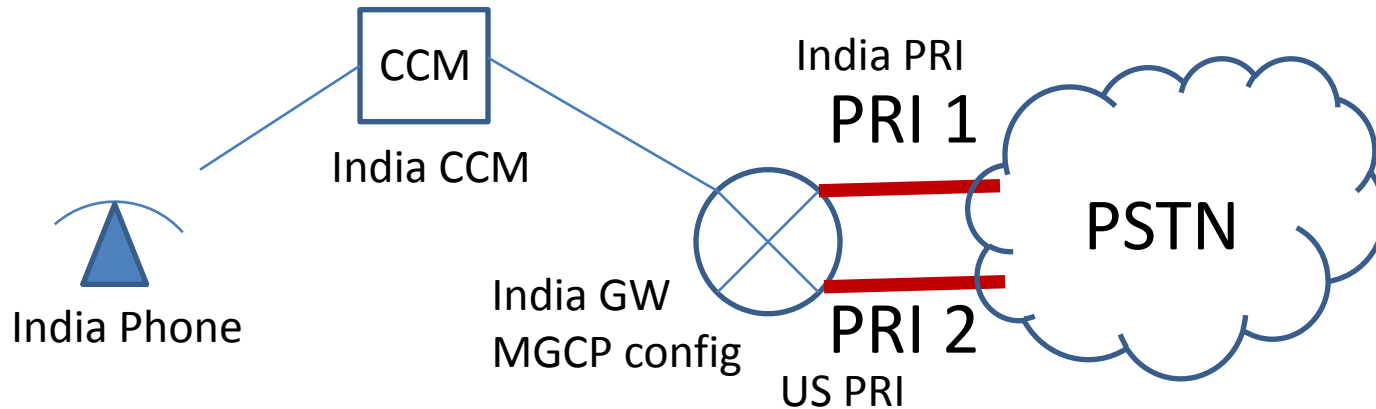


GeoLocation and Logical Partitioning

Network Diagram



Call Flow Desired:

- An internal IP phone can call out PRI 1 and conference any time they desire
- The same internal IP phone can call out PRI 2 and conference any time they desire
- The IP phone CAN NOT call out PRI 1, place the call on hold, dial out PRI 2 and place all three parties in to a conference (This is considered Toll Fraud in India)

For this setup we use GeoLocations and Logical Partitions



Enterprise Parameters Configuration

Save Set to Default Reset Apply Config

Report Socket Connection Timeout *	<input type="text" value="10"/>	10
Report Socket Read Timeout *	<input type="text" value="60"/>	60

Logical Partitioning Configuration

Enable Logical Partitioning *	<input type="text" value="True"/>	False
Default Geolocation *	<input type="text" value="Unspecified"/>	Unspecified
Logical Partitioning Default Policy *	<input type="text" value="Deny"/>	Deny
Logical Partitioning Default Filter	<input type="text" value=" < None >"/>	

Save Set to Default Reset Apply Config




*- indicates required item.



**The Set-to-Default button restores all parameters that have been modified to their original default values.

We begin by configuring the following pieces within the Enterprise Service Parameters





-Be aware if you set the Logical Partitioning Default Policy to “Deny” or “Allow” ...This DOES matter!! ...Its set to “Deny” for this configuration


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Geolocation Filter Configuration Related Links: [Back To](#)

 Save  Delete  Copy  Add New

Status
 Status: Ready

Geolocation Filter Configuration
Name*
Description
Match Geolocations using the following criteria:
☒ Country using the two-letter abbreviation
☐ State, Region, or Province (A1)
☐ County or Parish (A2)
☐ City or Township (A3)
☐ Borough or City District (A4)
☐ Neighborhood (A5)
☐ Street (A6)
☐ Leading Street Direction, such as N or W (PRD)
☐ Trailing Street Suffix, such as SW (POD)
☐ Address Suffix, such as Avenue, Platz (STS)
☐ Numeric house number (HNO)
☐ House Number Suffix, such as A, 1/2 (HNS)
☐ Landmark (LMK)
☐ Additional Location Information, such as Room Number (LOC)
☐ Floor (FLR)
☐ Name of Business or Resident (NAM)
☐ Zip or Postal Code (PC)

We then go to the GeoLocation Filter config and specify a single filter for this specific configuration. You would specify more if your configuration becomes very advanced.

In this case we specify that we want to match only on “Country”

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Find and List Geolocations

+ Add New

<input type="checkbox"/>	Select All
<input type="checkbox"/>	Clear All
<input type="checkbox"/>	Delete Selected

Status
i 3 records found

Geolocation (1 - 3 of 3)
Find Geolocation where Name ▾ begins with ▾ Find Clear Filter

☐
☐
☐

Name ^

GL-India

GL-US

Unspecified

Add New Select All Clear All Delete Selected

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Geolocation Configuration

Save Delete Copy Add New

Status
i Status: Ready

Geolocation Configuration
Name* GL-India
Description
Country using the two-letter abbreviation IN
State, Region, or Province (A1) Mumbai
County or Parish (A2)
City or Township (A3) Mum
Borough or City District (A4)
Neighborhood (A5)
Street (A6)
Leading Street Direction, such as N or W (PRD)
Trailing Street Suffix, such as SW (POD)
Address Suffix, such as Avenue, Platz (STS)
Numeric house number (HNO)
House Number Suffix, such as A, 1/2 (HNS)
Landmark (LMK)
Additional Location Information, such as Room Number (LOC)
Floor (FLR)
Name of Business or Resident (NAM)
Zip or Postal Code (PC)

Save Delete Copy Add New

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Geolocation Configuration

Save Delete Copy Add New

Related Links: Back To

Status
i Status: Ready

Geolocation Configuration
Name* GL-US
Description
Country using the two-letter abbreviation US
State, Region, or Province (A1) TX
County or Parish (A2)
City or Township (A3) Dallas
Borough or City District (A4)
Neighborhood (A5)
Street (A6)
Leading Street Direction, such as N or W (PRD)
Trailing Street Suffix, such as SW (POD)
Address Suffix, such as Avenue, Platz (STS)
Numeric house number (HNO)
House Number Suffix, such as A, 1/2 (HNS)
Landmark (LMK)
Additional Location Information, such as Room Number (LOC)
Floor (FLR)
Name of Business or Resident (NAM)
Zip or Postal Code (PC)

Save Delete Copy Add New

Next we go to the Geolocation Configuration and setup our certain specified locations that we would prefer to filter against. This is very simple and doesn't have to be configured any more than what you set your Geo Filter for, but I just did some extra.

Device Pool Configuration

Related Links: [Back To Fi](#)

Save Delete Copy Reset Apply Config Add New

Single Button Barge*	Default ▾
Join Across Lines*	Default ▾
Physical Location	< None > ▾
Device Mobility Group	< None > ▾

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 > ▾

Geolocation Configuration

Geolocation	GL-India ▾
Geolocation Filter	GLF-Country ▾

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 empty in which case there is no prefix assigned.

[Clear Prefix Settings](#)

[Default Prefix Settings](#)

Number Type	Prefix	Strip Digits	Calling Search Space
National Number	Default	0	< None >
International Number	Default	0	< None >

Next we go to the device pool configuration and find the Geo Config params. We set this in the location that the phone is physically sitting in.


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Phone Configuration

Related Links: [Back To Find/List](#)

 Save
  Delete
  Copy
  Reset
  Apply Config
  Add New

Media Resource Group List	< None >	
User Hold MOH Audio Source	< None >	
Network Hold MOH Audio Source	< None >	
Location*	Hub_None	
AAR Group	< None >	
User Locale	< None >	
Network Locale	< None >	
Built In Bridge*	Default	
Privacy*	Default	
Device Mobility Mode*	Default	View Current Device I
Owner User ID	< None >	
Phone Load Name		
Join Across Lines	Default	
Use Trusted Relay Point*	Default	
BLF Audible Alert Setting (Phone Idle)*	Default	
BLF Audible Alert Setting (Phone Busy)*	Default	
Always Use Prime Line*	Default	
Always Use Prime Line for Voice Message*	Default	
Calling Party Transformation CSS	< None >	
Geolocation	GL-India	
<input checked="" type="checkbox"/> Use Device Pool Calling Party Transformation CSS		
<input checked="" type="checkbox"/> Retry Video Call as Audio		
<input type="checkbox"/> Ignore Presentation Indicators (internal calls only)		

Next we go to the device configuration page for the phone and select the location that the phone is sitting in.

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Gateway Configuration Related Links: [Back to MGCP](#)

Save Delete Reset Apply Config

Unknown Number	Default	0	<input checked="" type="checkbox"/>	< None >
Subscriber Number	Default	0	<input checked="" type="checkbox"/>	< None >

PRI 1 - India

Product Specific Configuration Layout

Line Coding* B8ZS

Framing* ESF

Clock* External

Input Gain (-6..14 db)* 0

Output Attenuation (-6..14 db)* 0

Echo Cancellation Enable* Enable

Echo Cancellation Coverage (ms)* 64

Geolocation Configuration

Geolocation GL-India

Geolocation Filter GLF-Country

Save Delete Reset Apply Config

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Gateway Configuration Related Links: [Back to MG](#)

Save Delete Reset Apply Config

Unknown Number	Default	0	<input checked="" type="checkbox"/>	< None >
Subscriber Number	Default	0	<input checked="" type="checkbox"/>	< None >

Product Specific Configuration Layout

Line Coding* B8ZS

Framing* ESF

Clock* External

Input Gain (-6..14 db)* 0

Output Attenuation (-6..14 db)* 0

Echo Cancellation Enable* Enable

Echo Cancellation Coverage (ms)* 64

Geolocation Configuration

Geolocation GL-US

Geolocation Filter GLF-Country

Save Delete Reset Apply Config

*- indicates required item.
**- applies to DMS-100 protocol only.

PRI 1 - US

Next we go to the device configuration page for the PRI interfaces and then begin to configure them as individual units, instead of being looked at like they are the same.

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Find and List Policies

Status

2 records found

Logical Partitioning Policy (1 - 2 of 2)

Find Logical Partitioning Policy where: Name ▾ begins with ▾

<input type="checkbox"/>	Name ^	Description	
<input type="checkbox"/>	GLP-IN		
<input type="checkbox"/>	GLP-US		

India Configuration

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Logical Partitioning Policy Configuration

Status

Status: Ready

Logical Partitioning Policy Configuration

Name*

Description

Country

A1

A2

A3

A4

A5

A6

PRD

POD

STS

HNO

HNS

LMK

LOC

FLR

NAM

PC

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Logical Partitioning Policy Configuration

Related Links: [Back To](#)

LMK
 LOC
 FLR
 NAM
 PC

Configured Policies

Device Type	Geolocation Policy	Other Device Type	Policy
Border	GLP-US	Border	Deny
Interior	GLP-US	Border	Allow
Interior	GLP-IN	Interior	Allow
Border	GLP-IN	Interior	Allow
Border	GLP-IN	Border	Allow

NOTE: Geolocation Policies that are not displayed use the Default Policy; To remove policies from the above list, set the respective policy to Use Default Policy

Configure Relationship to other Geolocation Policies

Device Type	Geolocation Policy	Other Device Type
Border	<input type="text" value="GLP-IN"/> <input type="text" value="GLP-US"/>	Border

*. indicates required item.

Next comes the much more difficult part of configuring the Logical Partition Policies.

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Find and List Policies

+ Add New Select All Clear All Delete Selected

Status

2 records found

Logical Partitioning Policy (1 - 2 of 2)

Find Logical Partitioning Policy where Name begins with Find Clear Filter + -

	Name ^	Description
<input type="checkbox"/>	GLP-IN	
<input type="checkbox"/>	GLP-US	

Add New Select All Clear All Delete Selected

US Configuration

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Logical Partitioning Policy Configuration

Related Links: Back To

Save Delete Copy Add New

Status

Status: Ready

Logical Partitioning Policy Configuration

Name* GLP-US

Description

Country US

A1 < None >

A2 < None >

A3 < None >

A4 < None >

A5 < None >

A6 < None >

PRD < None >

POD < None >

STS < None >

HNO < None >

HNS < None >

LMK < None >

LOC < None >

FLR < None >

NAM < None >

PC < None >

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Logical Partitioning Policy Configuration

Related Links: Back To

Save Delete Copy Add New

HNO < None >

HNS < None >

LMK < None >

LOC < None >

FLR < None >

NAM < None >

PC < None >

Configured Policies

Device Type	Geolocation Policy	Other Device Type	Policy
Border	GLP-IN	Border	Deny
Border	GLP-IN	Interior	Allow
Border	GLP-US	Border	Allow

NOTE: Geolocation Policies that are not displayed use the Default Policy; To remove policies from the above list, set the respective policy to Use Default Policy

Configure Relationship to other Geolocation Policies

Device Type	Geolocation Policy	Other Device Type
Border	GLP-IN GLP-US	Border

Save Delete Copy Add New

Next comes the US configuration.

Know your Border and Element Devices.

What is meaning of Border & Interior? How to know which device is Border vs Interior?

This is the terminology used to categorize the UCM devices based on its functionality:-

- The devices which allow PSTN access or communication to inter-cluster trunk are called as "Border" devices.
- The VoIP endpoints are called as "Interior" devices.

Typical "Border" devices are:-

Gateway (for example, H.323 Gateway)

Intercluster trunk (ICT), both gatekeeper-controlled and non-gatekeeper-controlled

H.225 trunk

SIP trunk

MGCP port (E1, T1, PRI, BRI, FXO)

Typical "Interior" devices are:-

Phones (SCCP, SIP, third party)

VG224 analog phones

MGCP port (FXS)

CTI Route Points and CTI Ports

Cisco Unity Voice Mail (SCCP)

This derivation of Border & Interior is fixed based on UCM device and is not configurable for UCM 7.1.

The entire configuration above was done with the Enterprise Parameter set to a “Deny” State. See slide #2 ...

In some circumstances you might want to modify that to “Allow” and then simply setup everything that you want to “Deny” as it’s a bit more difficult to do it as this configuration is setup.

For this setup all you have to configure is the following:

- Enterprise Params**
- Geo Filter**
- Geo Config**
- Device Pool**
- Geo information on the IP phone**
- Geo information on the PRI interfaces(the gateway is MGCP)**
- Geo Policies (Border/Interior allow/deny config) within the Logical Partitioning**

