

Cisco IP Integrated Contact Distribution Customer Response Applications, Release 2.2 for the Cisco ICS 7750

The Cisco ICS 7750 Integrated Communications System brings the benefits of converged IP services to midmarket businesses and enterprise branch offices. The Cisco ICS 7750 is a versatile IP telephony and services solution that helps businesses harness the power of the Internet through converged applications, enabling them to anticipate and respond to customer needs more efficiently. Call processing, voice applications, and multiservice IP routing are integrated within the system chassis to deliver true convergence while enhancing system manageability. The modular system architecture enables expansion of call processing, routing capacity, and IP services to deliver system availability and scalability. The Cisco ICS 7750 gives customers the flexibility to choose the optimal configuration for their business environment, and allows them to increase profitability through improved customer interactions.

Cisco IP Integrated Contact Distribution (IP ICD) for the Cisco ICS 7750 offers an integrated, entry-level call queuing and distribution solution that is affordable and easy to use. Cisco IP ICD is one of a series of solutions built on the Cisco Customer Response platform that also includes Cisco IP Interactive Voice Response (IP IVR) and Cisco IP AutoAttendant (IP AA).

Key Benefits

Cisco IP ICD for the Cisco ICS 7750 offers the following key benefits:

- Provides a low-cost, entry-level automatic call distribution (ACD) that is easy to install, administer, and use
- Intelligently routes calls based on agent availability and resource group
- Improves customer care and loss of potential customers by allowing callers to wait in queue when all agents are busy, instead of hanging up and calling back, or not calling back
- Maximizes the productivity of customer-facing personnel by directing calls to underutilized employees while improving employee satisfaction by allowing for more equitable distribution of workload
- Allows for optimization of network resources by providing real-time statistics on facilities utilization
- Eliminates the need for additional standalone processors at low agent configurations, or installs on its own integrated board within the Cisco ICS chassis
- Provides powerful customization tools for call-flow scripts that are based on business objectives and processes
- Supports seamless integration with any current or future Cisco Customer Response applications



Benefits of an Integrated Chassis

The Cisco ICS 7750 is a chassis system with six universal slots that can support one of the following cards —Multiservice Route Processor (MRP), analog station interface (ASI), or System Processing Engine (SPE)—to address connectivity to the network and to provide a platform for application needs.

Cisco Applications 2.2 on the Cisco ICS 7750 provides a single, consistent, easy-to-manage platform for multiple communication applications. Delivering applications on an integrated platform can lead to greater efficiencies for midmarket businesses, decreasing the amount of hardware and software platforms, simplifying management, and improving employee productivity that results in greater business competitiveness in today's challenging market. The Cisco IP ICD application easily loads on a Cisco SPE 310, giving it the added advantage of the availability and versatility features of the Cisco ICS 7750, such as platform monitoring, fault management, and redundant power capabilities. In addition, the Cisco IP ICD application shares the Cisco CallManager database files and Lightweight Directory Access Protocol (LDAP), avoiding the purchase and complexity of added software applications and directories.

System Processing Engine

The Cisco SPE 310 is an application server card that runs call-processing, system-management, and multiple voice applications, including voice-mail IP IVR and autoattendant. The Cisco SPE 310 card offers customers the flexibility to add support for a broad range of communications applications as their business and communications needs grow (refer to Figure 1).

Figure 1:
Cisco SPE 310 with
Cisco IP ICD





Cisco IP ICD Scalability on the Cisco SPE 310

The powerful Cisco SPE 310 can support up to ten Cisco IP ICD agents with ten simultaneous calls in queue, co-resident with Cisco CallManager 3.x and the Cisco ICS System Manager applications. To take advantage of this efficiency, an attractively priced software package is available that includes the server software and ten agents.

When running exclusively on its own Cisco SPE 310, the Cisco IP ICD can accommodate up to 48 agents, in up to 48 ICD groups, with up to 48 calls in queue. Users may start with 10 agents and thereafter add agents, as few as one at a time.

Available Packages on the Cisco ICS 7750

- Cisco SPE 310 Server Card with Cisco IP ICD 2.2 Server Software and ten agent licenses
- Cisco IP ICD 2.2 Server Software and ten agent licenses
- Single Cisco IP ICD 2.2 agent license

Key Features

Performance and Capacity

- Cisco IP ICD supports up to 48 agents in as many as 48 groups. Cisco IP ICD simultaneously supports 48 calls in progress plus 48 calls in queue on a dedicated Cisco SPE 310 *.
- Cisco IP ICD may also co-reside with Cisco CallManager on a single Cisco SPE 310, simultaneously supporting ten calls in progress plus ten calls in queue.

Incoming Call Queuing

- When one or more agents are available, Cisco IP ICD immediately connects the caller to an agent. When an agent is not available, Cisco IP ICD queues the call in a queue.

ACD

- The following ACD distribution algorithms are available:
 - Weighted linear (hunt group)
 - Circular (distribution group)
 - Longest available (agent who has been available the longest)

Incoming Call Routing

- Cisco IP ICD can service multiple groups from single or multiple Cisco CallManager route points (for example, one route point per group for group-specific handling).

Welcome Messages

- Users may create their own welcome messages or use a predefined Cisco message.

Queue Messages

- Users can create their own queuing messages with progress announcements or advertisements or use a predefined Cisco message.



Queue Scripts

- Using the Customer Response Editor, call center administrators may define their own queue flows.

Groups and Agents

- Cisco IP ICD 2.2 supports up to 48 groups with as many as 48 agents per group*. Cisco IP ICD supports a maximum of 48 agents across all defined groups.

Cisco IP ICD 2.2 Agent Interface

- Agents use a simple Java application interface to log on or off, to announce their availability for call distribution, and to display their current status (for example, “in session”).

Cisco IP Phones

- Cisco IP ICD supports the use of the Cisco 7900 Series IP phones and the Cisco IP SoftPhone as an agent phone. Agent functions and status are accessed and displayed separately on the Cisco PC Agent Interface desktop application.

Real-time Reports

- On-demand and automatically cycling real-time reports for system, group, and agent status are available.

Historical Reports

- Historical reporting packages are available from Cisco partners.

Deployment

- Cisco IP ICD may be deployed with any supported Cisco AVVID (Architecture for Voice, Video and Integrated Data) deployment model, including centralized call processing with remote agents.

Integrated Installation and Operations, Administration, and Maintenance

- Cisco Customer Response applications feature one-click installation and common Operations, Administration, and Maintenance.

Custom Call-flow Creation

- The Cisco Customer Response Application Engine (CRA Engine) is a runtime environment that executes Cisco IP ICD flows.
- The Cisco CRA Editor Step Folders are collections of call-processing steps used to create flows for a particular function (for example, perform call processing, communicate with databases, and so forth). These collections are libraries of JavaBeans that provide the programming constructs, called “steps,” for the Cisco IP ICD flows.
- A flow repository (LDAP directory) stores all flows and configuration data for a Cisco IP ICD.
- Reports provide real-time flow execution statistics. In addition, Cisco partners can provide historical reporting at an additional cost.

*Actual capacity and performance depends on several factors, including whether multiple applications are running on the same server or whether Cisco IP ICD is running concurrently on the same server as the Cisco CallManager.



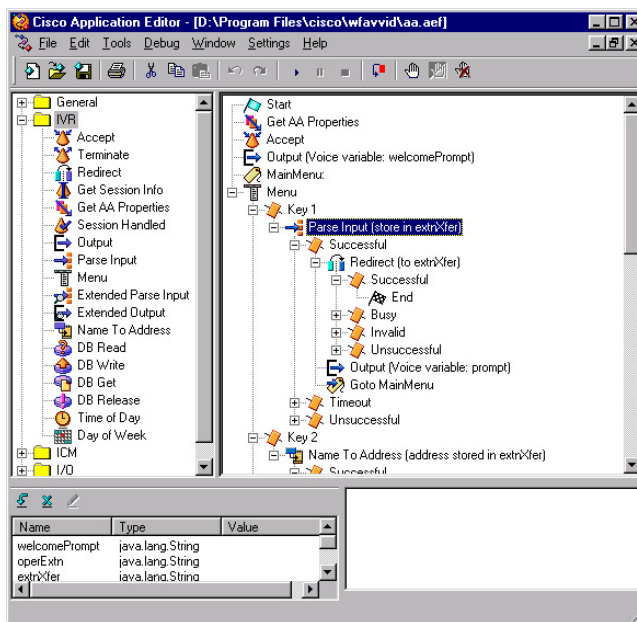
Cisco CRA Editor

The Cisco CRA Engine does not require the use of complex programming knowledge. Designed to be easy to use, it provides a graphical user interface (GUI) to create application scripts for automating call flows according to business rules.

The Cisco CRA Editor Windows-based tool enables application designers to create new flows or modify existing ones. The editor enables designers to drag and drop flow steps from a folder into the main design window.

Figure 2 shows the Cisco CRA Editor. The ICD steps are in the open ICD folder on the left, and the IP automated attendant flow is in the design window on the right.

Figure 2:
Cisco CRA Editor



Cisco IP ICD call flows (called “scripts” in legacy products) comprise a series of steps that are graphically represented in the Cisco CRA Editor. The flow is the actual Cisco IP ICD application that is saved and executed on a Cisco CRA Engine. Steps are blocks of logic that application developers assemble into flows with the Cisco CRA Editor to create custom Cisco ICD solutions. Table 1 shows the steps included with the Cisco IP ICD:



Table 1 Cisco IP ICD Steps

General	Call Control	ICD
Annotate	Accept	Connect
Day of Week	ReDirect	DeQueue
Decrement	Terminate	QueueDelay
Delay	Session Management	SelectResource
End	Get Session Info	
GoTo	Session Handled	
If	Media Control	
Increment	Extended Output	
Label	Extended Parse Input	
On Exception GoTo	Menu	
On Exception Clear	Name to Address	
Set	Output	
Switch	Parse Input	
Time of Day		

You can download the Cisco CRA Editor from the Web-based Cisco IP ICD administration page. The Cisco CRA Editor is supported in Windows 95, 98, NT 4.0, and 2000 environments.

Key benefits of the Cisco CRA Editor include:

- Call-flow editing stations can be on any PC anywhere in the WAN.
- Call-flow script construction can be done rapidly in a visual drag-and-drop environment; there is no need to learn a complicated programming language.
- Cisco IP ICD call flows that define ICD behavior are stored in an industry-standard LDAP directory that is available in any geographic location on your corporate intranet.
- Applications are easily tested and debugged with built-in debug tools.

Cisco Service and Support Solutions

Cisco AVVID IP Telephony Service and Support solutions are designed to ensure customer success by delivering a suite of proactive services. Rapid deployment, core, and advanced service and support that covers the entire network life cycle can be delivered directly by Cisco, or via its ecosystem of best-in-class partners.

The award-winning Cisco Service and Support offerings provide presales network audit planning, design consulting, network implementation, operational support, and network optimization. By including service and support when purchasing Cisco AVVID IP Telephony solutions, customers can confidently deploy a converged network architecture that takes advantage of Cisco expertise, experience, and resources.



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems Europe
11 Rue Camille Desmoulins
92782 Issy-les-Moulineaux
Cedex 9
France
www-europe.cisco.com
Tel: 33 1 58 04 60 00
Fax: 33 1 58 04 61 00

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the
Cisco Web site at www.cisco.com/go/offices

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland
Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland
Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden
Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2002, Cisco Systems, Inc. All rights reserved. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0203R)