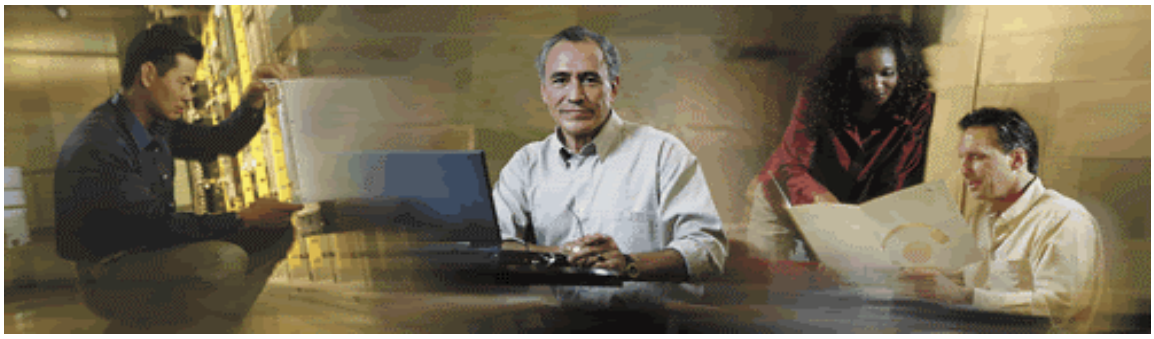


Cisco ICM 5.0 Multichannel Software Overview

Cisco ICM Software, Version 5.0

Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
U.S.A.
http://www.cisco.com
Tel: 408 526-400
800 553-NETS (64387)
Fax: 408 526-4100

Cisco ICM Software, Version 5.0

Table of Contents

ABOUT THIS DOCUMENT *4*

Audience **4**

Document Structure **4**

Related Documentation **4**

Obtaining Documentation **4**

World Wide Web ***4***

Documentation CD-ROM ***5***

Ordering Documentation ***5***

Documentation Feedback **5**

Obtaining Technical Assistance **6**

INTRODUCTION *7*

Multichannel Software Components **8**

ICM Software ***8***

Cisco IP Contact Center ***9***

CallManager 10

IP-IVR 10

Cisco Collaboration Server Software ***10***

Cisco E-Mail Manager Software ***11***

Cisco Media Blender Software ***11***

Cisco Dynamic Content Adapter ***11***

CUSTOMER-FOCUSED CONTACT CENTER *12*

Traditional Call Center ACDs **12**

Internet Protocol Contact Center **12**

MULTICHANNEL SERVICES *13*

Multiple Interactions **13**

Flexible Routing and Queuing **13**

Routing Application Requests ***14***

Universal Queue ***14***

Independent Media Queues ***14***

Synchronized Agents and Skill Groups **15**

Integrated Reporting **15**

GLOSSARY *16*

INDEX *19*

About This Document

Welcome to the *Cisco ICM 5.0 Multichannel Software Overview*. This document provides a high-level description of the multichannel software to help you understand how its strengths and flexibility can help you best serve your contact center customers.

Audience

This document is written for anyone who is responsible for administering or deploying the Cisco ICM 5.0 Multichannel Software.

Document Structure

This document has the following sections:

- **Introduction**—This section introduces you to the ICM 5.0 multichannel software components.
- **Customer-focused Contact Center**—This section discusses legacy call center ACDs and Cisco Internet Protocol Contact Center (IPCC).
- **Multichannel Services**—This section describes the types of interactions that can occur between a customer and a contact center agent. It also introduces you to the routing, queuing, and reporting features of the multichannel software.

Related Documentation

You need the following Cisco documentation:

- *Cisco ICM 5.0 Multichannel Software Implementation Map*
- Cisco Intelligent Contact Management Software documentation
- Cisco Collaboration Server documentation
- Cisco E-Mail Manager documentation
- Cisco Media Blender documentation
- Cisco Dynamic Content Adapter documentation
- Cisco CallManager documentation
- Cisco Customer Response Solutions documentation

Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following URL:

```
http://www.cisco.com
```

Translated documentation is available at the following URL:

```
http://www.cisco.com/public/countries_languages.shtml
```

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Ordering Documentation

Cisco documentation can be ordered in the following ways:

- Registered Cisco Direct Customers can order Cisco product documentation from the Networking Products MarketPlace:

  `http://www.cisco.com/cgi-bin/order/order_root.pl`

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

  `http://www.cisco.com/go/subscription`

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408-526-7208 or, elsewhere in North America, by calling 800-553-NETS (6387).

Documentation Feedback

You can provide feedback about Cisco product documentation in the following ways:

- If you are reading Cisco product documentation on Cisco.com, you can submit technical comments electronically. Click Leave Feedback at the bottom of the Cisco Documentation home page. After you complete the form, print it out and fax it to Cisco at 408-527-0730.

- You can e-mail your comments to `bug-doc@cisco.com`.

- To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

  Cisco Systems
  Attn: Document Resource Connection
  170 West Tasman Drive
  San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web site.

`http://www.cisco.com/tac`

To contact the TAC by e-mail, use the address `ccbu-csc@cisco.com`.

In North America, the TAC can be reached at 888-847-8162 or 978-458-4368. For other telephone numbers and TAC e-mail addresses worldwide, consult the following Web site:

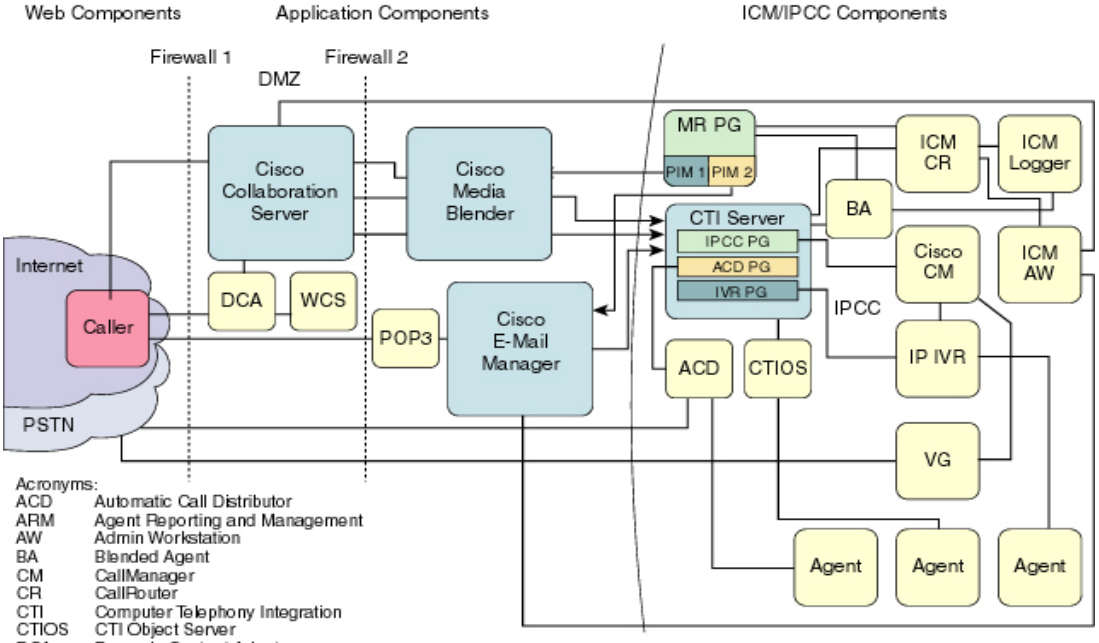
`http://www.cisco.com/public/support/tac/home.shtml`

Introduction

The Cisco ICM 5.0 multichannel software provides a flexible, integrated architecture to support a variety of agent and customer interactions for a contact center. The contact center manager can configure agents to handle voice, Web collaboration, text chat, and e-mail requests and have the agents switch between those media types on a task-by-task basis. The manager can also configure agents to support only one media type. Customers can choose the medium that is most comfortable and convenient for them.

The multichannel software supports both IP network and time division multiplexing (TDM) network configurations, providing a seamless migration path from a traditional call center infrastructure to an IP-enabled, multichannel contact center. Contact center managers can choose the efficiency of the Cisco Internet Protocol Contact Center (IPCC), which is sometimes referred to as a virtual ACD, or they can choose from a number of legacy ACDs.

The major components of the multichannel software are represented in the following figure. Note that all connections are bidirectional; arrows indicate the direction of link initiation. The boxes on the figure do not represent individual machines. Some boxes are included to provide clarity of concept.



Acronyms:

ACD	Automatic Call Distributor
ARM	Agent Reporting and Management
AW	Admin Workstation
BA	Blended Agent
CM	CallManager
CR	CallRouter
CTI	Computer Telephony Integration
CTIOS	CTI Object Server
DCA	Dynamic Content Adapter
DMZ	Demilitarized zone
ICM	Intelligent Contact Management
IP	Internet Protocol
IPCC	Internet Protocol Contact Center
IVR	Interactive Voice Response
MR	Media Routing
PIM	Peripheral Interface Manager
PG	Peripheral Gateway
POP	Post Office Protocol
PSTN	Public Switched Telephone Network
VG	Voice Gateway
WCS	Web Content Server

Multichannel Software Components

The multichannel software includes the following Cisco products:

- Cisco Intelligent Contact Management (ICM) Software, Version 5.0
- Cisco Internet Protocol Contact Center
- Cisco Collaboration Server, Version 5.0
- Cisco E-Mail Manager, Version 5.0
- Cisco Media Blender, Version 5.0
- Cisco Dynamic Content Adapter, Version 2.01

These products are delivered on separate CDs, and each product must be installed and configured. Before installing and configuring the products, see the *Cisco ICM 5.0 Multichannel Software Implementation Map* for some helpful tips on setting things up.

Note: Some of these applications can function in a stand-alone mode as well as in the multichannel software integration. Only the multichannel software integration is discussed in this document. See the documentation that comes with each application for information about stand-alone configurations.

ICM Software

ICM software forms the basis for the multichannel software. It provides routing, queuing, monitoring, and fault tolerance. ICM software includes the following elements, as well as a number of supporting products for contact center agent desktops, supervisors, reporting, and administration:

- **Media Routing Peripheral Gateway (MR-PG)**—The MR-PG is an ICM Peripheral Gateway that is capable of routing media requests of different kinds, such as e-mail and Web callback. The MR-PG accommodates multiple, independent Peripheral Interface Managers (PIMs) on a PG platform.
- **Agent Reporting and Management (ARM)**—ARM services allow an application to report agent and task state information that is used to provide unified reporting and information for routing. This service is accessed through the CTI Server.
- **Central Controller**—The ICM Central Controller is a computer which accumulates data about the requests it has routed. The ICM CallRouter and the ICM Logger run on the Central Controller.
- **CallRouter**—The ICM CallRouter receives routing requests and determines the best destination for each request. It also collects information about the entire system. The CallRouter is responsible for providing real-time data to one or more Distributor Admin Workstations (AWs) at each admin site. Client AWs at the site receive their real-time data through a connection to a distributor AW.
- **Logger**—The ICM Logger is the interface between the CallRouter and the database manager (SQL Server). As the CallRouter collects information about the system, it passes the information to the Logger for storage in a central relational database. The database manager on the Logger maintains statistics and data for use in monitoring and reporting.

- **Admin Workstation (AW)**—The AW is a personal computer used to monitor and report on the handling of requests in the ICM system. The AW can also be used to modify the system configuration or ICM scripts. The AW connects to the Logger for historical reporting and configuration data; it connects to the CallRouter for real-time data, such as reporting data and real-time script-monitoring data. The Collaboration Server and E-Mail Manager applications communicate with the distributor AW for configuration purposes.
- **CTI Server**—The Computer Telephony Integration (CTI) Server is an ICM process that acts as a server for CTI clients to communicate with ICM. Each CTI Server typically runs on a Peripheral Gateway (PG) and provides call control and event notification from IPCC or a legacy ACD. Cisco Media Blender interfaces with the CTI Server to set up and control the Web callbacks. The Cisco Agent Desktop (CAD) communicates with the CTI Server.
- **CTI Object Server (CTI OS)**—CTI OS is used to drive Softphone and third-party integration applications. It permits agents to handle call and agent state events. Typically, Softphone and third-party applications integrate ICM with customer applications such as a Customer Relationship Management (CRM) desktop, order entry, and contact center processing. The Cisco Desktop Toolkit communicates with CTI OS.
- **Voice Gateway**—The Voice Gateway provides a connection path between the Public Switched Telephone Network (PSTN) and the Cisco AVVID (Architecture for Voice, Video and Integrated Data) IP telephony network by converting analog and digital voice into IP packets.
- **Blended Agent**—Blended Agent (BA) is an application that provides outbound dialing functionality along with the existing inbound capabilities of ICM software. With BA, contact centers can be configured for automated outbound activities. BA allows agents who are not busy with inbound calls to perform outbound calls, thereby maintaining high agent productivity.
- **Legacy ACDs**—An ACD is a programmable device that can route incoming requests to a target within a contact center. The suite supports a number of legacy ACDs. See the Traditional Call Center section.

See the ICM and ACD product documentation for complete details about these components.

Cisco IP Contact Center

IPCC functions as a virtual ACD. Some of the capabilities of IPCC include intelligent multichannel request routing, ACD functionality, network-to-desktop CTI, interactive voice response (IVR) integration, call queuing, and consolidated reporting. Cisco combines the following products to form the IPCC system:

- ICM software, Version 5.0 (see above)
- Cisco CallManager, Version 3.2
- IP-IVR, CRS Version 3.01

CallManager

Cisco CallManager is a computer platform that provides traditional PBX telephony features and functions to packet telephony devices such as Cisco IP phones and Voice over IP (VoIP) gateways. CallManager also supports supplementary and enhanced services such as hold, transfer, forward, conference, automatic route selection, speed dial, and the last number redial. CallManager software takes care of the switching requirements of IPCC.

See the CallManager product documentation for additional information.

IP-IVR

Internet Protocol Interactive Voice Response (IP-IVR) provides queuing, voice response, and auto-attendant functions for IPCC. It is an IP-powered IVR solution that provides an open, extensible, and feature-rich foundation for the creation and delivery of IVR solutions. An IVR is a telecommunication computer, also called a Voice Response Unit (VRU), that responds to caller-entered touch-tone digits. IP-IVR is a Customer Response Solution (CRS).

See the CRS documentation for additional information about IP-IVR.

Cisco Collaboration Server Software

Cisco Collaboration Server provides Web collaboration between a caller and a contact center agent. Collaboration Server allows agents to share information with customers over the Web, such as Web pages, forms, and applications, while at the same time conducting a voice conversation or a text chat.

A routing Collaboration Server handles queuing and routing of Web requests, such as text chat or blended collaboration, in conjunction with ICM. ICM software provides for advanced queuing and routing across multiple contact center sites; Collaboration Server allows you to use the richness of a Web user interface to obtain customer information before making routing decisions, ensuring that the most appropriate agents are selected. Collaboration Server sends route requests to ICM CallRouter by way of Media Blender and the ICM MR-PG. Requests are held in an ICM queue on Collaboration Server while they are queued using ICM software.

The Collaboration Server ACD queue talks to Media Blender and is used to queue Web requests on a legacy ACD.

The Collaboration Server Administration desktop makes it simple to configure agents, and each agent created on Collaboration Server is simultaneously created in ICM software. Collaboration Server provides a variety of media classes for handling different types of requests, such as blended collaboration, multi-session chat, single-session chat, and voice.

See the documentation on the Cisco Collaboration Server CD for complete details about this product.

Cisco E-Mail Manager Software

Cisco E-Mail Manager manages high volumes of customer inquiries submitted to company e-mail boxes or a Web site. E-Mail Manager accelerates the e-mail response process by automatically directing messages to the correct agent or support team, categorizing and prioritizing messages, suggesting relevant response templates, and if desired, sending automated replies. E-Mail Manager also provides contact center agents with queue management and reporting tools.

When a customer sends an e-mail message asking for help, the message is read from the POP3 server into the E-Mail Manager rules engine and then is placed in the appropriate skill group queue. E-Mail Manager sends a route request to the ICM Router by way of the MR-PG, and ICM software routes the request to an available agent.

See the documentation on the Cisco E-Mail Manager CD for complete details about this product.

Cisco Media Blender Software

Cisco Media Blender works with Collaboration Server to provide Web callback and blended collaboration. It also provides a firewall gateway service to allow communication between the Collaboration Server, which resides outside the firewall, and the ICM PGs inside the firewall.

When used with a legacy ACD, Media Blender allows queuing and routing of Web requests using the ACD.

See the documentation on the Cisco Media Blender CD for complete details about this product.

Cisco Dynamic Content Adapter

Dynamic Content Adapter (DCA) works with Collaboration Server to assist in the sharing of SPLIT content pages. SPLIT is an acronym for **S**ecure, **P**ersonalized, **L**ive, **I**nteractive, and **T**ransactional Web content. Collaboration Server provides Web page collaboration by sharing URLs. While this methodology can be sufficient for sites that can reproduce pages using a URL, most Web sites now include at least some SPLIT content.

DCA allows collaboration on SPLIT content by intelligently caching and managing content from a Web content server during a Collaboration Server session. This allows all participants in a DCA session to receive the same content.

DCA needs to be deployed in the same area as Collaboration Server, whether that is inside a firewall for corporate help desk usage, or in the DMZ to serve public links.

See the documentation on the Dynamic Content Adapter CD for complete details about this product.

Customer-Focused Contact Center

To support the competitive needs of Cisco customers as well as their prior investments, the multichannel software can function with Cisco IPCC or a legacy ACD. Whichever one you choose, the same media channels are accommodated—voice, e-mail, blended collaboration, and text chat. Customers can choose the type of communication medium they prefer.

Traditional Call Center ACDs

The traditional call center is based on proprietary hardware, a PBX that includes legacy ACD functions, such as routing, queuing, and agent state management. Although the CTI-enabled ACD is not designed as a platform for integration, the multichannel software supports a number of legacy ACDs to accommodate customers who have invested in them. At the same time, the multichannel software provides the flexibility for a traditional call center to transition to an open multichannel IP-based contact center.

The multichannel software supports the following legacy ACDs:

- Aspect CallCenter
- Avaya Definity ECS G3
- Nortel Meridian 1
- Nortel Symposium
- Rockwell Spectrum

Internet Protocol Contact Center

Cisco IPCC improves on the ACD model by employing Cisco CallManager as a Voice-over-IP (VoIP) switching system, Cisco IP-IVR as both a Voice Response Unit and queuing point, and ICM software as the routing engine. With IPCC you do not need phantom lines, phantom phones, and voice resources to queue Web requests as you do with a legacy ACD.

The IPCC functions as a virtual ACD. Some of the typical ACD-type functions provided by IPCC include:

- Interface to the telephone network
- Port switching capabilities
- Call treatment processing
- Call and agent real-time and historical reporting
- Agent selection to assign incoming calls
- Computer Telephony Integration (CTI)
- Multichannel integration

Multichannel Services

The multichannel software uses the Cisco Architecture for Voice, Video and Integrated Data (AVVID) IP network infrastructure that converges voice and data and provides geographic independence for contact centers. The architecture of the multichannel software supports multiple interactions between a customer and an agent, flexible routing and queuing, synchronized agents and skill groups, and integrated reporting.

Multiple Interactions

With the Cisco ICM 5.0 multichannel software, agents can respond to customer requests in a variety of ways; that is, using voice, Web collaboration, text chat, or e-mail messaging. In addition to basic ICM inbound and outbound voice calls, the following kinds of requests are supported:

- Web callback—A Web callback request is one that does not involve Web collaboration. A customer clicks a button on a Web site that says, "Call me back." Then the caller and agent simply talk on the phone.
- Delayed callback—A delayed callback request is similar to a Web callback, only the customer requests a call at a specified number of minutes in the future. When the time has elapsed, the caller and agent talk on the phone.
- Blended collaboration—With blended collaboration, the caller and agent talk on the phone and are linked in a collaborative Web session. They can share Web pages, forms, and applications, while at the same time conducting a voice conversation.
- Text chat—The caller and agent can conduct a text chat session when a telephone call is not desired or not possible. They can both chat and collaborate on the Web.
- E-mail message—The customer and agent communicate using electronic mail.

The request flows for the various interactions can differ depending on whether you use IPCC or a legacy ACD. See the *Cisco ICM 5.0 Multichannel Software Implementation Map* for details about the supported request flows.

Flexible Routing and Queuing

The multichannel software architecture provides flexible routing and queuing. ICM software has been enhanced to manage routing and queuing services for the Cisco Collaboration Server and Cisco E-Mail Manager applications, and Collaboration Server and E-Mail Manager have been enhanced for routing and queuing as well.

Routing Application Requests

The Collaboration Server and E-Mail Manager applications route requests to the ICM MR-PG. The Media Routing Peripheral Interface Manager (MR-PIM) on the MR-PG provides a generic interface to queue and route requests. The MR-PIM communicates with the ICM CallRouter, which runs a routing script to determine how best to handle the request.

ICM software uses a media class ID to identify the type of media or channel. A media class is a communication channel that is correlated to an application. The media class ID is on the Collaboration Server call form submitted by the caller. There are five predefined media classes in ICM:

- Cisco_Multi_Session_Chat—multi-session chat requests
- Cisco_Single_Session_Chat—single-session chat requests
- Cisco_Blended_Collaboration—blended collaboration requests with IPCC/SoftACD
- Cisco_Voice—Web and delayed callbacks requests, blended collaboration requests with a legacy ACD, and basic ICM inbound and outbound voice calls
- Cisco_Email—e-mail requests

Each media class has at least one media routing domain (MRD), which is a collection of skill groups and services associated with a medium. ICM software uses the MRD to route a task to an agent who is associated with a skill group and a particular medium. Each MRD requires an ICM script, but it is possible to route requests from different MRDs using one script.

Universal Queue

When you use IPCC or SoftACD, you can configure the multichannel software to manage a single universal work queue for all requests. You can configure agents to handle all media types, switching media on a task-by-task basis. For example, you would configure an agent as a member of three skill groups if the agent handles voice, e-mail, and chat, and the agent would log into the Softphone, E-Mail Manager, and Collaboration Server. The agent is assigned the longest waiting request from any of the three skill groups, but you can choose to prioritize the requests using the multichannel software scripting environment.

Agents who work from a universal queue need skills in handling the various types of media and applications.

Independent Media Queues

You can also configure the multichannel software to route all media through independent queues defined by media class. Agents can be configured to log into only one media type to take either e-mail, text chat, blended collaboration, or voice. In this configuration, requests are queued only to agents who have logged into the corresponding media application.

Agents who work from an independent queue need skills in handling only one type of media and application.

Synchronized Agents and Skill Groups

Agents are common across the multichannel software, but skill groups are application-specific. Agents can be created in the Collaboration Server or E-Mail Manager applications or in ICM software, and agents can be shared across applications. When agents or skill groups are created in either Collaboration Server or E-Mail Manager, they are simultaneously created in ICM software. If an agent is created in ICM software, the agent must be enabled in the Collaboration Server and E-Mail Manager applications if the agent wants to log into and work on those applications.

Skill groups are application-specific, and even though they are simultaneously created in ICM when they are created in Collaboration Server or E-Mail Manager, they should not be created, modified, or deleted in ICM software. You cannot enable skill groups in the applications.

Using ICM software, you can, of course, create voice-only agents and skill groups for basic ICM voice calls.

Integrated Reporting

The multichannel software provides a variety of ways for a contact center manager or supervisor to generate reports. The Collaboration Server and E-Mail Manager applications have application-specific reports. You can also use WebView, a web interface for enterprise reporting applications, to generate integrated reports that consolidate information.

Using WebView, you can view, create, and modify integrated reports. For example, you can create reports based on media routing domains to determine how long agents spend when responding to requests using the different types of media, such as multi-session chat and e-mail.

Depending on how your administrator has configured WebView and assigned your access permission, you can work with reports directly from the browser on your PC. You can also view WebView reports from an ICM Admin Workstation or from any other ODBC-compliant desktop application.

See the WebView online Help for details about creating WebView reports.

Note: With an IPCC configuration, the ICM reporting model takes advantage of the reporting elements associated with IPCC, including enhancements to Call Type statistics to allow better reporting of queue statistics where calls are queued in an IVR separate from the voice switch.

Glossary

ACD
Automatic Call Distributor. Also called a switch, an ACD is a specialized phone system designed for handling incoming and outgoing calls.

agent
An individual who receives and handles customer calls and Web-based requests within a contact center.

Agent PG
A Peripheral Gateway (PG) that may or may not have an attached voice switch (ACD). The Agent PG acts as a logical peripheral that has configured skill groups and agent members. Applications, such as Cisco Collaboration Server and Cisco E-Mail Manager, report agent state and activity through the Agent PG's extended CTI interface.

blended collaboration
A blended collaboration session is one that is blended with IPCC or an ACD. In the suite it occurs when the agent is assigned by ICM software (when using IPCC) or by the ACD (when using a legacy ACD). When ICM software selects an agent for the task, the Web collaboration interface appears on the agent desktop (if the agent is logged in to the desktop). At the same time, the agent's telephone places an outbound call to the customer. Blended collaboration is also an ICM media class that ensures Web-initiated requests are routed to Collaboration agents using ICM software, IPCC, Media Blender, and Collaboration Server.

caller
An individual submitting a phone call or using a Web browser to send a request to communicate with a contact center agent. The Web request sometimes results in a phone conversation between the caller and agent, but not always. For example, communication using text chat or an e-mail message does not involve a phone call.

communication channel
A communication channel uses a particular technology to exchange information. Examples of communication mediums are e-mail, fax, Web collaboration, text chat, and voice.

CTI
Computer Telephony Integration. A term for connecting a computer to a telephone switch. The computer issues telephone switch commands to move the calls around.

delayed callback
Delayed callback is similar to Web callback, but when the Collaboration Server receives the request, it puts the request in its Delayed Callback table. Collaboration Server then sends an HTML page to the caller indicating that the caller will receive a callback within a time specified. When the specified time comes, Collaboration Server moves the request to its ICM queue for routing to ICM software. When ICM software selects an agent to handle the callback request, the agent's telephone set places an outbound telephone call to the customer.

firewall gateway service

The Media Blender firewall gateway service allows Collaboration Server, which resides outside a firewall, to communicate with an ICM peripheral gateway that resides inside the firewall.

IPCC

Internet Protocol Contact Center. A virtual ACD which provides intelligent call routing, network-to-desktop CTI, IVR integration, call queuing, and consolidated reporting.

legacy ACD

Any of the ACDs supported in the suite that use the Media Blender Cisco CTI driver.

Media Routing Domain (MRD)

A collection of skill groups and services associated with a common communication medium. ICM software uses a MRD to route a task to an agent who is associated with a skill group and a particular medium. MRDs are defined in ICM configuration and have unique IDs across the enterprise. The relationship between MRDs and skill groups is defined in ICM configuration, as well as Collaboration Server and E-Mail Manager configuration.

Media Routing Peripheral Gateway (MR-PG)

An ICM PG that is capable of routing media requests of different kinds; for example,e-mail and Web callback. An MR-PG supports multiple media routing clients by placing multiple, independent Peripheral Interface Managers (PIMs) on a PG platform.

multi-session chat

A type of session and a media class routed by ICM software. The multi-session chat media class ensures that Web-initiated request are routed to Collaboration agents who handle multiple, one-to-one Collaboration sessions at one time. Multi-session chat agents provide chat and Web collaboration in response to requests.

multichannel

Having more than one transport mechanism for a task. For example, a customer can use one of several contact center channels, such as e-mail, text chat, or voice when requesting service from a contact center agent.

Peripheral Gateway (PG)

The computer and process within the ICM system that communicates directly with the ACD, PBX, or IVR at the call center. The Peripheral Gateway reads status information from the peripheral and sends it to the Central Controller. In a private network configuration, the Peripheral Gateway sends routing requests to the Central Controller and receives routing information in return.

Peripheral Interface Manager (PIM)

The Cisco proprietary interface between a peripheral and the Peripheral Gateway (PG).

phantom line

Phone lines set aside for providing callback to customers. Used with phantom line CTI strategies, phantom lines wait in queue on behalf of the caller, ensuring the caller receives callback only when an agent is available. Phantom lines are used with legacy ACDs.

phantom strategy
A CTI strategy that places a call in the ACD queue and waits for call assignment (agent selection). Once the agent is selected, the outbound call is placed to the customer.

queue node
Area where incoming tasks are queued until they can be delivered to an available agent.

RMI
Remote Method Invocation. A Sun Microsystems remote procedure mechanism for communicating between two Java programs within (potentially) separate Java Virtual Machines.

single-session chat
A type of session and a media class routed by ICM software. The single-session chat media class ensures that Web-initiated requests are routed to Collaboration agents who handle one Collaboration session at a time. Single-session chat agents provide chat and Web collaboration in response to requests.

skill group
A collection of agents, at a single contact center, who share a common set of competencies.

switch
An ACD or Public Branch Exchange (PBX).

task
The work performed by an agent. The task is always associated with only one communication medium, such as voice or e-mail.

universal queue
Universal queue is a term used to describe ICM software's ability to route requests from different channels to agents who work with customer contacts in multiple media. With universal queue, ICM software treats requests from different channels as part of a single queue. Routing scripts can send requests to agents based on business rules regardless of the channel from which the request originates. For example, ICM software can route phone, single-session chat, and e-mail message requests to an agent who works with all these channels, based on the agent's skills and current tasks.

Voice-over-IP (VoIP) gateway
Each IPCC solution includes a Cisco VoIP gateway or voice gateway. The VoIP gateway provides a connection path between the PSTN and the Cisco AVVID IP telephony network. Its role is to convert analog and digital voice into IP packets.

Web callback
A feature of the Cisco Collaboration Server (CCS) that allows a customer to use a "call me" button on a company's Web site. The resulting callback request is handled by ICM software. When ICM software selects an agent to handle the callback request, the agent's telephone set places an outbound telephone call to the customer. Web callback, sometimes referred to as "callback only," is for simple callbacks that do not involve blended Web collaboration or blended text chat.

Index

A

ACD 12
Admin Workstation 8
agent 13
Agent Reporting and Management services 8
ARM services 8

B

Blended Agent 8
blended collaboration 13

C

CallRouter 8, 13
Central Controller 8
Cisco CallManager 8, 12
Cisco Collaboration Server 8, 13
  Administration desktop 8
  routing 8
Cisco E-Mail Manager 8, 13
  messaging 8
  routing 8
Cisco Media Blender 8
  firewall gateway service 8
  media event bus 8
communication channel 13
creating agents 13
  with Collaboration Server 13
  with E-Mail Manager 13
  with ICM software 13
creating agents and skill groups 15
  with Collaboration Server 15
  with E-Mail Manager 15
  with ICM software 15
CTI 8
CTI-OS 8
customer-focused contact center 12

D

DCA 8
delayed callback 13
Dynamic Content Adapter 8

E

e-mail messaging 13

F

firewall gateway service 8

I

ICM scripts 13
ICM software 8, 13
  Admin Workstation 8
  ARM services 8
  CallRouter 8
  Central Controller 8
  CTI Object Server 8
  CTI Server 8
  IPCC 8
  Logger 8
  MR-PG 8
IP network 7
IPCC 7, 8, 12, 13
  CallManager 8
  Cisco CallManager 12
  ICM software 8, 12
  IP-IVR 8, 12
  Voice Gateway 8

L

legacy ACDs 7, 8, 12
  supported 12
Logger 8

M

media channels 7, 12, 13
  blended collaboration 7
  e-mail 7
  text chat 7
  voice 7
  Web collaboration 7
media classes 13
Media Routing Domain 13
Media Routing Peripheral Gateway (MR-PG) 8
MRD 13
MR-PG 8, 13
MR-PIM 13
multichannel services 13

Q

queuing 13
  independent media queues 13
  Universal Queue 13

R

related documentation 4

reporting 15
historical 15
real-time 15
using templates 15
with Cisco Collaboration Server 15
with WebView 15
request flows 13
routing 13

S

skill group 13
synchronized agents and skill groups 15

T

TDM network 7
text chat 13

U

Universal Queue 13

V

Voice Gateway 8

W

Web callback 13