

Multi-channel Comparison of Traditional ACDs with Cisco ICM Enterprise Edition vs. Cisco IP Contact Center Enterprise Edition

Exploring the building blocks of a Customer Interaction Network

Note: This document provides a summary of the differences in the routing and queuing capabilities between traditional automatic call distributors (ACDs) with Cisco® ICM Enterprise Edition 5.0 and Cisco IP Contact Center (IPCC) Enterprise Edition 5.0.

Blending Web Contacts (chat or collaboration) with Voice Contacts

Cisco Web Collaboration Option (formerly Cisco Collaboration Server) Integration for Customers with Traditional ACDs (Cisco ICM Web Option)

With Cisco ICM Enterprise 5.0, the Cisco Web Collaboration Option will continue to support blended chat, collaboration, and Web callback by using the Cisco Media Blender to create phantom calls on the ACD. This functionality is similar to the functionality available with the Cisco ICM Web Option.

Though architecturally the same, the Cisco ICM Enterprise 5.0 implementation offers several enhancements compared to the Cisco ICM 4.x Web Option:

- The Trailhead server application is no longer required because the Cisco Web Collaboration Option now handles the pre-routing functionality. In Cisco ICM Enterprise 5.0, the Cisco Web Collaboration Option can accept a request and transfer the contact to a different collaboration server if so instructed by the Cisco ICM Enterprise Edition.
- The delayed callback requests are stored in the Cisco Web Collaboration Option database for the specified time delay before initiating a request to Cisco ICM Enterprise. This change improves the reliability of the callback requests because the requests are stored even if the server is restarted.
- The site selection on a delayed callback is made at the end of the time delay instead of when the request is initially received. This improves the load-balancing performance of the system because Cisco ICM Enterprise is using more up-to-date site statistics.
- The Cisco ICM Enterprise 5.0 implementation supports the service control interface, allowing Cisco ICM scripts to interact with callers in queue. For example, a routing script may request a page push to a customer while the customer is in queue on the Cisco ICM Enterprise.



Cisco Web Collaboration Option Blended with Cisco IPCC Enterprise Edition

The Cisco IPCC Enterprise integration with the Cisco Web Collaboration Option provides a tighter level of routing integration than the traditional ACD integration. The Cisco IPCC Enterprise integration does not rely on phantom calls to trick the ACD into providing routing and queuing treatment for the Web contact requests. With Cisco IPCC Enterprise 5.0, Cisco introduces a new media routing interface in Cisco ICM, which allows the Cisco Web Collaboration Option to request a routing and queuing assignment through Cisco ICM without placing a phantom call.

The Cisco Media Blender is still used to pull requests in from the collaboration server and to interface to Cisco IPCC, but with Cisco IPCC Enterprise 5.0 the Cisco Media Blender software may be installed on the peripheral gateway, reducing the hardware server requirements for a deployment.

In Cisco IPCC Enterprise 5.0, all new media contact requests, including Web Collaboration Option requests, are treated as “tasks.” When using Cisco IPCC Enterprise, the Cisco ICM queues tasks to a skill group and Cisco IPCC selects the specific agent responsible for handling the task. The collaboration server then presents the agent with the appropriate interface for handling the task, for example the text-chat interface.

The elimination of phantom call requests reduces the system load and complexity of the Cisco IPCC Enterprise integration as compared to a traditional ACD. Also, no telephony hardware is in use as a result of the queuing and routing of the requests. The elimination of phantom calls will also improve the reporting for the collaboration requests because the reports include the actual tasks instead of reporting on the phantom phone calls.

In the Cisco IPCC model, the Cisco IPCC is making the specific agent selection instead of simply selecting the queue for a phantom call and having the ACD make the agent selection. With Cisco IPCC Enterprise 5.0, the Cisco agent-selection implementation has been enhanced to allow multi-session capability. This capability is available with the Cisco Web Collaboration Option text chat. When so configured, Cisco IPCC assigns multiple, simultaneous text chats to a single agent. This capability is not available with traditional ACDs.

Blending E-Mail Contacts with Voice Contacts

Cisco E-Mail Manager Option (formerly Cisco E-Mail Manager) Integration for Customers Using Traditional ACDs

Cisco does not support phantom call blending for the Cisco E-mail Manager Option. The phantom call-blending architecture does not provide the flexibility required for asynchronous messaging such as e-mail, fax, or voice mail. So, real-time, task-by-task blending of e-mail with phone calls or text chats is not valid with Cisco ICM Enterprise 5.0 in a traditional ACD environment.

Multi-channel load balancing between e-mail and voice, however, may be achieved on a system-wide basis. For example, the contact center may desire to use a certain group of agents as a swing group to handle voice calls during peak traffic periods and to handle e-mails during lulls in inbound voice traffic. This may be accomplished by setting up a skill group on the ACD for this group of swing agents. The agents would log into the Cisco E-Mail Manager Option and the ACD when they begin their shift. Cisco ICM Enterprise is configured so that during the course of the day it routes phone calls into the swing skill group only when peak volume occurs. These agents are logged into the Cisco E-Mail Manager Option, and possibly even working on an e-mail when their telephone rings, but from an overall system perspective this solution can provide a fairly efficient load-balancing configuration.



With Cisco ICM Enterprise 5.0 integrated with the Cisco E-Mail Manager Option, the Cisco ICM routing scripts have real-time status of all the e-mail and voice queues. This setup allows the customer to implement a specific business rule that uses this swing group only when the e-mail queues are within a threshold. With this type of configuration, the swing agents are utilized for either voice or e-mail, depending on the contact center's specific trade-off between voice and e-mail response times.

Cisco E-Mail Manager Option Integration for Customers Using Cisco IPCC Enterprise Edition

The Cisco E-Mail Manager Option integration with Cisco IPCC Enterprise provides a tight level of routing and queuing integration. In Cisco IPCC Enterprise 5.0, the E-Mail Manager Option messages are considered tasks, and they may be queued to skill groups and assigned to specific agents. The Cisco E-Mail Manager Option uses the same media routing interface as the Cisco Web Collaboration Option. When Cisco IPCC selects an agent, the E-Mail Manager Option presents the e-mail to the agent's desktop.

With Cisco IPCC Enterprise 5.0, the system may be configured so that agents working on e-mails are viewed as active on the e-mail task and, therefore, unavailable. In this configuration, voice calls or text chats queue until agents complete their reply to the e-mail. This capability is not available from traditional ACDs.

The Cisco IPCC Enterprise may also be configured to consider e-mails as "interruptible." When configured in this manner, the Cisco IPCC considers assigning the agents phone calls (or text chats) before the agents have completed their reply. Depending on the conditions, their work on the e-mail may or may not be interrupted by the voice call. If Cisco IPCC rules dictate interrupting the e-mail, the agents are forced to handle the voice call first and then return to their e-mail when the call is complete. This configuration makes the Cisco IPCC Enterprise behave much like the Cisco ICM Enterprise integration with traditional ACDs.

Table 1 summarizes the routing and queuing differences between traditional ACDs with Cisco ICM Enterprise and Cisco IPCC Enterprise.

Table 1 Routing and Queuing Differences Between Traditional ACDs with Cisco ICM Enterprise and Cisco IPCC Enterprise

Feature	Traditional ACD with Cisco ICM Enterprise	Traditional ACD with Cisco IPCC Enterprise
Task-by-task blending for text chat, blended collaboration, Web callback	Yes (phantom calls required)	Yes (phantom calls not required)
Blended multi-session text chat	No	Yes
System-level blending for e-mail	Yes	Yes
Task-by-task blending for e-mail	No	Yes
Interruption of e-mails by real-time interactions (voice, chat, etc.)	Yes (always, unless agent manually goes into not-ready mode)	Yes (configurable)

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