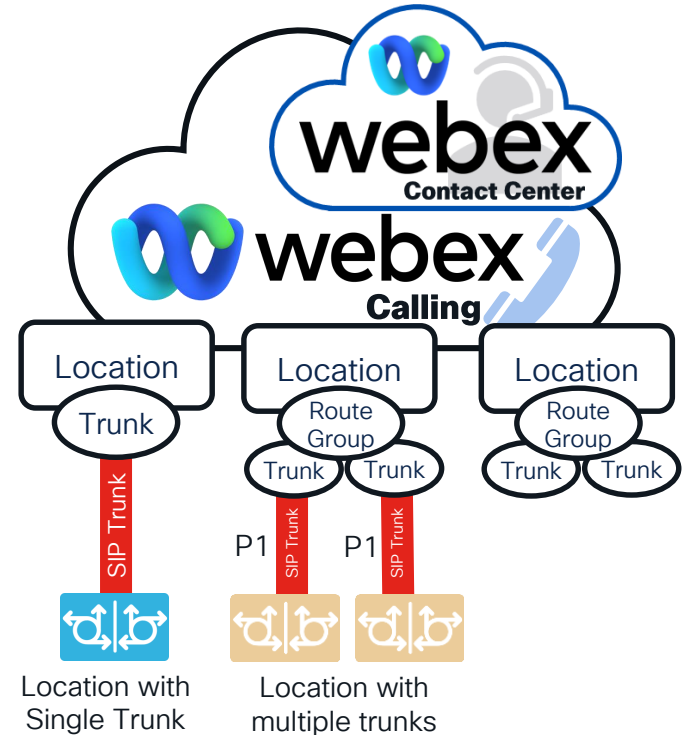
- **Certificate based Trunks**



- Support up to 6500 calls based on deployment model
- Supports CUBE & 3rd party SBCs including Oracle, Audiocodes, Ribbon, anynode
- Must be signed by supported root certificate authority

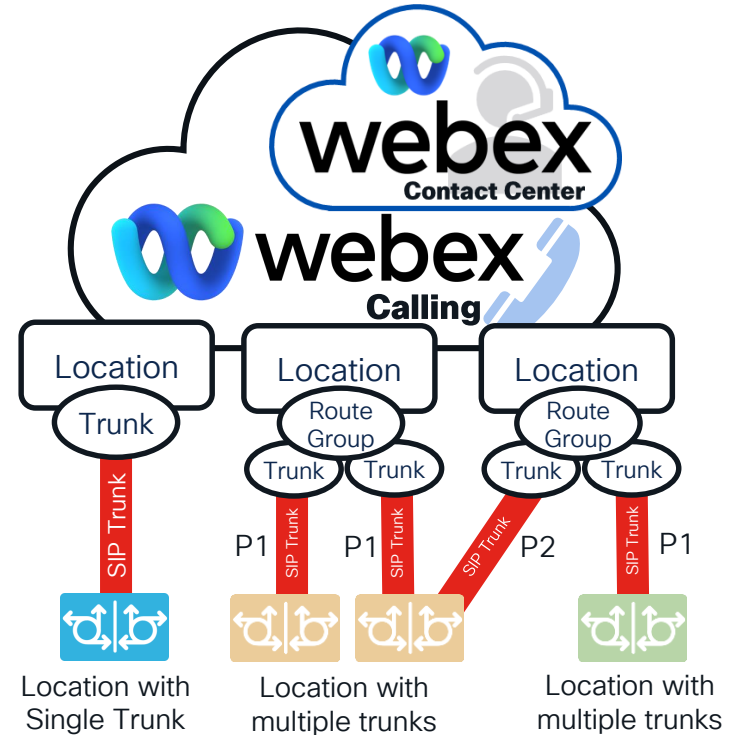
Understanding **Trunks** and **Routing groups**

- A Route Group is a group of trunks that allow Webex Calling to distribute calls over multiple trunks or to provide redundancy
- Trunks are given a priority within the group.

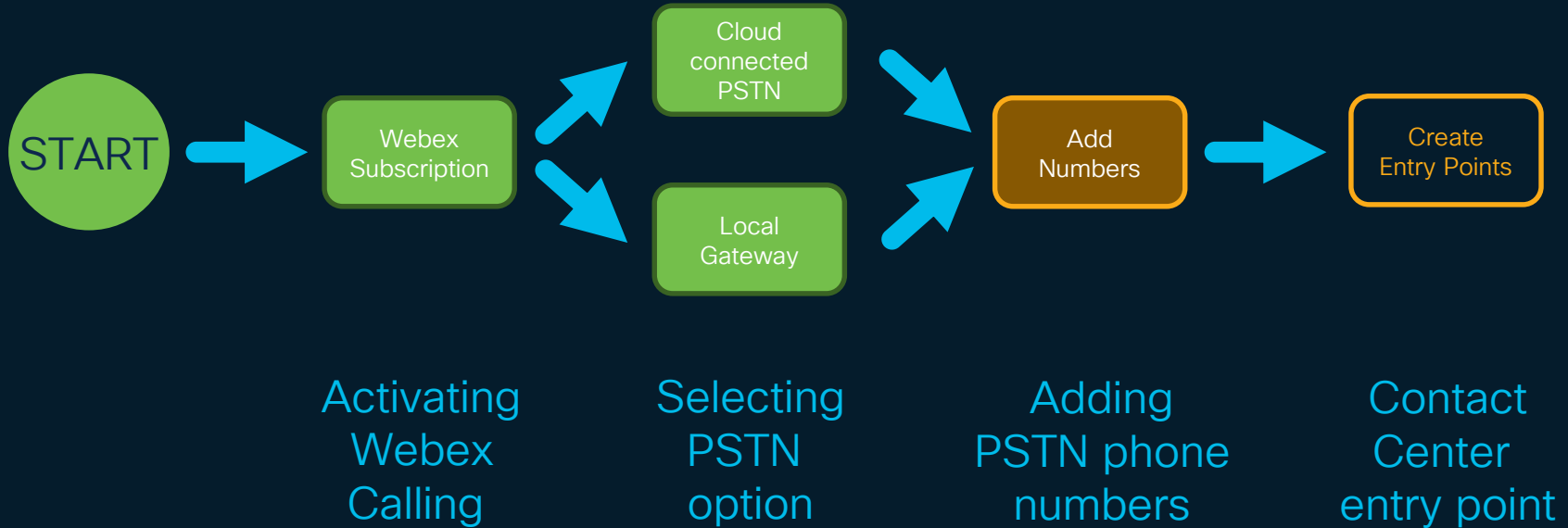


Understanding **Trunks** and **Routing groups**

- A Route Group is a group of trunks that allow Webex Calling to distribute calls over multiple trunks or to provide redundancy
- Trunks are given a priority within the group.
- Route Groups can contain trunks from multiple locations
- *Cisco recommend using a trunk group for all locations*



Deploying Webex Calling Common Edge services

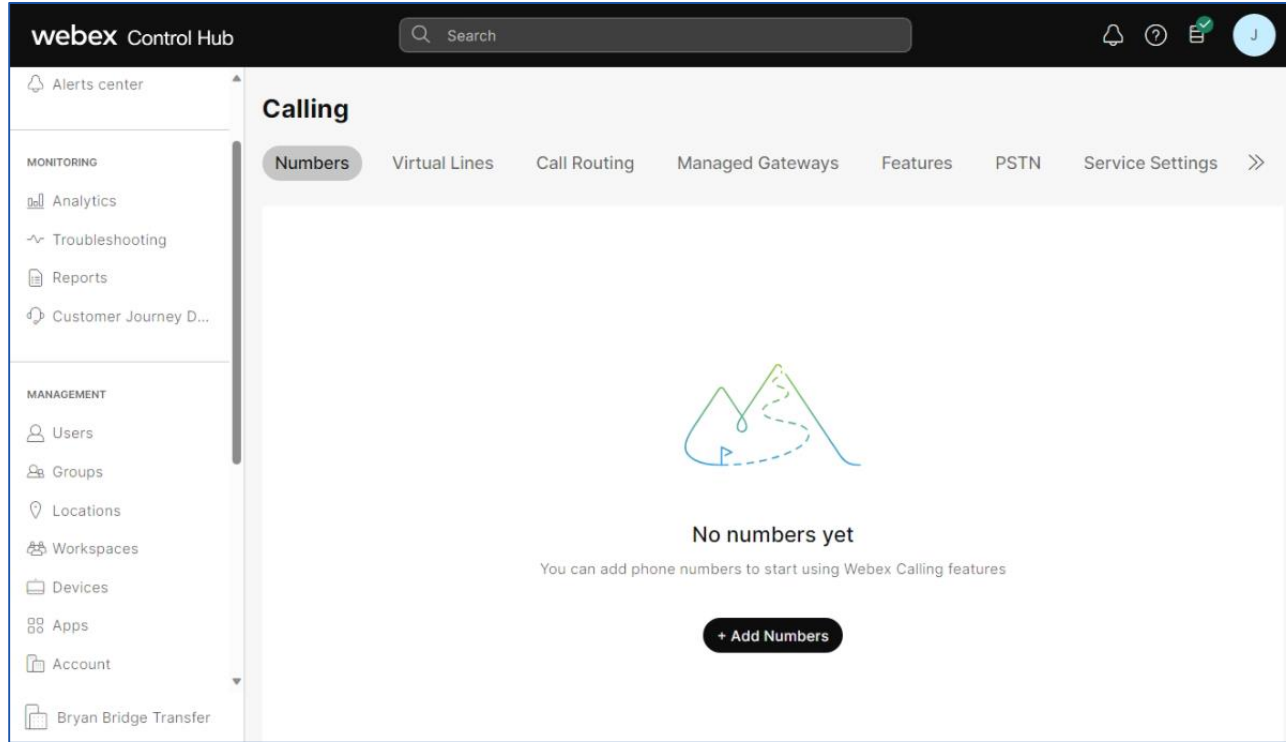


Adding External **Telephone Numbers**



- External Telephone numbers must be added to Webex Calling that can be mapped to Contact Center flows
- Method used is dependent on PSTN type (Cloud / Local Gateway)
- When entered manually numbers are validated

Adding Numbers in Webex Calling



The admin experience depends on the PSTN service in use

Adding numbers on fully integrated CCP/Plans

Add Numbers (seattle) X

Select a Location

Select Numbers

Done

Specify the numbers you want to order

What kind of numbers do you need?

Regular phone numbers

Individual numbers that can be assigned to users, devices, call features, etc.

Toll-free numbers

Non-local numbers that don't charge the caller.

What area should these numbers be from?

We'll find you numbers in the area code or city of your choice. If you don't find the area code/city you are looking for, you can [open a Cisco Calling Plans support case](#) for more options.

Country

United States of America

State/Province/Region

Washington

Search by

Area Code

Selected Numbers

Clear All



You haven't added any numbers.
Search and click the displayed numbers to add them here.

Back

Order

CISCO Live!

#CiscoLive

BRKCCT-2723

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57

Adding numbers on fully integrated CCP/Plans

Add Numbers (seattle) X

Select a Location

Select Numbers

Done

Specify the number

What kind of numbers do you want to add?

Regular phone numbers

Individual numbers that can be used for users, devices, call features, and more.

What area should these numbers be in?

We'll find you numbers in the area code/city you are looking for more options.

Country

United States of America

State/Province/Region

Washington

Search by

Add Numbers (seattle) X

Select a Location

Select Numbers

Done

Specify the numbers you want to order

32 numbers found in **Washington** with city **Bellevue**.

Search again? Selected numbers will be saved in your cart.

(425) 500-1177

(425) 800-8662

(425) 800-8609

(425) 800-8802

(425) 800-8990

(425) 800-0764

(425) 800-8289

(425) 800-8511

(425) 500-1108

(425) 800-0574

(425) 800-0635

(425) 800-0484

(425) 800-0501

(425) 800-8563

(425) 800-8390

(425) 800-8915

(425) 800-0393

(425) 800-8856

(425) 800-0543

(425) 800-8955

(425) 800-8356

(425) 800-8320

(425) 800-8583

(425) 800-8630

(425) 800-0979

(425) 800-8672

(425) 800-8926

(425) 800-8530

Selected Numbers

Clear All

Reserved (2) Clear

(425) 500-1177 X

(425) 800-8662 X

Back

Order

Adding numbers on fully integrated CCP/Plans

Add Numbers (seattle)

Select a Location Select Numbers Done

Specify the number

What kind of numbers do you want?

Regular phone numbers
Individual numbers that can be used for users, devices, call features, and more.

What area should these numbers be in?
We'll find you numbers in the area code/city you are looking for more options.

Country
United States of America

State/Province/Region
Washington

Search by

32 numbers found in Washington
Search again? Selected numbers

- (425) 500-1177
- (425) 800-8990
- (425) 500-1108
- (425) 800-0501
- (425) 800-0393
- (425) 800-8356
- (425) 800-0979

webex Control Hub

Calling

Numbers Virtual Lines Call Routing Managed Gateways Features PSTN Service Settings >>

Search All 2 All Locations 2 Numbers Manage

Phone Number	Extension	Location	Assigned to	Status	Actions
+441134970000		Brackley		Active	...
+441134970001		Brackley		Active	...

MONITORING

- Analytics
- Troubleshooting
- Reports
- Customer Journey D...

MANAGEMENT

- Users
- Groups
- Locations
- Workspaces
- Devices
- Apps
- Account
- Bryan Bridge Transfer

Adding numbers from other CCP/LGW Trunks

Add Numbers (Brackley) X

Select a Location

Select Numbers

Done

Enter numbers you want to add

Input your numbers, with area codes, to add them to this location.
Country codes, plus signs, dashes, and parentheses are optional.
Valid examples: 4507832223, (450) 783-2223, 450-783-2223, +1-450-783-2223

Activate Numbers Later ⓘ

X

0113 497 0000 X

0113 497 0001 X

Enter phone numbers separated by commas

2/1000 Phone numbers

Clear All

Back

Save

Adding numbers from other CCP/LGW Trunks

The screenshot displays the Cisco Webex Control Hub interface. At the top, a blue banner reads 'Add Numbers (Brackley)' with a close button. Below this, a progress bar shows three steps: 'Select a Location' (completed), 'Select Numbers' (current step), and 'Done'. On the left, a sidebar contains navigation links: 'Return to Partner Hub', 'Overview', 'Alerts center', 'MONITORING' (Analytics, Troubleshooting, Reports, Customer Journey D...), and 'MANAGEMENT' (Users, Groups, Locations, Workspaces, Devices, Apps, Account, Bryan Bridge Transfer). The main content area is titled 'Calling' and includes tabs for 'Numbers', 'Virtual Lines', 'Call Routing', 'Managed Gateways', 'Features', 'PSTN', and 'Service Settings'. The 'Numbers' tab is active, showing a search bar, a filter set to 'All 2', a location dropdown set to 'All Locations', and a count of '2 Numbers'. A 'Manage' button is visible. Below this, a table lists the added numbers:

Phone Number	Extension	Location	Assigned to	Status	Actions
☐ +441134970000		Brackley		Active	...
☐ +441134970001		Brackley		Active	...

Adding numbers from other CCP/LGW Trunks

The screenshot displays the Cisco Webex Control Hub interface. At the top, a blue banner reads "Add Numbers (Brackley)". Below this, a progress bar shows three steps: "Select a Location", "Select Numbers", and "Done". The "Select Numbers" step is currently active.

On the left, a sidebar titled "Enter number" provides instructions: "Input your numbers, with country codes, plus sign. Valid examples: 450781". It includes a search bar with "0113 497 0000" and a button "Enter phone number". Below this, it says "2/1000 Phone numbers".

The main content area is titled "Calling" and features a navigation menu with options: "Numbers", "Virtual Lines", "Call Routing", "Managed Gateways", "Features", "PSTN", "Service Settings", and ">>". The "Numbers" tab is selected.

Below the navigation menu, there is a search bar and a filter dropdown set to "All 2". A table lists the numbers:

Phone Number	Extension	Location	Assigned to	Status	Actions
+441134970000		Brackley		Active	...
+441134970001		Brackley		Active	...

At the bottom of the sidebar, there is a "MANAGEMENT" section with links to "Users", "Groups", "Locations", "Workspaces", "Devices", "Apps", "Account", and "Bryan Bridge Transfer".

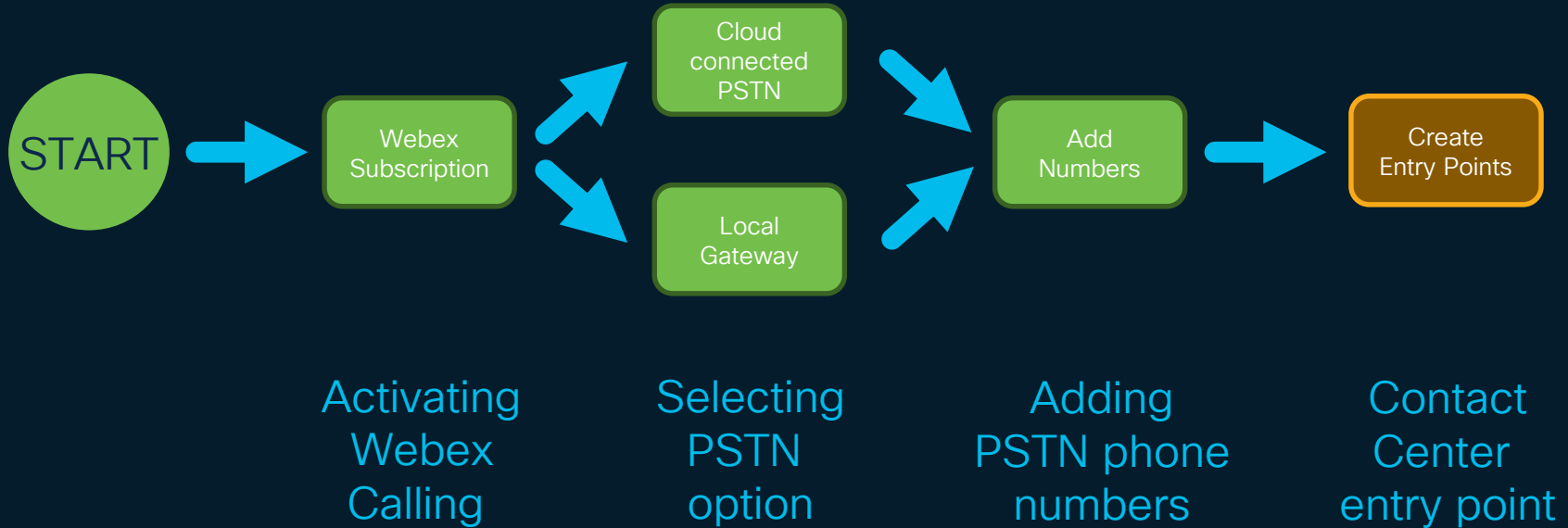
Telephone numbers are managed Control Hub

The screenshot displays the Cisco Webex Control Hub interface. The left sidebar shows the navigation menu with 'Calling' selected. The main content area is titled 'Calling' and features a 'Numbers' tab. Below the tab, there is a search bar, a filter for 'All 12' numbers, and a dropdown for 'All Locations'. A table lists 12 telephone numbers with their respective extensions, locations, and assigned users. The status of each number is indicated by a green dot and the word 'Active', except for two which are marked as 'Not Applicable'.

Phone Number	Extension	Location	Assigned to	Status	Actions
+1408555...		CiscoLive		Active	...
+17022...		Las Vegas Hotel		Active	...
+170255...		CiscoLive		Active	...
+170255...		CiscoLive		Active	...
+170255...		CiscoLive		Active	...
+17252...	910	Las Vegas Hotel	Desk1	Active	...
+17252...	810	Las Vegas Hotel	Desk2	Active	...
+17252...		Las Vegas Hotel		Active	...
+441156...		UK	Contact Center RTMS	Active	...
+441156...		UK		Active	...
	3000	CiscoLive	Kelly Knowledge	Not Applicable	...
	4000	CiscoLive	Bryan Admin	Not Applicable	...

- Numbers are displayed in the Numbers view

Deploying Webex Calling Common Edge services

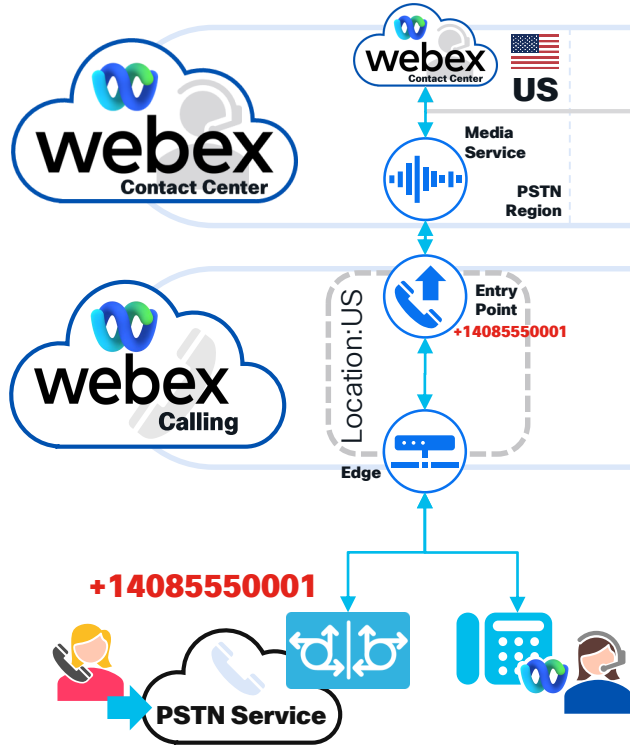


Creating Contact Center **Entry Points**



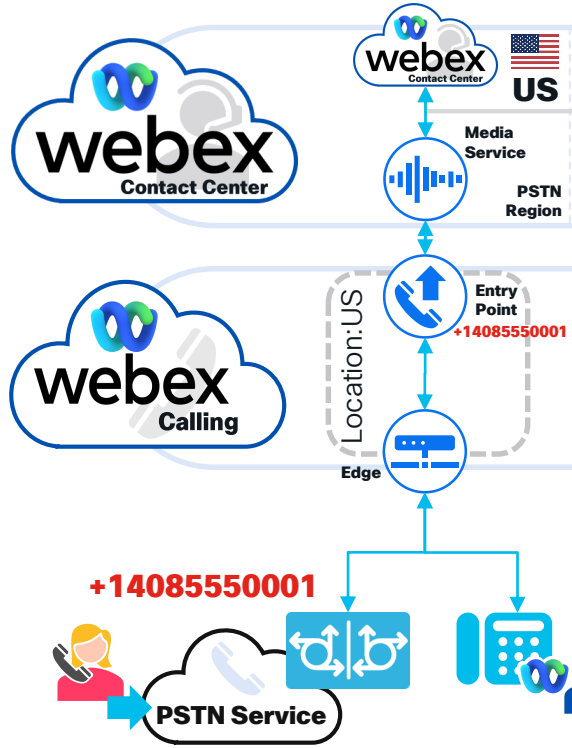
- An Entry Point associates an inbound number with a contact center flow

Configuring Entry Points



- **Webex Contact Center administrator will create entry points for each flow in control hub**
 - Create the entry point
 - Select the Webex Calling location containing the inbound number
 - Select the number
 - Choose a “PSTN Region” for media processing

Configuring Entry Points



CISCO Live!

- **Admin selects the interaction flow that will be assigned to this entry**

The screenshot shows the Webex Control Hub interface. The left sidebar contains the following menu items: Main Menu, Channels, Contact Center, Overview, CUSTOMER EXPERIENCE, Queues, Business Hours, Audio Prompts, Flows, Call Recording Schedules, Surveys, USER MANAGEMENT, Sites, Skill Definitions, Skill Profiles, Teams, User Profiles, and Contact Center Users. The main content area displays the configuration for the 'CiscoLive_Voice1' entry point. The entry point is active and has the ID 637ce321-8430-4692-9723-889f4b6af4df. The last modified date is May 12, 2024 16:12 PM. The configuration fields are as follows:

Field	Value
Entry Point	CiscoLive_Voice1
Description	Cisco Live Voice1
Channel Type *	Inbound Telephony
Referenced by	There are no references available.
Service Level Threshold *	60 Seconds
Timezone (Business Hours only) *	America/New_York
Routing Flow	CiscoLive_Flow
Version Label	Latest

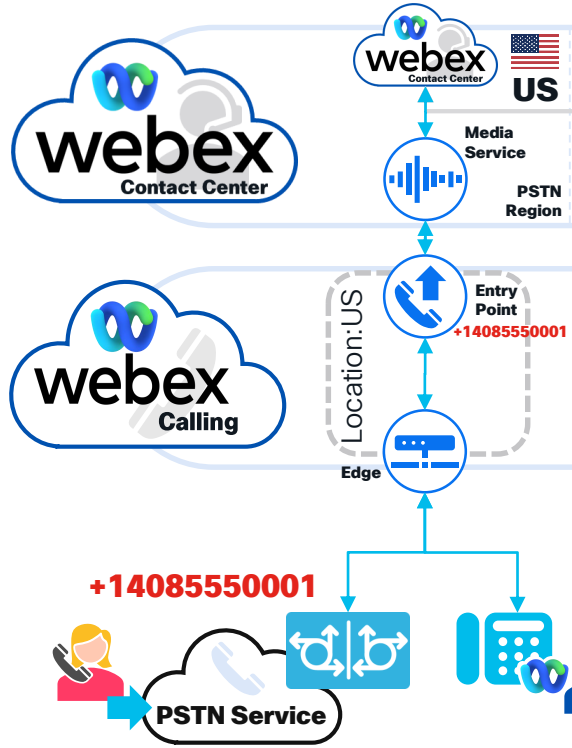
CISCO *Live!*



- CISCO** *Live!*

CISCO *Live!*

Configuring Entry Points



CISCO *Live!*

- **Admin selects Webex Calling location that the Entry point will exist in....**

USER MANAGEMENT
Sites
Skill Definitions
Skill Profiles
Teams
User Profiles
Contact Center Users

DESKTOP EXPERIENCE
Multimedia Profiles
Outdial ANI
Desktop Layouts
Dial Plans
Address Books
Desktop Profiles
Idle/Wrap-up Codes

TENANT SETTINGS
General

Global Live Values
All attributes are set to their default values. Last modified: May 19, 2024 10:53 AM

Referenced by
There are no references available.
Reference list

Entry Point Settings

Service Level Threshold [⊙] * 60 Seconds

Timezone (Business Hours only) * America/New_York

CiscoLive_Flow

Latest

defaultmusic_on_h...

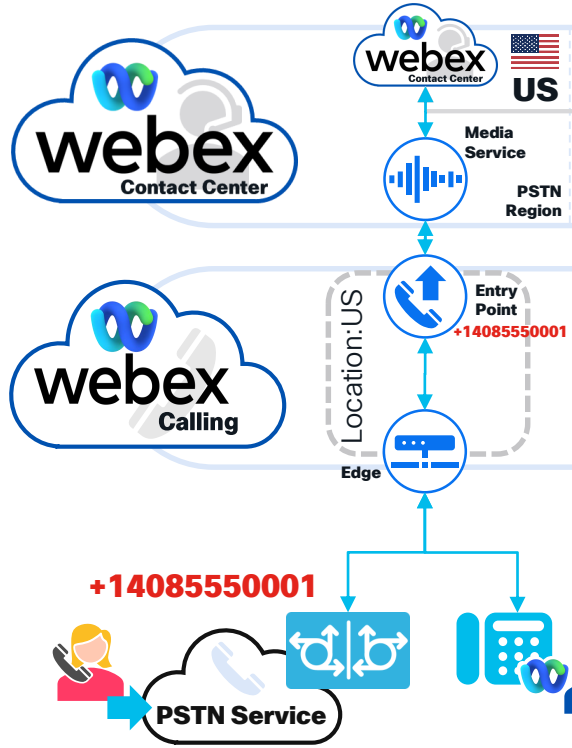
Support Number

Your customers will use this number to contact your Contact Center. You can pick more than one number from the list of numbers available

Number	Support Number	PSTN Region	Actions
1	CiscoLive	Default	✓ ✕

Please fill all the fields and proceed for adding next entry.

Configuring Entry Points

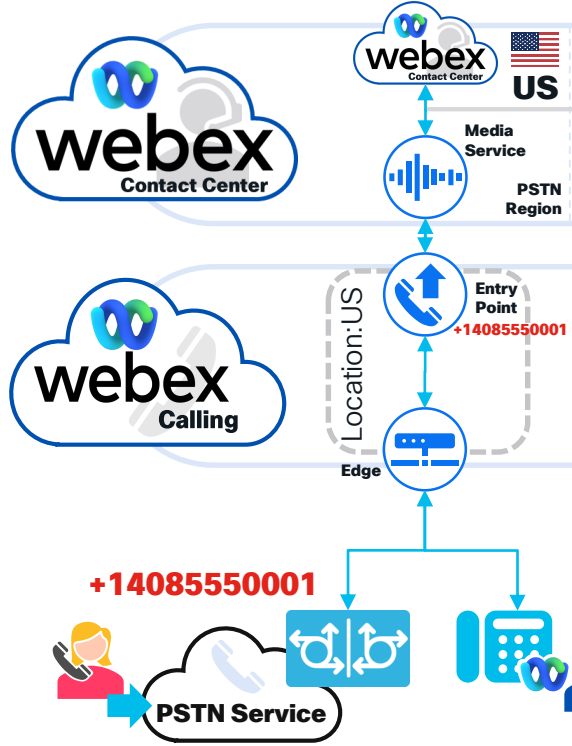


CISCO *Live!*

- **Control Hub will show the available numbers in that location (not allocated to phones or Entry points)**

The screenshot shows the Cisco Control Hub interface. On the left is a navigation menu with sections: USER MANAGEMENT (Sites, Skill Definitions, Skill Profiles, Teams, User Profiles, Contact Center Users), DESKTOP EXPERIENCE (Multimedia Profiles, Outdial ANI, Desktop Layouts, Dial Plans, Address Books, Desktop Profiles, Idle/Wrap-up Codes), and TENANT SETTINGS (General). The main content area is titled 'Entry Point Settings' and includes a 'Service Level Threshold' of 60 seconds, 'Timezone (Business Hours only)' set to America/New_York, 'Routing Flow' set to CiscoLive_Flow, 'Version Label' set to Latest, and 'Music on Hold' set to defaultmusic_on_h... Below this is a 'Support Number' section. A red box highlights a dropdown menu showing a list of available numbers: +14085556969, +17025552000, and +17025553000. The 'PSTN Region' is set to Default. At the bottom, there is an 'Add' button and a note: 'Please fill all the fields and proceed for adding next entry.'

Configuring Entry Points



CISCO *Live!*

- **Admin selects the WxCC PSTN region that this entry point will operate in.**
(Default = Home Region)



USER MANAGEMENT

- Sites
- Skill Definitions
- Skill Profiles
- Teams
- User Profiles
- Contact Center Users

DESKTOP EXPERIENCE

- Multimedia Profiles
- Outdial ANI
- Desktop Layouts
- Dial Plans
- Address Books
- Desktop Profiles
- Idle/Wrap-up Codes

TENANT SETTINGS

- General

Entry Point Settings

Service Level Threshold * 60 Seconds

Timezone (Business Hours only) * America/New_York

Routing Flow CiscoLive_Flow

Version Label Latest

Music on Hold defaultmusic_on_h...

Support Number

Your customers will use these numbers to reach your Contact Center. You can pick more than one and already set up in Webex Calling services.

Number	Webex Calling location	Support Number
1	CiscoLive	Select

Please fill all the fields and proceed for adding next entry.

Search

- Default
- Australia
- Canada
- Germany
- India
- Japan
- Singapore
- United Arab Emi...
- Default

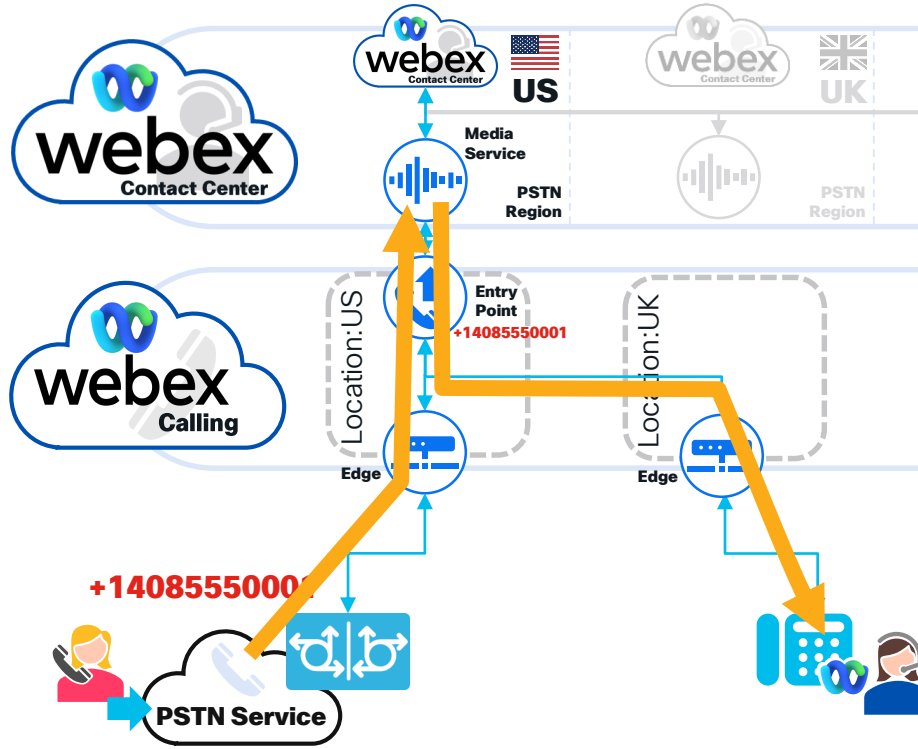
Actions

✓ ✕

The diagram illustrates the PSTN Service integration with Webex. It shows a PSTN Service cloud at the bottom left, connected via orange arrows to a blue 'Edge' node. From the 'Edge' node, a vertical path of blue nodes goes up through an 'Entry Point' (labeled +14085550001) to a 'Media Service' node, and finally to a 'webex Contact Center' cloud at the top right (labeled US). A dashed box labeled 'Location: US' encloses the Edge, Entry Point, and Media Service nodes. The diagram also features 'webex Calling' and 'webex Contact Center' clouds on the left side.

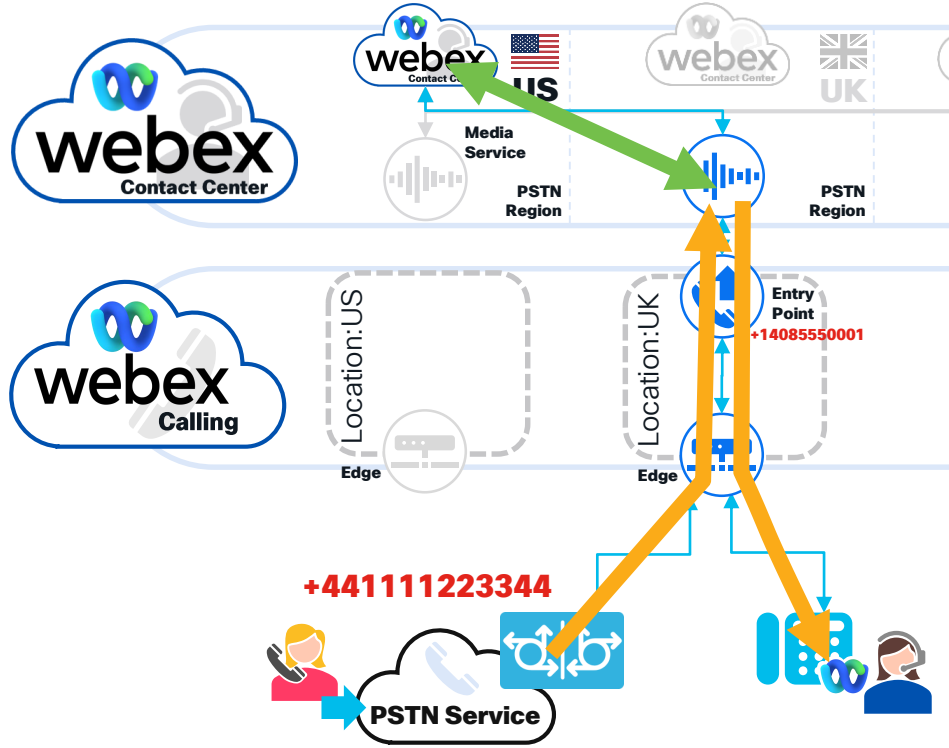
CISCO *Live!*

Configuring Entry Points

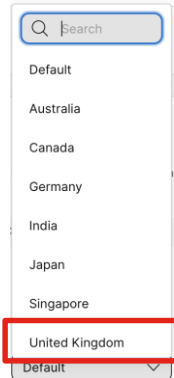


- **The Webex Contact Center agent doesn't need to be in same location**
- The agent just needs to be reachable in the Webex Calling dialplan (this could be an external endpoint)

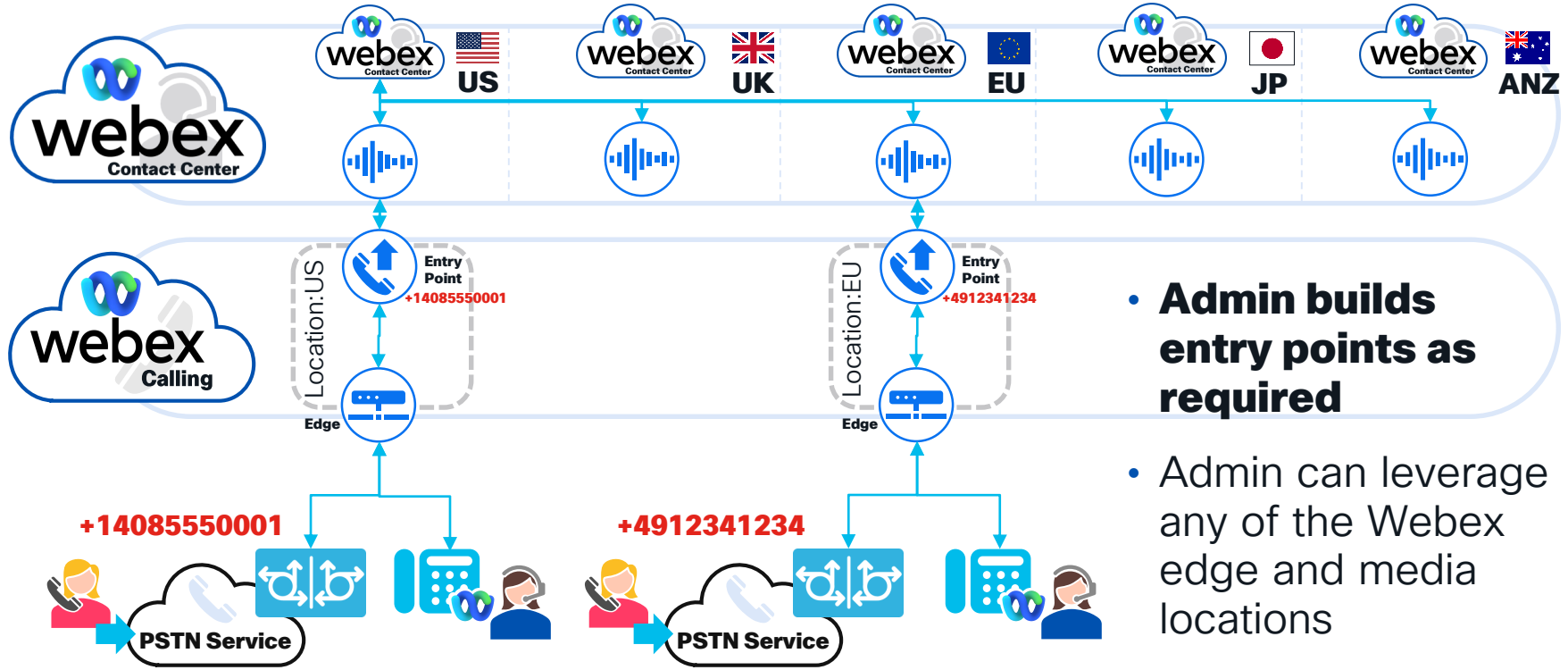
Configuring Entry Points



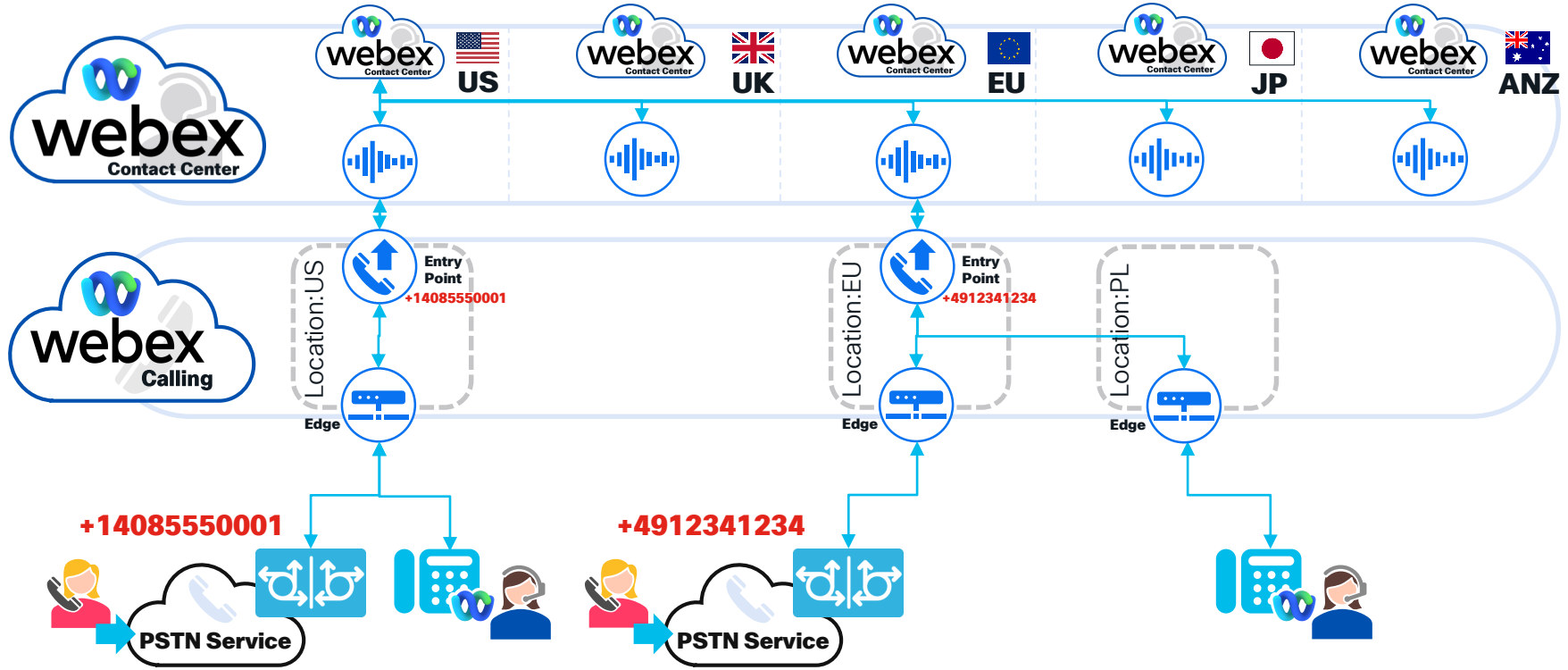
- **The PSTN region can be selected based on the most logical location**
- PSTN region could be in Europe if agents are fielding global calls



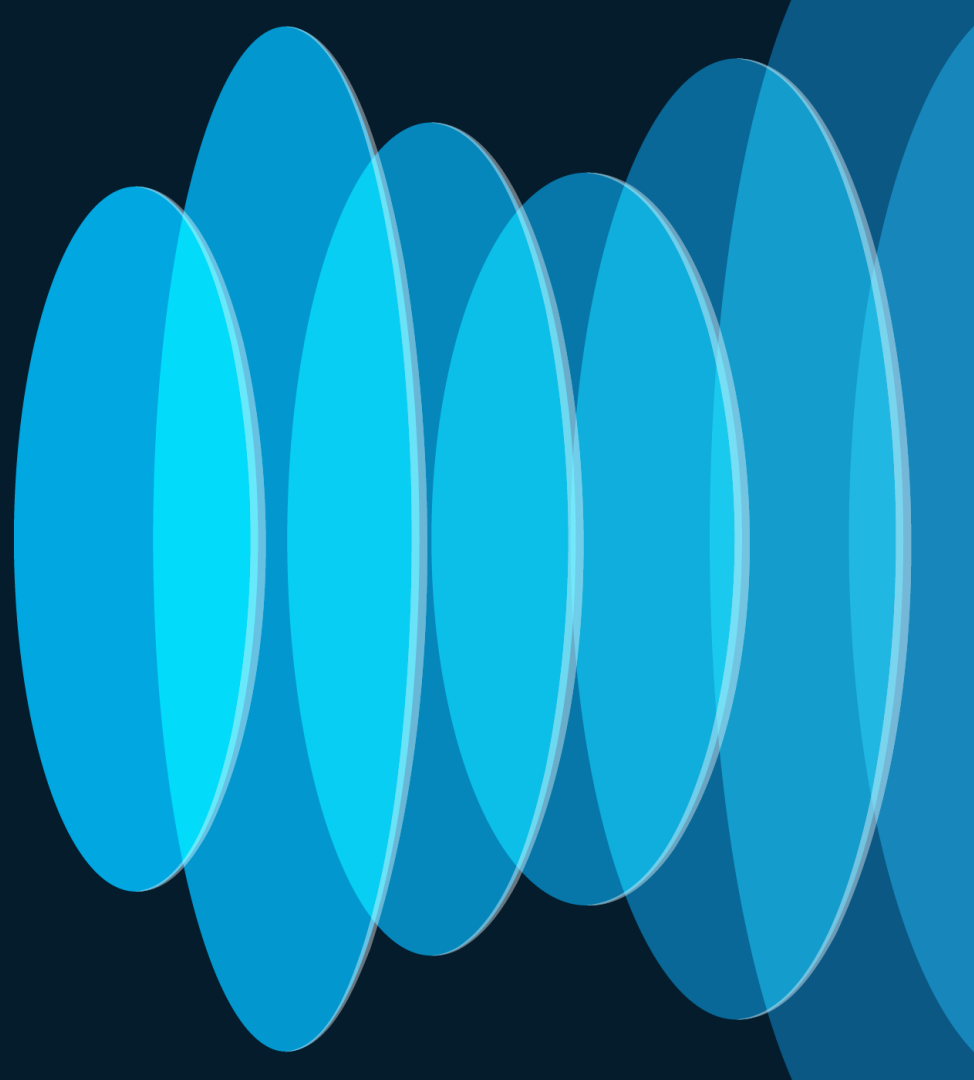
Configuring Entry Points



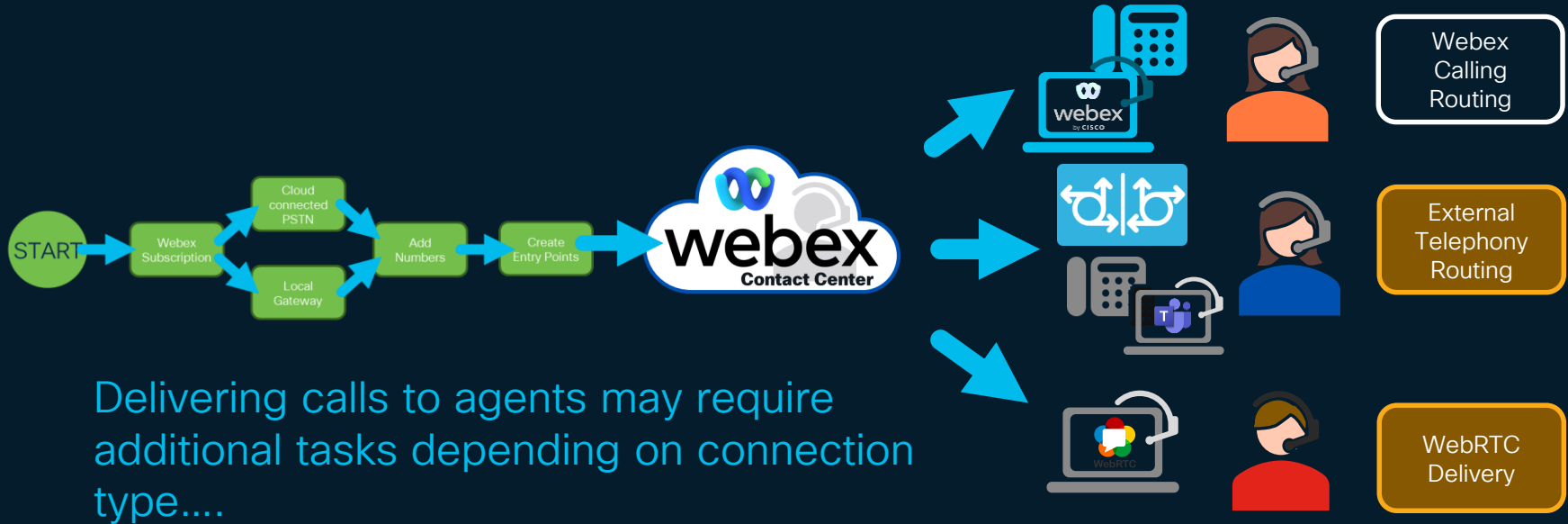
Configuring Entry Points

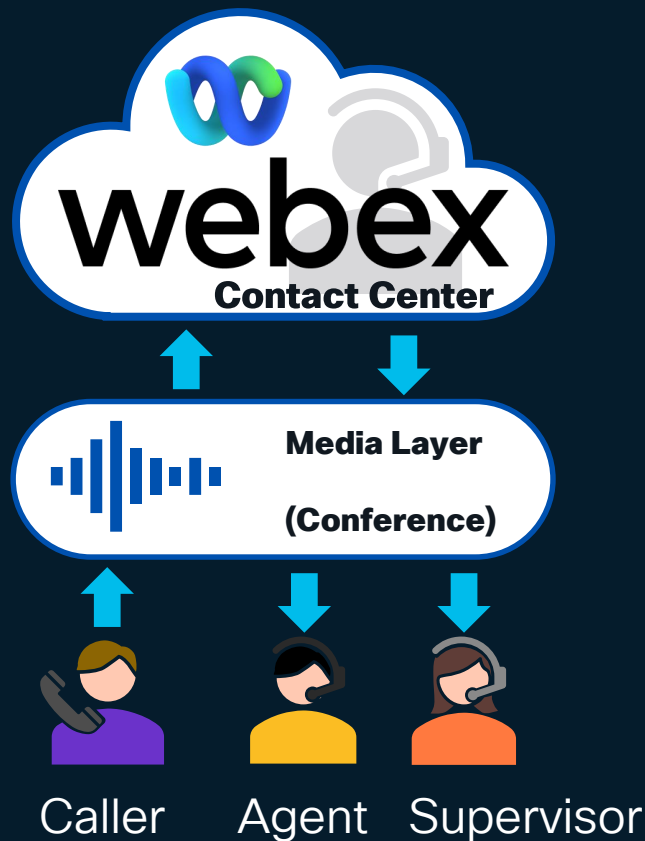


Connecting Contact Center Agents



Delivering a call to Webex Contact Center agent





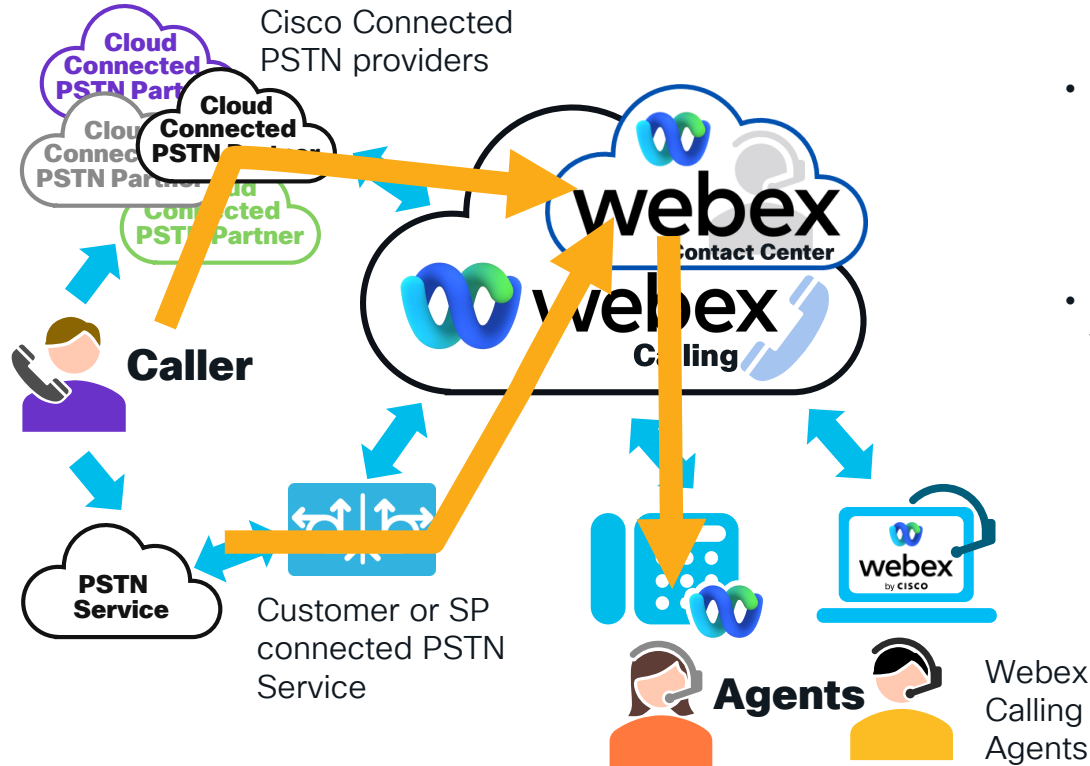
Webex

Webex Contact Center will extend agent legs out to calling/WebRTC destinations

- Agent destination is the routable number the agent logged in with...
 - Webex Calling number
 - External telephony number
 - PSTN telephone number

Note: Call operations like transfer take place in the cloud

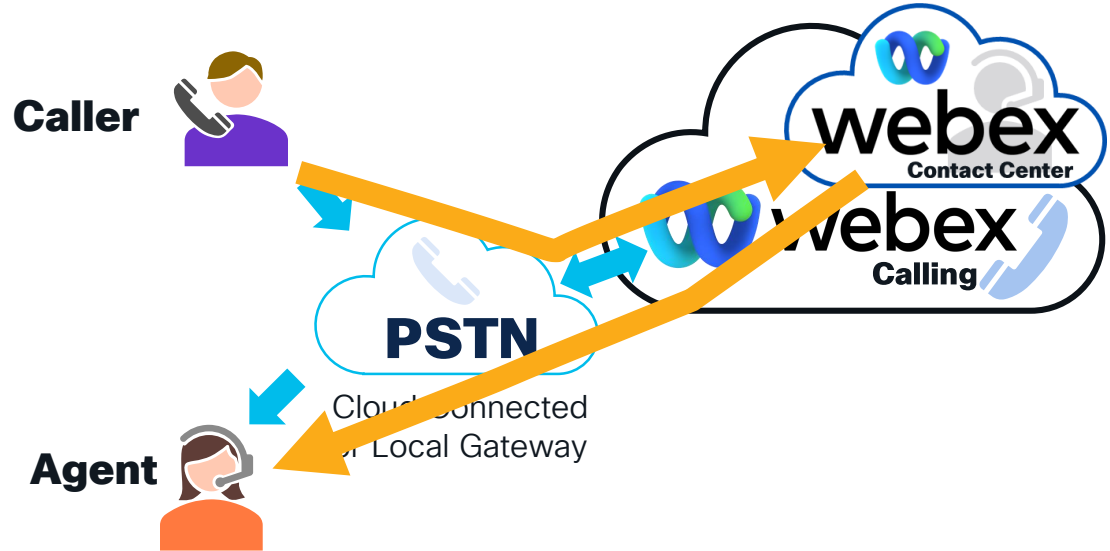
Routing a call to Webex Calling Agent



- Contact Center routes call from Media Service (based on PSTN region)
- Destination resolved in Webex Calling dial-plan and delivered to agent

Routing a call to a PSTN based agent

- Contact Center routes call from Media Service (based on PSTN region)
- Call routed via PSTN connection for Webex Calling location



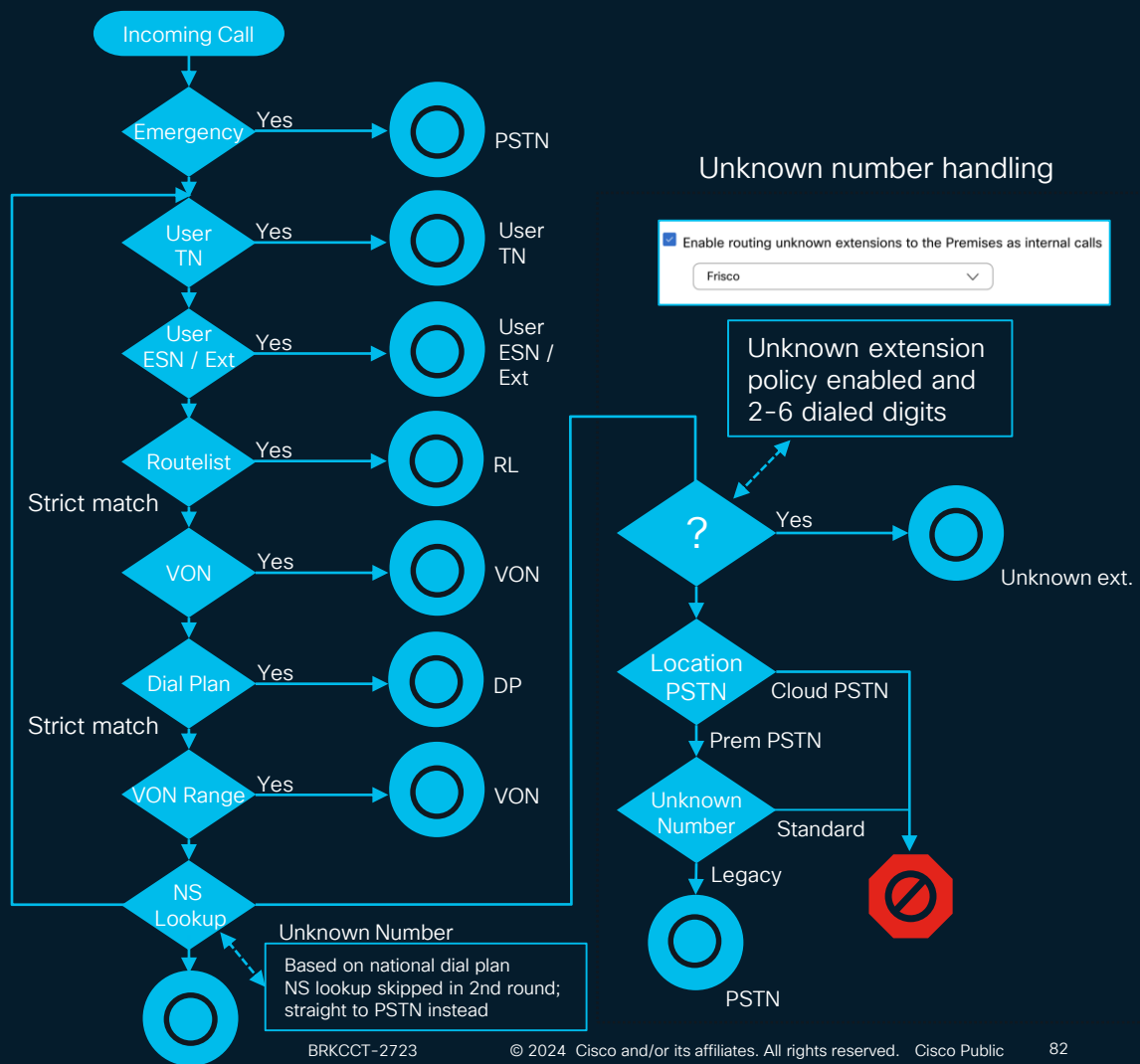
Routing overview

Webex Calling uses routing logic to decide how to route a call

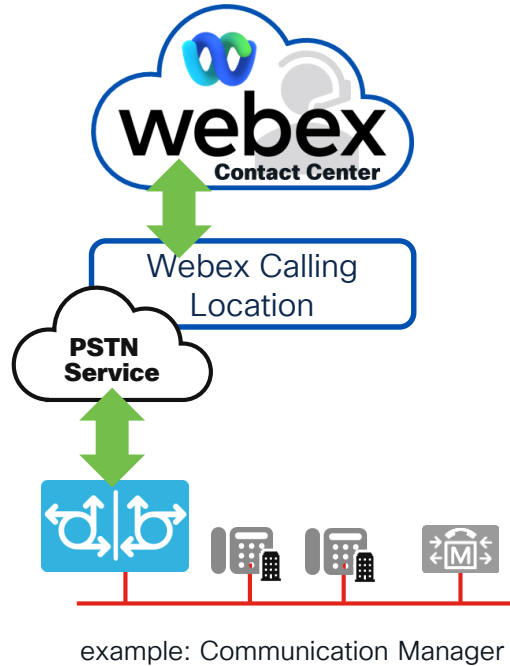


Understanding Webex Calling Routing Strategy will help you deploy PSTN services....

CISCO *Live!*

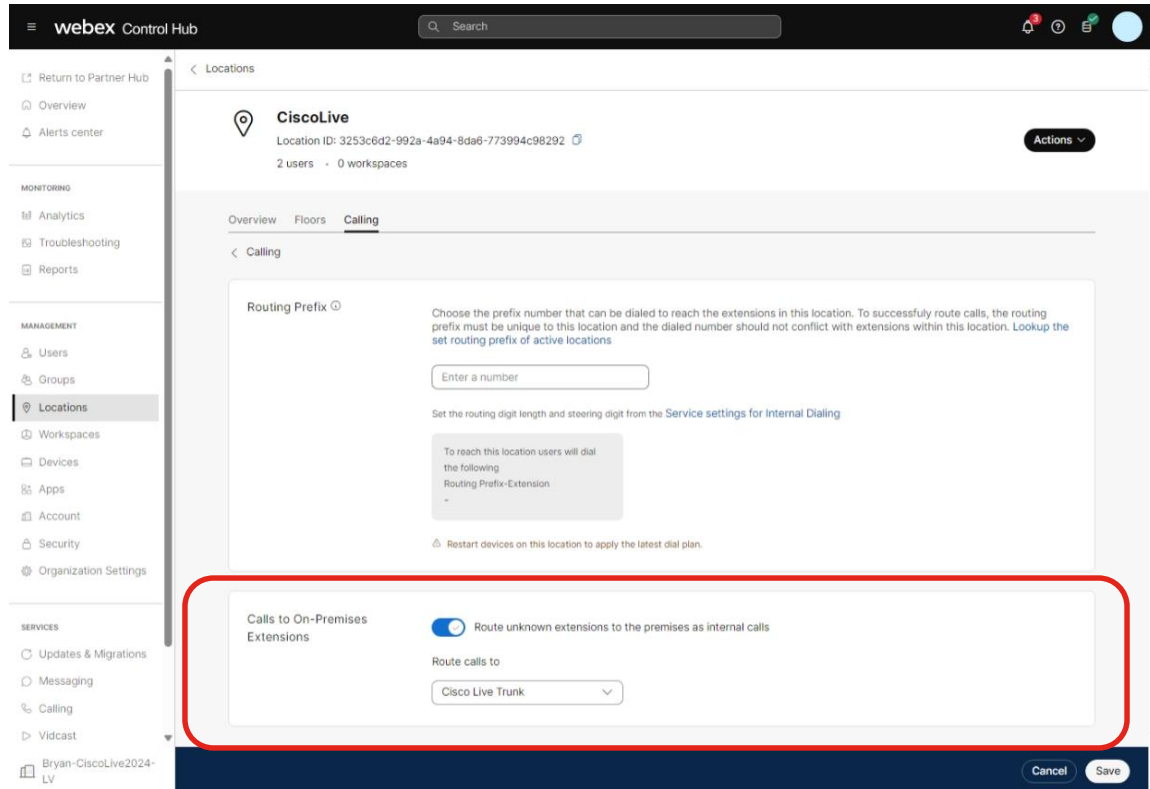


Routing a call to an external or on premise telephony environment



- Contact center routes call from Media Service (based on PSTN region)
- Call routed via local gateway to telephony environment
- Calls can be routed to on-premise location either
 - On-Premise extension routing (short tn)
 - Dial Plan rule (full E.164)

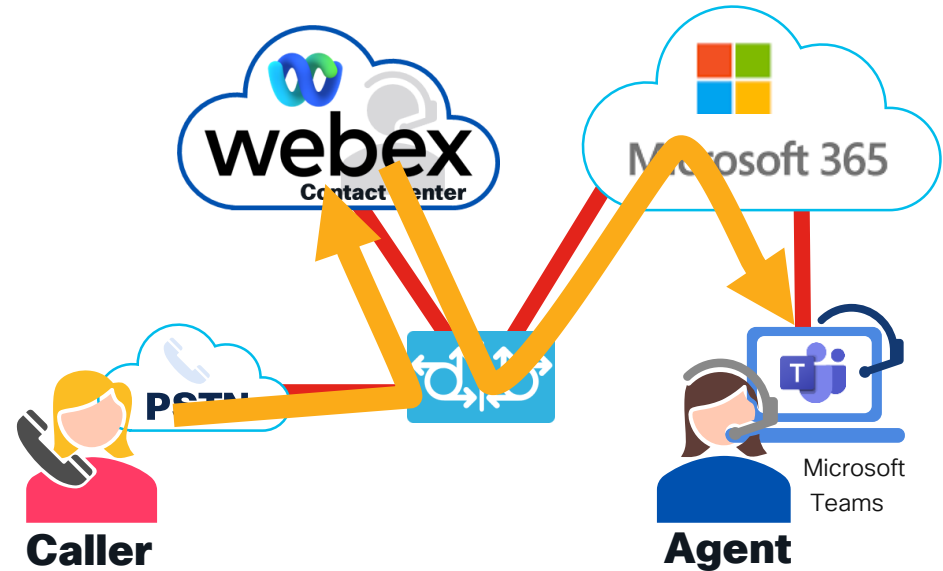
Routing to On-Premise extensions



- Calls can be routed using the “Calls to On-Premises option”
- More complex routing can use dial plan entry (Take care with dial plan)

What about routing to Microsoft Teams?

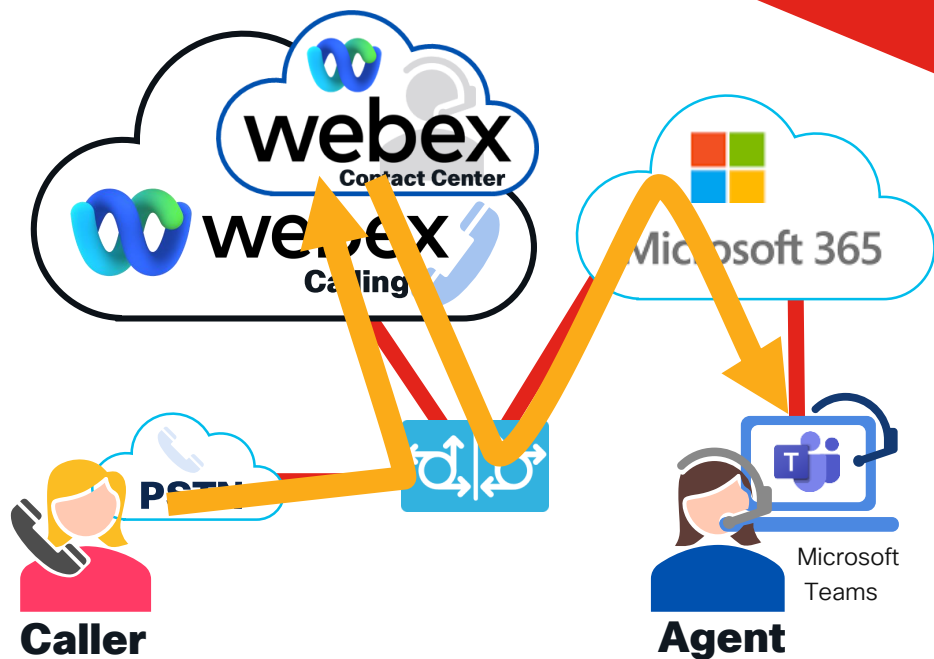
- Webex Contact Center can be integrated with **Microsoft Teams**
- Today the solution is supported in VPOP model only
- Webex plan to make this model available with Webex Calling shortly...



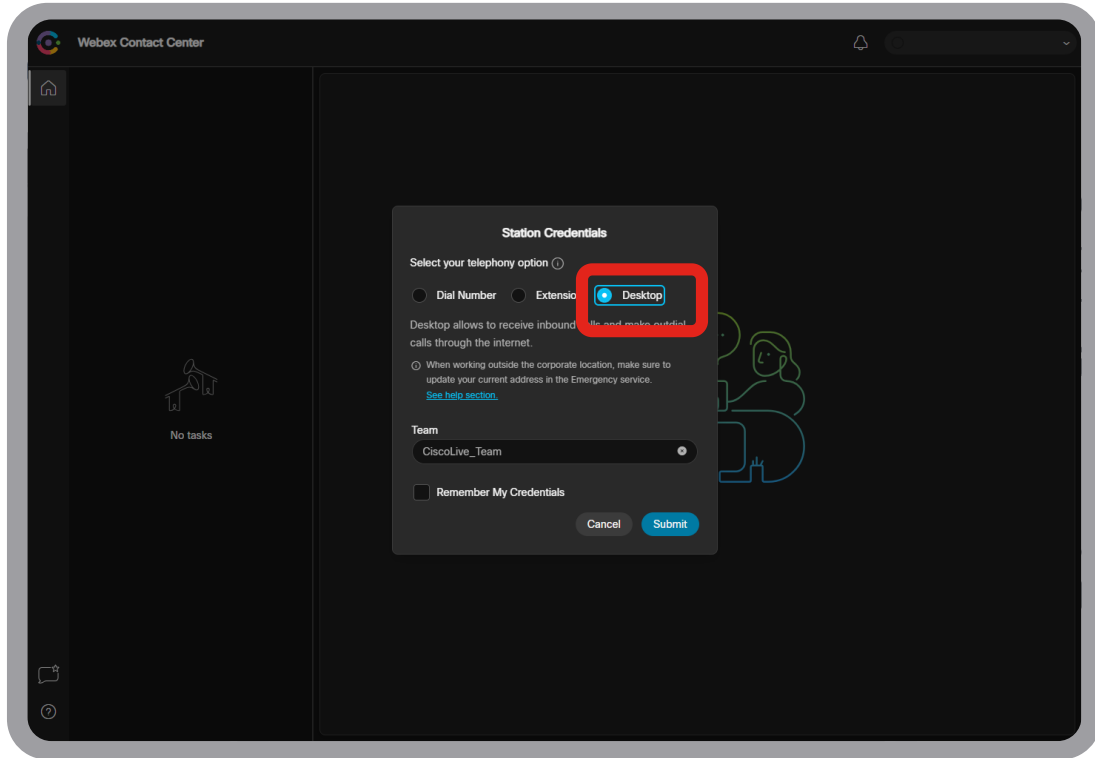
Cisco CUBE SBC with trunks to Webex Contact Center VPOP and direct routing trunk to Microsoft

Microsoft Teams

- Webex Contact Center can be integrated with Microsoft Teams
- Today solution is supported in VPOP model only
- Webex plan to make this model available with Webex Calling shortly...

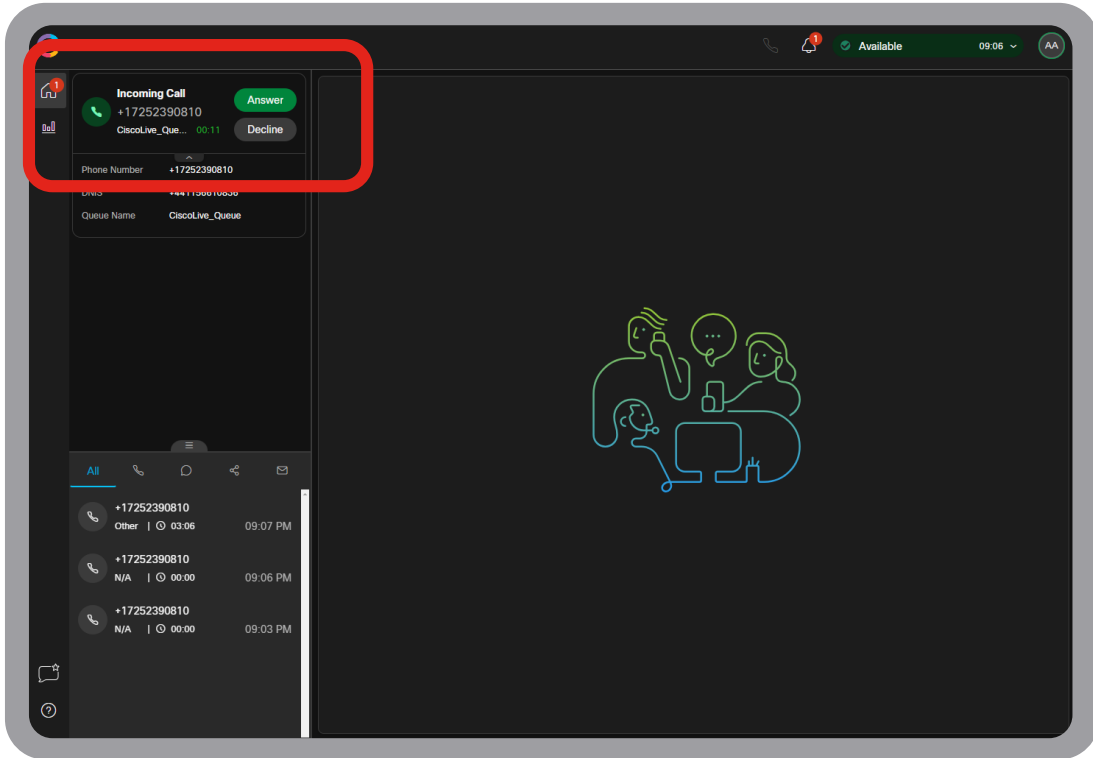


WebRTC based agents



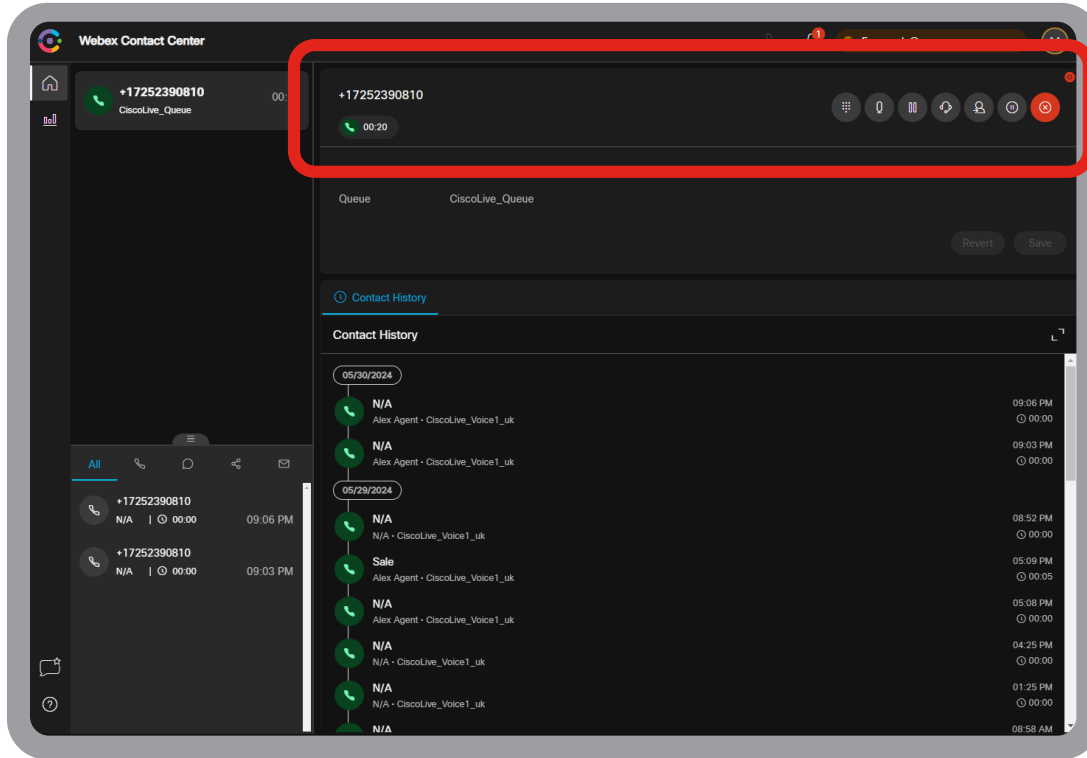
- WebRTC allows you to terminate call media directly in Google Chrome browser
- If enabled agent will have “Desktop” station credentials option.

WebRTC based agents



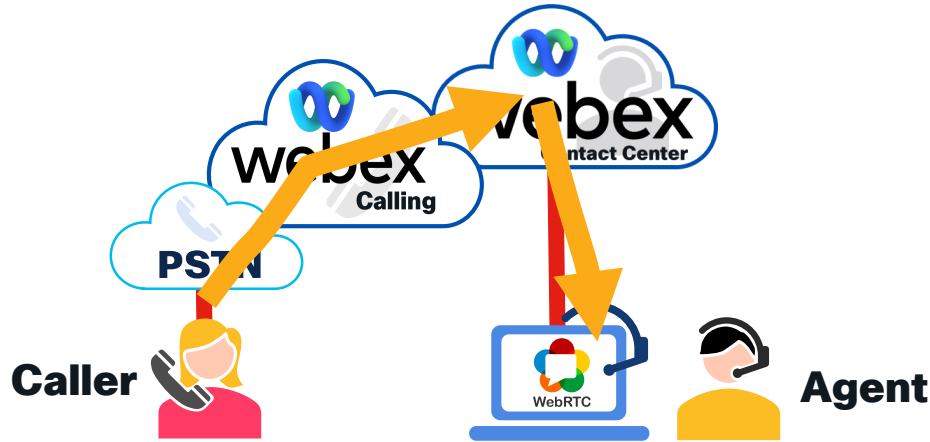
- Agent will get call alerts in the browser (plus notification if enabled)

WebRTC based agents

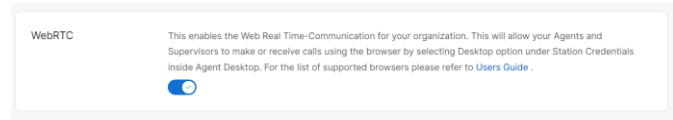


- WebRTC media controls exposed directly in browser

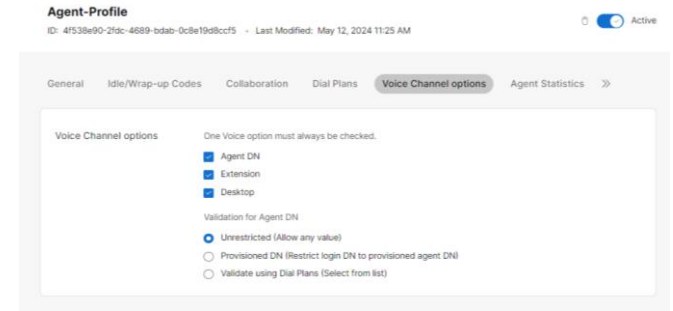
WebRTC Setup



- WebRTC is a direct connection to contact center, no calling license consumed as WebRTC doesn't have a Webex Calling extension



- WebRTC is enabled at a tenant level in tenant settings



- WebRTC is enabled using the “Desktop” option in the desktop profiles for agents.
- Agent license includes E911 license in Webex Calling. If using in the US/Canada you must configured E911 and location and install the E911 tool.

Summary

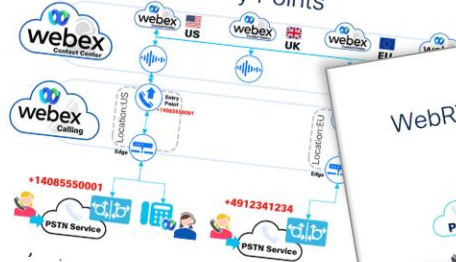
Webex Contact Center is a **cloud-based** enterprise Contact Center solution.

Webex Calling Customer Example



- Webex Contact center Webex Calling
- Previously required Webex Calling subscription
- Multiple PSTN options
- Cloud connected
- Local Gateway

Understanding Entry Points



Classic Webex Contact Center Connection Options....

- VPOP (Legacy Mode)
 - Provide SIP Trunk Integration
 - Support Customer/SP connection
 - No access to Cloud PSTN plans
- Webex Calling

Choose a PSTN option for your location



- Locations have a default PSTN connection for routing calls in
- Cisco

WebRTC Setup



- WebRTC is a direct connection to contact center, no calling license consumed as it doesn't have a Webex Calling extension

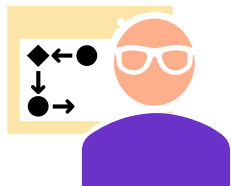
- WebRTC is enabled at a tenant level in tenant settings

- WebRTC is enabled using the "Desktop" option in the desktop profiles for agents.
- Agent license includes E911
- If using license in US/Canada you must configure E911 and location and install the E911 tool.

A quick recap.....

- Webex Contact Center
- Legacy PSTN Options
- Common Edge Services
- PSTN Options
- Entry points
- Agent Endpoints

Deploy your Webex Contact Center with Webex Common Edge services.....



For more information...

Set up voice channel for Webex Contact Center

Use this article to set up voice channel capabilities for Webex Contact Center.

Set up voice channel for Webex Contact Center

This article guides you through setting up voice channels for your Webex Contact Center. Ensure you have completed the initial setup of your Webex Contact Center tenant by following the instructions in the [Get Started with Webex Contact Center](#) article.

You must decide how you integrate PSTN services and agents to your Webex Contact Center.

A Webex Contact Center Tenant must be connected to the Public Switched Telephone Network (PSTN). A PSTN provider allows inbound and outbound calls to and from your Webex Contact Center customers.

You must provide voice connectivity for your agents to allow them to receive and make calls. The method used to connect your agents will be dependent on the type of endpoints they are using for voice services.

Choose the connectivity type

You must decide how you connect to Webex. You can choose between directly connecting to the Webex service or via the legacy VPOP service.

Connecting to Webex Contact Center via Webex Service

Webex operates a globally available media network that provides access to multiple services including Webex Calling, Contact Center and Meetings.

You can utilize this cloud connection to provide PSTN services and your agents can connect to the Webex service to manage calls.

This is the recommended method of integrating your telephony into the Webex cloud. Using this method provides a secure and reliable connection directly into the Webex infrastructure. It allows you to use self-service provisioning and configuration through Webex Control Hub.

Connecting to Webex Contact Center via VPOP (Legacy only)

This method is available to existing VPOP customers or when advised by the AG2 review team. To continue deploying using VPOP, see <https://help.webex.com/en-us/article/2dputx/Set-up-voice-channel-for-Webex-Contact-Center-Voice-Pop-Buyer-VPOP-Consider-Only>.

Support for Webex Calling-based Agents with VPOP/WACC PSTN

Cisco Preferred Architecture for Webex Calling

Design Overview

Aug 2022

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- **Voice Guide:**
<https://help.webex.com/en-us/article/2dputx/Set-up-voice-channel-for-Webex-Contact-Center>
- **WebRTC E911 info**
<https://help.webex.com/en-us/article/nvfbjts>
- **Preferred Architecture**
<https://www.cisco.com/c/dam/en/us/td/docs/solutions/CVD/Collaboration/hybrid/AltDesigns/PA-WbxCall.pdf>

Complete Your Session Evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to be entered in a drawing to **win 1 of 5 full conference passes** to Cisco Live 2025.



Earn 100 points per survey completed and compete on the Cisco Live Challenge leaderboard.



Level up and earn **exclusive prizes!**



Complete your surveys in the **Cisco Live mobile app**.

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