



Cisco Unified Web and E-Mail Interaction Manager Deployment and Maintenance Guide

For Unified Contact Center Enterprise and Hosted and Unified ICM

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Americas Headquarters

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Preface

- About This Guide
- Document Conventions
- Other Learning Resources

Welcome to Cisco® Interaction ManagerTM, multichannel interaction software used by businesses all over the world to build and sustain customer relationships. A unified suite of the industry's best applications for web and email interaction management, it is the backbone of many innovative contact centers and customer service organizations.

Cisco Interaction Manager includes a common platform and one or both of the following applications:

- Cisco Unified Web Interaction Manager (Unified WIM)
- Cisco Unified E-Mail Interaction Manager (Unified EIM)

About This Guide

Cisco Unified Web and E-Mail Interaction Manager Deployment and Maintenance Guide discusses best practices for maintaining your Unified EIM and WIM installation. Intended for system and database administrators, this guide will help you keep the installation in good health and to fine tune it to improve its performance.

This version of the guide is for installations that are integrated with Cisco Unified Contact Center Enterprise (Unified CCE).

Document Conventions

This guide uses the following typographical conventions.

Convention	Indicates
Italic	Emphasis. Or the title of a published document.
Bold	Labels of items on the user interface, such as buttons, boxes, and lists. Or text that must be typed by the user.
Monospace	The name of a file or folder, a database table column or value, or a command.
Variable	User-specific text; varies from one user or installation to another.

Document conventions

Other Learning Resources

Various learning tools are available within the product, as well as on the product CD and our web site. You can also request formal end-user or technical training.

Online Help

The product includes topic-based as well as context-sensitive help.

Use	To view
Help button	Topics in <i>Cisco Unified Web and E-Mail Interaction Manager Help</i> ; the Help button appears in the console toolbar on every screen.
F1 keypad button	Context-sensitive information about the item selected on the screen.

Online help options

Documentation

- The latest versions of all Cisco documentation can be found online at http://www.cisco.com
- All Unified EIM documentation can be found online at http://www.cisco.com/en/US/products/ps7236/tsd_products_support_series_home.html
- All Unified WIM documentation can be found online at http://www.cisco.com/en/US/products/ps7233/tsd_products_support_series_home.html
- In particular, Release Notes for these products can be found at http://www.cisco.com/en/US/products/ps7236/prod_release_notes_list.html
- For general access to Cisco Voice and Unified Communications documentation, go to http://www.cisco.com/en/US/products/sw/voicesw/tsd_products_support_category_home.html

The document set contains the following guides:

- Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager
- Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide
- Cisco Unified Web and E-mail Interaction Manager Installation Guide
- Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide

User Guides for agents and supervisors

- Cisco Unified Web and E-Mail Interaction Manager Agent's Guide
- Cisco Unified Web and E-Mail Interaction Manager Supervisor's Guide

User guides for Knowledge Base managers and authors

Cisco Unified Web and E-Mail Interaction Manager Author's Guide

User guides for administrators

- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Administration Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Routing and Workflows
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Chat and Collaboration Resources
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Email Resources
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Data Adapter
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Reports Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to System Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Tools Console

Preparing Unified CCE for the Integration

- Relationship Between Objects in Unified CCE and Unified WIM and EIM
- Designing Your Installation
- Obtaining Unified EIM and WIM Licenses
- Installing Unified CCE
- Setting up Agent Desktops for Voice Call Routing
- Configuring Cisco Unified Communication Manager for Routing Voice Calls
- Planning Unified CCE Configuration
- Configuring Unified CCE
- Configuring Avaya G3 Installations
- Installing Unified EIM and WIM and the Integration
- > Preparing Cisco Media Blender for the Integration
- Configuring the System for Multiple Agent PGs

This chapter provides an overview of the process of setting up an integrated Unified WIM and EIM–Unified CCE system. It includes a note about the relationship between objects in the two systems.

Relationship Between Objects in Unified CCE and Unified WIM and EIM

This section provides a brief introduction to the relationship or "mapping" between objects that are used in both Unified CCE and Unified WIM and EIM.

The following table provides a high-level view of the relationship between various objects.

Unified CCE object	Mapped in Unified WIM and EIM to	Notes
Agent Supervisor Administrator	User	 An agent belongs to a peripheral. A peripheral belongs to an agent peripheral gateway (PG).
Skill group	User group	 A skill group belongs to a peripheral. A peripheral belongs to an agent PG.
Media routing domain (MRD)	Queue	Multiple queues can belong to a single MRD.
Script selector	Queue	A script selector can belong to only one queue.

Typically, the mapping between these objects is initially set up by running the Cisco Interaction Manager integration wizard. The integration wizard can be run once for each department. Subsequently, additional objects can be created in Unified CCE and manually mapped to Unified WIM and EIM objects. This is done from the Unified WIM and EIM Administration Console.

Properties of mapped objects are set up in Unified CCE, while permissions are managed through Unified WIM and EIM.

Designing Your Installation

See *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide* (for Unified CCE) to evaluate available deployment models and design your installation.

Obtaining Unified EIM and WIM Licenses

▶ To order licenses for your Unified EIM and WIM deployment, contact the Cisco License team. You will need licenses while setting up the integrated system. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Release Notes* for 4.3(1).

Installing Unified CCE

- Ensure that Unified CCE is installed and available for use. Verify that the following items are installed:
 - Unified CCE Instance
 - Call Router Side A
 - Call Router Side B (optional)
 - Logger Side A
 - Logger Side B (optional)
 - Primary Admin Workstation
 - Secondary Admin Workstation (optional)
 - Historic Data Server
 - Network Interface Controllers (NIC) (Only required for Pre-routing)
 - Agent Peripheral Gateway (Agent PG)
 - Media Routing Peripheral Gateway (MR PG)
 - CTI Server
 - Webview Database
 - Java Telephony Application Programming Interface (JTAPI)
 - Cisco Media Blender (CMB) (Only required for callback, delayed callback, and blended collaboration activities.)
 - Computer Telephony Integration Object Server (CTIOS) (Only required for callback, delayed callback, and blended collaboration activities.)

See the following documents for help with installing and configuring the system:

- Getting Started with Cisco Unified Contact Center Enterprise
- Cisco Unified Contact Center Enterprise Installation Guide

Setting up Agent Desktops for Voice Call Routing

- Install IP Communicator on each agent's desktop, or configure an IP phone that communicates with Cisco Unified Communication Manager for the agent. Look at the following links for detailed instructions on installing and configuring IP Communicator and IP phones.
 - O IP Communicator: http://www.cisco.com/en/US/products/sw/voicesw/ps5475/index.html
 - IP Phone: http://www.cisco.com/en/US/products/hw/phones/ps379/index.html

Configuring Cisco Unified Communication Manager for Routing Voice Calls

This section talks about how to configure phones, directory numbers, and end users from the Cisco Unified Communication Manager Administration user interface.

To configure Cisco Unified Communication Manager for routing voice calls:

- 1. Open a web browser and launch the URL: http://Cisco Unified Communication Manager Server Name
- 2. On the page, click the link Cisco Unified Communications Manager Administration.
- 3. On the login page, provide the administrator username and password and click the Login button.



Login as an administrator

- 4. On the next page, from the **Device** menu, select **Phone**.
- 5. On the Find and List Phones page, click the Add New button.

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Click the Add New button

6. On the Add a New Phone page, in the **Phone Type** field, select **Cisco IP Communicator** or the IP phone you configured earlier on page 12. Click **Next.**

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Status -	ıs: Ready								
- Select ti	he type of ph	ione you would li	ke to create						
-none ryp	Cisco IP (Communicator		*					
- Next -									

Select the phone type

7. On the Phone Configuration page, in the Select the device protocol field, select SCCP. Click Next.

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Select the	device protocol:	SCCP				~				
- Next -										

Select the device protocol

8. On the Phone Configuration page, provide the details for the new phone. Refer to **Help** (menu) > **This Page** for details about the fields. After providing all the required information, click the **Save** button.

System - Call Routing - Media Resource	es • Voice Mail • Device • Application • User Man	agement 👻 Bulk Administration 👻 Help 👻
Phone Configuration	Rela	ed Links: Back To Find/List 💌 Go
Save		
Description		
Device Pool*	Not Selected	View Details
Common Device Configuration	< None >	View Details
Phone Button Template*	Not Selected	
Softkey Template	< None >	
Common Phone Profile*	Standard Common Phone Profile	
Calling Search Space	< None >	
AAR Calling Search Space	< None >	
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 Mobility
	Settings	
Owner User ID	< None >	
Phone Personalization*	Default	
Services Provisioning*	Default	

Configure the phone properties

- 9. Next, from the Call Routing menu, select Directory Number.
- 10. On the Find and List Directory Numbers page, click the Add New button.

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Click the Add New button

 On the Directory Number Configuration page, provide the details for the new directory number. Refer to Help (menu) > This Page for details about the fields. After providing all the required information, click the Save button.

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Presence Group*	Standard Presence grou	P		*		
User Hold MOH Audio Source	< None >			*		
Network Hold MOH Audio Source	< None >			~		

Configure the directory number properties

- 12. Next, from the User Management menu, select End User.
- 13. On the Find and List Users page, click the Add New button.

Cisco Unified CM Administration For Cisco Unified Communications Solutions	Navigation Cisco Unified CM Administration 🕑 Go CCMAdministrator About Logout
System • Call Routing • Media Resources • Voice Mail • Device •	Application Ver Management Bulk Administration Help
Find and List Users	
Add New	
User	
Find User where First name 💙 begins with 💙	Find Clear Filter
No active query. Please enter your sea	rch criteria using the options above.
Add New	

Click the Add New button

- 14. On the End User Configuration page, provide the details for the new user. Refer to Help (menu) > This Page for details about the fields. After providing all the required information, click the Save button. Make sure you provide the following values in the Controlled Devices and Primary Extension fields.
 - **Controlled Devices:** Select the phone configured in Step 8.

• **Primary Extension:** Select the directory number configured in Step 11.

CCMAdministrator About Legout System + Call Routing + Media Resources + Voice Mail + Device + Application + User Management + Bulk Administration + Help + End User Configuration Related Links: Back to Find List Users + Configuration Image: Status Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Image: Status + Image: Status + Image: Status + Image: Status + Image: User Information Imag	cisco Eor Cisco Uni	ified CM Adminis	tration	Na	vigation Cisco Unifie	ed CM Administration	🔽 😡
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Mail ID	Mail ID						
Manager User ID	Manager User ID						
Department	Department						
User Locale < None >	User Locale	< None >		*			
Associated PC	Associated PC						
Digest Credentials	Digest Credentials						
Confirm Digest Credentials	Confirm Digest Credentials						
Name Dialing	Name Dialing						

Create a new user

Ensure that the new agent phone is associated with the user that was created while installing the Agent PG. For details, see the *Cisco Unified Contact Center Enterprise Installation Guide*.

Planning Unified CCE Configuration

To integrate Unified CCE with Unified WIM and EIM, multiple objects have to be configured in Unified CCE. The specific objects that have to configured will depend on the activities (email, chat etc.) supported by the integrated installation. This section describes the objects required for each activity type—inbound email, outbound email, chat, blended collaboration, callback, and delayed callback.

The following objects must be configured in the order in which they are presented here. For configuration details, refer to the following section: "Configuring Unified CCE" on page 18.

- 1. Application instance (page 18)
- 2. Media classes (page 19)
- 3. Media routing domains (MRD) (page 21)
- 4. Network voice response unit (Network VRU) (Not required for outbound email activities) (page 22)
- 5. Call type (page 23)
- 6. Media routing peripheral gateway (MR PG) (page 24)
- 7. Agent desk settings (page 28)

- 8. Agent peripheral gateway (Agent PG) (page 29)
- 9. Network trunk group (page 31)
- 10. Application path (page 32)
- 11. Agents (page 34)
- 12. Skill Groups
 - IPTA skill groups (page 36)
 - Non-IPTA skill group (Not required for callback and delayed callback activities.) (page 37)
- 13. Labels (Not required for callback and delayed callback activities.) (page 39)
- 14. Script selector (page 40)
- 15. Scripts (Not required for outbound email activities) (page 42)
- 16. Device target (Not required for inbound email, outbound email, and chat activities) (page 46)
- 17. Expanded Call Context (ECC) variables (page 47)

Configuring Unified CCE

In this section, we describe the process of configuring the Unified CCE objects required for the integration with Unified WIM and EIM. These objects must be configured in the order in which they are presented here. For details of these objects refer to the Online Help and accompanied documentation for Unified CCE.



Important: If your installation uses an Avaya G3 switch, see the procedures described in the section "Configuring Avaya G3 Installations" on page 48.

Configuring Application Instance

Application instances are configured for each installation of a multi-media feature in your configuration.

Configure a single application instance for integrating with Unified WIM and EIM. This application instance is used for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

To configure an application instance:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > List Tools > Application Instance List.
- 3. Double-click Application Instance List.
- 4. In the Application Instance List window, in the Select filter data section, click **Retrieve**. Then, in the Application Instance section, click **Add**.

A new entry is created in the Application Instance section and the Attributes tab becomes editable.

- 5. On the Attributes tab, provide the following details:
 - Name: Provide a name for the application instance.

- Application key: Click the Change Application Key button and provide a unique value for the key. Please note that Unified WIM and EIM uses the application instance name and not the application key to connect to Unified CCE.
- Application type: Set it to <Other>.
- Permission level: Set it to Read only.

Click Save.

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Cascua Geo_Gión cisco_Gión_1 cisco_Gión_2 cisco_Gión_3 Michelle_Application	disco2 disco2	e company	P		
acco_dan_r casco_dan_z casco_dan_2 casco_dan_3 Michele_Application	r cisco_GGn				
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	Crisco_Liun_3 Michelle_Application				
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Add Delete Reyert Save Dose Help	Add Delete Reyert		Sa	ive <u>C</u> lose	Help

Configure the application instance

Configuring Media Classes

A media class defines the type of requests you want to set up for routing on Unified CCE. You should configure a media class for each media supported by your Unified WIM and EIM deployment. A media class is required for creating MRDs. It helps categorize the MRDs based on media type (email, for example).

Create the following media classes:

- An email media class for inbound emails.
- An email media class for outbound emails.
- A chat media class for chat.
- A BC media class for blended collaboration (BC).
- Callback and Delayed callback use the existing Cisco_Voice media class, which is already created by the system.

To configure a media class:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > List Tools > Media Class List.

- 3. Double-click Media Class List.
- 4. In the Media Class List window, in the Select filter data section, click **Retrieve.** Then, in the Media Class section, click **Add.**

A new entry is created in the Media Class section and the Attributes tab becomes editable.

- 5. On the Attributes tab, provide the following details:
 - **Name:** Provide a name for the media class. If the media class is meant to be used in Unified WIM and EIM, use one of the following names. Note that the names of media classes are case sensitive. Make sure that you use the exact names as provided here.
 - CIM_EIM (for inbound email)
 - CIM_OUTBOUND (for outbound email)
 - CIM_WIM (for chat)
 - CIM_BC (for blended collaboration)

Media classes are set in the

Cisco_Home\eService\config\ipcc\egicm_media_class_mappings.properties file as CIM_EIM, CIM_OUTBOUND, CIM_WIM, and CIM_BC. If you use names other than these, you must change them in the file and then restart Cisco Service. Note that the names of media classes are case sensitive.

In the Task section, set the following.

- Life: Set the value to **300** seconds.
- Start timeout: Set the value to **30** seconds.
- Max Duration: Set the value to 28800 seconds.
- 6. Click Save.

🚔 Media Class List		- 🗆 🗡
Select filter data	Attributes	
Optional Filter Condition Value	Name * Email_Media_Class_Name Description Task	
Save <u>R</u> etrieve Cancel filter changes	Life * 300 seconds	
_ Media Class	Start timeout * 10000 seconds	
Name	Max duration * 28800 seconds	
Cisco_Email Cisco_Voice		
Email_Media_Class_Name	P	
Add Delete Revert	Save Dose	Help
	· · · · · · · · · · · · · · · · · · ·	

Configure media classes

Configuring Media Routing Domains (MRDs)

An MRD is a collection of skill groups and services that are associated with a common communication medium. Unified CCE uses an MRD to route tasks to agents who are associated with a skill group and a particular medium. A media routing domain is created in Unified CCE for mapping to queues in Unified WIM and EIM.

You need to create the following media routing domains:

- ▶ For inbound email media class, configure an email media routing domain.
- ▶ For outbound email media class, create an email media routing domain.
- For chat, create a chat media routing domain.
- For blended collaboration, create a BC media routing domain.
- For callback and delayed callback, use the existing voice media routing domain (Cisco_Voice) created by the system.

To configure a media routing domain:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > List Tools > Media Routing Domain List.
- 3. Double-click Media Routing Domain List.
- 4. In the Media Routing Domain List window, in the Select filter data section, click **Retrieve.** Then, in the Media Routing Domain section, click **Add.**

A new entry is created and the Attributes tab becomes editable.

- 5. On the Attributes tab, provide the following details:
 - Name: Provide a name for the media routing domain.
 - **Media class:** Select a media class created for Cisco Unified Web and E-Mail Interaction Manager (page 19). Make sure that you select the correct media class for the MRD. For example:
 - For inbound email MRD, select the CIM_EIM media class.
 - For outbound email MRD, the CIM_OUTBOUND media class.
 - For chat MRD, select the CIM_WIM media class.
 - For blended collaboration MRD, select the CIM_BC media class.
 - Interruptible: Select this option while creating MRDs for inbound and outbound emails.

In the Calls in Queue section, set the following:

- Max: Defines the maximum number of activities to be queued for the MRD. The recommended value is 5000. If the field is left blank, Unified EIM and WIM will read the value from the Cisco_Home\eService\config\ipcc\egicm_configuration.properties file. By default the value of the DEFAULT_MAX_CALLS_IN_MRD property in this file is set to 5000.
- 6. Click Save.

🚔 Media Routing Domain List	
Select filter data	Attributes
Media class <a>All>	Name * media_routing_domain_name
Optional Filter Condition Value	Media routing domain ID *0 Media class * Cisco_Email
Save <u>Retrieve</u> Cancel filter changes	Task
Name Varie Victory Voice Cicco/Voice Cicco/Voice Victory Voice Victory Victory Voice Victory Voice Victory Voice Victory Voice Victory Vo	Life 300 seconds Start timeout 30 seconds Max duration 28800 seconds Cats in Queue Max for call type Max time in queue seconds Service level threshold * 30 seconds Seconds Service level threshold * 30 seconds Seconds
Add Delete Reyert	SaveEloseHelp
ICM Instance: egain	

Configure media routing domains

Configuring Network VRU

A Network VRU is required for supporting incoming activities to Unified CCE. Note that this Network VRU configuration has no relationship with any physical Network VRU existing in your environment.

Configure a single Network VRU for Unified WIM and EIM. This network VRU is used by inbound email, chat, blended collaboration, callback, and delayed callback activities. It is not required for outbound email activities.

To configure a Network VRU:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Network VRU Explorer.
- 3. Double-click Network VRU Explorer.
- 4. In the Network VRU window, in the Select filter data section, click **Retrieve.** Then, click **[1] Add Network VRU.**

A new entry is created and a new set of tabs appear.

- 5. On the Network VRU tab, provide the following details:
 - Name: Provide a name for the network VRU.
 - Type: Set it to Type 2.

Network VRU Explorer			X
Select filter data	Network VRU N	letwork VRU Banks	
	Name:	* cisconetwork_wru	
Optional Filter Condition Value	Type:	* Type 2	•
None	Description:		
Save <u>R</u> etrieve Cancel filter changes			
▼ Hide legend			
(1) Network VRU			
E (2) Label			
Click on an item to edit or view its contents. Use the Add buttons to create new items			
E Sisconetwork vr.			
🗄 🎯 UNASSIGNED			
(1) Add Network VRU			
EV (2) Add Label		Save Cio	ise <u>H</u> elp

Configure network VRU

6. Click Save.

Configuring Call Types

A call type is required to categorize a dialed number (for voice) or a script selector (for email). Call types are used in configuring routing scripts.

Individual call types are required for the following activities: inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities. Make sure you complete these steps for each type of activity.

To configure a call type:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > List Tools > Call Type List.
- 3. Double-click Call Type List.
- 4. In the Call Type List window, in the Select filter data section, click **Retrieve.** Then, in the Call Type section, click **Add.**

A new entry is created and the Attributes tab becomes editable.

5. On the Attributes tab, in the Name field, provide a name for the call type. Click Save.

Select filter data	Attributes		
Customer CAll>	Name	* call_type_name	
Diptional Filter Condition Value None Save Betrieve Cancel filter changes If Type Name	Service level	<none></none>	Uverride System Information Default
Coll Type 1 default_cal_type demo_callype demo_callype Demo_callype Demol_CT guernlaCT	Service level type	Ignore Abandoned Calls	Override System Information Default
	Description	Incore Conyed Tutes as	
Add Delete Reyert		Save	<u>C</u> lose <u>H</u> elp

Provide the name of the call type

Configuring Media Routing Peripheral Gateways (MR PGs)

An MR PG handles new activity routing requests initiated by Unified WIM and EIM, over the connection established by the embedded MR PIM (side A or side B). The MR PG provides routing instructions to Unified WIM and EIM, while the Agent PG is used to report agent state and status to Unified CCE. Also note that agents are not configured on MR PG. They are always configured on Agent PG.

Configure a single MR PG for Unified WIM and EIM. This MR PG is used for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

The MR PG configuration involves three steps:

- > Configuring MR PG using the Configuration Manager: The details are described in this section.
- > Installing MR PG: For details, see the Unified CCE Installation Guide.
- Creating MR PIM for the installed MR PG: You need to create a single MR PIM for Unified WIM and EIM. For details, see the Unified CCE Installation Guide. While creating the MR PIM, you would be asked to provide the Application Connection Port number. As a best practice it is recommend that you use a port number greater than 2000. Note down the Application Connection Port number that you provide here. You would need it while configuring EAAS (page 88).

To configure a media routing peripheral gateway (MR PG):

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > PG Explorer.
- 3. Double-click PG Explorer.
- 4. In the PG Explorer window, in the Select filter data section, click Retrieve. Then, click [1] Add PG.

- 5. On the Logical Controller tab, provide the following details:
 - Name: Provide a name for the media routing peripheral gateway.
 - Client type: Set it to MR PG.

Select filter data Optional Filter Oncome Image: Condition Value Image: Condition Image: Condition </th <th>🛱 PG Explorer</th> <th></th> <th></th>	🛱 PG Explorer		
Use the Add Autom to create new items. Image: Description Image: Descripti	Select liter data Optional Filter Condition Value Optional Filter Condition Value None Image: Condition Value Save Entreve Cencel filter changes Image: Condition Value Image: Condition Image: Value Image: Condition Value Image: Val	Logical Controller Logical Controller Logical controller ID + 5017 Physical controller ID + 5018 Name: Percipheral_gateway_name Client type: MR PG Configuration parameters: Description: Physical controller description: Physical controller description: Primary CTI address: Secondary CTI address:	
Case Case Han	Click on an item to edit ar view its contents. Use the Add buttoms to create new items.		data 1

Configure an MR PG

6. Click [2] Add Peripheral.

A new set of tabs appear.

- 7. On the Peripheral tab, provide the following details:
 - Client type: Select MR PG.
 - Default desk settings: Select None.

• Enable Post Routing: Select the option.

🛱 PG Explorer	
PG Explorer Select filter data Optional Filter Condition Value None Save Betrieve Cencel filter changes	Logical Controller Logical controller ID: + 5017 Physical controller ID: + 5018 Name: * peripheral_gateway_name Client type: * MR PG Configuration parameters:
Hide legend (1) PG (2) Perpheral	Physical controller description: Pirmary CTI address: Secondary CTI address:
Click on an item to edit or view its contents. Use the Add buttors to create new items:	Skill Group Mask. Routing client. Default route. Peripheral Monitor Peripheral ID: + 5016 Name: * peripheral_gateway_name_1 Peripheral name: * peripheral_gateway_name_1 Client type MR PG Contiguration parameters: * Call control vaniable map: Peripheral settings: Peripheral deak settings: NONE Peripheral setvice level type.* Calculated by Call Center Enable poot routing: Peripheral euto configured.
I2) Add Peripheral Delete Multiple	

Enable post routing

8. On the Advanced tab, in the **Network VRU** field, from the dropdown list, select the Network VRU configured for Unified WIM and EIM (page 22).

PG Explorer	
Select filter data	Logical Controller
	Logical controller ID: + 5017 Physical controller ID: + 5018
Optional Filter Condition Value	Name: * peripheral_gateway_name
None 💌 💌	Client type: * MR PG
Save <u>R</u> etrieve Cancel filter changes	Configuration parameters:
	Description:
Hide legend	Physical controller description:
(1) PG (2) Peripheral	Primary CTI address:
	Secondary CTI address:
Dick on an item to edit or view its contents. Sas the Add buttors to create new Kems. Bendrow Add	Skill Group Mask Routing clerit Default route Peripheral Available holdoff delay. Advanced Agent Distribution Available holdoff delay. Image: Constraint of the state
(2) Add Peripheral	
	Save Dose Help

Select a network VRU

- 9. On the Routing client tab, provide the following details:
 - Name: Provide a name for the routing client.

- Default media routing domain: From the dropdown list, select None.
- **Default call type:** From the dropdown list, select **None.**
- Client type: Set it to MR PG.

Click Save.

G Explorer	
Select filter data	Logical Controller
	Logical controller ID: * 5017 Physical controller ID: * 5018
Dotional Filter Condition Value	Name: * peripheral_gateway_name
None	Client type: * MR PG
Save Betrieve Cancel filter chu	Configuration parameters:
	Description
Hide legend	District control of co
デ (1) PG	
(2) Peripheral	
	Secondary UTT address:
Eck on an item to edit or view its contents. B agent_pg B agent_pg B agent_pg B agent_pg B GiscoPG B CiscoPG B CiscoPG	Peripheral Advanced Agent Distibution Skill Group Mask Routing client Default route Peripheral Monitor Name: * routing_client_name ID:* 5016 Timeout Intreshold: * 1000 Late threshold: * 1000 Default routing domain: gon Default routing domain: gon Default routing domain: gon Default routing routing domain: Gon Configuration parameters: Use DN/Label map: Client type: * MR PG Description: MR PG Network routing client: Image:
(2) Add Peripheral <u>D</u> elete	Aultiple
	Save Dise Help

10. On the Default route tab, in the Media Routing Domain field, ensure that the Route: field is set to None.

🖨 PG Explorer	
PG Explorer Select filter data Optional Filter Condition Value None P P Save Retrieve Concel filter changes Hide legend (1) PG (2) Peripheral	Logical Controller Logical Controller ID: + 5017 Physical controller ID: + 5018 Name:
Cick on an item to dit or view its contents. Uite the Add buttoms to create new items. Image: Add Peripheral Image: Add Peripheral	Peripheral Advanced Agent Distribution Skill Group Mask Routing client Default route Peripheral Monitor Current default route entries Media routing domain Route Route Media routing domain Route Delete Media routing domain: *
	Save Dose Help
CM Instance: equin	

Configure an MR PG

11. Click **Save**. Note down the Logical controller ID generated in the Logical Controller tab. It is needed while configuring MR PIM.

Important: Now install the MR PG and configure the MR PIM. For more information, see the Unified CCE Installation Guide.

Configuring Agent Desk Settings

Agent desk settings are a common set of properties for a group of agents working on voice call requests.

This is required for configuring an Agent PG. You need to configure at least one Agent Desk Setting for Unified WIM and EIM.

To configure agent desk settings:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > List Tools > Agent Desk Settings List.
- 3. Double-click Agent Desk Settings List.
- 4. In the Agent Desk Settings List window, in the Select filter data section, click **Retrieve.** Then, in the Agent Desk Settings section, click **Add.**

A new entry is created and the Attributes tab becomes editable.

5. On the Attributes tab, in the Name field, provide a name for the agent desk setting group. Click Save.

elect filter data	Attributes	
Construction and a second		
	Name * agent_desk_setting_name	
Dptional Filter Condition Value	Ring no answer time seconds (1 · 120)	
Name Contains 🔽	Ring no answer dialed number (None)	•
Save <u>Retrieve</u> Cancel filter changes	Logout non-activity time seconds (10 - 7200)	
ent Desk Settings	Work mode on incoming * Optional	
Name Tom	Work mode on outgoing * Optional	
default	Wrap up time 7200 seconds (1 - 7200)	
	Assist call method Consult	
	Emergency alert method Consult	
	Description	
	Miscellaneous Outbound Access	
	Auto answer International	
	Idle reason required National	
	Logout reason required	
	Auto record on emergency Operator assisted PBX	
	Enable Cisco Unified Mobile Agent	
	Mobile agent mode	
Add Dalata Round		

Provide the name of the agent desk settings group

Configuring Agent Peripheral Gateway (Agent PG)

An Agent PG is required for creating one or more peripherals that manage agent distribution within Unified CCE. Configure an Agent PG using the Configuration Manager and then install it on the appropriate machine.

You can configure a maximum of four Agent PGs for Unified WIM and EIM. These Agent PGs are used for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

Note that you can also use an existing Agent PG if it is of the type Call Manger/Soft ACD.

To configure an agent peripheral gateway:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > PG Explorer.
- 3. Double-click PG Explorer.
- 4. In the PG Explorer window, in the Select filter data section, click Retrieve. Then, click [1] Add PG.
- 5. On the Logical Controller tab, provide the following details:
 - Name: Provide a name for the agent peripheral gateway.
 - Client type: Set it to CallManager/SoftACD or PG Generic.
 - **Primary CTI address:** Provide the address of the primary CTI server in the format *IP_Address:Port_Number.* You can either provide the IP address, or the host name.
 - Secondary CTI address: Provide the address of the secondary CTI server in the format *IP_Address:Port_Number*. You can either provide the IP address, or the host name. The secondary CTI address is needed only if the Unified CCE system is duplexed.

🐥 PG Explorer	
Select filter data Optional Filter None Save Betrieve Cancel filter changes	Logical Controller Logical controller ID + UNASSIGNED Physical controller ID + UNASSIGNED Name: * agent_peripheral_gateway_name Client type: * CallManager/SotACD * Configuration parameters: Description: Physical controller description: Primary CTI address: P_Address:Port_Number Secondary CTI address: P_Address:Port_Number
Click on an item to cell or view its contents. Use the Add buttom to create new items.	
Image: Delete Image: Delete Image: Delete Image: Delete Image: Delete Image: Delete Image: Delete Image: Delete	Save Diose Help

Configure agent PG

6. Click [2] Add Peripheral.

A new set of tabs appear.

- 7. On the Peripheral tab, do the following:
 - **Default desk settings**: From the dropdown list, select the agent desk settings configured for Unified WIM and EIM (page 28).
 - Enable post routing: Select the option.

🛱 PG Explorer	
_Select filter data	Logical Controller
	Logical controller ID: + UNASSIGNED Physical controller ID: + UNASSIGNED
Optional Filter Condition Value	Name: * agent_peripheral_gateway_name
None	Client type: * CalManager/SoftACD
Save <u>Retrieve</u> Cancel filter changes	Configuration parameters:
	Description:
Hide legend	Physical controller description:
₩ (1)PG	Primary CTI address: IP_Address:Port_Number
(2) Penpheral	Secondary CTI address: IP_Address:Port_Number
Cick on an item to edit or view its contents. Use the Add buttoms to create now items. Image: Content of the add buttom to create now items.	Skill Group Mask Routing cient Default route Peripheral Monitor Peripheral Advanced Agent Distribution Peripheral International State International State Name: * agent_peripheral_gateway_name_ International State Peripheral name: * agent_peripheral_gateway_name_ International State Clerk type * Call Manager/SoftACD * Location:
	Sava Clara Hab
	<u>7946</u> <u>Tipse</u> <u>Heb</u>

Select agent desk settings

- 8. On the Routing client tab, in the Name field, provide a name for the routing client.
- 9. On the Agent Distribution tab, do the following:
 - a. Click New.
 - b. Select the Enable agent reporting option.
 - c. Select the Agent event detail option.
 - d. In the Currently Selected Site section, set the following:
 - Distributor site name: Provide the host name of the machine where distributor is installed.
 - Enable: Select the option.

10. Click Save.

🖨 PG Explorer	×
Pic Explorer Select filter data Optional Filter Condition Value None Cancel filter changes Hide legend (1) PG (2) Peripheral (2) Peripheral	Logical Controller Logical controller ID:* 5013 Physical controller ID:* 5014 Name: * him_2 Client type: * CallManager/SottACD Configuration parameters: Description: Physical controller description: Primacy CTI address: Secondary CTI address:
Cick on an item to edit or view its contents. Use the Add buttoms to create new items.	Skill Group Mask. Routing clerit. Default route. Peripheral Monitorial Peripheral Advanced Agent Ostribution Enable agent reporting IV Agent event detail Agent Distribution Enries Distributor Site Name Enabled distributor finist insme Y Delete V Delete Y Currently Selected Site Gistributor_Inst_name Enabled Enabled IV IV
	Save Close Help

Configure agent distribution

Configuring Network Trunk Group

Individual network trunk groups are required for the following activities: inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities. Make sure you complete these steps for each type of activity.

To configure a network trunk group:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to **Tools > Explorer Tools > Network Trunk Group Explorer.**
- 3. In the Network Trunk Group window, in the Select filter data section, in the **PG** field select an agent peripheral. Click **Retrieve.**
- 4. Click the [1] Add Network trunk group button.
- 5. On the Network Trunk Group tab, in the Name field, provide the name of the network trunk group.
- 6. Click the [2] Add Trunk group button.
- 7. On the trunk Group tab, set the following.
 - **Peripheral:** From the dropdown list, select an agent peripheral configured for Unified WIM and EIM (page 29).
 - Peripheral number: Provide a unique peripheral number.
 - **Peripheral name:** Provide a unique peripheral name.
 - **Name:** This field is auto-populated.

- 8. Click the [3] Add Trunk button.
- 9. On the Trunk tab, in the **Trunk type** field, select **DND/DNIS**.
- 10. Click Save.

💠 Network Trunk Group Explorer	
Select filter data PG Agent_PG Optional Filter Condition Value None Save Entreve Cancel filter changes Hide legend Hide legend (2) Trunk, group (3) Trunk. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Use the Add buttors to create new items. Click on an item to edit or view its contents. Click on an item to edit or view its conten	Network trunk group Name: * CIM_Network_Trunk_Group Description Trunk group Peripheral: * Agent_PG_1 Peripheral: * [1] Peripheral: * [1] Peripheral: * [CIM_Trunk Name: * Agent_PG_1.CIM_Trunk_Group Extension: Image: Ima
GJAdd Trunk Delete - Multiple	Trunk rumber * 123 Trunk rumber * DID/DNIS Circuit provider

Configure a network trunk group

Configuring Application Path

An application path is required to open a communication channel with a CTI server associated with an Agent PG. It is used for agent and task status reporting. For each Agent PG, create an application path, which Unified WIM and EIM will use to connect to the Agent PG.

Create a single application path and add all the MRD-peripheral combinations for the Agent PG to the application path member list. You do not need to add the voice MRD (Cisco_Voice) to this list. The application path is used for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

Access to the application object filter is restricted. You must use the superuser password (case sensitive) to enable or disable the application object filter. Check with your System Administrator for the password.

Important: For configuring an application path, you need to log in as a superuser.

To configure an application path:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, go to **Options** (menu) > **Application Object Filter.**

3. In the Application Object Filter window, in the Disable / Enable application object filter section, in the **Superuser password** field, provide the password of the superuser and click the **Disable** button. Click **OK**.

Application Object Filte	r	<u>×</u>
Disable / Enable applic	ation object filter	
Superuser password	нижник	Disable
	,	Enable
Change superuser pass	word	
Old password		
New password		
Lonfirm password	I	Change
OK	Cancel Help	

Provide the password of the superuser

- 4. In the Configuration Manager window, browse to Tools > List Tools > Application Path List.
- 5. Double-click Application Path List.
- 6. In the Application Path List window, in the Select filter data section, in the Application Instance field select the application instance configured for Unified WIM and EIM (page 18). Click **Retrieve.**
- 7. In the Application Path section, click Add.

A new entry is created and the Attributes tab becomes editable.

- 8. On the Attributes tab, provide the following details:
 - **Application Instance:** From the dropdown list, select the application instance configured for Unified WIM and EIM (page 18).
 - **Peripheral Gateway:** From the dropdown list, select an agent peripheral gateway configured for Unified WIM and EIM (page 29).
 - Name: This field is auto-populated.

In the Application Path Members section, click the Add button and set the following:

- **Peripheral:** From the dropdown list, select the agent peripheral configured for Unified WIM and EIM (page 29).
- Media routing domain: From the dropdown list, select an MRD configured for Unified WIM and EIM (page 21).

Add all the MRD-peripheral combinations for the Agent PG to the application path member list. You do not need to add the voice MRD (Cisco_Voice) to this list.

Click Save.

Application Path List		<u> </u>
Select filter data	Attributes	
Application instance Application Path	Application instance * HIM_Application_Instance * Peripheral gateway * Agent_PG * Name * Agent_PG.HIM_App_Instance Description	
Name	Application Path Members	
	1 Agert. PO_1 CM_EM 2 Agert. PO_1 CM_VMM 3 Agert. PO_1 CM_OUTBOUND 4 Agert. PO_1 CM_UNM 4 Agert. PO_1 CM_UNM 4 Agert. PO_1 CM_UTBOUND 4 Agert. PO_1 CM_UTBOUND	
Add Delete Reyert	<u>S</u> ave Dise	Help

Configure application path

- 9. In the Configuration Manager window, go to Options (menu) > Application Object Filter.
- 10. In the Application Object Filter window, in the Disable / Enable application object filter section, click the **Enable** button. Click **OK**.

Configuring Agents

An agent is created in Unified CCE for mapping to users in Unified WIM and EIM. Create all IPTA and Non-IPTA agents for whom routing or reporting is done in Unified CCE.

You need to create agents for handling inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

To configure an agent:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to **Tools > Explorer Tools > Agent Explorer.**
- 3. Double-click Agent Explorer.
- 4. In the Agent Explorer window, in the Select filter data section, in the **Peripheral** field select an agent peripheral. Click **Retrieve.**
- 5. Click the [1]Add Agent button.

A new entry is created and a new set of tabs appear.

- 6. On the Agent tab, provide the following details:
 - First name: Provide the first name.

- Last name: Provide the last name.
- **Login name:** Provide the login name for the agent. For blended collaboration, callback, and delayed callback agents, the login name should match the User ID provided while configuring End users from the Cisco Unified Communication Manager Administration user interface (page 16).
- Login enabled: Select the option.
- **Password:** Provide the password for the agent.
- Enterprise name: This field is auto-populated.
- 7. Click Save.

9 Agent Explorer	
Select filter data Peripheral Protocol ACD	Agent Advanced Skill group membership Supervisor
	Personal information First_name Insteam
Optional Filter Condition Value	Login name:* login_name Login enabled:
Save <u>Retrieve</u> Cancel filter changes	Password Select Person
▼ Hide leaend	Peripheral name:
(1)Agent	AgentD (Peripheral number):* [value will be created if left blank]
(3) Peripheral target (4) Label	,
Click on an item to edit or view its contents. Use the Add buttons to create new items.	
Boston_ACD Agent_Jackson_Tom Boston_ACD Jackson_Tom Boston_ACD Jackson_Tom	
(1) Add Agent Delete - Multiple	Save Dose Heb

Configure an agent

Configuring Skill Groups

A skill group is created in Unified CCE for mapping to user groups in Unified WIM and EIM. You can create two types of skill groups:

- ICM-picks-the-agent (IPTA): For an IPTA skill group, the skill group members (agents) are administered and managed in Unified CCE. An IPTA skill group (with associated skill group members) is used in scripts to facilitate routing through Unified CCE to the skill group. This is relevant for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.
- Unified EIM and WIM picks the agent (Non-IPTA): For a Non-IPTA skill group, the skill group members (agents) are administered and managed in Unified WIM and EIM. A Non-IPTA skill group is created for routing activities in cases where a label is returned by Unified CCE to Unified WIM and EIM. When a label is returned, Unified WIM and EIM load balances the activity to a group of agents defined in the user group (that maps to the Non-IPTA skill group) identified by the suffix of the label. This is relevant for inbound email, outbound email, chat, and blended collaboration activities.

To configure an IPTA skill group:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Skill Group Explorer.
- 3. Double-click Skill Group Explorer.
- 4. In the Skill Group Explorer window, in the Select filter data section, select an agent peripheral. Click **Retrieve.**
- 5. Click the [1]Add Skill group button.

A new entry is created and a new set of tabs appear.

- 6. On the Skill Group tab, provide the following details:
 - Media routing domain: From the dropdown list, select an MRD configured for Unified WIM and EIM (page 21).
 - Peripheral number: Provide a unique peripheral number.
 - **Peripheral name:** Provide a name for the skill group.
 - Name: This field is auto-populated.
 - ICM picks the agent: Select the option.

🙀 Skill Group Explorer	
It Group Explorer Select Rer data Peripheral Boston_ACD Media rouling domain Cisco_Voice Optional Filter Condition Value None Save Betieve Concel Rer changes	Skill Group Members Subgroup Mask Sub skill groups Advanced Advanced Media routing domain: * ggn * Peripheral number.* D Peripheral nume.* peripheral_name Name: * Boston_ACD.ggn_peripheral_name Available holdoff delay (sec) Use Peripheral Default * Priorly D Extension: IDM picks the agent *
Sg [1] Add Skill group Delete — Multiple Sg (2) Add Route	Save Diose Help

Configure the properties of an IPTA skill group

- 7. On the Skill Group Members tab, do the following:
 - a. Click the **Add** button.
b. From the Add Skill Group Member window, select the agents to be added in the skill group. Click OK.



Select members for the skill group

8. Click the Add Route button.

A new tab appears.

9. On the Route tab, in the Name field provide the name for the route and click Save.

Skill Group Explorer	
Seligt filter data Perpheral ACD_AVIAYA_P6_1 Media routing domain Citco_Voice Optional Filter Condition Value None Save Betrieve Cancel filter changes Hide legend () Skill group	Skill Group Menbers Subgroup Mask Sub skill groups Skill Group Advanced Media routing domain: * Cisco_Voice Peripheral number: * 5000 Peripheral name* Name: * ACD_AVAYA, PG_1. Cisco_Voice S Available holdolf delay (sec): Use Peripheral Default Priority Extension: 5939 ICM picks the agent
Image: Content of the second secon	Route Skill group priority: Name: * froute_name Description Service name:
معد (2) Add Route	
Signed Peripheral target Delete Multiple	Save Dore 1

Provide the name of the route

To configure a non-IPTA skill group:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Skill Group Explorer.
- 3. Double-click Skill Group Explorer.
- 4. In the Skill Group Explorer window, in the Select filter data section, select an agent peripheral. Click **Retrieve.**
- 5. Click the [1]Add Skill group button.

A new entry is created and a new set of tabs appear.

- 6. On the Skill Group tab, provide the following details:
 - **Media Routing Domain:** From the dropdown list, select an MRD configured for Unified WIM and EIM (page 21).
 - **Peripheral Name:** Provide a name for the skill group.
 - Name: This field is auto-populated.
 - ICM picks the agent: Clear the option.

Click Save.

🚓 Skill Group Explorer	
Select filter data	Chill Cours Marsham I Catherine Marth I Catherine I
Peripheral Agent_PG_1	Skill Group Members Subgroup Mask Sub skill groups
Media routing domain All	Media routing domain: TOM FIM
Optional Filter Condition Value	Projektivel with the second se
None 💌 💌	Name: * CIM Fill adult acus
Save <u>R</u> etrieve Cancel filter changes	Auslahle heldeff delev (see). Her Deinkerel Defende en Deinker 0
	Available Holdon delay (sec). Use Peripheral Delautic Photographic
Hide legend	Extension:
Se (1) Skill group	
(2) Route (3) Peripheral target	
(4) Label	
Click on an item to edit or view its contents.	
Use the Add buttons to create new items.	
EIM_IPTA_SG	
EIM_IPTA_SG2	
EIM_Outbound_IPTA	
⊞¥g WIM_IPTA_SG ⊞¥g WIM NIPTA_SG	
UNASSIGNED	
Wg o CIM_EIM.skil_group	
1	
Image: Image: second state Image: second state Image: second state Multiple	
L 😋 (2) Add Route	Save Dose Heb

Configure a non-IPTA skill group

7. Click the Add Route button.

A new tab appears.

- 8. On the Route tab, do the following:
 - Name: Provide the name for the route.

Click Save.

🎪 Skill Group Explorer					
Select filter data Perpheral Select filter data Perpheral A Optional Filter Cro None Seve Sevee Sevee Sevee Sevee Sevee Se	gent_PG_1	Skill Group Members Skill Group Media routing domain: Peripheral number: Name: Extension: Extension: Skill group priority: Name: Description Service name:	Subgroup Masi CIM_EIM Peripheral nam Ceripheral nam Ceripheral Def Content of the solution of the so	k Subskill gr Advanced * Skill_group ault V Phonty O ICM picks the agent	
(2) Add Route	Delete Multip	le	Save	<u>Close</u>	Help

Provide the name of the route

Configuring Labels

Labels are used by Unified WIM and EIM for Non-IPTA routing. When Unified CCE is not able to identify an agent for assigning an activity, it returns a label to Unified WIM and EIM. When a label is returned, Unified WIM and EIM load balances the activity to a group of agents defined in the user group (that maps to the Non-IPTA skill group) identified by the suffix of the label.

You need to configure labels for inbound email, outbound email, chat, and blended collaboration activities.

Important: The LABEL must be configured in the following format: LBL_Enterprise_Name_of_Non-IPTA_skill_Group. Also note that the names of labels are case sensitive.

To configure a label:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 1. In the Configuration Manager window, browse to Tools > List Tools > Label List.
- 2. Double-click Label List.
- 3. In the Label List window, in the Select filter data section, in the Routing client field select the routing client configured for MR PG (page 26). Click **Retrieve**.
- 4. In the Label section, click Add.

A new entry is created and the Attributes tab becomes editable.

- 5. On the Attributes tab, provide the following details:
 - **Routing client:** From the dropdown list, select the routing client configured for the MR PG in step 9 in "Configuring Media Routing Peripheral Gateways (MR PGs)" on page 24.

- **Label:** Provide a name for the label that can be used in a script for Non-IPTA routing. The label must be configured in the following format: LBL_*Enterprise_Name_of_skill_Group.* Also note that the names of the labels are case sensitive.
- 6. On the Network Target tab, provide the following details:
 - Target type (filter): From the dropdown list, select Network VRU.
 - Network Target: Select the Network VRU configured for Unified WIM and EIM (page 22).

Click Save.

Label List			_ 🗆 ×
Select filter data	Attributes		
Bouting client MB PB rc	· · · ·		
	Routing client	* MR_PG_rc	-
Optional Filter Condition Value	Label	* LBL_CIM_EIM.skill_group	
None 💌 💌	Label type	* Normal	
Save Betrieve Cancel filter changes	- Network Target		
	Target lupe (Eter)	Network VBI	
Label.Rout	raiger type (riker)		
CiscoVoiceSG_Label.MR_PG_rc	Network target	CIM_Network_VRU	
EIM_IFTA_502_Label.MR_PG_rc			
IPTA2_Service_LabeLMR_PG_rc IPTA Service_LabeLMR_PG_rc	Customer		
V label_outbound.MR_PG_rc	Description		
Label_130U.MH_PG_rc			
LBL_EIM_NIPTA_SG.MR_PG_rc			
LBL_WIM_NIPTA_SG.MR_PG_rc			
LBL_xxx.MB_PG_rc MIPTA_Service_LabeLMB_PG_rc			
WIM_IPTA_Service_Label.MR_PG_rc			
WIM_IPTA_SG_LabeLMH_PG_rc			
MR_PG_rc			
1			
Add Delete Revert		Shup Church	Halo I
			<u> </u>
Ini Tustauce: ATAMS			

Configure the label

Configuring Script Selectors

A script selector is a keyword that identifies the routing script for an activity request from Unified WIM and EIM to Unified CCE. Script selectors are used in routing scripts as part of the **Dialed Number** node.

Individual script selectors are required for the following activities: inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities. Make sure you complete these steps for each type of activity.

To configure a script selector:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- In the Configuration Manager window, browse to Tools > List Tools > Dialed Number/ Script Selector List.
- 3. Double-click Dialed Number/ Script Selector List.
- 4. In the Dialed Number/ Script Selector List window, in the Select filter data section, in the Routing client field select the routing client configured for MR PG (page 26). Click **Retrieve**.

5. In the Dialed Number/ Script Selector section, click Add.

A new entry is created and the Attributes tab becomes editable.

- 6. On the Attributes tab, provide the following details:
 - **Routing client:** From the dropdown list, select the routing client configured for the MR PG in step 9 in "Configuring Media Routing Peripheral Gateways (MR PGs)" on page 24.
 - **Media routing domain:** From the dropdown list, select the MRD configured for Unified WIM and EIM (page 21).
 - Name: Provide a name for the script selector.
 - **Default label:** Select the label configured for non-IPTA skill groups (page 39). You need to set this only for script selectors for inbound email, outbound email, chat, and blended collaboration activities.

Dialed Number / Script Selector List			_ 🗆 🗡
Select filter data	Attributes Dialed Number Mapping	Dialed Number Label	
Routing client	Routing client	* GenNIC_RC1	<u>_</u>
Optional Filter	Media routing domain	* Email_MRD_1	•
None	Dialed number string / Script selector	* Billing_Summary	
Save Betrieve Cancel filter changes	Name	* GenNIC_RC1.Billing_Summary	
Dialed Number / Script Selector	Customer	<none></none>	•
Name CenNIC_RC1.Billing_Summary	Default label	LBL_EIM_NIPTA_SG	•
	Description		
	Permit application routing		
	Reserved by IVR		
	<u> </u>		
Add Delete Revert		Save Dose	Help

Configure script selector

- 7. Click the Dialed Number Mapping tab. Click Add.
- 8. On the Dialed Number Map Entry window, associate the script selector with a call type.

Dialed Number Map Entry
Calling Line ID
•
© Region
C Prefix
C Match
Called-entered digits
○ All
C None
E Required
Entered
C CED
OK Cancel Help

Map call type

9. Click OK to save the entry. Then click Save to save the script selector configuration.

Creating Scripts

A routing script determines the path and target object for an activity routed from Unified WIM and EIM to Unified CCE.

Individual routing scripts are required for the following activities: inbound email, chat, blended collaboration, callback, and delayed callback activities. Make sure you complete these steps for all these activities. You do not need routing scripts for outbound email activities.

If you want to display dynamic content to chat customers (for example, wait time, activity ID) while chat requests are being processed by the system, make sure you configure the scripts for chat to return RunApplicationScriptRequest with the script identifier (ID) of the script. You will need this script identifier while configuring the dynamic messages (page 90).

The following procedure shows you how to set up a particular script. To find out more about setting up different types of scripts to meet your routing requirements, see the Unified CCE Scripting Guide.

To create a script:

- 1. Go to Start > All Programs > ICM Admin Workstation > Script Editor.
- 2. In the Script Editor window, click the New button.
- 3. In the Create A New Script window, select the **Routing script** option.



Select the Routing Script option

A new script editor opens. The Star node is added by default to the script editor.

4. In the Script Editor window, go to View (menu) > Palette.

The Palette window opens.

- 5. In the Palette window, on the Targets tab, click the **Skill Group** button, and click in the script editor. The Skill Group node is added to the script editor.
- 6. Double-click the Skill Group node to open the Skill Group Properties window.
- 7. In the Skill Group Properties window, on the Routing Target tab, in the Skill Group column, select an IPTA skill group.

_IPTA_SG	EIM IDTA SC			
		<pre>%_Route</pre>		Delete Bow
				Deleterrow
			 	⊻alidate
				1
				Move
				+
			 -	
			Image: Constraint of the sector of	

Select an IPTA skill group

- 8. Next, in the Palette window, on the Targets tab, click the **Label** button, and click in the script editor. The Label node is added to the script editor.
- 9. Double-click the Label node to open the Label window.
- 10. In the Label window, on the Label tab, set the following:
 - a. Select the label type as Configured.
 - b. From the available labels select a label and click the Add button. Click OK.

Label Properties Label Comment		×
Label Upe: Upenigureal ▼ Available Jabels: Label Description ⊕ GenNIC_rc ⊕ MR_PG_rc	Selected labels: Label Description Add> <a href="https://www.endowediated-sciption-scipt</th> <th>Move ▼</th>	Move ▼
Enable target reguery	1 item Label name: Type: Client type: Description:	
	OK Cancel	Help

Select the label type and a label

- 11. Next, in the Palette window, on the General tab click the **Line Connector** button, and configure the success and error paths for each node. This creates the routing path of the script.
- 12. Click the Validate Script button to check if the script is created properly. If there are any errors, fix them.
- 13. Click the Save button to save the script.



After creating a script, map the script to a call type, MRD, and script selector. Also, set the schedule when the script should run.

- 14. In the Script Editor window, go to Script (menu) > Call Type Manager.
- 15. In the Call Type Manager window, in the Call Directory tab, do the following:

- a. In the Media Routing Domain field, from the dropdown list, select the MRD configured for Unified WIM and EIM (page 21).
- b. In the Script Type Selector field, from the dropdown list, select the script selector created for the MRD (page 40).
- c. Next, click the **Add** button. The Add Call Type Selector Entry window appears. In the Call type field, select the call type configured for Unified WIM and EIM (page 23). Click **OK**.

Call Type Manage	r				×
Call Directory Sc	hedules Call Ty	pe Tree			
Media <u>R</u> outing D	omain: CIM_EI	1	•		
Script Type Sele	App String 1	rc.CIM_EIM_SS	Call Type	Scheduled Script	Add
1	All	All	ElM_Call_Type	Email_Script_Without_Label	Delete
					<u>S</u> ort
					Move
			ОК	Cancel Apply	Help

Map the script to a call type, MRD, and script selector

- 16. In the Call Type Manager window, in the Schedule tab, do the following:
 - a. In the Call type field, from the dropdown list, select the same call type you selected in Step 15.
 - b. Next, click the Add button. In the Add Call Type Schedule window that appears, do the following:
 - i. In the Script tab, select the script configured for Unified WIM and EIM (page 42).
 - ii. In the Period tab, set a schedule for the script.
 - iii. Click OK.



Set a schedule for the script

17. Click **OK** to close the Call Type Manager window.

Configuring Device Targets

Individual device targets are required for routing voice calls for blended collaboration, callback, and delayed callback activities. Make sure you complete these steps for all these activities. You do not need device targets for inbound email, outbound email, and chat activities.

To configure a device target:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Device Target Explorer.
- 3. Double-click Device Target Explorer.
- 4. In the Device Target Explorer window, click Add Device Target.
- 5. Provide the name and global address, which is the host name of the Unified CCE server followed by the agent extension, in the following format: *Unified_CCE_server Agent_Extension*
- 6. Provide the configuration parameter in the following format. The string before the agent extension must be exactly as specified: /devtype CiscoPhone /dn Agent_Extension
- 7. Click the Add Label button.

The Label tab appears.

- 8. On the Label tab, set the following:
 - **Routing client:** From the dropdown list, select the MR PG configured for Unified WIM and EIM (page 24).
 - Label: Provide the name of the label. The label name must be the Agent_Extension.
- 9. Click Save.

Device Target Explorer	
Select filter data Optional Filter None Save Betrieve Cencel filter changes	Device target Name: • 1014 Global address: * 1014 Configuration parameters /devitype CiscoPhone /dn 1014 Description:
✓ Hide legend I) Device target II) Label Click on an item to de dor view ite contents. Ula te ha Add brokes to create new items. III to the the Add brokes to create new items. IIII to the Add brokes to create new items. IIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items. IIIII to the Add brokes to create new items.	Label Routing clent: * MR_PG_rc Labet * 1014 Label type: * Normal Customer: V19w2 Description:
	Save Dose Help

Configure a device target

Configuring Expanded Call Context (ECC) Variables

ECC variables are used in Unified CCE scripts to facilitate and influence routing. ECC variables have a maximum length of 256 characters. Both Scalar and Array ECC variables are supported.

ECC variables are required for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities. Create the following ECC variables:

- For inbound and outbound email activities: user.cim.activity.id
- For chat activities: user.cim.activity.id, user.wim.customer.name
- For blended collaboration, callback and delayed callback activities: user.cim.activity.id, user.wim.customer.name, user.cisco.cmb, user.cisco.cmb.callclass

To configure an ECC variable:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Miscellaneous Tools > System Information.
- 3. In the System Information window, in the General section, select the **Expanded call context enabled** option. Click **Save**.

System Information				>
General		Call Type		
ICM type	Standard	Default call type	<none></none>	•
Company name	v19w2	Abandoned call wait time	5	
Controller domain name	egcisco.com	Convine law of these hold	20	
Partitioning enabled		Service level miesnolu	20	
Maximum partitions	0	Service level type	Ignore Abandoned Calls	-
Expanded call context ena	bled	Bucket intervals	* Default_Bucket_Intervals	•
Script		CLID Masking		
Retain script versions	All 💌	Enabled		
Minimum script schedule time	* 30 seconds	Number of characters		
External script validation		- E Remove digits		
Extental script validation	1	Mask character		
VRU		Person Security		
Default network VRU	CIM_Network_VRU	Login name case sensitive		
Minimum correlation number	1	Minimum password length	* 0	
Maximum correlation number	30000			
Application Gateway				
Custom gateway	Timeout Sessions Heartbeats Errors			
C Remote ICM				
	Request 🛄 📩 mi	illiseconds		
	5000	W		
	Abandon 3000 I mi	iliseconds		
	Late 300 - mi	illiseconds		
			Save Close	<u>H</u> elp
M Jackson (10)/2				
witherance: ATAMS				

Enable ECC variables

- 4. In the Configuration Manager window, browse to Tools > List Tools > Expanded Call Variable List.
- 5. Double-click Expanded Call Variable List.
- 6. In the Expanded Call Variable List window, in the Select filter data section, click **Retrieve**. Then, in the Expanded Call Variable section, click the **Add** button.
- 7. Type the name and length of the ECC variable. A maximum of 256 characters are allowed. Make sure that you use the exact names as provided here.
 - user.cim.activity.id (needed for all types of activities)

- user.wim.customer.name (needed for chat, blended collaboration, callback, and delayed callback activities)
- user.cisco.cmb (needed for blended collaboration, callback, and delayed callback activities)
- user.cisco.cmb.callclass (needed for blended collaboration, callback, and delayed callback activities)
- 8. Click Save.

Expanded Call Variable List		- 🗆 🗡
_Select filter data	Attributes	
	Name * user.cim.activity.id	
Optional Filter Condition Value	Maximum length * 40	
Save <u>R</u> etrieve Cancel filter changes	Maximum array size	
Expanded Call Variable		
Name BAAccountNumber	Enabled M	
BABuddyName		
BADialedListID		
BAResponse BAStatue	Description	
BATimeZone		
✓ cisco.cem.Category ✓ cisco.cem.MessageKev		
Cisco.cem.Priority		
Viser.B Viser.cim.activity.id		
user.cisco.cmb ✓ user.cisco.cmb		
vser.LongName		
V user.wim.customer.name		
1		
Add Delete Reyert	Save Dose	<u>H</u> elp

Configure ECC variables

Configuring Avaya G3 Installations

In this section, we describe procedures for configuring Unified CCE installations that use Avaya G3 switches. Skip this section if you are not using Avaya G3 switches.

Collecting Details

Get the following information from the G3 switch administrator:

- The IP address of the G3 PG machine.
- > The Adjunct Switch Application Interface (ASAI) port on the switch. For e.g., Link 5.
- For each agent, collect the following details:
 - Agent ID
 - Agent extension
 - Skill group
 - Skill group extension
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• Vector Directory Number (VDN)

Configuring Application Instance

To configure an application instance, follow the steps described in "Configuring Application Instance" on page 18.

Configuring Media Classes

> To configure media classes, follow the steps described in "Configuring Media Classes" on page 19.

Configuring Media Routing Domains

To configure media routing domains, follow the steps described in "Configuring Media Routing Domains (MRDs)" on page 21.

Configuring Network VRU

• To configure a Network VRU, follow the steps described in "Configuring Network VRU" on page 22.

Configuring Call Types

• To configure call types, follow the steps described in "Configuring Call Types" on page 23.

Configuring Script Selectors

• To configure script selectors, follow the steps described in "Configuring Script Selectors" on page 40.

Configuring Media Routing Peripheral Gateways (MR PGs)

▶ To configure media routing peripheral gateways (MR PGs), follow the steps described in "Configuring Media Routing Peripheral Gateways (MR PGs)" on page 24.

Configuring Agent Peripheral Gateway (Agent PG)

An agent peripheral gateway (PG) is required for creating of one or more peripherals that manage agent distribution within Unified CCE. Configure an Agent PG using the Configuration Manager and then install it on the appropriate machine.

This is required for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities. You can configure a maximum of four Agent PGs for Unified WIM and EIM.

To configure an agent peripheral gateway:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > PG Explorer.
- 3. Double-click PG Explorer.
- 4. In the PG Explorer window, in the Select filter data section, click Retrieve. Then, click [1] Add PG.
- 5. On the Logical Controller tab, provide the following details:
 - Name: Provide a name for the agent peripheral gateway.
 - Client type: Set it to Definity ECS EAS.
 - **Primary CTI address:** Provide the IP address of the primary CTI server in the format *IP_Address:Port_Number*. It is required if agents are integrated through a CTI server.
 - Secondary CTI address: Provide the IP address of the secondary CTI server in the format *IP_Address:Port_Number*. This is optional; it is required if the Unified CCE installation is a duplex one.
- 6. Click [2] Add Peripheral.

A new set of tabs appear.

- 7. On the Peripheral tab, do the following:
 - **Default desk settings**: From the dropdown list, select the agent desk settings configured for Unified WIM and EIM (page 28).
 - Enable post routing: Select the option.

G Explorer	
Select filter data	Logical Controller
	Logical controller ID: + 5002 Physical controller ID: + 5002
Optional Filter Condition Value	Name: * in503_g3pg
None 💌 💌	Client type: * Definity ECS EAS
Save Retrieve Cancel filter changes	Configuration parameters:
	Description:
Hide legend	Physical controller description:
T (1)PG	Primaty CTI address: 10.77.65.211:44107
= (c) respired	Secondary CTI address:
	Peipheral ID: + 5003 Name: + Ir603,g3pg_1 Peipheral name: + Ir603,g3pg_1 Client type * Detringt ECS EAS Location: - Abardoned all wait line: * [5 Configuration parameters: -
	Call control variable nap: Description: Default desk settings: NONE 💌
1 (2) Add Peripheral Delete (Multiple	Peripheral service level type: * Calculated by Call Center Enable post routing:
- Security	Save Close Hel

Configure Agent PG

- 8. On the Routing client tab, in the Name field, provide a name for the routing client.
- 9. On the Advanced tab, set the following values:
 - a. Available holdoff delay: 0
 - b. Default route: NONE
 - c. Answered short calls threshold: 0

- d. Network VRU: Select the network VRU configured earlier (page 49)
- e. Select the Agent Auto-Configuration option.

Configure advanced properties

- 10. On the Peripheral Monitor tab, set the following values:
 - a. Parameter
 - b. Type: VDN

		1	D 1 IN 1
Skill Group Mask	Routing client	Default route	Peripheral Monito
Current peripheral mo	onitor entries:		
Туре	Extension	Config. Param.	
VDN	3512	VDN_NC	
VDN	3513		
Station		6509	
•			•
1			Delete
< New			Delete
< New			Delete
New			Delete
New Internation:	6509		Delete
New Ixtension: Parameter string:	6509		Delete

Configure peripheral monitor

- 11. In the PG Explorer window, go to the Agent Distribution tab and do the following:
 - a. Click the **New** button.
 - b. Select the Enable agent reporting option.
 - c. Select the Agent event detail option.
 - d. In the Currently Selected Sites section, set the following:
 - i. Distributor site name: Provide the host name of the machine where distributor is installed.
 - ii. Enable: Select the option.

Click Save.

PG Explorer	
Select filter data Optional Filter Condition Value V	Logical Controller ID: + 5002 Name:
Z) Add Peripheral Delete Multiple	Sove Doce Heb

Configure agent distribution

Installing Definity PG

To install the Definity PG:

- 1. In the *ICM_Homel* bin directory on the ICM server, double-click ICMSetup.exe to launch the installation program.
- 2. On the Peripheral Gateway Properties window, select **Definity** as the Client Type.

	Node Manager Properties	PG Node Properties
	Production mode	ID: PG 4 💌
	Auto start at system startup	Side A
	Duplexed Peripheral Gateway	C Side B
	Client Type Selection	
	Available types:	Selected types:
A	ALP1000 Alcatel Aspect CallManager/SoftACD DMS100	>> Demnity
	G2 Galaxy Md110 K< Re	move
1 a	Medianouting Meridian NEAX2400 👻	
	NEAX2400 -	

Select client type

- 3. On the Peripheral Gateway Component Properties window, do the following:
 - a. Add a Peripheral Interface manager (PIM).

b. Click the Advanced button. Verify that the system ID matches the PG's system ID.



Verify system ID

- c. Definity ECS Setting: Select EAS Mode.
- d. Select the Using MAPD option.



Configure peripheral gateway component properties

- 4. On the Definity ECS PIM Configuration window, do the following in the CVLAN/MAPD Configuration section:
 - a. Enable Host 1.
 - b. Hostname: Specify the IP address of Host 1.

c. Monitor ASAI links: Select the ASAI port link assigned.

Definity ECS PIM Configuration (CVLAN on MAPD) (PIM 1)	×
Enabled Peripheral name: M4PG4A_LUCE Peripheral ID: 5003	
Call Management System (CMS) Configuration CMS Enabled (NOTE: DISABLE if CMS-less) CMS Hostname: Port number to listen on: 6000	
CMS Data Timeout (Typ. 3% Refresh rate) [Millisec): 300000 Multiple Cisco Reports	_
Number of Cisco Reports for this PIM: 1 Port number delta (typ: 10): 10	
CVLAN/MAPD Configuration	
Host 1: 🔽 Enabled	
Hostname: 10.77.64.11	
ASAI Link # 1 2 3 4 5 6 7 8 Monitor ASAI links:	
Post-Route ASAI links:	
Host 2: Enabled (if DUPLEXED) Hostname:	
ASAI Link # 1 2 3 4 5 6 7 8 Monitor ASAI links:	
Post-Route ASAI links:	
Minimum number of overall ASAI links before failover:	
Default Timed ALW value (Seconds): U CMS-less Smart Agent Timer: 10	
OK Cancel Help	

Configure PIM

Configuring Network Trunk Group

To configure network trunk groups, follow the steps described in "Configuring Network Trunk Group" on page 31.

Configuring Services

A service is defined for a peripheral to describe the category of requests being processed by skill groups that belong to the peripheral. For example, billing, inventory, etc. A service is required for creating skill groups.

This is required for inbound email, outbound email, chat, blended collaboration, callback, and delayed callback activities.

To configure a service:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Service Explorer.
- 3. Double-click Service Explorer.
- 4. In the Service Explorer window, in the Select filter data section, click **Retrieve.** Then, click the **Add Service** button. Set the following properties:
 - Peripheral Number: Use the VDN Number in the G3 switch.
 - **DNIS:** Use the VDN Number in the G3 switch.
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- Network Trunk Group: Use the dummy Network Trunk Group created earlier.
- **Label:** Provide a name for the label. The label must be configured in the following format: *CIM_Primary_Application_Server_Name, ACD_Queue_Name, skill_Group_Extension.*
- **Route:** *any_name.*
- Routing Client: MR PG Routing Client.

CITICE Explores	
Select filter data	Service Advanced Service members
Peripheral in503_g3pg_1	Media routing domain:* Cisco_Voice
Media routing domain All	Peripheral number: * 3501 Peripheral name:* 93_3501
Optional Filter Condition Value	Name: * in503_g3pg_1.g3_3501
	Configuration
Save Retrieve Cancel filter changes	Description:
-beer c	Service level type: * Default
Hide legend	Service level * 1
└────────────────────────────────────	
(3) Peripheral target	Route
(4) Label	Name: * g3_3501_rte
ack on an item to edit or view its contents. Ise the Add buttons to create new items.	Description
m M Sin S03_g3pg_1.5003.g3_skil_ssc1 m M Sin S03_g3pg_1.5003.g3_ssc m M Sin S03_g3pg_1.5003.g3_ssc m M Sin	
	Peripheral Target
H 4103_g3pg_1.5003.ssc_g3 H 4103_g3pg_1.5003.ssc_skil_g3	DNIS: * 3501
E ∰t in503_g3pg_1.g3_3501	Description
E Network Trunk Broup: 9999; DNIS: 3501	Network trunk group: * 9999
E mit in503_g3pg_1.g3_6915	
inf03_g3pg_1.g3_voice_se	Label
	Routing client: * MRPG1_RC *
	Labet * CIM_APP_SER,ACD_QUEUE,5999
	Label type: * Normal *
	Customer:
	Description

Configure a service

5. Click the Advanced tab. Add the VDN in the Extension field.

eripheral service level	ype:* Calculated by Call Cent 💌	
chedule name:	NONE	
xtension:	3501	

Configure advanced properties of the service

6. Click the Service Members tab. Map skill groups to the service.

urrent servi	ice members	
Primary	Skill group name	
	sg_g3_sg51	
	2	
	~	
4		

Map skill groups

7. Click Save.

Creating Voice Skill Groups

K

Blended collaboration activities in systems that use Avaya G3 switches activities can be used only with non-IPTA routing.

- 1. Create a voice skill group with the following properties:
 - Peripheral Number: Skill Group Number on switch.
 - Extension: Skill Group Extension number on switch.
 - ICM picks the agent: Clear the option.

Note: You do not need to configure a Route for voice skill groups.

Select filter data		
Peripheral	ACD_AVAYA_PG_1	Skill Group Members Subgroup Mask Sub skill group Skill Group Advanced
Media routing domain	Cisco_Voice	Modia reating densities # Case Mains
Dptional Filter None	Condition Value	Peripheral number: * 5000 Peripheral name* SG1
-		Name: * ACD_AVAYA_PG_1.Cisco_Voice.S
Save	<u>Hetneve</u> Lancel filte	Available holdoff delay (sec): Use Peripheral Default Priority 0
✓ Hide legend		Extension: 5999 ICM picks the agent
99 (1) Skill gro	up Route (3) Peripheral target ──~ (4) Label	
lick on an item to edit or v se the Add buttons to cre	view its contents.	
ACD_AVAY	A_PG_1.Cisco_Voice.S	
90 ACO_AVAY ⊞—90 UNASSIGNE	A_PG_1.Clsco_Voice.S	
— <mark>₽g</mark> ACD.AVAY ⊞— ₽g UNASSIGN	A_PG_1.Cisco_Voice.3 D	

Configure a voice skill group

2. Click the Add Route button.

A new tab appears.

3. On the Route tab, in the Name field provide the name for the route and click Save.

Skill Group Explorer	
Select filer data Peripheral ACD_AVAYA_P6_1 Media routing domain Cinco_Voice Optional Filter Condition Value None Serve Betrieve Cencel filter changes Hide legend 9 Util Skill oncur.	Skill Group Members Subgroup Mask Sub skill groups Skill Group Advanced Media routing domain: * Orso_Voice * Peripheral number* 5000 Peripheral name* SG1 Name: * [ACD_AVAYA_P6_1.Circo_Voice S Available holdott delay (sec): Use Peripheral Delault * Prionity 0 Extension: 5939 ICM picks the agent
Cifck on an item to edit or view it is contents. Use the Add buttors to create new items. See the A	Route Skill group priority: 0 Name: * Iroute_name Description Service name: NONE
2)Add Route Dekte - Multiple	

Provide the name of the route

Configuring Voice Agents

An agent is created in Unified CCE for mapping to users in Unified WIM and EIM. This is required for email, chat, blended collaboration, callback, and delayed callback activities.

To configure an agent:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 2. In the Configuration Manager window, browse to Tools > Explorer Tools > Agent Explorer.
- 3. Double-click Agent Explorer.
- 4. In the Agent Explorer window, in the Select filter data section, click **Retrieve.** Then, click the [1]Add Agent button.

A new entry is created and a new set of tabs appear.

5. Creating an agent using the Agent Explorer tool with the same login name as the person record, e.g., if agent 5501 is the agent created in the G3 switch, create the agent by choosing the person having the login name.

Click Save.

igent Explorer			
Select filter data		- Agent Advanced Still group membership Summing	-l
Peripheral	in503_g3pg_1	Personal information	4
Optional Filter	Condition Value	Last name: * 5501	-
None		Login name:* 5501	Login enabled: 🔽
⊢ Save	Betrieve Cancel filer changes	Password:	Select Person
		Enterprise name: * in503_g3pg_1.5501_lucent	
Hide legend		Peripheral name:	
2 (1) Agent		Peripheral number.* 5501 (value will be o	reated if left blank)
- SSE5_G12 - - - - - - - - - - - - - - - - - - -	905 1,1,1,1 1,1,2,3,80 1,1,529,500 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,1500,200 1,050,		
(1) Add Agent	Delete Multiple	eSave	Close Help

Configure an agent

Configuring Labels

Labels are used by Unified WIM and EIM for routing activities to integrated agents. When a label is returned to Unified WIM and EIM by MR PG, Unified WIM and EIM assigns the activity to the integrated agent that belongs to the ACD queue and skill group extension specified in the label name.



To configure a label:

- 1. Go to Start > All Programs > ICM Admin Workstation > Configuration Manager.
- 1. In the Configuration Manager window, browse to Tools > List Tools > Label List.
- 2. Double-click Label List.
- In the Label List window, in the Select filter data section, in the Routing client field select the routing client configured for MR PG (page 49). Click Retrieve.
- 4. In the Label section, click Add.

A new entry is created and the Attributes tab becomes editable.

- 5. On the Attributes tab, provide the following details:
 - **Routing client:** From the dropdown list, select the routing client configured for the MR PG in step 9 in "Configuring Media Routing Peripheral Gateways (MR PGs)" on page 49.
 - **Label:** Provide a name for the label. The label must be configured in the following format: *CIM_Primary_Application_Server_Name, ACD_Queue_Name, skill_Group_Extension.*
- 6. On the Network Target tab, provide the following details:
 - Target type (filter): From the dropdown list, select Network VRU.

• Network Target: Select the Network VRU configured for Unified WIM and EIM (page 49).

Click Save.

🛱 Label List			_ 🗆 ×
Select filter data	Attributes		
Routing client MR_PG_rc Customer (All)	Routing client	* MR_PG_rc	•
Optional Filter Condition Value	Label	* CIM_APP_SER.ACD_QUEUE.5999	
None Y	Label type	* Normal	•
Save <u>Retrieve</u> Cancel filter changes	Network Target		
Label	Target type (filter)	Network VRU	_
Label Hout Label Hout CiscoVoiceSG_Label.MR_PG_rc LabelMR_PG_rc LabelMR_PG_rc	Network target	CIM_Network_VRU	•
EIM_IPTA_SG_Label.MR_PG_rc IPTA2_Service_Label.MR_PG_rc	Customer	(None)	
IPTA_Service_Label.MR_PG_rc Isbel_outbound.MR_PG_rc	Description		
Label_1300.MR_PG_rc Label_SG_Outbound.MR_PG_rc			
LBL_EIM_NIPTA_SG.MR_PG_rc LBL_Himanshu.MR_PG_rc			
VIPTA_Service_Label.MR_PG_rc			
WIM_IPTA_Service_Label.MR_PG_rc			
MIM_NIPTA_Service_Label.MR_PG_rc			
Add Delete Beyert		<u>S</u> ave <u>C</u> los	e <u>H</u> elp
ICM Instance: v19w2			

Configure the label

Configuring Call Types, Dial Numbers, and Scripts

1. In CCS Admin, use the skill group wizard to create one skill group for SSC, MSC. Note that in any legacy ACD case there is no BC skill group. If the agent is enabled for voice, the given agent can address BC requests too.

Services and Route are created automatically by creating skill groups in CCS Admin.

- 2. Create SSC and MSC agents. Assign agents to the skill group created in step 1.
- 3. On AW, create a call type:
 - a. Go to Configuration Manager > List > Call type list.
 - b. Select customer. Click Retrieve. (The Unified CCE instance is the customer.)
 - c. Add a call type. Provide a unique name and your Unified CCE instance as customer. Leave everything else at default.
 - d. Save and close.
- 4. On AW, create dialed numbers:
 - a. Go to Configuration Manager > List > Dialed Number list.
 - b. Select your routing client (your MR PG).
 - c. Select your Unified CCE instance for customer. Click Retrieve.
 - d. Add a DN.

- e. Select the appropriate Routing Client (same as above).
- f. Fill in Dial Number string field with unique value. (This field will be used as the script selector field on the caller login form.)
- g. Select the appropriate MRD in which the skill groups your agent is associated with reside.
- h. Select your Unified CCE instance as the customer (value depends on which lab you are in).
- i. Select the call type mapping tab on top.
- j. Click **Add**, and select the call type that was created earlier in the previous section. Leave everything else default.
- k. Click OK.
- 1. Save and close.
- 5. On AW, Create a script in Script Editor and schedule it:
 - a. Open script editor on AW.
 - b. Start a new script.
 - c. Drag and drop the Queue (this is 'queue to skill group') icon from the Queue tab.
 - d. Drag the End icon from the General tab.
 - e. Double-click the Queue box in the script. Click inside column 1, skill group row, and you should see drop down with your corresponding skill group and route that you created in previous steps.
 - f. Drag and drop a Wait node.
 - g. Set 1000 seconds by double-clicking (this will allow calls to queue until an agent is available).
 - h. Click and drag cursor from Start-Queue node, Queue (check mark) node to Wait and Queue (X mark) to End.
 - i. Save this script with a unique name. Save directory defaults to default directory.
 - j. Validate script by clicking the check mark button.
 - k. Now go to the Script menu and select Calltype Manager.
 - 1. In the call directory tab, select your MRD.
 - m. Under the schedules tab, select your call type.
 - n. Now add a script to your call type by clicking Add.
 - o. Click **OK**.
 - Now, run Call Tracer against your script as a double check of its integrity (IUnified CCE Admin Workstation - Call tracer). Select appropriate MRD, Routing Client, Dialed Number (DN) and click Send Call.
 - q. In the script editor, select Script Menu Monitor Script to watch trace go through.

Creating Expanded Call Context (ECC) Variables

- Create the following ECC variables:
 - For inbound and outbound email activities: user.cim.activity.id

- For chat activities: user.cim.activity.id, user.wim.customer.name
- For blended collaboration, callback and delayed callback activities: user.cim.activity.id, user.wim.customer.name, user.cisco.cmb, user.cisco.cmb.callclass

To configure Expanded Call Context (ECC) Variables, follow the steps described in "Configuring Expanded Call Context (ECC) Variables" on page 47.

Installing Unified EIM and WIM and the Integration

To install Unified EIM and WIM and the integration with Unified CCE:

- 1. Ensure that Microsoft SQL Server 2005 is installed and running on the machine on which you will be installing the Unified EIM and WIM databases.
- 2. From the Unified EIM and WIM Environment CD, copy the JBoss folder to a local directory on the Unified EIM and WIM messaging server and all application servers.
- 3. From the JBoss folder inside the local directory, extract the files from the jboss-4.2.3.GA.zip file to the location where JBoss is to be installed. Create a new instance of JBoss.
- 4. In distributed-server installations, install Sun JDK 1.5.0_22 on all machines where the services server, messaging server, and application servers are to be installed.
- 5. On the web server machines, install Microsoft IIS.
- 6. Install Unified EIM and WIM. Refer to the *Cisco Unified Web and E-Mail Interaction Manager Installation Guide for Unified CCE* for a detailed list of deployment options and installation steps corresponding to each deployment.

The document also guides you through the procedure of setting up the integration. See the section "Integrating Cisco Interaction Manager with Unified CCE."

- 7. From the Windows Services panel, start the Unified EIM and WIM service, and wait for 2–3 minutes before launching the URL to allow all the application services to start.
- On the user desktops, install Sun JRE 1.6.0 (Update 10 or higher). Version 1.6.0_13 is included on the product CD.
- 9. Configure the browser on user desktops according to the procedures detailed in the *Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide*.

Preparing Cisco Media Blender for the Integration

The Cisco Media Blender (CMB) integrates with Unified CCE to blend chat and voice into a blended collaboration session for an agent and a customer. The interface interacts with the Agent PG (Call Manager PG or Avaya PG) to facilitate voice call generation and voice monitoring within Unified CCE.

For each Agent PG that is configured for Unified EIM and WIM, you need to install and configure a dedicated instance of CMB.

Installing Cisco Media Blender

To install Cisco Media Blender:

- 1. Run the Cisco Media Blender Setup.exe. For more details, refer to the Cisco Media Blender Installation Guide.
- 2. Apply patches, if any.
- 3. Restart the server after installation is complete.

Configuring Cisco Media Blender

Refer to the *Cisco Media Blender Administration Guide for Cisco ICM/IPCC Enterprise & Hosted Editions* for more information about configuring Cisco Media Blender.

Configuring Cisco Media Blender for Unified CCE

To configure Cisco Media Blender for Unified CCE:

- 1. On the Cisco Media Blender server machine, navigate to the CiscoMB\servlet\Properties\Blender folder. Open the ACD.ciscocti.properties file and make the following changes:
 - o ctistrategy=AgentReserved
 - o callclasstable=callclasses.properties [Comment this]
 - o permittedphonenumlength=4 [Comment this]
 - autoanswer=false [Uncomment this]
 - signoffreleaseready=true [Uncomment this, and set to false for Unified CCE.]
 - o peripheral.type=IPCC
 - peripheral.id=Peripheral ID of the Agent PG
 - o peripheral.hostname=CTI_server_hostname
 - peripheral.hostport=CTI_server_hostport [This should be the port of the CTI Server.]
 - peripheral.username= cmb-hostname [Uncomment this, and set the value to be the hostname of the Cisco Media Blender server. The recommended form is cmb-hostname of Cisco Media Blender machine, but it works by just defining the hostname of the Cisco Media Blender machine.]
- 2. On the Cisco Media Blender server, open the CiscoMB\servlet\Properties\Blender folder. Open Collaboration.properties, and make the following changes:
 - remoteregistryport=15099 [If you provided a different port number at the time of installation, then use that number.]
 - remotepassword=Password [The remote password should be the same as the encrypted local password defined in the
 Cisco_Home\eService\config\cmb\CMB_IP_address_Remote_Registry_Port.properties file on the Unified EIM and WIM file server.]
 - Local Password = Password [The local password should be the same as the encrypted remote password defined in the

Cisco_Home\eService\config\cmb\CMB_IP_address_Remote_Registry_Port.properties file on the Unified EIM and WIM file server.]

- 3. On the Cisco Media Blender server, open CiscoMB\servlet\Properties\Blender open callclasses.properties, and verify if the following line is commented:
 - o #default=Predictive
- 4. Copy the CiscoMB folder from the Cisco Media Blender server and paste it on the Unified EIM and WIM services server. Make sure you paste the CiscoMB folder on the same drive on the services server where it existed on the Cisco Media Blender server. For example, if the CiscoMB folder on the Cisco Media Blender server was on C drive, then paste it on the C drive of the Unified EIM and WIM services server.

In the *Cisco_Home*\eService\config\cmb*CMB_IP_address_Remote_Registry_Port*.properties file, update the WLRoot property. For example, if the Cisco MB folder has been copied to C:\, then WLRoot should be updated as WLROOT = C:\\CiscoMB.

- 5. On the Unified EIM and WIM services server, browse to the *Cisco_Home*\eService\config\cmb folder, and do the following:
 - a. Rename the CMB_IP_address_Remote_Registry_Port.properties file. Replace CMB_IP_address with the IP address of the Cisco Media Blender server; replace Remote_Registry_Port with the port number specified for the property LocalRegistryPort in the CiscoMB\servlet\Properties\Blender\Collaboration.properties file on the Cisco Media Blender server.
 - b. Open the CMB_IP_address_Remote_Registry_Port.properties file, and make the following changes:
 - RemoteHost=CMB_Server_IP_address [This should be the IP address of the Cisco Media Blender server]. If you provided a different port number when configuring CMB, then use that number]
 - RemoteRegistryPort=1099 [This should be the same as the port specified for the property LocalRegistryPort in the CiscoMB\servlet\Properties\Blender\Collaboration.properties file on the Cisco Media Blender server.]
 - LocalRegistryPort=15099 [If you provided a different port number at the time of installation, then use that number.]

Configuring Cisco Media Blender for Avaya G3

To configure Cisco Media Blender for Avaya G3:

- 1. On the Cisco Media Blender server machine, navigate to the CiscoMB\servlet\Properties\Blender folder. Open the ACD.ciscocti.properties file and make the following changes:
 - o ctistrategy=AgentReserved [Comment this]
 - callclasstable=callclasses.properties [Uncomment this]
 - permittedphonenumlength=4 [Comment this]
 - autoanswer=false [Uncomment this]
 - signoffreleaseready=true [Uncomment this, and set to false for IPCC.]
 - o peripheral.type=Lucent
 - peripheral.id=Peripheral ID of the Agent PG
 - o peripheral.hostname=CTI_server_hostname

- peripheral.hostport=*CTI_server_hostport* [This should be the host port of the CTI Server.]
- peripheral.username=cmb-hostname [Uncomment this, and set the value to be the hostname of the Cisco Media Blender server. The recommended form is cmb-hostname of Cisco Media Blender machine, but it works by just defining the hostname of the Cisco Media Blender machine.]
- 2. On the Cisco Media Blender server, open the CiscoMB\servlet\Properties\Blender folder. Open Collaboration.properties, and make the following changes:
 - remoteregistryport=15099 [If you provided a different port number at the time of installation, then use that number.]
 - remotepassword = Password [The remote password should be the same as the encrypted local password defined in the Cisco_Home\eService\config\cmb\CMB_IP_address_Remote_Registry_Port.properties file on the Unified EIM and WIM file server.]
 - LocalPassword=Password [The local password should be the same as the encrypted remote password defined in the Cisco_Home\eService\config\cmb\CMB_IP_address_Remote_Registry_Port.properties file on the Unified EIM and WIM file server.]
- 3. On the Cisco Media Blender server, open CiscoMB\servlet\Properties\Blender open callclasses.properties, and uncomment the following line:
 - #default=Predictive [Uncomment this]
- 4. Copy the CiscoMB folder from the Cisco Media Blender server and paste it on the Unified EIM and WIM services server. Make sure you paste the CiscoMB folder on the same drive on the services server where it existed on the Cisco Media Blender server. For example, if the CiscoMB folder on the Cisco Media Blender server was on C drive, then paste it on the C drive of the Unified EIM and WIM services server.

In the *Cisco_Home*\eService\config\cmb*CMB_IP_address_Remote_Registry_Port*.properties file, update the WLRoot property. For example, if the Cisco MB folder has been copied to C:\, then WLRoot should be updated as WLROOT = C:\\CiscoMB.

- 5. On the Unified EIM and WIM services server, browse to the *Cisco_Home*\eService\config\cmb folder, and do the following:
 - a. Rename the CMB_IP_address_Remote_Registry_Port.properties file. Replace CMB_IP_address with the IP address of the Cisco Media Blender server; replace Remote_Registry_Port with the port number specified for the property LocalRegistryPort in the CiscoMB\servlet\Properties\Blender\Collaboration.properties file on the Cisco Media Blender server.
 - b. Open the CMB_IP_address_Remote_Registry_Port.properties file, and make the following changes:
 - RemoteHost=CMB_Server_IP_Address [This should be the IP address of the Cisco Media Blender server.]
 - RemoteRegistryPort=1099 [This should be the same as the port specified for the property LocalRegistryPort in the CiscoMB\servlet\Properties\Blender\Collaboration.properties file on the Cisco Media Blender server.]
 - LocalRegistryPort=15099 [If you provided a different port number at the time of installation, then use that number.]
- 6. Open CiscoMB\servlet\Properties\Blender\ACD.ciscocti.properties and note down the names of the CTI strategies available in the file.

- 7. Open *Cisco_Home*\eService\config\ipcc\callclassmapping.properties. From the file, note down the names of values associated with the CTI strategies.
- 8. Now, open CiscoMB\servlet\Properties\Blender\callclass.properties. Add the list of values noted in Step 7, as keys, followed by the actual CTI strategy names noted in Step 6. For example, bcwaitrelease=PhantomWaitNoRelease. You need to add only the CTI strategies that are to be used in entry points to be configured for routing blended collaboration type of activities and that use the routing type as ACD.

Main Important: For details on how to configure CMB for phantom agents, refer to the CMB ${}^{ ext{OV}}$ configuration guide available in the CMB folder of the product CD.

Configuring the System for Multiple Agent PGs

Multiple Agent PGs can be used for Avaya G3 and Unified CCE installations. A maximum of four Agent PGs are supported for each deployment of Unified EIM and WIM.

To configure the system for multiple Agent PGs:

- 1. Create the Agent PGs. For Unified CCE installations, see page 29. For Avaya G3 installations, see page 49.
- 2. In Unified CCE, configure agents (page 34) and skill groups (page 35). In Avaya G3, configure services (page 54), skill groups (page 56), and agents (page 57).
- 3. Run the Cisco Interaction Manager Integration Wizard to import the Agent PGs. For each Agent PG that is imported, a Listener instance is created in the System Console. Refer to the Cisco Unified Web and E-Mail Interaction Manager Installation Guide for Unified CCE for details about running the wizard.
- 4. Log in to the Cisco Integration Manager System Console.
- 5. Browse to Shared Resource > Services > Listener > Listener. In the List pane, select the Listener process. In the Properties pane, in the Maximum number of instances field set the value as 4.
- 6. Browse to **Partitions >** *Partition*. In the Properties pane, on the Services tab, set the number of instances for the Listener service to 4.
- 7. Browse to **Partition > Partition > Services > Listener > Listener**. For the Listener instances, set the CMB parameters. Start the service instances.

For details about steps 4-7, see the Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to System Console.

Setting Up Integrated Objects

- Configuring Variables in Unified EIM and WIM
- Verifying Mapping of Objects in the Administration Console
- Setting Up Knowledge Base Articles for Unified EIM
- Setting Up Services in the System Console
- Setting Up Web Links for Chat and Collaboration
- Configuring Dynamic Messages for Integrated Chats
- Handling Email Assignment
- Related Documentation

This chapter provides an overview of the process of setting up Unified WIM and EIM–Unified CCE objects.

Configuring Variables in Unified EIM and WIM

While sending new activity requests from a queue to Unified CCE, EAAS sends call variables and ECC variables to Unified CCE as task context. By default, the following activity attributes are sent to Unified CCE as ECC variables.

- For inbound and outbound email activities: activity_id
- For chat activities: activity_id, customer_name
- For callback and delayed callback activities: activity_id, customer_name, cmb_param, cti_strategy
- For blended collaboration activities: activity_id, customer_name, cmb_param, cti_strategy

If you need to pass on other attributes of the activity as call variables or ECC variables to Unified CCE, you need to configure them in Unified EIM and WIM. These variables can then be used in Unified CCE scripts to configure conditions. For details, see the Unified CCE scripts documentation. If you plan to configure these variables as ECC variables in Unified EIM and WIM, you need to first create the ECC variables in Unified CCE. For details, see the Unified CCE documentation.

You can also create variables for custom activity attributes. These custom attributes are created from the Tools Console of Unified EIM and WIM. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Tools Console*.

To configure variables in Unified EIM and WIM:

Perform tasks 1-3 on the Unified EIM and WIM Active database.

1. Run the following query on the egpl_casemgmt_activity table to get all the activity attributes available in the table.

```
sp_help egpl_casemgmt_activity
```

- 2. Identify the activity attributes for which you want to create the call variables and note down the exact names of the activity attribute (column_name) for your reference. Also, note the case of the attributes, as call variables are case sensitive and need to match the case of the attributes.
- 3. Run the following query on the egicm_call_variable table to identify the call variable IDs that are already in use.

select call_variable_id from egicm_call_variable

Run the following query on the egicm_call_variable table to add the new call variables.

Insert into EGICM_CALL_VARIABLE VALUES (*Call_Variable_ID*, '*Call_Variable_Name*', '*Call_Variable_Description*')

Where:

- *Call_Variable_ID*: The ID of the call variable. Make sure that you do not use the call variable IDs that are already in use.
- Call_Variable_Name: This name should match the exact name (including case, as call variables names are case sensitive) of the activity attribute you got from the egpl_casemgmt_activity table in Step 2. Call variables have a maximum length of 40 characters.

• Call_Variable_Description: The description of the call variable. This is optional information.

For example, the query will look like:

Insert into egicm_call_variable values (1003,'subject','Subject of the email')

4. From the System Console, restart the EAAS service process and instance. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to System Console.*

Now, you can use these newly added variables as call variables and ECC variables in queues.

Verifying Mapping of Objects in the Administration Console

To verify that Unified CCE objects have been mapped correctly in the Unified EIM and WIM Administration Console:

- 1. Launch the URL: http://Unified EIM and WIM_Server/Default_Partition.
- 2. Log in as the partition administrator (user name and password that were configured during the installation of Unified EIM and WIM).

cisco	
	User name: pa
	Password:
	Log In Cancel About Help
Copyright © 2006-2009	Cisco Systems, Inc. All rights reserved.

Log in as partition administrator

3. Select the Administration Console.

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Authoring Consoles	Manage	ement Consoles
Knowledge Base	R	Administration Click
		Reports
		Supervision
		System
	1	Tools
Log Out About Help		

Cisco would like to hear from you! Send feature requests, suggestions for improvements, and usability enhancement ideas to Cisco.

Select the Administration Console

4. Under Partition, browse to **Settings.** Locate the **Application Instance** communication setting. Verify that it is set to the value chosen at the time of running the Unified CCE integration wizard.

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🖃 🗀 Partition: ipcc	Partition Settings Group			Т	hese settings pertain to the partition as a whole		
🖃 🧰 Settings							
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	Maximum activities to display	Activity	•	String	CUCCE.partition.application.instance		
	Application Instance	Communication		Description	Description of Application Instance		
	Minimum idle time for the obj	Cache		Default value	ICM_APP_INSTANCE		
	To: address for notifications	Common		Value *	ICM_APP_INSTANCE		

Verify that Application Instance setting is correctly configured

5. Under the appropriate department, browse to the User > Users node in the Administration tree, to verify that all users mapping to the administrators, supervisors, and agents, which were selected at the time of running the integration wizard, are displayed. Note that after the integration wizard is run, additional mapped users can be created from the Administration Console. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Administration Console*.

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Tree: Administration	Li	st: Users								5
		* 🗙 🔁 💋	5							
🚞 Administration		User name ∆	First name	Last n	ame	Email address	Unified CCE User	Department	Manager	User status
🛨 🚞 Partition: egain	8	him	him	g			Yes	Home		Not logged in
🖃 🚞 Departments	8	icmuser	icmuser	icmuse	er		Yes	Home		Not logged in
🖃 🚠 Service	8	icmuser1	icmuser1	icmuse	er1		Yes	Home		Not logged in
🛨 🚞 Calendar	8	icmuser2	icmuser2	icmuse	er2		Yes	Home		Not logged in
🛨 鱰 Chat	8	icmuser3	icmuser3	icmuse	er3		Yes	Home		Not logged in
🛨 🚞 Classifications	8	icmuser4	icmuser4	icmuse	er4		Yes	Home		Not logged in
🚞 Dictionaries	8	icmuser5	icmuser5	icmuse	er5		Yes	Home		Not logged in
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🛨 🚞 Integration										
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🛨 😫 Groups		Name Value								
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🤗 Users	Description Users in the system									
🛨 🚞 Workflow										

Review mapped users

6. Under the appropriate department, click the **User > Groups** node in the Administration tree to verify that all user groups mapping to the skill groups, which were selected at the time of running the integration wizard, are displayed. Note that after the integration wizard is run, additional mapped user groups can be created from the Administration Console. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Administration Console*.

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Tree: Administration	List: Groups		
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🚞 Administration	Name △	Description	Unified CCE Group
🛨 🚞 Partition: egain	😫 All Users In Service	Default Group	No
🖃 🚞 Departments	SC DP_1.Email_MRD_1.SG_1	Skillgroup	Yes
🖃 🚠 Service	😫 DP_1.Email_MRD_1.5G_2		Yes
🛨 🚞 Calendar			
🛨 🕵 Chat			
🛨 🚞 Classifications			
🗀 Dictionaries			
🛨 🖂 Email			
🛨 🗀 Integration			
🛨 🚞 Macros	Properties: Groups		
🛨 🐳 Products			
🛨 🗀 Settings			
🖃 🗀 User	General		
🛨 👥 Groups	Name	Value	
🛨 🔁 Roles	Name	Groups	
🧟 Users	Description	User groups in the system	
+ 🦳 Workflow			

Review mapped user groups

- 7. If you are integrating Unified EIM and WIM with Avaya G3, configure the following for Blended Collaboration:
 - For chat, add agents to the user groups in Unified EIM and WIM that map to a Non-IPTA chat skill group in Unified CCE.
 - For voice, associate the agents with the voice skill groups in Unified CCE using the ICM Configuration Manager.
- 8. Under the appropriate department, click the **Workflow > Queues** node in the Administration tree, and verify that all queues mapping to the MRDs, which were selected at the time of running the Unified CCE integration wizard, are displayed. Also verify that for all the non-IPTA skill groups that were imported using the Unified CCE integration wizard, the corresponding queues have been automatically created under the

Queues node. Note that after the integration wizard is run, additional mapped queues can be created from the Administration Console. For details, see the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Routing and Workflows*.

Tree: Administration List: Queues							🚳 - 🔎 🔮 🔂 🗟 💋 🛛 -
Image: Second secon	ľ					List: Queues	Tree: Administration
Administration Name △ Description Active Default chat transfer queue Unified CCE Mect Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No Cisco_Yoice Image: Call back Image: Call back Yes No No No Image: Call back Image: Call back Supervisory Queue for M Yes No No Image: Call book Image: Call book Image: Call book Supervisory Queue for M Yes No No Image: Call book Image: Call book Image: Call book Image: Call book No No No Image: Call book Image: Call book Image: Call book Image: Call book Yes No No <						📑 🗙 🗟 🤌	à 🗙 🖻
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Name Queues					Queues	Name	
Description Routing Queues					Routing Queues	Description	

Review mapped queues

Setting Up Knowledge Base Articles for Unified EIM

The knowledge base (KB) consists of articles organized into folders. It includes certain standard folders to hold articles meant for specific use in emails, such as headers, greetings, signatures, and footers. Folders for articles of other types are created by KB managers and authors.

See the *Cisco Unified Web and E-Mail Interaction Manager Knowledge Base Author's Guide* for the details of the procedures mentioned in this section.

To set up KB articles for Unified EIM:

- 1. Launch the URL: http://Unified EIM and WIM_Server/Default_Partition.
- 2. Log in as the partition administrator.
- 3. Open the Knowledge Base Console.

4. In the Knowledge Base tree, browse to Departments > Department_Name > Content > Shared > Standard > Email. Create an article in each of the sub-nodes to set up one option each for a header, greeting, signature, and footer that can be used in responses to incoming activities in the department. Set up macros for the articles to make it easy to insert them into other articles or email responses.

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Tree: Knowledge Base	List: Header	s					_
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🚞 Knowledge Base	Name ⊽	Description	Creation time	Created by	State	Туре	Expiry state
🕂 🗀 Useful Items	🛃 Default Heade	r	4/8/2009 5:2	pa	Approved	Article	Current
🖃 🧰 Departments							
🖃 🍒 Service							
Content							
🕂 🧰 Personal							
🖃 🗀 Shared							
🖃 🗀 Standard	Properties:	Default Head	ler				-
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🗄 🛅 Footers	<u>~ ~</u> =	= = ;=	10 10 10 IO				

Create a header, greeting, signature, and footer

5. Browse to the *Department* > **Shared** folder. Create a folder for auto-acknowledgements.

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Tree: Knowledge Base	List: Auto-	acknowledger	nents						
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C Knowledge Base	Name ⊽	Description	Creation time	Created by	State	Туре	Expiry state		
🛨 🧰 Useful Items			There are	no items to sho	w in the list.				
Departments									
🖃 🛣 Service									
Content									
🛨 🧰 Personal									
🖃 🧰 Shared									
🕂 🕒 Auto-acknowledgements	Properties: Auto-acknowledgements								
🛨 🧰 Standard	📙 🏘 🛃								
	General		nino Permi	esione					
	Name		Value						
	Name *		Auto-acknow	ledgements					
	Descriptio	n							
	Туре		Cisco Knowle	dge Base folder			•		
	Translate	content	No				•		

Create a folder for auto-acknowledgements
6. In the newly created folder, create an article for use in auto-acknowledgement emails. Use macros to insert the header, greeting, signature, and footer created earlier. These macros expand to the actual content at runtime.



Create a KB article to use in auto-acknowledgement emails

This article will be used later in a workflow (see page 76).

Setting up Business Objects in the Administration Console

Unified EIM Objects

See the Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Email Resources and the Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Routing and Workflows for the details of the procedures mentioned in this section.

To set up Unified EIM business objects in the Administration Console:

- 1. Launch the URL: http://Unified EIM and WIM_Served Default_Partition.
- 2. Log in as the partition administrator.
- 3. Open the Administration Console.

4. In the Administration tree, browse to the Administration > Departments > Department_Name > Classifications > Categories node. Create categories.

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Tree: Administration	List: Categories			
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C Administration	Name 🛆		Description	
🕂 🧰 Partition: default	👪 Category 1			
🖃 🧰 Departments	😝 Category 2			
🚍 🏧 Service				
🗀 Archive Jobs				
🛨 🧰 Calendar				
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Classifications				
🕞 😽 Categories	Properties: Categories			
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+ 🔁 Integration	Description	Categories		
H C Macros				
+ V Products				
+ C Settings				
ti 🗀 User				
Him Workflow				
User name: pa Lang	guage: English	Ready		

Create categories

These categories will be used later in a workflow (see page 76).

5. Now, browse to the **Email** > **Aliases** node. Create an alias to serve as the entry point for emails into the system.

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Tree: Administration	List: Aliases				
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🚞 Administration	Name 🛆	Email address	Status	Default alias	
🛨 🧰 Partition: ipcc	😑 CCE_Alias	Support@cisco-test.com	Active	Yes	
🖃 🧰 Departments					
🗖 🚣 Service					
🛨 🧰 Calendar					
🛨 🕵 Chat					
🛨 🧰 Classifications					
🗀 Dictionaries					
🖃 🖂 Email					
🖻 Aliases					
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😫 Delivery Exceptions	Deservations COT	11			
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+ 🗀 User	Name *	CCE Alias			- 1
🛨 🧰 Workflow	Description	CCC_mos			- 1
	Email address *	Support@cisco-test.com	n		- 1
	Status *	Active			-
	Automatic BCC				-
	Send mail to				- 1
	Default alias *	Yes		1	-
				-	-

Create an email alias

6. Next, browse to the **Workflow** > **Queues** node to create an email queue. Skip this step if you want to use an auto-configured queue (see page 70).

7. Then, browse to the Workflow > Workflows > Inbound node to create an inbound workflow for this alias. The workflow will route incoming emails. Add the alias created in Step 5 to the Start node. Add the auto-configured queues or use the queues created in Step 6 to the Queue node. Select the auto-acknowledgement KB article created earlier (see page 73) for the Auto-acknowledgement node. Select the categories created in Step 4 for the Classifications node.



Create an inbound workflow

Unified WIM Objects

See Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Chat and Collaboration *Resources* for the details of the procedures mentioned in this section.

To set up Unified WIM business objects in the Administration Console:

- 1. Launch the URL: http://Unified EIM and WIM_Served Default_Partition.
- 2. Log in as the partition administrator.
- 3. Open the Administration Console.
- 4. Browse to the **Workflow** > **Queues** node and create chat, blended collaboration, callback, and delayed callback queues. Skip this step if you want to use auto-configured queues (see page 70).

5. Browse to the **Chat** > **Templates** node. Create a new template set, and provide default messages for different states associated with a chat, blended collaboration, or callback session, e.g., abandon, exit, error, and so on.

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Tree: Administration	Lis	t: Templates				٦
		X 🛃 🤌				
🚞 Administration		Name 🛆 🛛 🛛 🛛	Description	Directory	Туре	
🛨 🗀 Partition: default		Classic Gray I	Default chat template with	ClassicGray	System supplied	
🖃 🧰 Departments	1	Classic Olive I	Default chat template with	ClassicOlive	System supplied	
🖃 🗸 Service		Custom template set		Custom template set	User created	
C Archive Jobs						
🕂 🗀 Calendar						
🖃 🕵 Chat						
🗀 Entry Points						
🗁 Templates						
🕂 🗀 Classifications						
🗀 Dictionaries						
🛨 🖂 Email						_
🛨 🧰 Integration	Dro	portios: Custom tor	unlate set		[]	6
🛨 🧰 Macros		Properties: Custom template set			-	
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🛨 🧰 Settings	Ger	neral Files Options				_
+ 🗀 User		Name	Value			
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	-					_
User name: pa Langu	age:	English	Ready			

Create a custom template set for chat

- 6. Browse to the Chat > Entry points node. Create new entry points by assigning the appropriate templates. To route chats, blended collaboration, and call back activities that enter from this entry point, use an auto-configured queue or the queue created in Step 4. Make the entry points active. The configuration steps for entry points are different for different types of activities and routing options.
 - The activity types for which you need to create entry points are: Chat, Blended Collaboration, Callback, Delayed callback.
 - The three routing options available are: Cisco Interaction Manager, Automatic Call Distribution, Unified CCE.
 - For blended collaboration, callback, and delayed callback activities routed through Automatic Call Distribution, the following CTI strategies are available: Predictive, PhantomWaitRelease, PhantomWaitNoRelease, PhantomNoCallRelease, PhantomNoCallNoRelease, PhantomNoCallNoHold

Important: You need to add the CTI strategies, which are used in entry points configured for routing blended collaboration type of activities and that use the routing type as ACD, to a properties file on the CMB server. For details, see "Configuring Cisco Media Blender" on page 62.

Properties: Default Entry Point					
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General Options Transcr	General Options Transcript Notification				
Name	Value				
Name *	Default Entry Point				
Description	Default Entry Point				
Active	No	v			
Customer console - Start pag	je				
Customer console - Finish pa	ge				
Enable auto login	No	•			
Queue *	Customer support queue	<u></u>			
Template Set *	ClassicOlive	<u></u>			
Agent Availability	Required	•			
Subactivity *	Chat				
Routing Type *	Unified CCE				
CTI Strategy *	Agent Reserved				

A sample entry point for chat activities

Pr	Properties: Customer Support Entry Point					
F	🚽 🖻 💩 💐					
Ge	options Transcript	Notification				
	Name	Value				
	Name *	Customer Support Entry Point				
	Description					
	Active	Yes	•			
	Queue *	Customer support queue				
	Template Set *	ClassicOlive				
	Enable Cobrowse	Yes	•			
	Customer console - Start page					
	Customer console - Finish page	Last page browsed				
	Console mode for agent	Popup window	Ŧ			
	Console mode for customer	Same window	Ŧ			
	Enable auto login	No	•			
	Agent Availability	Required	Ŧ			
	Subactivity *	Blended Collaboration	Ţ			
	Routing Type *	Unified CCE	•			
	CTI Strategy *	Agent Reserved	•			

A sample entry point for blended collaboration activities

Pro	Properties: Customer Support Entry Point				
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Ge	neral Options Transcript	Notification			
	Name	Value			
	Name *	Customer Support Entry Point			
	Description				
	Active	Yes			
	Queue *	Customer support queue			
	Template Set *	ClassicOlive			
	Enable Cobrowse	No			
	Customer console - Start page				
	Customer console - Finish page	Last page browsed			
	Console mode for agent	Popup window			
	Console mode for customer	Popup window			
	Enable auto login	No			
	Agent Availability	Required			
	Subactivity *	Callback			
	Routing Type *	Unified CCE			
	CTI Strategy *	Agent Reserved			

A sample entry point for callback activities

Properties: Customer Support Entry Point					
📙 🖻 😫					
General Options Transcript	General Options Transcript Notification				
Name	Value				
Name *	Customer Support Entry Point				
Description					
Active	Yes				
Queue *	Customer support queue				
Template Set *	ClassicOlive				
Enable Cobrowse	No				
Customer console - Start page					
Customer console - Finish page	Last page browsed				
Console mode for agent	Popup window				
Console mode for customer	Popup window				
Enable auto login	No				
Agent Availability	Required				
Subactivity *	Delayed Callback				
Routing Type *	Unified CCE				
CTI Strategy *	Agent Reserved				

A sample entry point for delayed callback activities

Pr	Properties: Customer Support Entry Point			
F	2 🗟 💐			
G	eneral Options Transcript	Notification		
	Name	Value		
	Name *	Customer support entry point		
	Description			
	Active	Yes	1	
	Queue *	Customer support queue		
	Template Set *	ClassicOlive		
	Enable Cobrowse	No	-	
	Customer console - Start page			
	Customer console - Finish page	Last page browsed		
	Console mode for agent	Popup window	·	
	Console mode for customer	Popup window	-	
	Enable auto login	No	·	
	Agent Availability	Required	1	
	Subactivity *	Blended Collaboration	1	
	Routing Type *	Automatic Call Distributor	1	
	CTI Strategy *	PhantomWaitNoRelease	ł	

A sample entry points for blended collaboration activities using ACD routing type

Р	Properties: Customer Support Entry Point					
F						
G	eneral Options Transcript N	otification				
	Name	Value				
	Name *	Customer support entry point				
	Description					
	Active	Yes	•			
	Queue *	Customer support queue				
	Template Set *	ClassicOlive				
	Enable Cobrowse	No	•			
	Customer console - Start page					
	Customer console - Finish page					
	Console mode for agent		-			
	Console mode for customer		•			
	Enable auto login	No	•			
	Agent Availability	Required	•			
	Subactivity *	Callback	•			
	Routing Type *	Automatic Call Distributor	•			
	CTI Strategy *	PhantomNoCallRelease	•			

A sample entry points for callback activities using ACD routing type

7. In the Properties pane, click the **Show HTML** button. The code used to generate a chat hyperlink to that entry point is displayed. Copy this link code into a Notepad file. Edit the code as explained in the *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Chat and Collaboration Resources*.

Setting Up Services in the System Console

Service processes are managed at the system level as shared resources across partitions. Service instances are managed within partitions.

See Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to System Console for the details of the procedures mentioned in this section.

Unified EIM Services

This section helps you set up processes and instances for the following services:

- **Retriever:** Gets incoming emails from configured aliases and parses them.
- Workflow Cache: Maintains the files that store information about objects used in workflows.
- Workflow Engine: Applies workflows on emails to automate their routing and handling.
- **Dispatcher:** Sends outgoing emails out of the system.
- External Agent Assignment Service (EAAS): Identifies new activities that arrive into an external assignment queue, and routes requests for each of these activities to Unified CCE for routing to take place through Unified CCE.
- Listener: Assigns activities to target agents or user groups (skill groups) identified by Unified CCE, and reports the status of both the activity and the agent to Unified CCE throughout the life cycle of the given activity.

To set up Unified EIM services in the System Console:

1. Open a new browser window, and launch the URL: http://Unified EIM and WIM_Server/system. Log in as the system administrator (user name and password that were configured during the installation of Unified EIM and WIM).

cisco	
<u>U</u> ser name	e: sa
Password	••
Log In	Cancel About Help
Copyright © 2006-2009 Cisco Syste	ems, Inc. All rights reserved.

Log in as system administrator into system area

2. Select the System Console.

alialia cisco
Management Consoles
Administration
System — Click
Log Out About Help
Cisco would like to hear from you! Send feature requests, suggestions for improvements, and usability enhancement ideas to Cisco.

Select the System Console

 Browse to the Partition > Partition > Services > Email > Retriever node. Click the Retriever instance to use in the partition, and select the email alias that you had created earlier in the Administration Console (see page 75).

Tree: System List: Retriever System Image: System System Imput System Selected Inputs	🚯 - 🔮 📴 🗟 💋 🛛 -			
System Instance name △ Description State System Instance name △ Description State Instance Retriever instance Stop Partitions Instance Retriever instance Stop Instance Retriever instance Stop Instance Retriever instance Stop Instance Retriever instance Stop Instance Instance Instance Instance<	Tree: System	List: Retriever		
 System System System Instance name △ Description State Retriever instance State Retriever instance State Content Index Services Content Index Dispatcher Retriever Services Content Index Services Services	2	📑 🗙 🕨 🕴 🔁 🍺		
Image: Shared Resources nx-instance Retriever instance Stop Image: Partitions Image: Shared Resources Image: Shared Resources Stop Image: Image: Shared Resources Image: Shared Resources Image: Shared Resources Stop Image: Image: Image: Shared Resources	🗀 System	Instance name △	Description	State
Partitions Partitions Monitors Monitors Content Index Content Index Email Dispatcher Retriever Properties: rx-instance General Knowledge Base Workflow Available Inputs Selected Inputs	+ 🗀 Shared Resources	rx-instance	Retriever instance	Stopped
General Knowledge Base Workflow Available Inputs Selected Inputs	Partitions			
Monitors Services	🖃 🗀 egain			
Services Chat Content Index Dispatcher Dispatcher Retriever Monkedge Base Morkflow Available Inputs	🗀 Monitors			
	- C Services			
	🛨 🗀 Chat			
Image: Save Jal Image: Save Jal Image: Save Jal Imput	🖃 🧰 Content Index			
Dispatcher Properties: rx-instance Caneral Canera	🖃 🗀 Email			
Retriever Properties: rx-instance General Knowledge Base Knowledge Base Savejal Input Available Inputs Selected Inputs 	🧰 Dispatcher			
General General Workflow Workflow Available Inputs Selected Inputs	🗁 Retriever	Properties: rx-instance		
Knowledge Base Workflow Available Inputs Selected Inputs	🛨 🗀 General			
Workflow Available Inputs Selected Inputs	🛨 🗀 Knowledge Base			
Available Inputs	🛨 🗀 Workflow	Save al Input		
Available Inputs Selected Inputs				
		<u>Available</u> Inputs	Selected Inputs	
Email		Email	Email	
support@cisco-test.com			support@cisco	o-test.com

Associate a Retriever instance with the email alias created earlier

 Restart the Retriever process and instance based on the notification message that appears. Browse to Shared Resource > Services > Retriever, and stop and start the Retriever process for the system. Also ensure that the start type for the service process is set to automatic.



Start the Retriever process

5. Navigate back to the **Partition** > *Partition* > **Services** > **Retriever** node. Ensure that the start type for the service instance is set to automatic. Stop and start the Retriever instance.

🚳 • 🔮 📴 🗟 💋 😢 •			
Tree: System	List: Retriever		
3	📑 🗙 🖻 🎯 🔁 🤌		
🗀 Hosts 📃	Instance name △	Description	State
🕂 📛 Logger	rx-instance	Retriever instance	Stopped
C Monitors			
Services			
+ 🧰 Chat			
🛨 🧰 Content Index			
🛨 🚞 Email			
+ 🧰 General			
🛨 🧰 Knowledge Base			
+ 🗀 Workflow			
- C Partitions	Properties: rx-instance		
🖃 🗀 egain			
C Monitors			
E Cervices	General Input		
🛨 🧰 Chat			
🛨 🧰 Content Index	Name	Value	
🖃 🧰 Email	Instance name *	rx-instance	
🗀 Dispatcher	Description	Retriever instance	
C Retriever	Start type *	Automatic	
+ 🗀 General			
🛨 🫅 Knowledge Base			
+ 🗀 Workflow 👻			

Start the Retriever instance

6. Browse to **Shared Resource** > **Services** > **Workflow** > **Workflow Cache** and verify that the Workflow Cache process is running. If the process is in a stopped state, start the process by clicking the **Run** button. Also ensure that the start type for the service process is set to automatic.

🚳 - 🎯 🔂 🗟 💋 📀	-			
Tree: System	Lis	st: Workflow Cache		
2		İ 🗙 🖻 🕄 🗟 🤌		
🛅 System		Name 🛆	Description	State
🗆 🧰 Shared Resources		rules-cache-process	Rules cache manager process	Running
🗀 Hosts				
🛨 🚞 Logger				
C Monitors				
E 🧰 Services				
🗉 🧰 Chat				
🗉 🧰 Content Index				
🗉 🧰 EAAS	Pr	operties: rules-cache-p	rocess	
🗉 🧰 Email		1 🗟		
🛨 🧰 General				
🗄 🧰 Knowledge Base	Ge	eneral Hosts		
🗉 🧰 Listener				
🖃 🧰 Workflow		Name	Value	
🚞 Activity Pushbac	k 📗	Name *	rules-cache-process	
🗀 Alarm		Description	Rules cache manager process	
🗁 Workflow Cache		Start type	Automatic	_
🗀 Workflow Engine		Maximum number of instances *	1	
E		Failover enabled	No	•
User name: sa	Language:	: English	Ready	

Start the workflow cache process

7. Browse to **Partition > Partition > Services > Workflow > Workflow Cache** and ensure that the start type for the service instance is set to automatic. Start the Workflow Cache instance.

🚯 - 🔮 📴 🔁 😢 -				
Tree: System	List: Workflow Cache			
2	📑 🗙 🕨 😵 🗟 🤌			
C System	Instance name Δ	Description	State	
Shared Resources	workflow-cache-instance	Workflow cache instance	Running	
Partitions				
🗆 🗀 default				
C Monitors				
E 🛅 Services				
🗉 🧰 Chat				
🗉 🧰 Content Index				
🗉 🧰 EAAS	Properties: workflow-ca	iche-instance		2
🗉 🧰 Email				
🗉 🧰 General				
🗉 🧰 Knowledge Base	General			
🗉 🧰 Listener				
C 🗀 Workflow	Name	Value		
🚞 Activity Pushback	Instance name *	workflow-cache-instance		
🗀 Alarm	Description	Workflow cache instance		
🗁 Workflow Cache	Start type *	Automatic		-
🗀 Workflow Engine				
User name: sa Languag	ge: English	Ready		

Start the workflow cache instance

8. Browse to **Shared Resource** > **Services** > **Workflow** > **Workflow Engine** and verify that the Workflow Engine process is running. If the process is in a stopped state, start the process by clicking the **Run** button. Also ensure that the start type for the service process is set to automatic.

🚳 - 💽 🔂 🔁 🕐 -				
Tree: System		List: Workflow Engine		
2		📑 🗙 ▷ 🝪 🗟 🤌		
🗀 System		Name 🛆	Description	State
🖃 🛅 Shared Resources		rules-process	Rules process	Running
🗀 Hosts				
🛨 🛅 Logger				
i Monitors				
E Cervices				
🛨 🛅 Chat				
🛨 🧰 Content Index				
🛨 🗀 Email				
🛨 🧰 General				
🛨 🧰 Knowledge Base		Properties: rules-process		
🖃 🧰 Workflow				
🗀 Activity Pushback				
🗀 Alarm		General Hosts		
🗀 Workflow Cache				
🗀 Workflow Engine		Name	Value	
Partitions		Name *	rules-process	
🖃 🛅 egain		Description	Rules process	
monitors		Start type	Automatic	
- 🗀 Services		Maximum number of instances *	1	
🕂 🧰 Chat		Failover enabled	No	
🛨 🫅 Content Index	•			

Verify that the Workflow Engine process is running

9. Browse to **Partition > Partition > Services > Workflow > Workflow Engine** and ensure that the start type for the service instance is set to automatic. Start the Workflow Engine instance.

🚳 • 🔮 📴 🛃 🕐 •			
Tree: System	List: Workflow Engine		
2	📑 🗙 ▷ 🝪 🗟 🎓		
🗀 System	Instance name △	Description	State
+ 🛅 Shared Resources	workflow-instance	Workflow engine instance	Running
- C Partitions			
🖃 🗀 egain			
Contraction Monitors			
Contraction Services			
🛨 🗀 Chat			
🛨 🗀 Content Index			
🛨 🗀 Email			
🛨 🗀 General			
🛨 🗀 Knowledge Base	Properties: workflow-instance		
🖃 🚞 Workflow			
🗀 Activity Pushback			
🗀 Alarm	General		
🗀 Workflow Cache		H-L-	
🗀 Workflow Engine	Name	value	
	Instance name "	Worknow-Instance	
	Description	worknow engine instance	
	Start type *	Automatic	

Start the Workflow Engine instance

10. Browse to **Shared Resource** > **Services** > **Email** > **Dispatcher** and verify that the Dispatcher process is running. If the process is in a stopped state, start the process by clicking the **Run** button. Also ensure that the start type for the service process is set to automatic.

🚳 - 🔮 📴 🗟 🖉 -			
Tree: System	List: Dispatcher		
2	📑 🗙 🖻 🔇 🗟 🤌		
C System	Name 🛆	Description	State
Shared Resources	dx-process	Dispatcher service process	Running
🛅 Hosts			
+ 🗀 Logger			
Contraction Monitors			
Services			
🕂 🗀 Chat			
🕂 🗀 Content Index			
🖃 🧰 Email			
🗁 Dispatcher			
C Retriever	Properties: dx-process		
🕂 🚞 General			
🛨 🚞 Knowledge Base			
🖃 🧰 Workflow	Hosts		
C Activity Pushback	Name	Value	
🗀 Alarm	Name *	dy-process	
Workflow Cache	Description	Dispatcher ceruise presers	
🗀 Workflow Engine	Start type	Automatic	
+ 🛅 Partitions	Maximum number of instances *	1	
	Failever enabled	1 No	
	Fallover enabled	NU UN	

Verify that the Dispatcher process is running

11. Browse to **Partition > Partition > Services > Email > Dispatcher** and ensure that the start type for the service instance is set to automatic. Start the Dispatcher instance.

🚯 • 🔮 📴 🛃 🖉 •			
Tree: System	List: Dispatcher		
2	📑 🗙 🖻 🝪 🗟 🤌		
🗀 System	Instance name △	Description	State
+ 🗀 Shared Resources	dx-instance	Dispatcher instance	Running
- Cartitions			
🖃 🗀 egain			
C Monitors			
- C Services			
🛨 🧰 Chat			
🛨 🚞 Content Index			
🖃 🧰 Email			
🚞 Dispatcher			
🚞 Retriever	Properties: dx-instance		
🛨 🛅 General			
🛨 🚞 Knowledge Base	Casari		
🖃 🛅 Workflow	General		
🚞 Activity Pushback	Name	Value	
🚞 Alarm	Indhee pame *		
🗀 Workflow Cache	Description	Dianatahan instance	
🗀 Workflow Engine	Chark has a *	Dispaccher inscance	
	buard type .	Automatic	

Start the Dispatcher instance

12. Browse to **Shared Resource** > **Services** > **Listener** > **Listener** and verify that the Listener process is running. If the process is in a stopped state, start the process by clicking the **Run** button. Also ensure that the start type for the service process is set to automatic.

🚯 • 🔮 📴 🛃 🕖 •			
Tree: System	List: Listener		
3	📑 🗙 Þ 😢 🗟 🌶		
C System	Name △	Description	State
🖃 🛅 Shared Resources	Listener-process	Listener Service-process	Running
🗀 Hosts			
🕂 🗀 Logger			
Contraction Monitors			
- Convices			
🕂 🧰 Chat			
🕂 🗀 Content Index			
🕂 🚞 EAAS			
🛨 🗀 Email			
🕂 🚞 General	Properties: Listener-proces	s	
🛨 🧰 Knowledge Base			
🖃 🧰 Listener	General		
C Listener	Hosts		
H C Workflow	Name	Value	
+ 🔁 Partitions	Name *	Listener-process	
	Description	Listener Service-process	
	Start type	Automatic	
	Maximum number of instances *	10	
	Failover enabled	Yes	

Verify that the Listener process is running

13. Browse to **Partition** > **Partition** > **Services** > **Listener** > **Listener**. Verify that the Listener instance for the Agent PG is automatically created. Also ensure that the start type for the instance is set to automatic. Then start the Listener instance.

🚮 - 🞅 🔂 🔁 😰 😗 -			
Tree: System	List: Listener		
2	📑 🗙 🖻 🔇 🗟 💋	þ	
C System	Instance name ∆	Description	State
🗉 🧰 Shared Resources	CIM_ARM_PG	CIM_ARM_PG	Running
E 🛅 Partitions	Listener-instance	Listener Instance	Stopped
🗆 🗀 default			
🗀 Monitors			
E 🛅 Services			
🗉 🧰 Chat			
🗉 🧰 Content Index			
EAAS			
🗉 🧰 Email			
🗉 🧰 General			
🗉 🧰 Knowledge Base	Properties: CIM_ARM	PG	
🗆 🧰 Listener		_	
Eistener			
⊡ 🗀 Listener 🗁 Listener 란 😭 Workflow	General		
□ istener istener Workflow	General	-	
 □ Listener □ Listener 1 Listener 1 Listener 1 Listener 	General Name	Value	
Listener Listener Listener Listener	General Name Instance name *	Value CIM_ARM_PG	
Listener Listener Listener Workflow	General Name Instance name * Description	Value CIM_ARM_PG CIM_ARM_PG	
Circle Ustener	General Name Instance name * Description Start type *	Value CIM_ARM_PG CIM_ARM_PG Automatic	1
□ 🕞 Listener ເ⊇ੇ Listener Itatener Itatener Workflow	General Name Instance name * Description Start type * Agent PG *	Value CIM_ARM_PG CIM_ARM_PG Automatic CIM_ARM_PG	×
□ 🔂 Listener C Listener • 😭 Workflow	General Name Instance name * Description Start type * Agent PG * CMB Parameters	Value CIM_ARM_PG CIM_ARM_PG Automatic CIM_ARM_PG	Y
 □ Listener □ Listener 1 □ □ Usten 1 □ □ Ustener 1 □ □ Ustener 	General Name Instance name * Description Start type * Agent PG * CMB Parameters	Value CIM_ARM_PG CIM_ARM_PG Automatic CIM_ARM_PG	× ×
 □ Ustener □ Ustener □ Ustener □ □ Ustener □ □ Ustener 	General Name Instance name * Description Start type * Agent PG * CMB Parameters	Value CIM_ARM_PG CIM_ARM_PG Automatic CIM_ARM_PG	¥ ×
Listener Listener Listener Listener Listener	General Name Instance name * Description Start type * Agent PG * CMB Parameters	Value CIM_ARM_PG CIM_ARM_PG Automatic CIM_ARM_PG	¥ ¥

Configure and start the Listener instance

14. Browse to **Shared Resource** > **Services** > **EAAS** > **EAAS** and verify that the EAAS process is running. If the process is in a stopped state, start the process by clicking the **Run** button. Also ensure that the start type for the service process is set to automatic.

💁 · 📴 📴 🧟 💋 😗 ·			
Tree: System	List: EAAS		
	📑 🗙 🕨 😵 🗟 🤌		
🗀 System	Name 🛆	Description	State
🖃 🗀 Shared Resources	EAAS-process	External Agent Assignment Service-process	Running
🛅 Hosts			
+ 🗀 Logger			
🛅 Monitors			
Ervices			
🛨 🧰 Chat			
🛨 🛅 Content Index			
EAAS			
EAAS			
🛨 🗀 Email	Properties: EAAS		
🛨 🛅 General			
🛨 🗀 Knowledge Base			
🛨 🧰 Listener	General		
🛨 🧰 Workflow			
🕂 🗀 Partitions	Name	Value	
	Service name *	LAAS	
	Description	EAAS	

Verify that the EAAS process is running

15. Browse to **Partition** > *Partition* > **Services** > **EAAS** > **EAAS**. Configure the EAAS instance by providing the MR Connection port number you provided while creating the MR PIM (page 24). Also ensure that the start type for the instance is set to automatic. Start the EAAS instance.

🚯 - 🖹 📴 😨 -			
Tree: System	List: EAAS		2
2	📑 🗙 Þ 😢 🗟 🤌		
🗀 System	Instance name ∆	Description	State
+ 🗀 Shared Resources	EAAS-instance	External Agent Assignment Instance	Running
Partitions			
🖃 🗀 ipcc			
C Monitors			
- 🗀 Services			
🕂 🧰 Chat			
🛨 🗀 Content Index			
EAAS			
EAAS			
🛨 🗀 Email			
🛨 🗀 General			
🛨 🗀 Knowledge Base			
🛨 🧰 Listener	Properties: EAAS-insta	ince	
+ 🗀 Workflow			
	General		
	Name	Value	
	Instance name *	FAAS-instance	
	Description	External Agent Assignment Instance	
	Start type *	Automatic	
	MR Connection Port	2000	

Start the EAAS instance

Unified EIM is now ready for use. To verify, log in as an agent, supervisor, or administrator and perform basic tasks.

Unified WIM Services

This section helps you set up processes and instances for the following service:

- Agent Assignment: Used to initiate chat and collaboration sessions.
- External Agent Assignment Service (EAAS): Identifies new activities that arrive into an external assignment queue, and routes requests for each of these activities to Unified CCE for routing to take place through Unified CCE.
- Listener: Assigns activities to target agents or user groups (skill groups) identified by Unified CCE, and reports the status of both the activity and the agent to Unified CCE throughout the life cycle of the given activity.

To set up Unified WIM services in the System Console:

- Log in to the system as the system administrator from the following URL: http://Unified EIM and WIM_Server/system.
- 2. Select the System console.

3. Browse to **Shared Resource** > **Services** > **Chat** > **Agent Assignment** and verify that the Agent Assignment process is running. If the process is in a stopped state, start the process by clicking the **Run** button.

🟠 - 🎯 📴 🗟 💋 🛛 -			
Tree: System	List: Agent Assignment		I I I I I I I I I I I I I I I I I I I
2	📑 🗙 ▷ 😢 🖻 🤌		
🗀 System	Name 🛆	Description	State
C C Shared Resources	agent-assignment-process	Chat activity assignment process	Running
🗀 Hosts			
🛨 🚞 Logger			
🗀 Monitors			
E 🛅 Services			
🗆 🧰 Chat			
🗁 Agent Assignment			
🗉 🧰 Content Index			
🗉 🧰 EAAS			
🗉 🧰 Email	Properties: agent-accignm	ent-process	
🗄 🧰 General			
🛨 🚞 Knowledge Base			
🗄 🧰 Listener	General Hosts		
🗉 🧰 Workflow			
Partitions	Name	Value	
	Name *	agent-assignment-process	
	Description	Chat activity assignment process	
	Start type	On demand	
	Maximum number of instances *	1	
	Failover enabled	No	
User name: sa Langua	ge: English	Ready	

Start the Agent Assignment process

4. Browse to **Partition > Partition > Services > Chat > Agent Assignment** and configure the instance to start automatically. Then start the Agent Assignment instance.

🚳 - 🎯 📴 🛃 🕐							
Tree: System	Lis	st: Agent Assig	Inment				2
2		* 🗙 ▷ 🔇 [3 🤌				
🚞 System		Instance name Δ		Description		State	
E Constant Constan		agent-assignment-in	stance	Chat activity assignm	ent instance	Running	
🗀 Hosts							
🗉 🚞 Logger							
C Monitors							
🗉 🧰 Services							
Partitions							
🗆 🗀 default							
🚞 Monitors							
🖃 🧰 Services							
🖃 🧰 Chat	De		t accionment	instance			
🚞 Agent Assigni	nent	operties: ager	it-assignment	-instance			
🗉 🧰 Content Index							
🗉 🧰 EAAS	Ge	eneral					
🗉 🧰 Email							
🗉 🧰 General		Name	Value				
🗉 🧰 Knowledge Base		Instance name *		agent-assignment-instance			
🗉 🧰 Listener		Description	Chat	activity assignment in:	stance		
🗉 🧰 Workflow		Start type *		Automatic			•

Start the Agent Assignment instance

5. Then, follow the instructions in steps 12-15 in "Unified EIM Services" on page 81. In addition to the fields mentioned in the Step 13, configure the CMB parameters fields for each listener service instance.

Setting Up Web Links for Chat and Collaboration

To create a chat and collaboration link on your web site:

Open the code view of the host web page and add the edited link code (see page 77) from the entry point properties at the appropriate point. You may need to ask your web master to perform this task.

Unified WIM is now ready for use. To verify, log in as an agent or supervisor, and perform basic tasks.

Configuring Dynamic Messages for Integrated Chats

Dynamic Run Application Script Request (DRASR) allows you to display wait messages with dynamic text (such as expected wait time) to customers while chat requests are being processed by the Unified WIM and Unified CCE integrated systems.

To configure dynamic messages for integrated chats:

- 1. Before you configure the dynamic messages, you need to configure scripts in Unified CCE that return RunApplicationScriptRequest with the script identifier (ID) of the script (page 42). You will need the Script ID for configuring the dynamic messages.
- 2. If you want to display the dynamic content in the message using ECC variable macros, prepare your macros by doing the following:
 - a. Look at the "Configuring Variables in Unified EIM and WIM" on page 67 section for the names of ECC variables that can be used.
 - b. Identify the ECC variables you want to use in the message. The macro will be added in the format %ECC </ariable_Name>%. For example, %ECC user.cim.activity.id%

Important: While selecting ECC variables to be used in macros, make sure that the variables have valid values. If you use a variable that does not have a value, a run application script failure will occur and the customer will not be able to chat. The error template is displayed to the customer.

- 3. If you want to display the dynamic content in the message using call variable macros, prepare your macros by doing the following:
 - a. Run the following query on the Cisco Interaction Manager master database to get the order of the call variables.

select * from egicm_call_variable

b. Identify the call variables you want to use in the message and note down the number at which it is stored in the database. For example, in the following figure the number for customer_phone_no is 1 and for activity_id, the number is 2. The macro will be added in the format %CVNumber%. For example, %CV1% for customer_phone_no.

🛄 Results 📑 Messages						
	CALL_VARIABLE_ID	CALL_VARIABLE_NAME	CALL_VARIABLE_DESCRIPTION			
1	998	customer_phone_no	NULL			
2	999	activity_id	NULL			
3	1000	customer_name	NULL			
4	1001	cmb_param	NULL			
5	1002	cti_strategy	NULL			

Order of call variables in database

- On the Cisco Interaction Manager file server, open the file in a text editor: *Cisco_Home*\eService\config\ipcc\egicm_message_map.xml
- 5. In the file, locate the <MESSAGE_MAPPINGS> line and add the following line under it.

<Script_ID isURL="yes/no">Message// Script_ID>

Where:

Script_ID: It is the ID of the script (page 90).

isURL: Set isURL to yes if the response to the RunApplicationScriptReq needs to execute a URL. Set it to no if no URL needs to be executed.

Message: The message you want to display to customers. The message can include dynamic variables (ECC variable (Step 2) and call variable macros (Step 3)) that are parsed at runtime and displayed to customers. You cannot add macros for application strings. The symbol "%" should be used only for adding macros to the message. If it is used otherwise, a run application script failure will occur and the customer will not be able to chat. The error template is displayed to the customer. If you are using a URL in the message, make sure you provide the complete URL and not a relative URL. For example, http://www.CompanyName.com/.

The new line can look like:

```
<2010 isURL="yes"> An agent is expected to be available in approximately %ECC wait.time% minutes.</2010>
```

Handling Email Assignment

After activities are processed by Unified EIM, EAAS changes the activity substatus to 4105 (Ready for Unified CCE routing) and sends a request to Unified CCE for further processing. If the same activities continue to remain in this substatus for a delayed period, various options exist to have EAAS retry routing of such activities through Unified CCE. The options available are:

▶ **Option 1:** A maximum wait time for each mapped queue can be set. When an activity belonging to that queue reaches that time, and it has not been assigned to an agent or to an exception queue, EAAS requeues the activity again and sends a NEW_TASK request for that activity to MR PIM.

Option 2: This option can only be used when Unified CCE scripts are linear in nature. When an activity is picked for assignment, EAAS checks to see if there are any activities older than the currently picked activity that are not yet assigned to an agent or to the exception queue. If any such activities are found, EAAS requeues those activities again and send a NEW_TASK requests for them to MR PIM.

To enable option 1:

1. On the Unified EIM active database, run the following query to get the queue_ID of integrated email queues.

Select queue_ID, queue_name from EGPL_ROUTING_QUEUE

 For each integrated email queue, run the following query to set the MAX_WAIT_TIME column value in seconds. This should be the maximum time in which you want MR PIM to respond back to a NEW_TASK request.

```
UPDATE EGICM_QUEUE SET MAX_WAIT_TIME = Value in seconds WHERE QUEUE_ID = Queue_ID of Integrated email queue
```

To enable option 2:

- On the file server, open the Cisco_Home\eService\config\ipcc\egicm_configuration.properties file in a text editor.
- 2. In the file, locate the setting FIF0_ALG0_T0_SAVE_EMAIL_ENABLE and set its value to True.

Related Documentation

Refer to the following Unified EIM and WIM User's Guides (for the Unified CCE integration) for more information about configuring and using Unified EIM and WIM.

- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Administration Console* helps administrators set up and manage business objects.
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Chat and Collaboration Resources helps administrators set up template sets, entry points, business rules, and cobrowse rules.
- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Email Resources* helps administrators set up aliases, blocked addresses, delivery exceptions, and blocked file extensions.
- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Routing and Workflows* helps administrators set up service levels, queues, and workflows.
- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Data Adapters* helps administrators set up data links to connect to external sources.
- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to System Console* helps system administrators set up and manage services, loggers, and system monitors.
- Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Tools Console helps business analysts extend the system by adding custom attributes. The Tools Console also enables administrators to configure screens and views for users and groups.
- *Cisco Unified Web and E-Mail Interaction Manager Supervisor's Guide* helps supervisors set up and use agent and queue monitors.
- *Cisco Unified Web and E-Mail Interaction Manager Administrator's Guide to Reports Console* helps managers and supervisors to set up and run reports to analyze various aspects of the system.

- *Cisco Unified Web and E-Mail Interaction Manager Knowledge Base Author's Guide* helps knowledge base (KB) managers and authors to create and publish KB articles.
- *Cisco Unified Web and E-Mail Interaction Manager Agent's Guide* helps agents handle email and chat interactions.

Managing and Maintaining Servers

- Best Practices for Configuring Servers
- Routine Maintenance Tasks
- Performance Tuning Considerations

This chapter will assist you in understanding how to configure and maintain your Unified EIM and WIM servers.

Best Practices for Configuring Servers

For All Servers

This section describes the best practices for configuring all the Unified EIM and WIM servers. For database server, there are some additional best practices that are listed in the section "Additional Best Practices for Database Servers" on page 95.

Allocating Adequate Virtual Memory

Virtual memory setting should be set to 1.5 times the physical memory. To ensure that adequate space is available during run time, distribute the virtual memory across disk volumes.

Setting Up Disk Space

All the system volumes should have more than 10% of their actual space free for application and other operating system (OS) related activities at any given time.

Configuring Anti-virus Protection

As email attachments are prone to virus attacks, set up scanning of email attachments on your mail exchange server. On the database server, some special files need to be excluded from the virus scanner. For details, see the section "Additional Best Practices for Database Servers" on page 95.

Additional Best Practices for Database Servers

In addition to the best practices that apply to all the Unified EIM and WIM servers, there are some special best practices for the database server that are described in this section.

Installation and Settings

- If you are using RAID configuration, ensure that the RAID strip size is set to 64 kilobytes for SQL Server data and log file array.
- Ensure that the Data and Log drive array is formatted as NTFS with 64 kilobytes in each allocation unit.
- Check the values set for fill factor and max degree of parallelism. To reduce I/O (disk input output) on SQL server, the fill factor should be set to 80%. This ensures that 20% free space is available in the data pages of indexes, and it reduces page splitting. The max degree of parallelism should be set to the number of physical processors. For example, if you have two processors, set max degree of parallelism to 2; and if you have five processors, set max degree of parallelism to 5.
 - a. On the database server, run the following stored procedure.

exec sp_configure

b. If the fill factor and max degree of parallelism is not configured correctly, run the following stored procedure on the database.

```
exec sp_configure 'fill factor (%)', 80
exec sp_configure 'max degree of parallelism', Number_Of_Physical_Processors
reconfigure with override
```

- ▶ In order to ensure that select queries from the application execute optimally, and with the least possibility of encountering SQL deadlocks with other modification queries, it is required that the **Read commit snapshot** property is enabled for the Active database. To enable this property:
 - a. Ensure that the databases are on SQL Server 2005 SP3 CU2 or 9.00.4211 hotfix level or higher. This is required to fix an intermittent error message from occurring when the application runs UPDATE statements on a database in which the **Read commit snapshot** isolation level property is enabled. Use this query to determine the product version and level:

```
select serverproperty('productversion'), serverproperty ('productlevel'),
serverproperty ('edition')
```

Apply CU2 if required.

- b. Ensure that Unfied EIM and WIM is stopped completely. All distributed components such as the services server, all application servers and messaging server should be stopped. For these commands to succeed, there must not be any database connections to the ActiveDB.
- c. Verify the current value of the **Read commit snapshot** property for the Active database by running the following select query:

select name,snapshot_isolation_state_desc,is_read_committed_snapshot_on from
sys.databases

- d. If the **Read commit snapshot** property is disabled, run the following query to enable it:
 - alter database Active_Database_Name set single_user with rollback immediate;
 - alter database Active_Database_Name set read_committed_snapshot on;

alter database Active_Database_Name set multi_user;

e. Verify that the **Read commit snapshot** property has been enabled successfully by running the following query.

```
select name,snapshot_isolation_state_desc,is_read_committed_snapshot_on from
sys.databases
```

Temp Database

- Set the temp database properties as follows:
 - Data file size should be set to 1.5 GB. Autogrowth should be set to 1 GB.
 - Transaction log file size should be set to 1 GB. Autogrowth should be set to 1 GB.

Master Database

- Set the master database properties as follows:
 - Data file size should be set to 50 MB. Autogrowth should be set to 50 MB.
 - Transaction log file size should be set to 50 MB. Autogrowth should be set to 50 MB.

Active Database

- ▶ While installing the application, ensure that data and log files of the active database reside on a disk volume with a good amount of free disk space. To calculate the required free disk space, see the *Cisco Unified Web* and *E-Mail Interaction Manager Solutions Reference Network Design Guide*.
- Set the active database properties as follows:
 - Data file size should be set to 20 GB. Autogrowth should be set to 1 GB.
 - Transaction log file size should be set to 2 GB. Autogrowth should be set to 1 GB.

Archive Database

- Set the archive database properties as follows:
 - Properties of Datafile: Data file size should be set to 5 GB. Autogrowth should be set to 500 MB.
 - Transaction log file size should be set to 2 GB. Autogrowth should be set to 2 GB.

Reports Database

- Set the reports database properties as follows:
 - Data file size should be set to 20 GB. Autogrowth should be set to 1 GB.
 - Transaction log file size should be set to 2 GB. Autogrowth should be set to 1 GB.

Optimal Configuration Settings

Database configuration setting	Recommended value
auto_close	off
auto_create_statistics	on
auto_update_statistics	on
auto_shrink	off
read_only	off
torn_page_detection	on
database auto grow	on
transaction log auto grow	on

Configuring Anti-Virus Protection

Anti-virus protection is necessary, but enabling all files for virus scan may cause performance issues.

Exclude .mdf, .ldf, .ndf, and .dat files from virus scan.

For All Servers

This section describes the routine maintenance tasks for the Unified EIM and WIM servers. For database server, there are some additional tasks that are listed in the section "Additional Tasks for Database Servers" on page 98.

Monitoring Disk Space

Monitor and free space on disk volumes periodically by deleting the unnecessary files. Installation programs, application logs, user profiles, Dr. Watson logs, temp files are known to occupy the space unnecessarily. It is recommended that such files are deleted on a regular basis. However, if it is not possible to free disk space further because of the size of the data, the administrator should plan archiving of old data, or migration of the system to a larger capacity server.

Applying Microsoft Security Patches

Apply the security patches released by Microsoft to plug vulnerabilities in the operating system and various programs.

Creating Backup Copies

Back up the *Cisco_Home* folder on the file, application, messaging, and services servers regularly. Exclude the log folder under *Cisco_Home* from the backup. The process of backing up the database is different. For details, see the section "Additional Tasks for Database Servers" on page 98.

Additional Tasks for Database Servers

In addition to the routine maintenance tasks that apply to all the Unified EIM and WIM servers, there are some special tasks for the database server that are described in this section.

Rebuilding Indexes

Rebuilding of indexes enhances database performance. The active database should be reindexed on a weekly basis and during off peak hours. A SQL Server Agent job can be configured to automatically rebuild the indexes on scheduled times.

To configure a job to rebuild indexes:

- 1. From the installation package of 4.3(2), copy the reindexing scripts from the **Utilities\Reindex Scripts** folder.
 - For the active database on the Standard edition of Microsoft SQL 2005, copy the Reindex_Standard.sql script.
 - For the active database on the Enterprise edition of Microsoft SQL 2005, copy the Reindex_Enterprise.sql script.

- 2. Go to Programs > Microsoft SQL Server 2005 > SQL Server Management Studio.
- 3. Log in as a database administrator.
- 4. In the Microsoft SQL Server Management Studio window, browse to SQL Server Agent > Jobs.
- 5. Right-click Jobs and select New Job.
- 6. In the New Job window, do the following:
 - a. In the General section, provide a name for the job.
 - b. In the Steps section, click the New button and in the New Job Step window, set the following:
 - **Step name:** Provide the step name.
 - Type: Set the type as Transact-SQL script (T-SQL).
 - Database: From the dropdown list, select the active database for Unified EIM and WIM.
 - **Command:** Copy and paste the content of the reindexing script (Step 1). For the active database on the Standard edition of Microsoft SQL 2005, paste the content of the Reindex_Standard.sql script. For the active database on the Enterprise edition of Microsoft SQL 2005, paste the content of the Reindex_Enterprise.sql script.

Click OK.

- c. In the Schedules section, click the New button and in the New Job Schedule window, set the following:
 - Name: Provide a name for the schedule.
 - Schedule Type: Set the type as Recurring.
 - Frequency: Schedule the job to run weekly during off-peak hours.

Click OK.

The reindexing job will run automatically on the scheduled day and time.

Performing Disk Defragmentation

• Weekly defragmentation is recommended. Note that it requires downtime.

Monitoring Summarization Job Runs

• On a weekly basis, verify that all the summarization jobs enabled for Unified EIM and WIM are running successfully at the scheduled times.

Creating Backup Copies

Backups are critical in case of hardware failure. The following backup policy ensures that you won't lose more than one hour of data. SQL supports full recovery model and hence this policy is strongly recommended. When the recovery mode is set to full it is necessary to backup transactional logs periodically. Otherwise it may lead to a disk space issue because of transaction logs growing indefinitely.

> Perform a weekly complete backup, daily differential backup, and hourly transactional log backups.

Archiving

Regular archiving helps to keep the size of the database manageable. The maximum size of the database should be kept under 40 GB in most cases.

- > Schedule archive jobs to run during your off-peak hours to avoid database performance bottlenecks.
- > Purge archived activities to create more available disk space.

Performance Tuning Considerations

One of the first steps towards tuning an application is to determine evolving requirements, which is not easy as requirements are likely to vary across different types of users. Administrators, typically, want the system to be easily configurable for various user loads, security needs, and application uptime. Business managers tend to care about issues such as security considerations for critical data that is passed between various components within the application, response times, reliability, availability, and scalability. For agents, response time is the most important factor that defines a finely tuned system.

Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide helps you plan your configuration when you first set it up. In this section, we provide a quick overview of some of the factors that you should consider as the system grows.

Peak Concurrent Usage

The application will need to be tuned if there is a need to meet specific concurrent usage requirements. Concurrent usage includes usage by email and chat agents as well as chat sessions. The general guideline is that the greater the number of concurrent users, the likelier it is for the system to be stressed resulting in longer response times.

Email Volume

The email volume that the application handles determines the amount of disk space used by the database, size of active and master databases, and the capacity of the database engine to provide optimal response times to data requests. Active usage of email attachments and Knowledge Base (KB) articles also affect disk space requirements.

Server Configuration

It is a well known fact that the specifications for servers that run critical business application are constantly changing and, therefore, the application needs to account for such periodic changes. The server configuration and environment must be tailored to allow application to take advantage of it and vice versa. Therefore, if the server configuration is either downsized (less likely to occur) or increased (more likely), then the application needs to be tuned to the current server configuration. In addition, other applications that might be running on the same hardware also affect the tuning of the application.

Security Requirements

Often security requirements dictate that the application data should be accessed in a secure way. For this reason secure sockets layer (SSL) mode of access to information is set up. Likewise, sharing and access to critical information such as customer data require that data is stored and retrieved in a secure way by extra access control and beyond.

Additional security requirements do lead to some delay in response times for users accessing the application. This should be clearly understood by administrators setting up SSL mode of access on web servers or trying to access information stored on remote and highly secure resources like remotely mounted file systems or disks.

See Cisco Unified Web and E-Mail Interaction Manager Installation Guide for information about how to set up the SSL mode of communication on the web server.