Deploying Cisco Unified Contact Center Enterprise with Cisco Unified CVP 10.5 Bootcamp

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Cisco Collaboration Instructor

World’s Most Visual & Complex Lab Guide on Cisco Unified UCCE 10.5 Duplex Deployment
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<td>97</td>
</tr>
</tbody>
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Preface

This document is a detail design guide for Deploying Cisco Contact Center Enterprise 10.5 with CVP 10.5 Bootcamp. This document is to be used during 10 days of classroom training at VoiceBootcamp Inc.

Audience

This document is intent to be used by VoiceBootcamp Inc. clients and students and internal employees - and Friends of Faisal Khan 😊.

Scope and Requirements

This document, which is to be used as a lab guide, will provide candidate a real world experience in deploying Cisco Unified Contact Center Enterprise (UCCE). This lab guide was designed based on a real world scenario. Candidates will focus on understand the design requirements and deploy the solution based on what is outlined in this document.

The document is divided into sections for:
• System Topology – Including Network layout, Sites, Server locations, Server types, Server Names & IP addresses etc.
• Setup – Information tables used for server application ‘setup’ tasks
• Configuration – Information tables and data used to add configuration information for each component
• Call Routing – Information on how calls will be routed from component to component

NOTE: This document includes configuration details relevant to the UCCE system and tables for inclusion of configuration information for the future business unit call flow designs. However, this document is NOT intended to cover business unit ‘call flows’. The configuration information required for each business unit e.g. agents, skill groups, agent teams, etc. should be added to the tables in this document’s appendices.

1. Network & System Server Topology

All core servers (UC, UCCE and CVP) will be located in two data centers called HQ & SiteB. Candidates will work in a team to build these two data centers. The UC will utilize two CUCM clusters; both distributed across the two data centers. The UCCE and CVP components will
therefore use a Multi-Site with Distributed Call Processing model, splitting the diverse server components across the two data centers.

A ‘Distributed Voice Gateway with Distributed Call Treatment and Queuing Using Unified CVP’ model will be used. Agent sites can be located anywhere within the IP network. Traffic to the servers will be carried over the existing LAN/WAN. Cisco 2801 ISR Gateways will be located in the agent sites to ingress queue and deliver calls to the agents.
2. Server Names and Network Addressing

CUCM Clusters - Domain name: podY.com (Y is your POD Number)

<table>
<thead>
<tr>
<th>Servers</th>
<th>Host Name</th>
<th>NIC Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Directory</td>
<td>ad</td>
<td>IP Add 142.1Y.64.50/24</td>
</tr>
<tr>
<td>CUCM – US Cluster</td>
<td>ucmpub</td>
<td>IP 142.1Y.64.21/24</td>
</tr>
<tr>
<td>CUCM – India Cluster</td>
<td>Ucmpub</td>
<td>IP 157.26.1.11 – same for ALL POD</td>
</tr>
</tbody>
</table>

3. UCCE/CVP Server Table Lists

Domain name: podY.com (Y is your POD Number)

<table>
<thead>
<tr>
<th>Site</th>
<th>UCCE Side A</th>
<th>Public Visible</th>
<th>142.1Y.64.51</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rogger A</td>
<td>Private</td>
<td>192.168.10Y.51</td>
</tr>
<tr>
<td>Site</td>
<td>UCCE – Site B</td>
<td>Public Visible:</td>
<td>142.1Y.64.61</td>
</tr>
<tr>
<td></td>
<td>Rogger B</td>
<td>Private Interface</td>
<td>192.168.10Y.61</td>
</tr>
<tr>
<td>Site</td>
<td>PG – A</td>
<td>Public Interface</td>
<td>142.1Y.64.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private Address</td>
<td>192.168.10Y.55</td>
</tr>
<tr>
<td>Site</td>
<td>PG – B</td>
<td>Public IP Address</td>
<td>142.1Y.64.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private IP Address</td>
<td>192.168.10Y.65</td>
</tr>
<tr>
<td>UCCE</td>
<td>Administrative &amp; HDS</td>
<td>Public Interface</td>
<td>142.1Y.64.53</td>
</tr>
<tr>
<td>CVP-A</td>
<td>CVPA</td>
<td>Public Interface</td>
<td>142.1Y.64.52</td>
</tr>
<tr>
<td>CVP-B</td>
<td>CVPB</td>
<td>Public Interface</td>
<td>142.1Y.64.62</td>
</tr>
<tr>
<td>Site</td>
<td>Finesse</td>
<td>Public Interface</td>
<td>142.1Y.64.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://fn.podY.com">http://fn.podY.com</a></td>
<td></td>
</tr>
</tbody>
</table>

http://fn.podY.com
Agent Table – INDIA Cluster

<table>
<thead>
<tr>
<th>MAC Address</th>
<th>Agent Name</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>02004C4F4Y11</td>
<td>AgentY1</td>
<td>3Y01</td>
</tr>
<tr>
<td>02004C4F4Y12</td>
<td>AgentY2</td>
<td>3Y02</td>
</tr>
<tr>
<td>02004C4F4Y13</td>
<td>AgentY3</td>
<td>3Y03</td>
</tr>
<tr>
<td>02004C4F4Y14</td>
<td>AgentY4</td>
<td>3Y04</td>
</tr>
</tbody>
</table>

Please NOTE: Y represent your POD number not a character it self.
4. Setup – Cisco Unified ICM Servers

Domain & MS Active Directory Integration

NOTE: This must be done only on the server designated as a Microsoft Active Directory

The Cisco UCCE servers are required to be members of a Microsoft Active Directory Domain (Minimum = Windows 2008 ‘Native’). The domain OU structure and requirements are outlined. Cisco Unified Contact Center Hosted (UCCH) uses the concepts of customers and customer instances to enable a single platform to support a multitenant environment.

RDP to Active Directory Server: - 142.1Y.64.50

Go to Run → DCPROMO

FQDN Domain Name: podY.com where Y is your rack number
Domain NetBIOS name: PodY where Y is your rack number
Raise the Domain Level to R2 otherwise during installation of UCCE Web Setup, it will complain
Say Yes to install DNS then follow the screen below
Password: voicebootcamp
Follow the rest of the screen with default value.

5. **SQL Server Installations**

Install SQL Server on both Sprawler Server. Follow the instructions
NOTE: Please select Collation Tab to select the Latin_General & Binary

Use the same account for all SQL Server Services – Choose Network Services then click on Collation

WARNING – MAKE SURE YOU CLICK ON THE COLLATION TAB IN THE FIRST CIRCLE TO PROCEED
Latin1_General and Binary Must be selected otherwise UCCE will not install Follow the rest of the screen and accept the default values.

Once SQL 2008 R2 is install please install Service Package for SQL 2008 R2
Go to MS SQL Server R2 Configuration Manager
NOTE: Please check all the item on the left to make sure where ever you see Name Pipes that they are configured as per the diagram above.
6. **Cisco Unified ICM Component Installation:**

Configure Domain Manager

Installing Cisco Unified UCCE 10.5 Base Software

Go to the folder ICM-CCE-CCHinstall and click on setup.exe
<table>
<thead>
<tr>
<th>Step 1 – Click On Setup.exe</th>
<th>Step 2 – Define the location of ICM 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Step 1 - Click On Setup.exe" /></td>
<td><img src="image2.png" alt="Step 2 - Define the location of ICM 10" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3 – Installation Location &amp; Security</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Step 3 - Installation Location &amp; Security" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 5 Ready to Copy files – Click Install</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4.png" alt="Step 5 Ready to Copy files – Click Install" /></td>
</tr>
</tbody>
</table>
7. Creating an Instance

Facility Name: EastCoast
Instance Name: vbc

Setup the Instance as per the following figure
8. **Setup Instance**

**Setup Instance on UCCE Web**
This must be done on all server that has UCCE Component

- Rogger
- PG
- Administrative & Data Server

Login as: Administrator

Password: voicebootcamp (or your AD password)
9. Creating Logger A & B Database in their respective servers

Go to Logger A Unified CCE Tools Folder on Desktop → Run ICMDba.exe

Following Database Must be Created

Logger A
- LoggerA
- Outbound Database

Logger B
- LoggerB

LoggerA ICMDBA Figure
RoggerB ICMDBA Figure
10. Creating AW/HDS Database

Go to Administrative & Data Server (142.1Y.64.53)
Unified CCE Tools Folder on Desktop → Run ICMDba.exe

Administration and Data Server receives real-time monitoring data directly from the Central controller and passes the data on to other AW/HDS Servers for reporting, monitoring etc.

Select Component – Administration & Data Server

Select component

Administration & Data Server

OK  Cancel

(note few repeated screens were skipped)
Select DB TYPE and Size
Repeat the same process for HDS Data Type

Repeat the same process for AW/HDS on UCCE SideB Server
11. Creating Logger for UCCE Side A & B Data Center 1

Logger is the Unified ICM/CCE/CCH components that stores central databases.

Remote Desktop to PROGGER-A Server (142.1Y.64.51). Once your login, click on Logger on the left and Add New Logger.

Repeat this option for PROGGER-B Server (142.1Y.64.61)
Next

Verify and Start the Services

Finish – Than Go to SiteB Server (142.1Y.64.61) and repeat this

Verification of Router & Logger Services

Login to UCCE Diagnostic Framework Portico
Welcome to the Unified ICM-CCE-CCH Diagnostic Framework Portico!

Select a command from the menu on the left to begin.
Creating Router for UCCE Side A & B

Router (along with Logger) is the central controller component of Unified CCE. Router executes routing scripts to determine the destination of each call.

Login to Web Setup on 142.1Y.64.51 Server Add New Router
Must repeat this for Site B Server 142.1Y.64
Public IP: 142.1Y.64.51 for SiteA & 142.1Y.64.61 for SiteB
Edit Router

Router Options

- Enable Database Routing
  - Enable Database Routing to allow data to be read from an external database.
- Enable Application Gateway
  - Enable Application Gateway to allow access to an external application from within a routing script.
- Reboot Machine on Error

Router Quality of Service (QoS) for Private Network

- DSCP High Priority: 83 (40)
- DSCP Medium Priority: 48 (10)
- DSCP Low Priority: 11 (10)

Router Summary

- Instance id: 123
- Facility: extneset
- Router: Router4

Router Service

- Stop and then start (cycle) the Router service for this instance (if it is running)
- If you opt not to have Setup cycle the Router service, you can cycle the service under Service Management. Your changes will not take effect until the service is cycled.

Finish

Verify and Start the Services
Now repeat this option for SiteB Server 142.1Y.64.61

Final output should look like this on each server

**PROGGER-A**

**PROGGER-B**
13. **Administration & Data Servers**

In this lab I am going to install Administration and data server along with Historical Data Server. Each data center will have one AW/HDS Server deployed for redundancy purpose. To ensure that if one data center goes down, 2\textsuperscript{nd} one will be available **Login to UCCE Web Setup Tool**

Login to Administrative & Data Server: 142.1Y.64.53 (or server assigned to you by instructor)

Go to UCCE Web Setup from Desktop

Click Add New

Next
Edit Administration & Data Server

Server Role in a Small to Medium Deployment

- Administration Server, Real-time and Historical Data Server, and Detail Data Server (AVI-HDS-ODS)

Configuration
- Real-time and Historical Reporting
- Call Detail Extraction, Call Variable, and Agent Detail
- CISCO Unified Intelligence Suite Feed

- Administration Server and Real-time Data Server (AVI)

Configuration
- Real-time Reporting

- Configuration-Only Administration Server

Configuration
- This Configuration-Only Administration Server is for use in Customer Contact Management Portal (CCMP) multi-instance deployments of Configuration Management Service (CMS) node. It is not to be confused with an Administration Client, which is installed separately and connects to an AVI (AVI), AVI-HDS, or AVI-HDS-ODS for its configuration and real-time data.

Next

Edit Administration & Data Server

Administration & Data Server Connectivity

- Primary Administration & Data Server
  - Secondary Administration & Data Server: user1

- Primary Administration & Data Server
  - Secondary Administration & Data Server: user2

*Primary/Secondary Pair (Site) Name: AVCC

- Each primary/secondary pair must have its own Site Name, and the Site Name must be the same on both Administration & Data Servers.

* Required field
Edit Administration & Data Server

### Database(s)
- Create Database(s) on Drive:

### Configuration Options
- Agent Bi-Directional (Unified Contact Center Enterprise Only)
- Configuration Management/Service (CM&S) Tools
- Enable CMB Node for Customer Contact Management Portal (CCMP) Integration. If you enable this option, be sure to run the CMC Control tool (under Start -> All Programs -> Cisco Unified CCE Tools -> Administration Tools) to configure the connection.
- Internet Script Editor (ISE) Server
  - After enabling ISE Server, you can use https://admin/ihi/installIscriptEditor.htm to download the ISE Client installer.

Next

Central Controller Connectivity
- *Router Side A:* 42.17.64.51
- *Router Side B:* 42.17.64.61
- *Logger Side A:* 42.17.64.51
- *Logger Side B:* 42.17.64.61

Central Controller Domain
- Central Controller Domain Name: [your.com]

Central Controller Preferred Side
- *Central Controller Side A/Preferred*
- *Central Controller Side B/Preferred*
- *Required field*
Verify and start the service
14. Initialize the Local Database

Go to Unified CCE Tools on the desktop
Prepare UCCE Server for PG Configurations

Agent Desk Settings

Before adding PG for CUCM, you must create Agent Desk Settings. These are pre-defined values on how agent desk settings apply.

Agent Desk Settings are settings for a Unified ICM or Unified Contact Center Enterprise/Hosted (Unified CCE/CCH) agent's phone or PC screen that are defined in the database.

Go to Configure ICM → List Tools → Agent Desk Settings Lists

(then click Retrieve) If nothing is there, click on Add.
Create a Agent Desk Setting for INDIA Cluster
Repeat this for US Cluster
15. Configure PG Explorer for US and India CUCM Cluster

NOTE
India cluster is where all Agent IP Phones are with extension 3YXX ← where Y is your POD number and XX is any digit from 0 to 9

US cluster is where call will arrive for UCCE. There must be a SIP Trunk between US/India cluster. In US cluster you must have a Route Pattern with 3YXX → INDIA cluster SIP Trunk. Otherwise call will fail

NOTE: INDIA cluster will not have the ability to send calls to ICM meaning it will not be a routing client. Thus enable post routing must be disable
Now click on Add PG
Click on Routing Client Tab
Now Add Peripheral for Subscriber (if you do not have subscriber, please ignore this lab)
Now Click on Routing Client Tab
16. Adding Peripheral Gateway for CUCM

Task
- Install JTAPI Plugin
- Create CTI Route Point in CUCM
- Create Application Username
- Associate Application User to CTI Route Point & Agent IP Phones
- Add PG on the PG Server
- Add CTI Server
Install JTAPI Plugin in for US Cluster

Following steps will be done in PROGGER A and PROGGER B Server (or dedicated PG Server)

Go to PG-A Server and Open Internet Explorer to your CUCM Publisher

Install Plugin and assign the Following IP Address: 142.1Y.64.21 \(\leftarrow\) TFTP Address of your Publisher Server

Now – Repeat this option for PG-B Server (142.1Y.64.65)
When on PG-B Adding Plugin, if you have subscriber, enter the subscriber IP Address 142.1Y.64.22 as your TFTP Server Address

**Add CTI Route Point**

Go to Device Menu in CUCM → CTI Route Point & Add New

![CTI Route Point Configuration - Windows Internet Explorer](image)

- **Device Information**
  - Registration: Registered with Cisco Unified Communications Manager 142.100.64.21
  - IPv4 Address: 142.100.64.55
  - Device Name: HelpDesk
  - Description: HelpDesk
  - Device Pool: Default
  - Common Device Configuration: < None >
  - Calling Search Space: < None >
  - Location: Hub_None
  - User Locale: < None >
  - Media Resource Group List: < None >
  - Network Hold MOH Audio Source: < None >
  - User Hold MOH Audio Source: < None >
  - Use Trusted Relay Point: Default
  - Calling Party Transformation CSS: < None >

- **Association**
  - Line 1 [1..2000 no partition]
  - Line 2 [Add a new DN]

Line 1 – Should be any extension you want that will be used as a HelpDesk Number. Must start with 2XXX Range
### Directory Number Configuration

<table>
<thead>
<tr>
<th>Directory Number</th>
<th>Partition</th>
<th>Description</th>
<th>Alerting Name</th>
<th>Associated Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Partition**: Left column header
- **Description**: Field for description
- **Alerting Name**: Field for alerting name
- **Associated Devices**: Field for associated devices

- **Edit Device** button
- **Edit Line Appearance** button
Create Application User

This Application user will be used by PG to control the agent IP Phone as well as CTI Route Point

Go to User Management → Application User in your CUCM Cluster

Username: USPGUSER
Password: voicebootcamp

Under Control Devices – Make Sure CTI Route Point & Agent IP Phones are selected.
### Ensure Standard CTI Enable permission is provided for this user

### Add PG to PG Server

Now we will add Peripheral Gateway in the PG Server to communicate with CUCM pub/sub in US Clusters.

Following information is required from PG Explorer:

- Logical Controller ID
- Peripheral ID – of your CUCM PIM for pub/sub
- Peripheral Name

First obtain these information if you do not already have it.
Write down the following information

Logical Controller ID ________
Publisher PIM Peripheral ID ____________
Publisher PIM Peripheral Name ____________
Subscriber PIM Peripheral ID ______________
Subscriber PIM Peripheral Name ____________
Go to Unified CCE Tools → Peripheral Gateway Setup
Click Peripheral Gateway
Next

IMPORTANT: Must be PG1
Click Add to Add 2 PIM (one at a time)

PIM 1 – CUCM Publisher 142.1Y.64.21

Username: USPGUSER
Password: voicebootcamp
Periphreal ID: 5000 (or default one)
Agent Length = 4
Enable
Codec – G.711
Click OK. If you do not have subscriber, ignore this part.
### Device Management Protocol Properties

#### Side A Properties
- **CallRouter is local**
- **CallRouter is remote (WAN)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable Bandwidth (Kbps)</td>
<td>30000</td>
</tr>
<tr>
<td>Heartbeat Interval (100ms)</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Side B Properties
- **CallRouter is local**
- **CallRouter is remote (WAN)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable Bandwidth (Kbps)</td>
<td>30000</td>
</tr>
<tr>
<td>Heartbeat Interval (100ms)</td>
<td>4</td>
</tr>
</tbody>
</table>
### Peripheral Gateway Network Interfaces

<table>
<thead>
<tr>
<th>Private Interfaces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PG private A</td>
<td>192.168.107.55</td>
</tr>
<tr>
<td>PG private A high</td>
<td>192.168.107.55</td>
</tr>
<tr>
<td>PG private B</td>
<td>192.168.107.65</td>
</tr>
<tr>
<td>PG private B high</td>
<td>192.168.107.65</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visible Interfaces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PG visible A</td>
<td>142.1Y.64.55</td>
</tr>
<tr>
<td>PG visible B</td>
<td>142.1Y.64.55</td>
</tr>
<tr>
<td>Router visible A</td>
<td>142.1Y.64.51</td>
</tr>
<tr>
<td>Router visible A high</td>
<td>142.1Y.64.51</td>
</tr>
<tr>
<td>Router visible B</td>
<td>142.1Y.64.51</td>
</tr>
<tr>
<td>Router visible B high</td>
<td>142.1Y.64.51</td>
</tr>
</tbody>
</table>
Now ADD CTI Server

CTI Server is required by Cisco Finesse to communicate with PG which in return talks to CUCM where Agent IP Phones are located.

Finesse → CTI Server → PG Server → CUCM
Note down the PORT Number
Ensure proper IP Address is provided.
Verify and Start the Service
Verify if PG is communicating with CUCM

PG - A Server
**Unified ICM-CCE-CCH Diagnostic Framework Portico**

Hostname: pgb.corp.voicebootcamp.com  Address: ::1

<table>
<thead>
<tr>
<th>Commands:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm</td>
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<tr>
<td>SetAlarms</td>
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<td>GetAlarms</td>
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<td>Configuration</td>
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<td>ListConfigurationCategories</td>
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<td>GetConfigurationCategory</td>
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<td>Inventory</td>
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<td>ListAppServers</td>
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<td>License</td>
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<td>GetProductLicense</td>
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<td>Log</td>
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<td>ListLogComponents</td>
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<td>ListLogFiles</td>
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<tr>
<td>Network</td>
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<td>GetNetStat</td>
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<td>GetPConfig</td>
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<tr>
<td>GetTraceRoute</td>
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<td>GetPing</td>
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<td>Performance</td>
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<td>GetPerformanceInformation</td>
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<td>GetPerfCounterValue</td>
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<tr>
<td>Platform</td>
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<tr>
<td>GetPlatformInformation</td>
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<td>Service</td>
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<td>ListServices</td>
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<td>ListProcesses</td>
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<td>Trace</td>
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<td>ListTraceComponents</td>
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<td>GetTraceLevel</td>
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<tr>
<td>SetTraceLevel</td>
<td></td>
</tr>
<tr>
<td>ListTraceFiles</td>
<td></td>
</tr>
</tbody>
</table>

**NOW Repeat this ADD PG to PG Server Lab on Site B Server PG-B 142.1Y.64.65**

**17. Adding PG for INDIA Cluster (Agent Cluster)**

Now we will add PG on the Administrative Server for INDIA clusters. This is where Finesse will point to communicate with CUCM IP Phone.

Task Involve
- Install JTAI Plugin from Indian CUCM Cluster
- Application Username
- Add PG to Administrative and Data Server for India Cluster
- Add CTI Server for Finesse

NOTE: INDIA CUCM Cluster is already configured with the Agent IP Phone and Application Username. You Do not have to create application user

Application Username: icmuser

Password: voicebootcamp
Add PG to Administrative and Data Server

Go to Administrative Server and Login. Install JTAPI client by going to 157.26.1.11 server (please do not change anything). With username: Administrator and password: voicebootcamp. Please see above image for jtapi installation.

Go to UCCE Tools Folder and click Peripheral gateway setup. By know you should be familiar with the following screen.

IMPORTANT: ID must be PG 2. Why because PG1 is already taken by US Clusters. Since India cluster is a single cluster, there is no duplex setup as of now. It may change in the future.
Logical Controller ID ______
You can obtain this information from PG Explorer
Username: icmuser
Password: voicebootcamp
This information is pre-configured
Peripheral ID must be obtained from PG Explorer

<table>
<thead>
<tr>
<th>CUCM Configuration (PIM 1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabled</td>
<td>✓</td>
</tr>
<tr>
<td>Peripheral name:</td>
<td>INPG_CUCM_1</td>
</tr>
<tr>
<td>Peripheral ID:</td>
<td>5001</td>
</tr>
<tr>
<td>Agent extension length:</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CUCM Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
</tr>
<tr>
<td>User Id:</td>
</tr>
<tr>
<td>User password:</td>
</tr>
<tr>
<td>Mobile Agent Codec:</td>
</tr>
</tbody>
</table>
Device Management Protocol Properties

- Side A properties
  - CallRouter is local
  - CallRouter is remote (WAN)

- Side B properties
  - CallRouter is local
  - CallRouter is remote (WAN)

Usable Bandwidth (Kbps): 30000
Heartbeat Interval (100ms): 4

Help  < Back  Next  >  Cancel
Please ensure Proper IP Addresses are defined. Since this is a simplex deployment there is no private IP Address.
Add CTI Server
Click next

CTI Server Component Properties

- CTI Server configuration
  - Client Connection Port Number: 42027
  - Agent Login Required for Client Events
CTI Server Network Interface Properties

PG public interfaces
Node A: 142.1.64.53
Node B: 142.1.64.53

CG private interfaces
Node A: 142.1.64.53
Node B: 142.1.64.53

CG visible interfaces
Node A: 142.1.64.53
Node B: 142.1.64.53

Unified ICM/CCE/CCH PGSetup: vbc-CG2A

Check Setup Information

Setup has enough information to begin the configuration operation.
If you want to review or change any of the settings, click Back.
If satisfied, click Next to begin configuring the CTI Gateway.

Current Settings:
Setup Type:
CTI Gateway, side A

Target Directory:
C:\icm

Configuration:
P G node is 142.1.64.53
CTI Gateway is simplex
DMP address is 2
Verify and Start the Services

Verify if PG is registered with CUCM

Open UCCE Diagnostic Framework Portico
Following item must be ACTIVE
18. Configuring Skills Group, Agent, Call Type and Dial Number & Agent Target Rule & Create basic Scripts
Task Involve

- Create a skills group for basic testing – SalesGroup
- Create Two Agent
  - Vijay Kumer – Ext 3Y01
  - David Smith – Ext 3Y02
- Assign Agent to Skills Group
- Create A call type – VoiceCT
- Create Dial Number – DN 2000 (or whatever you put as a DN for your CTI Route Point in US Clusters)
- Add Agent Target Rule to Allow Agent Extensions – 3000 – 3999
- Create Basic Scripts

Create a skills group for basic testing – SalesGroup
Create Two Agent
Assign him to Skills Group call SalesGroup

Repeat this for next Agents or more

**Create A call type – VoiceCT**

Call Type defines category of call. Such as voice call, email or HTTP etc.
Create Dial Number – DN 2000
(or whatever you put as a DN for your CTI Route Point in US Clusters)

Click Save.
Add Agent Target Rule to Allow Agent Extensions – 3000 – 3999

Create Basic Scripts

Go to Administrative Server
Click SAVE and Save The Files
Then go to Script Menu → Call Type Manager
Now schedule the script to run 24/7
Now we will login to Cisco Finesse Server and Configure to Talk to UCCE.

Remember Finesse talk to CTI Server which is associated with PG where Agent will login from. This is very important to understand.

You must login to Finesse by going to [https://fn.podY.com/cfadmin](https://fn.podY.com/cfadmin)

IP Address may not work due to certificate issues.
Try to login from PG/Administrative servers due Java it may be better.
Now SSH to Finesse Server and Restart the Cisco Tomcat

SSH → 142.1Y.64.73

Username: administrator
Password: voicebootcamp

After Service is re-started

Now Install Cisco IP Blue Phone from [www.ipblue.com](http://www.ipblue.com) and download Multilab VTO phone -
Phone 1 – 3 – User Phone register to US Clusters
Phone 5 – 8 – Agent IP phone registered to India clusters

Please replace Y with your POD number
Now Open Phone 1 and Phone 5

These phone are working in DEMO phone thus every 20 minutes they close. Just open it again

Create SIP Trunk from your US Cluster CUCM to India Cluster

Go to US Cluster 142.1Y.64.21

Go to Device Menu → Trunk → Add Trunk
## Trunk Configuration

### Status

- **Status**: Ready

### SIP Trunk Status

- **Service Status**: Unknown - OPTIONS Ping not enabled
- **Duration**: Unknown

### Device Information

<table>
<thead>
<tr>
<th>Device Protocol</th>
<th>SIP Trunk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk Service Type</td>
<td>SIP</td>
</tr>
<tr>
<td>Device Name*</td>
<td>None (Default)</td>
</tr>
<tr>
<td></td>
<td>SipTrunkToMediaCluster</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Device Pool*</td>
<td>Default</td>
</tr>
<tr>
<td>Common Device Configuration</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Call Classification*</td>
<td>Use System Default</td>
</tr>
<tr>
<td>Media Resource Group List</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Location*</td>
<td>Hub_None</td>
</tr>
<tr>
<td>AAR Group</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Tunneled Protocol*</td>
<td>None</td>
</tr>
<tr>
<td>QSIG Variant*</td>
<td>No Changes</td>
</tr>
<tr>
<td>ASN.1 ROSE OID Encoding*</td>
<td>No Changes</td>
</tr>
<tr>
<td>Packet Capture Mode†</td>
<td>None</td>
</tr>
<tr>
<td>Packet Capture Duration</td>
<td>0</td>
</tr>
<tr>
<td>Media Termination Point Required</td>
<td></td>
</tr>
<tr>
<td>Retry Video Call as Audio</td>
<td></td>
</tr>
<tr>
<td>Path Replacement Support</td>
<td></td>
</tr>
<tr>
<td>Transmit UTF-8 for Calling Party Name</td>
<td></td>
</tr>
</tbody>
</table>
Save and Reset

Now Add Route Pattern

Go to Call Routing Menu → Route/Hunt → Route Pattern
Save. Now from Your User Phone dial your Agent Phone to make sure it works.
You can see call in progress

Now Login to Cisco Finesse as an agent

Go to https://fn.podY.com ← Y is your POD number
After Login you will see the following. You may have to accept certificate to login

Now Go to Ready Mode by clicking Not Ready and Change the status

Now Dial Your Helpdesk Number 2000 from User Phone
As you can see call has arrived in Finesse and now you can answer it from either the Agent Phone or Finesse by clicking Answer
Its Party Time
Now