



# Back to the Basics: Device Pools

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# Our Agenda

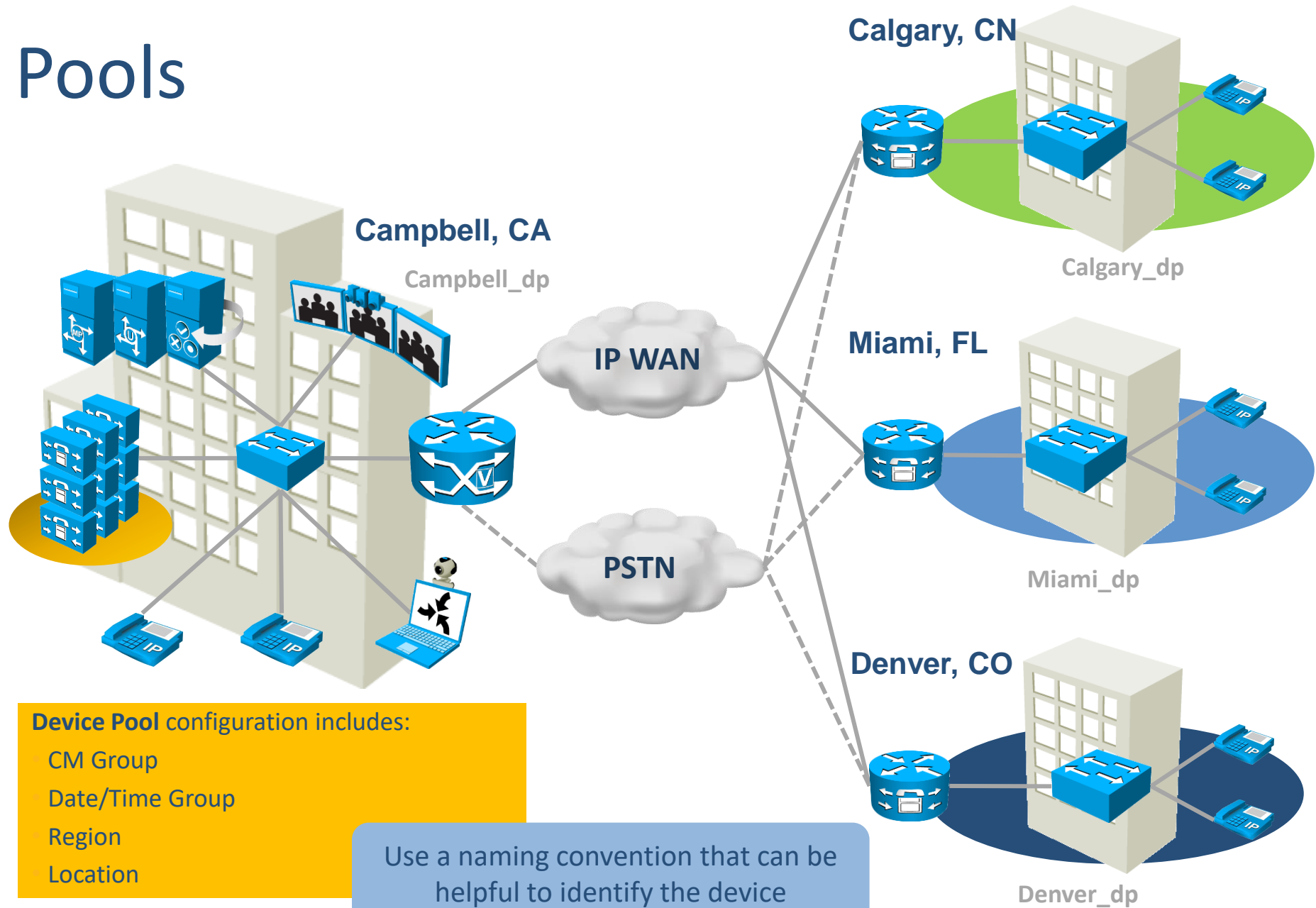
- ✓ Device Pools: The Purpose
- ✓ Device Pool Contents
- ✓ Device Mobility
- ✓ Other Settings
- ✓ Closing & Wrap Up  
Your Questions and Feedback





# Device Pools: The Purpose

# Device Pools



**Device Pool configuration includes:**

- CM Group
- Date/Time Group
- Region
- Location

Use a naming convention that can be helpful to identify the device

# Commonly Used Device Pool Elements

Always active

- CM Group – Where should device register

Roaming

- Date/ Time Group – Time on Phone/ CDRs
- Region – Codec Selection
- Media Resource Group List – Conf Bridge, MoH, etc.
- Location – Bandwidth Call Admission Control
- SRST Reference – Where to register during WAN Failure
- Local Route Group – Which gateway should I use for calls



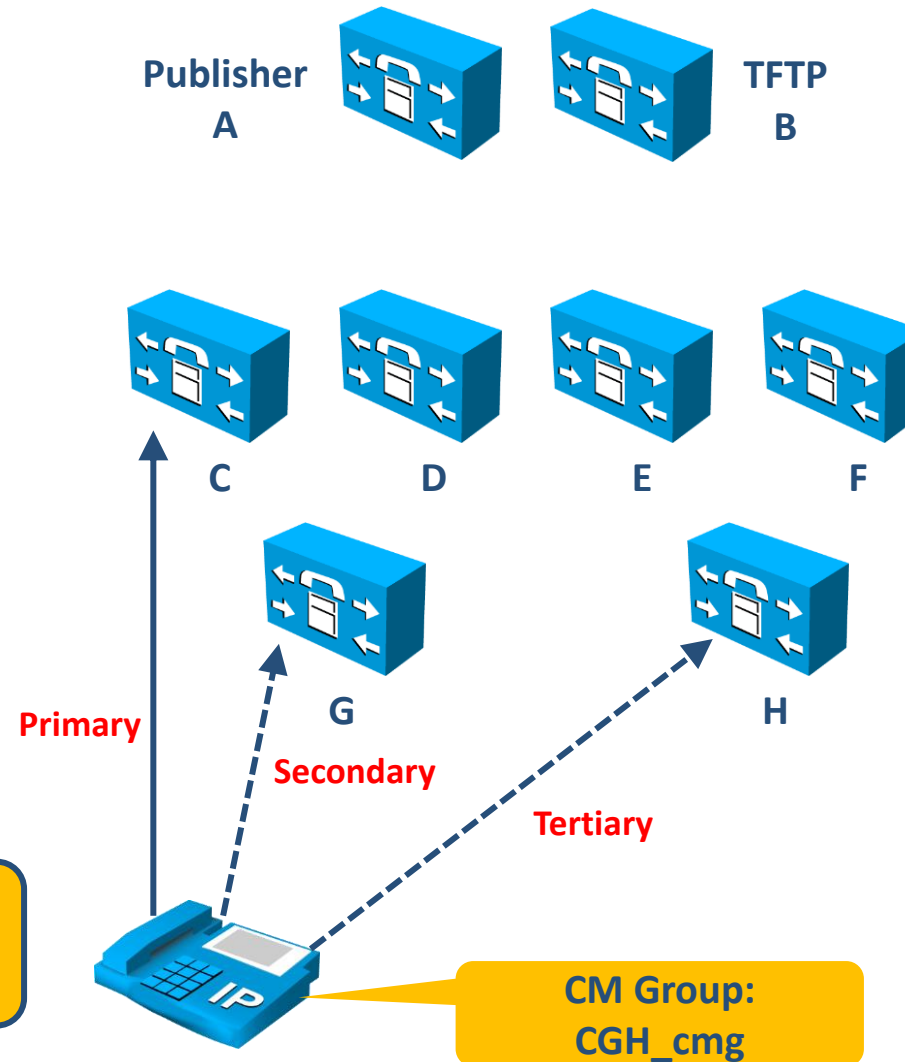
# Commonly Used Parameters

# Cisco Unified Communications Manager Group

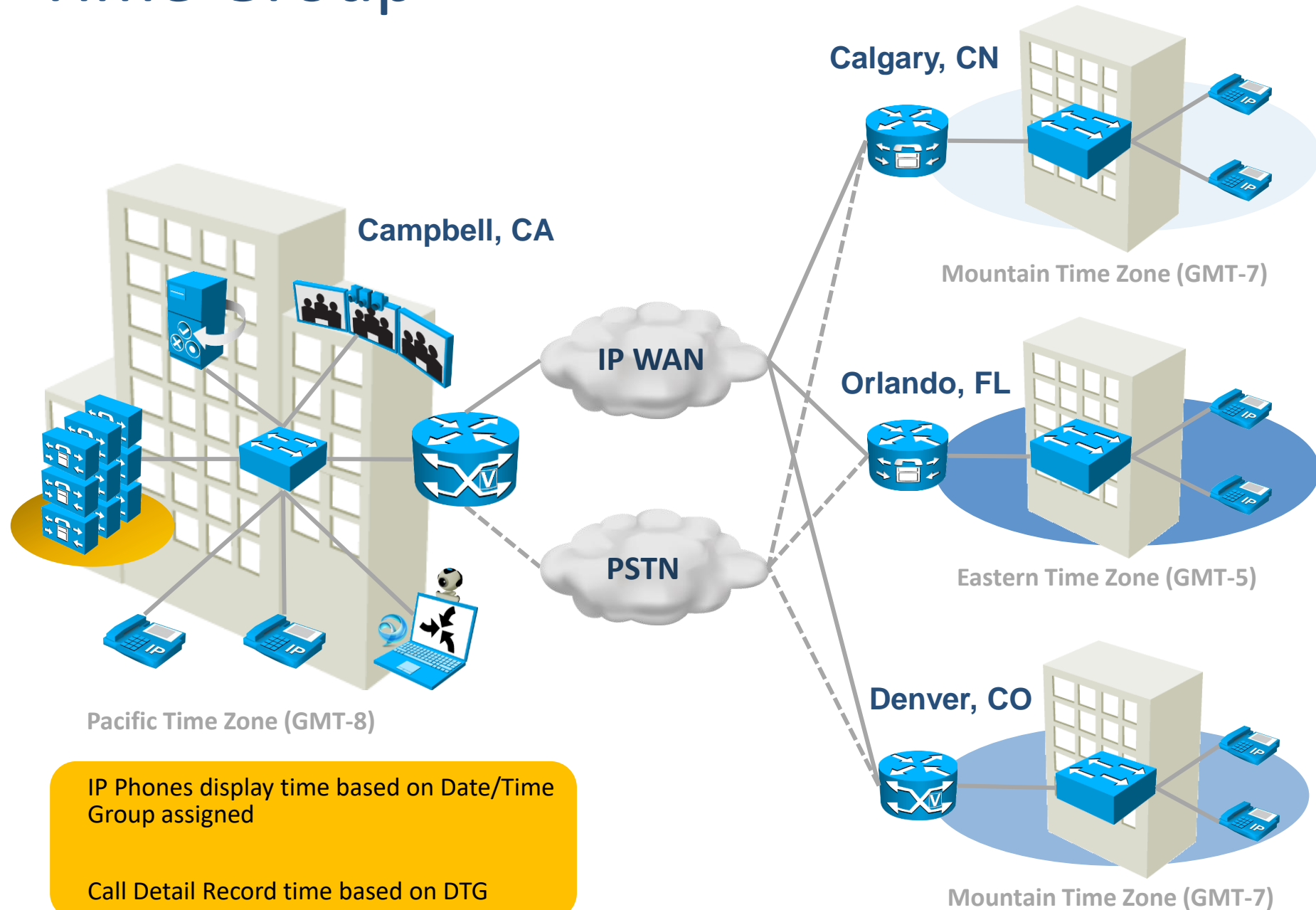
- Configuring CM Groups provides redundancy and load-balancing by defining where the phone registers:

- In the example, there are four primary call-processing servers (CDEF) and two failover servers (GH)
- Create CM Groups by defining a Primary, Secondary and (optional) Tertiary server:
  - CGH\_cmg
  - DGH\_cmg
  - EHG\_cmg
  - FHG\_cmg

Note: Phone must register to a server running the CallManager service



# Date/ Time Group



Pacific Time Zone (GMT-8)

Mountain Time Zone (GMT-7)

Eastern Time Zone (GMT-5)

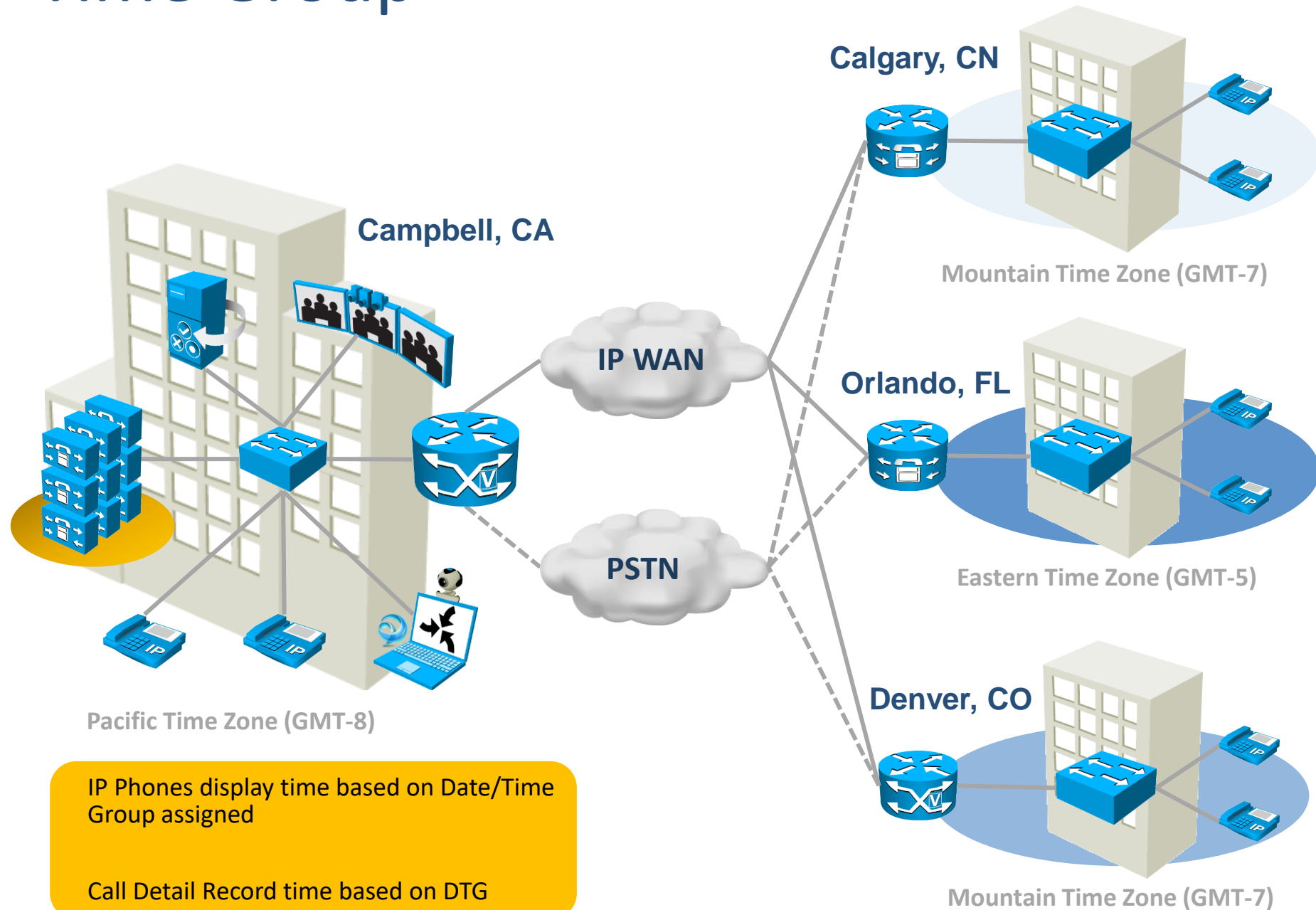
Mountain Time Zone (GMT-7)

IP Phones display time based on Date/Time Group assigned

Call Detail Record time based on DTG



# Date/ Time Group



IP Phones display time based on Date/Time Group assigned

Call Detail Record time based on DTG

# Date/ Time Group

The screenshot shows the Cisco Unified CM Administration interface for configuring a Date/Time Group. The page title is "Date/Time Group Configuration" and it includes a navigation bar with "Cisco Unified CM Administration" and "Go" buttons. Below the navigation bar are tabs for "System", "Call Routing", "Media Resources", "Advanced Features", "Device", "Application", "User Management", "Bulk Administration", and "Help". The main content area has a "Date/Time Group Configuration" header with a "Related Links" section containing "Back To Find/List" and "Go". A toolbar at the top of the configuration area includes "Save", "Delete", "Copy", "Reset", "Apply Config", and "Add New" buttons. The configuration is divided into three sections: "Status" (showing "Status: Ready"), "Date/Time Group Information", and "Phone NTP References for this Date/Time Group". The "Date/Time Group Information" section contains fields for "Group Name" (CMLocal), "Time Zone" ((GMT) Etc/GMT±), "Separator" (/ (slash)), "Date Format" (M/D/Y), and "Time Format" (24-hour). The "Phone NTP References" section has a list of references and buttons for "Add Phone NTP References" and "Remove Phone NTP References". Three yellow callout boxes point to the "Group Name" field, the "Time Zone" dropdown, and the "Date Format" and "Time Format" dropdowns.

**Enter the new name**

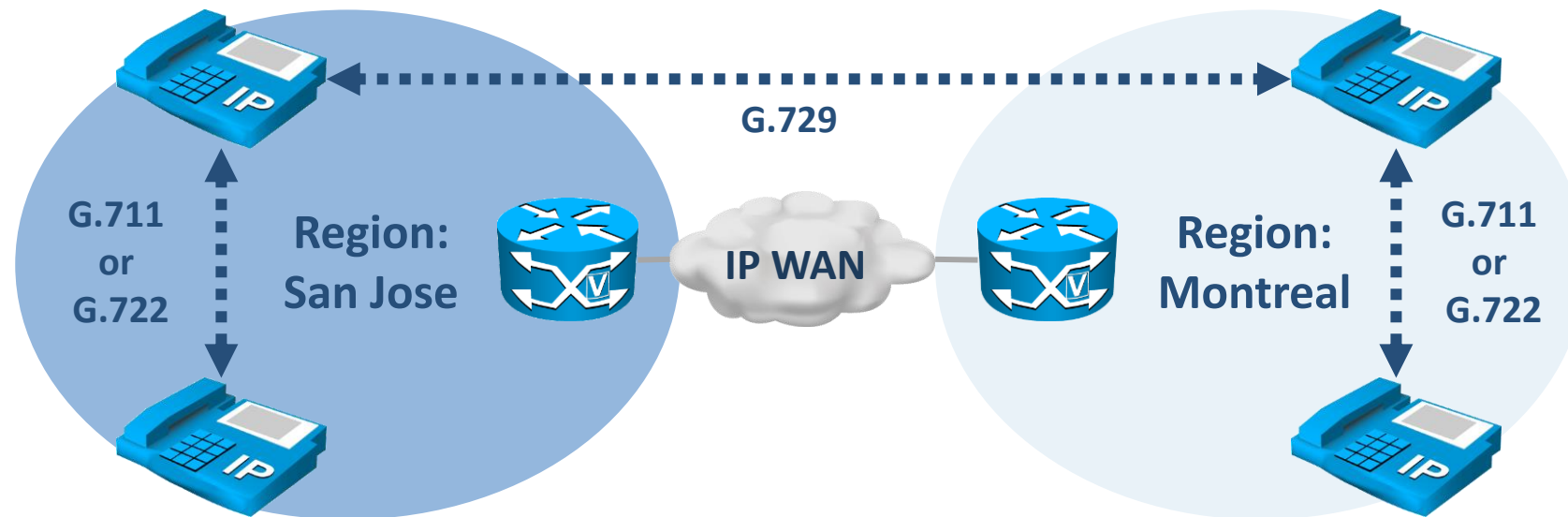
**Select the Time Zone from the dropdown**

**Enter format information**

The specific Time Zone accounts for variations in Daylight Savings Time dates.

# Codecs Selection

- G.711 / G.722 codecs uses the most bandwidth (64kbps per call) and is typically used within the LAN.
- G.729 is compressed and uses less bandwidth (8kbps per call) and is typically used across the WAN.
- Codec selection is controlled by the Region settings configured in CM Administration.



# Region Configuration

**Cisco Unified CM Administration**  
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration [Go]

CCMAdmin | Search Documentation | About | Logout

System | Call Routing | Media Resources | Advanced Features | Device | Application | User Management | Bulk Administration | Help

**Region Configuration** Related Links: Back To Find/List [Go]

Save [X] Delete [Reset] Apply Config [Add New]

Click on the Reset button to have the changes take effect.

**Region Information**  
Name\* SanJose

**Region Relationships**

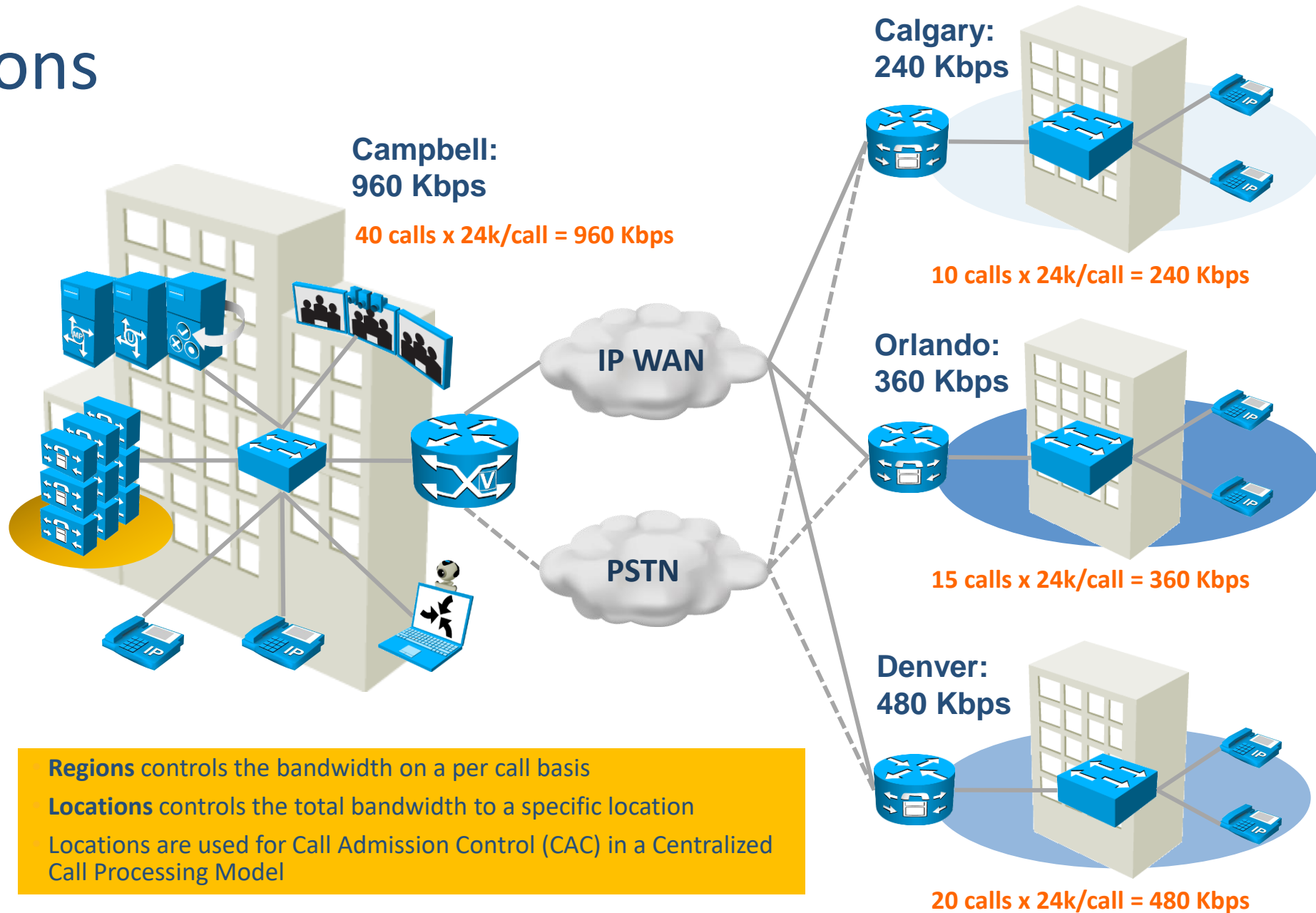
Region	Audio Codec Preference List	Maximum Audio Bit Rate	Maximum Session Bit Rate for Video Calls	Maximum Session Bit Rate for Immersive Video Calls
Denver	Use System Default (Factory Default low loss)	8 kbps (G.729)	384 kbps	2147483647 kbps
Montreal	Use System Default (Factory Default low loss)	8 kbps (G.729)	384 kbps	2147483647 kbps
Orlando	Use System Default (Factory Default low loss)	8 kbps (G.729)	384 kbps	2147483647 kbps
SanJose	Use System Default (Factory Default low loss)	64 kbps (G.722, G.711)	384 kbps	2147483647 kbps
NOTE: Regions not displayed	Use System Default	Use System Default	Use System Default	Use System Default

**Modify Relationship to other Regions**

Regions	Audio Codec Preference List	Maximum Audio Bit Rate	Maximum Session Bit Rate for Video Calls	Maximum Session Bit Rate for Immersive Video Calls
Denver Montreal Orlando SanJose	Keep Current Setting	<input checked="" type="radio"/> 8 kbps (G.729) <input type="radio"/> [ ] kbps	<input checked="" type="radio"/> Keep Current Setting <input type="radio"/> Use System Default <input type="radio"/> None	<input checked="" type="radio"/> Keep Current Setting <input type="radio"/> Use System Default <input type="radio"/> None <input type="radio"/> [ ] kbps

Regions is used to modify the codec for audio, video and immersive video (Telepresence).

# Locations



# Locations

- Codec bandwidth utilization is calculated by adding the codec payload bitrate to the header overhead:
- Payload + Overhead (16 kbps) = Total Bandwidth

Codec	Payload	+Overhead
G.711	64 Kbps	80 Kbps
G.729	8 Kbps	24 Kbps

# Location Configuration

The screenshot shows the Cisco Unified CM Administration interface for Location Configuration. The page title is "Cisco Unified CM Administration For Cisco Unified Communications Solutions". The navigation menu includes "System", "Call Routing", "Media Resources", "Advanced Features", "Device", "Application", "User Management", "Bulk Administration", and "Help". The "Location Configuration" section is active, with a "Save" button and a "Related Links: Back To Find/List" button. The "Status" section shows "Status: Ready". The "Location Information" section has a "Name" field with "Montreal" entered. The "Links - Bandwidth Between This Location and Adjacent Locations" section has a "Location" dropdown menu with "Hub\_None" selected, a "Weight" field with "50", and radio buttons for "Audio Bandwidth", "Video Bandwidth", and "Immersive Video Bandwidth", each with a "240" or "384" kbps value. A "Show Advanced" link is present. The "Modify Setting(s) to Other Locations" section has a table with columns "Location" and "RSVP Setting".

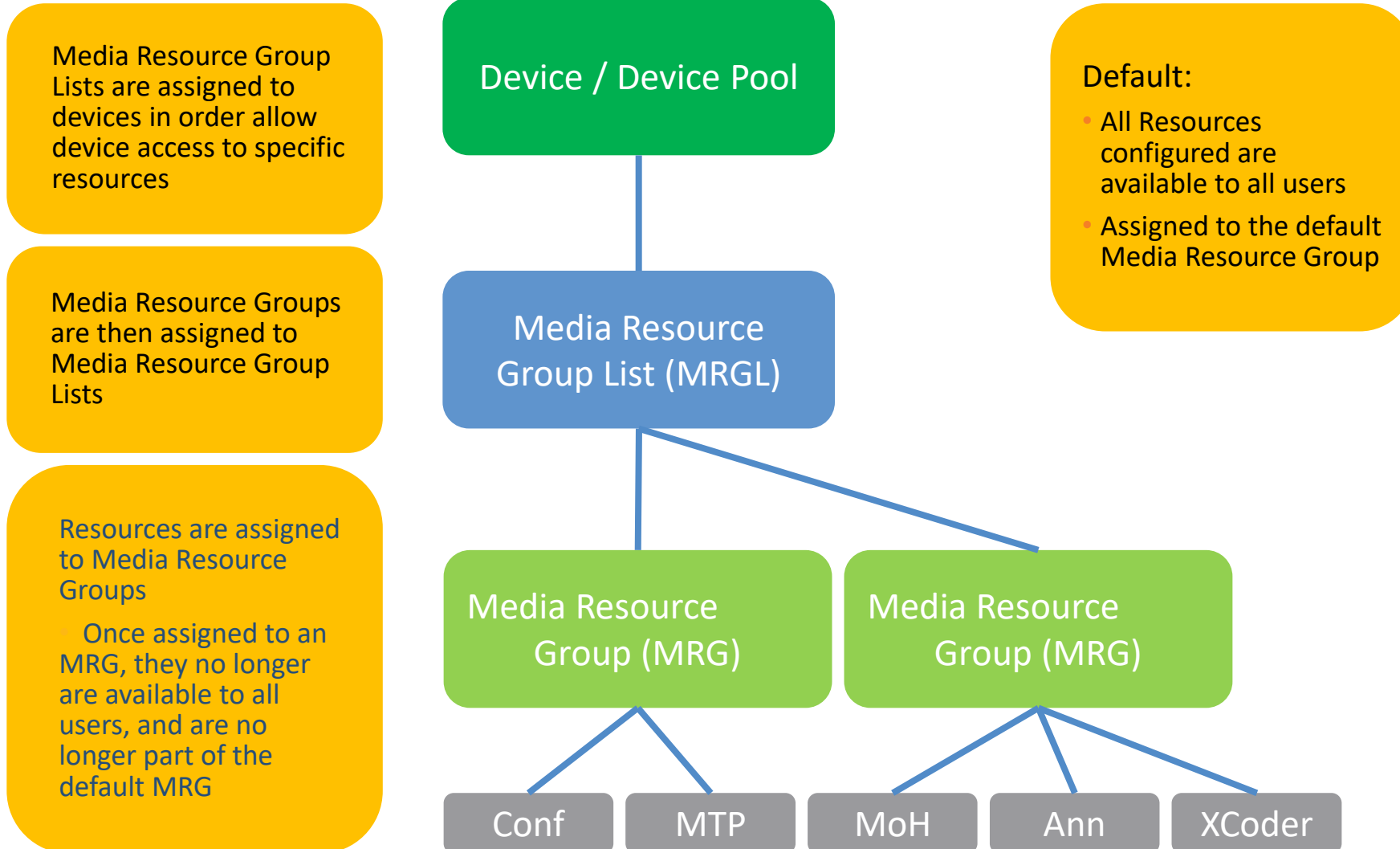
**Click Save**

**Enter a Name for the new Location**

**Enter Maximum Audio Bandwidth**

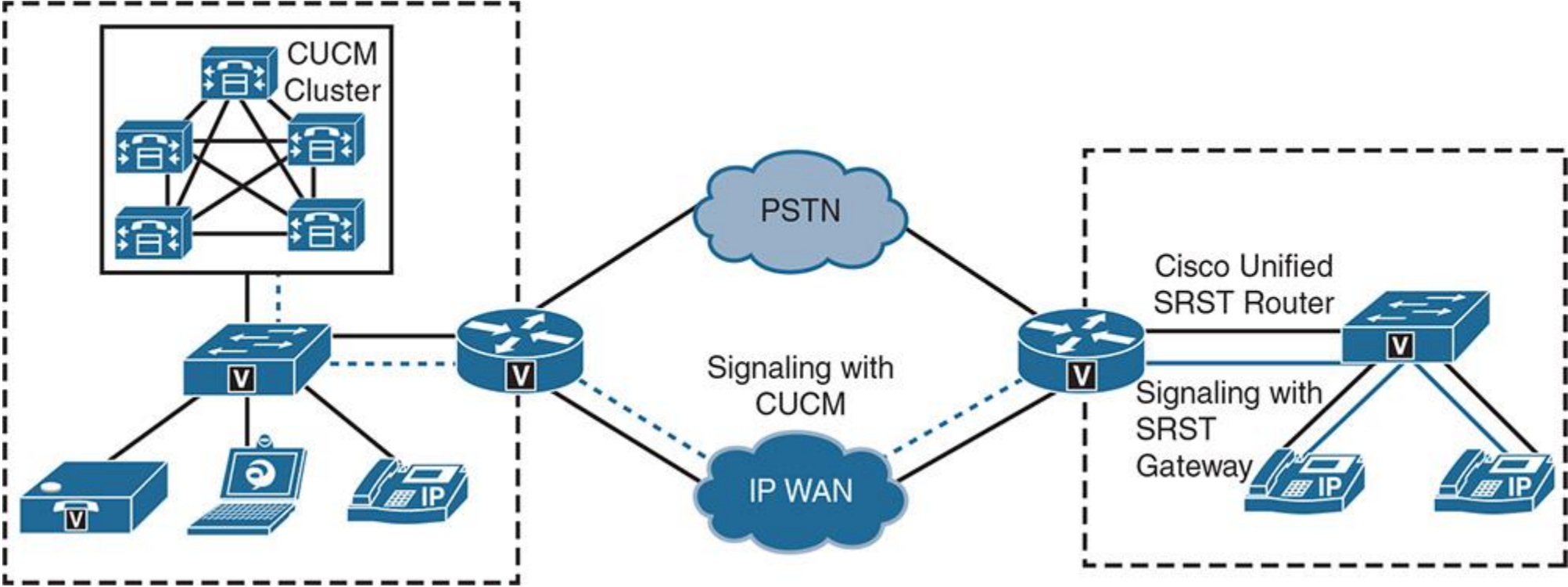
Location	RSVP Setting
Hub_None	Use System Default
Phantom	
Shadow	

# Media Resource Group List

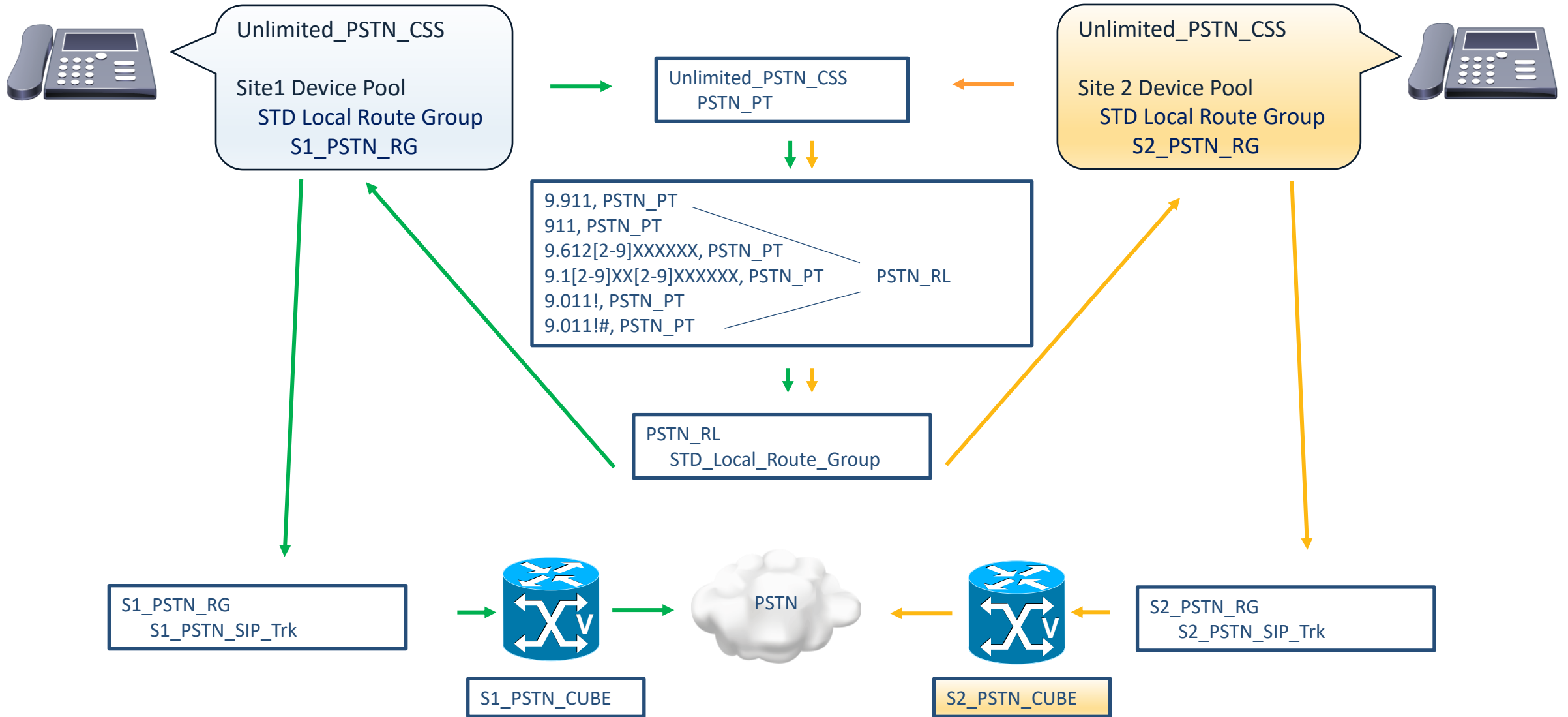




# SRST Reference



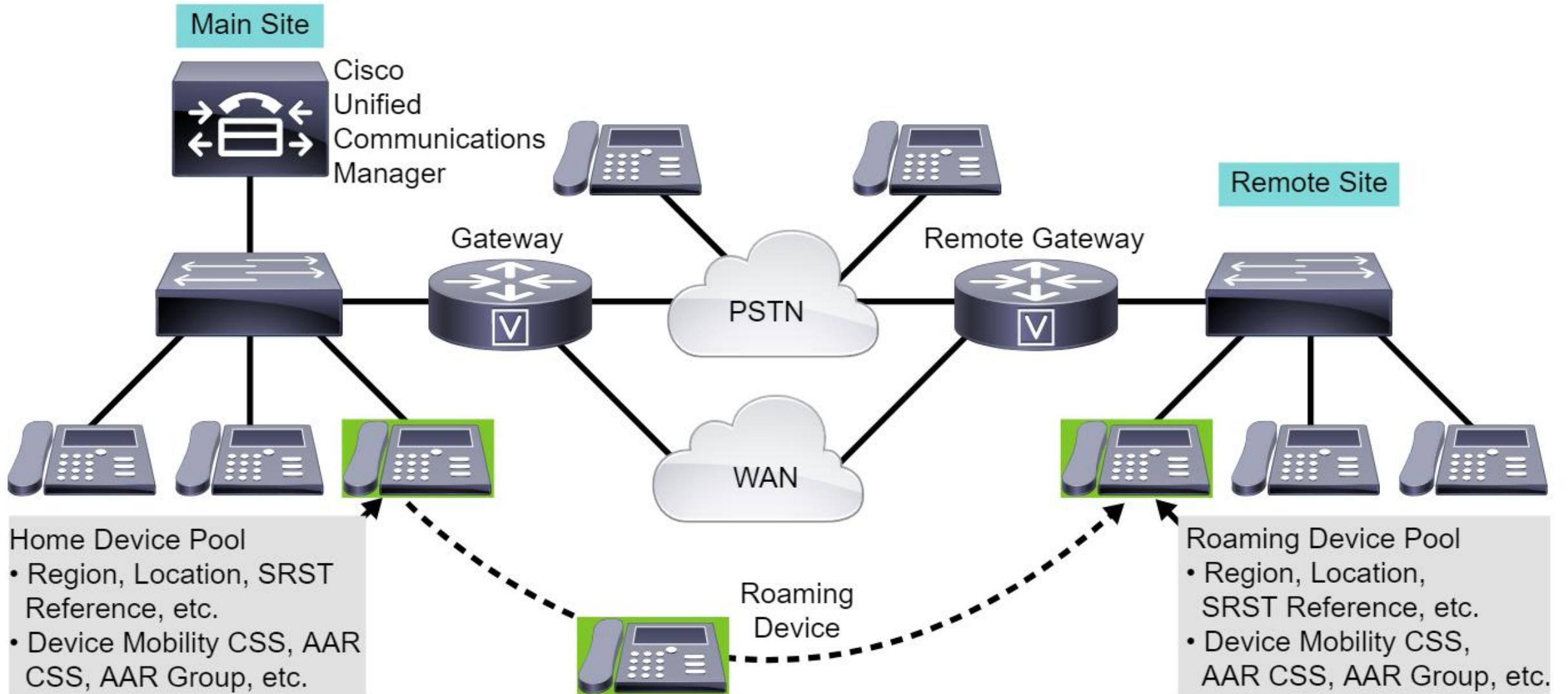
# Local Route Groups



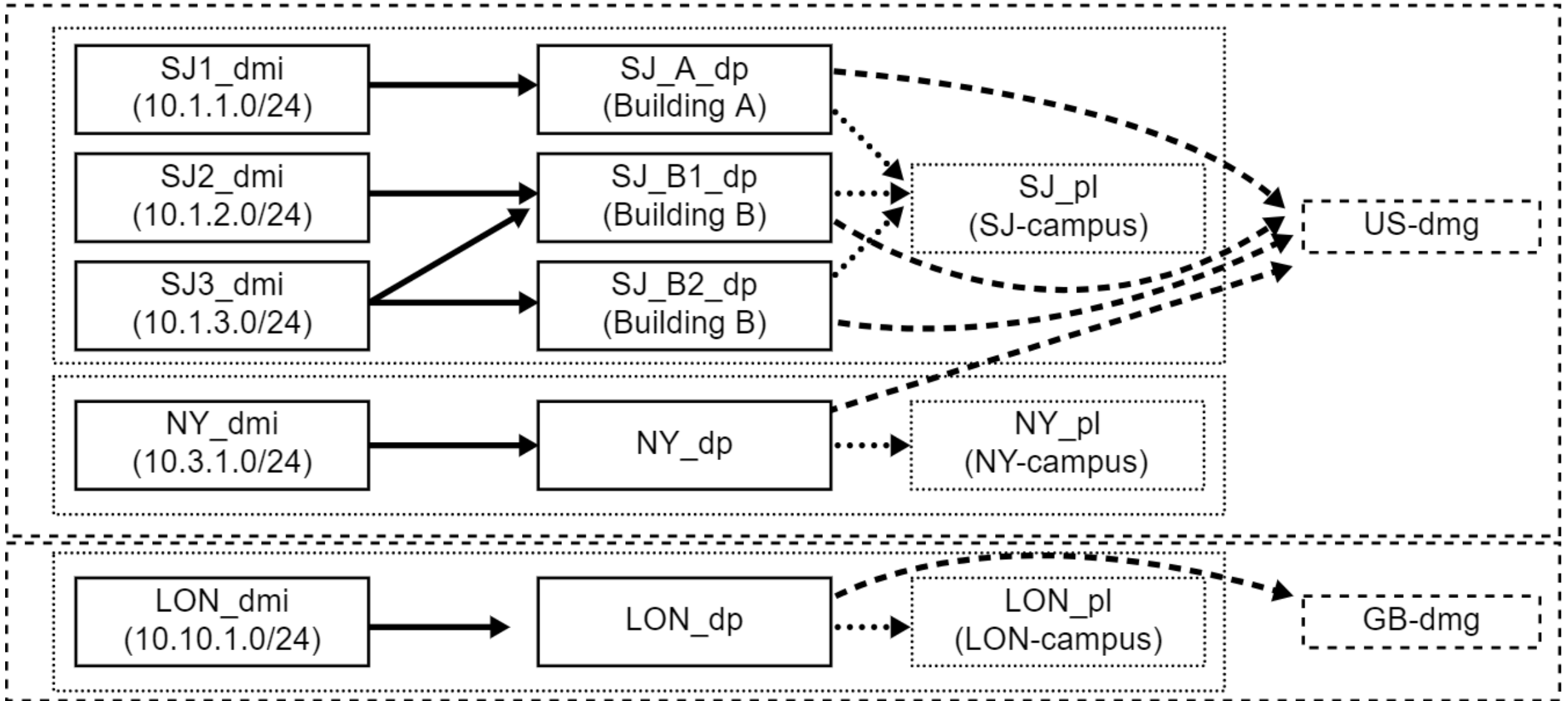


# Device Mobility

# Device Mobility



# Device Mobility Selection



# Device Pool Device Mobility Settings

Roaming Sensitive Settings	
Date/Time Group*	CMLocal
Region*	Default
Media Resource Group List	< None >
Location	< None >
Network Locale	< None >
SRST Reference*	Disable
Connection Monitor Duration***	
Single Button Barge*	Default
Join Across Lines*	Default
Physical Location	< None >
Device Mobility Group	< None >
Wireless LAN Profile Group	< None > <a href="#">View Details</a>

Local Route Group Settings	
LD Local Route Group	S1_LD_RG
Standard Local Route Group	S1_Local_RG

Device Mobility Related Information****	
Device Mobility Calling Search Space	< None >
AAR Calling Search Space	< None >
AAR Group	< None >
Calling Party Transformation CSS	< None >
Called Party Transformation CSS	< None >

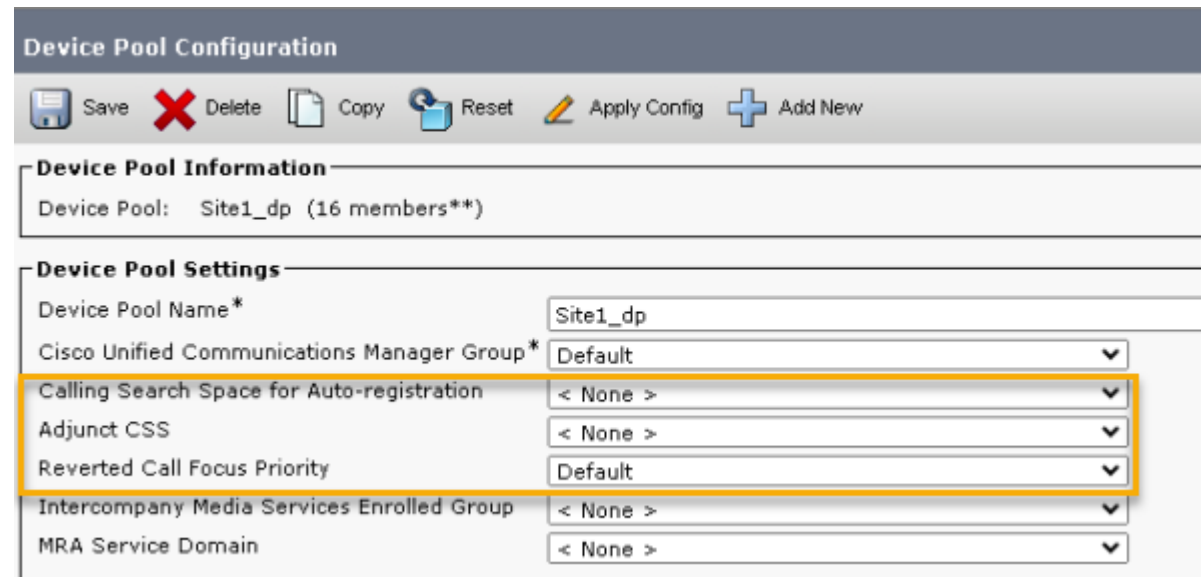


# Other Settings

# Additional Options

Calling Search Space for Auto-registration – Used to assign Calling Search Space to phones that auto register into this device pool. Can be over-ridden with templates.

Adjunct CSS – Used to assign Calling Privileges to remote cluster phones when using Cross Cluster Extension Mobility.



The screenshot displays the 'Device Pool Configuration' interface. At the top, there is a toolbar with icons for Save, Delete, Copy, Reset, Apply Config, and Add New. Below this, the 'Device Pool Information' section shows 'Device Pool: Site1\_dp (16 members\*\*)'. The 'Device Pool Settings' section contains several dropdown menus: 'Device Pool Name\*' (Site1\_dp), 'Cisco Unified Communications Manager Group\*' (Default), 'Calling Search Space for Auto-registration' (< None >), 'Adjunct CSS' (< None >), 'Reverted Call Focus Priority' (Default), 'Intercompany Media Services Enrolled Group' (< None >), and 'MRA Service Domain' (< None >). A yellow box highlights the 'Calling Search Space for Auto-registration' and 'Adjunct CSS' settings.

Device Pool Configuration	
Save Delete Copy Reset Apply Config Add New	
<b>Device Pool Information</b>	
Device Pool: Site1_dp (16 members**)	
<b>Device Pool Settings</b>	
Device Pool Name*	Site1_dp
Cisco Unified Communications Manager Group*	Default
Calling Search Space for Auto-registration	< None >
Adjunct CSS	< None >
Reverted Call Focus Priority	Default
Intercompany Media Services Enrolled Group	< None >
MRA Service Domain	< None >



# Globalized Dial Plan Device Pool Manipulations

**Geolocation Configuration**

Geolocation

Geolocation Filter

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**Call Routing Information**

**Incoming Calling Party Settings**

If the administrator sets the prefix to Default this indicates call processing will use prefix at the next level setting (DevicePool/Service Parameter). Otherwise, the value configured is used as the prefix unless the field is

Number Type	Prefix	Strip Digits	Calling Search Space
National Number	<input type="text" value="Default"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
International Number	<input type="text" value="Default"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Unknown Number	<input type="text" value="Default"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>
Subscriber Number	<input type="text" value="Default"/>	<input type="text"/>	<input type="text" value="&lt; None &gt;"/>

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**Incoming Called Party Settings**

If the administrator sets the prefix to Default this indicates call processing will use prefix at the next level setting (DevicePool/Service Parameter). Otherwise, the value configured is used as the prefix unless the field is

Number Type	Prefix	Strip Digits	Calling Search Space
National Number	<input type="text" value="Default"/>	<input type="text" value="0"/>	<input type="text" value="&lt; None &gt;"/>
International Number	<input type="text" value="Default"/>	<input type="text" value="0"/>	<input type="text" value="&lt; None &gt;"/>
Unknown Number	<input type="text" value="Default"/>	<input type="text" value="0"/>	<input type="text" value="&lt; None &gt;"/>
Subscriber Number	<input type="text" value="Default"/>	<input type="text" value="0"/>	<input type="text" value="&lt; None &gt;"/>

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**Phone Settings**

**Caller ID For Calls From This Phone**

Calling Party Transformation CSS

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**Connected Party Settings**

Connected Party Transformation CSS

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**Redirecting Party Settings**

Redirecting Party Transformation CSS

# Summary

- ✓ Device Pool Overview
- ✓ Device Pool Contents
- ✓ Device Mobility
- ✓ Additional Settings

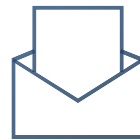
# Questions



# Thank you for attending.

If you have any additional questions, or would like to learn more about  
our Athena program, please email...

[pka@skyline-ats.com](mailto:pka@skyline-ats.com)





[www.skyline-ats.com](http://www.skyline-ats.com)

