Cisco Unified Attendant Console Migration Planning with Cisco Unified Communications Manager 8.0 and Later

What You Will Learn

With the general availability of Cisco® Unified Communications Manager 8.0, the older Cisco Unified Attendant Console has reached end-of-sale status and is no longer available. Because customers could download the older Cisco Unified Attendant Console directly from Cisco Unified Communications Manager, in some scenarios customers have multiple Cisco Unified Attendant Consoles deployed across their networks. With the upgrade to Cisco Unified Communications Manager v8.0 or later, these Cisco Unified Attendant Consoles need to be replaced.

For Cisco customers and partners, this guide describes numerous attendant-console migration options based on customer need for a superior attendant-console solution. It includes an example customer scenario in which 50 Cisco Unified Attendant Consoles are deployed and discusses how the methodology presented herein can be applied to provide the appropriate solution options.

Introduction

End of sale of the older Cisco Unified Attendant Console was announced on October 17, 2008. With availability of Cisco Unified Communications Manager 8.0 in June 2010, the Cisco Unified Attendant Console reached end of life. The end-of-life and -sale announcements are available at:
http://www.cisco.com/en/US/prod/collateral/voicesw/ps6789/ps7046/ps7282/end_of_life_notice_c51-499091.html.

In order to assist the Cisco Unified Communications customer along the migration path, we implemented a gradual end-of-life process that provides customers enough time to plan their future migrations.

To provide the Cisco Unified Attendant Console customer flexibility of choice, four replacement offers are available:

- Cisco Unified Department Attendant Console for smaller department- sized customers
- Cisco Unified Business Attendant Console for medium-sized businesses
- Cisco Unified Enterprise Attendant Console for larger enterprise customers
- Arc Enterprise Attendant Console, available through the Cisco SolutionsPlus program, for large enterprise customers with more advanced requirements

Information about all four products is available at: http://www.cisco.com/en/US/products/ps7282/index.html.

With the general availability of Cisco Unified Communications Manager 8.0, the older Cisco Unified Attendant Console is no longer available, so organizations must plan to ensure that a migration path for attendant-console functions is part of their upgrade plan.

Understanding Your Customer's Attendant-Console Requirements

In the past, because of a lack of other Cisco options, customers implemented the Cisco Unified Attendant Console when a true traditional attendant console may or may not have been required. The Cisco Unified Communications portfolio has grown significantly over the past few years, however, and now more options are available for attendant-console scenarios. Customers who need to replace older Cisco Unified Attendant Consoles may not need to change every seat to a new, traditional attendant-console product; they may be better served with other Cisco Unified Communications products.

In order to understand and plan for the best Cisco Unified Attendant Console replacement option, our recommendation is to interview the current Cisco Unified Attendant Console user base within your organization and identify the user categories into which they fit. With this data you can identify the best product(s) needed to meet their needs.

Three Attendant Operator User Types

Today's environment has three typical Cisco Unified Attendant Console user types:

- Dedicated attendants or operators:
  - Centralized attendants or operators
  - Regional and distributed attendants or operators
- Administrators and Cisco Personal Assistant users
- Knowledge workers

It is important to understand all user types and their requirements, and to then identify which solution best fits their needs.

Dedicated Attendants or Operators

Dedicated attendants or operators are common in most organizations where their primary role is to answer calls on behalf of the organization. They provide directory assistance and transfer calls to recipients as quickly and efficiently as possible, while always portraying the utmost professionalism to callers.

These users typically act as the "window to the organization". They are the first point of contact for callers contacting the company - especially new potential clients who have no specific contact within the organization to call directly.

In many organizations, this function is a dedicated role for an individual or group of individuals, whereas in some smaller environments, the attendant or operator can also act as a greeter on a "reception" desk for walk-in visitors, and perform other administrative tasks.

Certain industries have attendants or operators around the clock - for example, in healthcare and hospitality - whereas other industries have them just during business hours.

Centralized Attendants or Operators

Centralized attendant operators are typically dedicated operators whose primary role is to answer and handle callers who are calling into the organization. They usually are based in an "operator room" (or "switchboard room") and a team fulfills this role.

What do they need?

With the most sophisticated requirements, these users are true attendant-console users. Their requirements include:

- Accurate and complete directory information for all personnel within with the organization
- Ability to search the directory based on various criteria to locate the individual whom they need
- Real-time presence and line-state (or Busy Lamp Field [BLF]) information to identify the current status of an individual before transferring a call to them
- More sophisticated call-control options - allowing them to handle multiple calls at the same time, potentially up to thousands of calls per day
- Ability for callers to hear music-on-hold while waiting to be answered, to keep caller frustration at a minimum

Which product or solution?

Dedicated attendants or operators must offer the highest level of service; they need a true attendant-console solution. Depending on the size and complexity of the deployment, we recommend:

- Cisco Unified Business Attendant Console (UBAC) for up to 6 users or operators Cisco Unified Enterprise Attendant Console (UEAC) for up to 25 users or operators
- Arc Enterprise Attendant Console, available through the Cisco SolutionsPlus program, for up to 100 operators with more sophisticated requirements

Note: You can implement multiple Cisco Unified Business Attendant Console or Cisco Unified Enterprise Attendant Console servers for one Cisco Unified Communications Manager cluster if the number of attendants exceeds the currently supported levels. You also can implement a combination of Cisco Unified Business Attendant Console and Cisco Unified Enterprise Attendant Console servers on one Cisco Unified Communications Manager cluster.

Why these recommendations?

Because these attendants or operators have the highest level of requirements for a true attendant console, the Cisco Unified Business Attendant Console, the Cisco Unified Enterprise Attendant Console, or the Arc Enterprise Attendant Console is recommended. These operators require integration of a full system directory with systemwide presence information.

At the same time, the anticipated call volumes and the requirement to be able to handle many calls during the course of a day, along with traditional attendant-type call-control functions such as transfer recall, dictate that you use a traditional attendant-console solution.

Regional or Distributed Attendants or Operators

Regional or distributed attendants or operators work in various locations. For example, in the retail or banking environments a single operator is in each location or branch office. These operators typically perform other job functions as well; for example, greeting walk-in visitors.

What do they need?

These users must use some level of attendant-console functions. Typically, the call volume an operator handles is lower than that in a pure dedicated environment. However, some operator requirements are similar:

- Regional or distributed attendants or operators must have accurate and complete directory information for all personnel within the location or branch office.
- They must have real-time presence and line-state (BLF) information to identify the current status of individuals before transferring a call to them.
- Typically, playing music to callers while they wait is not a requirement, because the call volume is lower in the branch office, and callers are usually attended to more quickly.
- They must be able to answer calls on behalf of the executives for whom they work.

Which product or solution?

Because the attendants or operators in this environment typically handle a lower volume of calls, and they generally serve a specific branch office or location with a smaller number of phone users, a full-featured attendant console is not necessarily required. Thus the recommendations for these operators follow:

- Cisco Unified Department Attendant Console (UDAC)
- Cisco WebEx™ Connect

- Cisco Unified Personal Communicator (UPC)
- Cisco Unified IP Phones 7900 Series with one or two Cisco Unified IP Phone Expansion Module 7915 or 7916 models to provide up to 48 additional lines
- Cisco Unified IP Phone 8961 with one Cisco Unified IP Color Key Expansion Module (IPKEM) to provide up to 36 additional lines
- Cisco Unified IP Phone 9951 with two Cisco Unified IPKEMs to provide up to 72 additional lines
- Cisco Unified IP Phone 9971 with three Cisco Unified IPKEMs to provide up to 108 additional lines

Note: You can implement multiple Cisco Unified Department Attendant Console servers for one Cisco Unified Communications Manager cluster if the number of attendants exceeds the currently supported levels.

Why these recommendations?

The main requirements in a branch office are the ability to answer calls and view line status of other phone users within the branch office. If the attendant or operator also needs advanced call-control features such as transfer recall and call parking, the Cisco Unified Department Attendant Console can provide them.

If, however, the attendant or operator does not need these enhanced call-control features, the new Cisco Unified IP Phones or Cisco Unified Personal Communicator can meet the basic requirements. The flexibility of the Cisco Unified IP Phones with Cisco Unified IPKEMs allows you to use "Speed Dial/BLF Lines" on the handsets themselves to provide a visible indication of the line status of other phones within the organization. In a branch office or smaller office, this handset combination may meet your requirement to view line status.

Using Cisco Unified Personal Communicator

Pros:
- The application allows you to perform basic call-control functions such as answer, hold, and transfer.
- It also allows you to see the presence and line-state (BLF) information for other phone users.
- If you have Cisco Unified Workspace Licensing (UWL), the Cisco Unified Personal Communicator application is already included, so you incur no additional license cost.

Cons:
- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

Using Cisco WebEx Connect

Pros:
- Allows you to perform basic call-control functions such as answer, hold, and transfer
- Also allows you to see the presence information for other Cisco WebEx users

Cons:
- Loss of advanced call-control functions such as transfer recall

Using Cisco Unified IP Phone solutions

Pros:
- Allows you to perform basic call-control functions such as answer, hold, and transfer
- Also allows you to see the presence and line-state (BLF) information for other phone users
- Allows you to answer calls ringing on lines of other individuals by using the shared-line function

- Provides a scalable solution:

  - Cisco Unified IP Phones 7900 Series + Two Cisco Unified IP Phone Expansion Module 7915 or 7916 models = Support for up to 48 additional lines

  - Cisco Unified IP Phone 8961 + One Cisco Unified IPKEM = Support for up to 36 additional lines

  - Cisco Unified IP Phone 9951 + Two Cisco Unified IPKEMs = Support for up to 72 additional lines

  - Cisco Unified IP Phone 9971 + Three Cisco Unified IPKEMs = Support for up to 108 additional lines

Cons:
- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

The Administrator or Personal Assistant User Type

The administrator or personal assistant typically answers calls on behalf of a small group of users. The most common example is an administrator or personal assistant who possibly supports a group of executives, or a legal administrator who supports a group of lawyers.

Administrators and personal assistants typically answer calls while also performing other administrative office-based tasks. Calls often reach them by being transferred from the main attendant or operator for the organization. These users typically have a relatively low call volume, because they answer calls on behalf of about 10 individuals whom they support. On average, they spend approximately 25 to 35 percent of their time on the phone - this time evenly split between making and receiving calls. They spend the other 65 to 75 percent of their time working on other administrative tasks.

What do they need?

Because administrators and personal assistants typically support a group of individuals, their requirements include:

- The ability to monitor the line status (BLF) of the individuals whom they support
- The ability to manage two or three calls at the same time, for those occasions when they are trying to reach people or have received more than one call at the same time
- The ability to answer calls that are ringing on another person's phone

Which product or solution?

Because the primary job function is not as an attendant or operator, an attendant-console solution may not be the best solution to service administrator's or personal assistant's needs.

The most appropriate solutions for them follow:

- Cisco Unified Department Attendant Console (UDAC)
- Cisco Unified Personal Communicator (UPC)
- Cisco Unified IP Phones 7900 Series with one or two Cisco Unified IP Phone Expansion Module 7915 or 7916 models to provide up to 48 additional lines
- Cisco Unified IP Phone 8961 with one Cisco Unified IPKEM to provide up to 36 additional lines
- Cisco Unified IP Phone 9951 with two Cisco Unified IPKEMs to provide up to 72 additional lines
- Cisco Unified IP Phone 9971 with three Cisco Unified IPKEMs to provide up to 108 additional lines

Why these recommendations?

The main requirement for administrators or personal assistants is to be able to manage multiple calls while maintaining visibility of the users whom they support. Typically, they do not require enhanced call-control features, and the new Cisco Unified IP Phones or Cisco Unified Personal Communicator can meet their requirements.

The flexibility of the Cisco Unified IP Phones with Cisco Unified Expansion Modules offers users the ability to use "Speed Dial/BLF Lines" on the handsets themselves to provide a visible indication of the line status of the users whom they support.

Using Cisco Unified Personal Communicator

Pros:
- The application allows you to perform basic call-control functions such as answer, hold, and transfer.
- It also allows you to see the presence and line-state (BLF) information for other phone users.
- If you have Cisco Unified Workspace Licensing (UWL), the Cisco Unified Personal Communicator application is already included, so no additional license cost is incurred.

Cons:
- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

Using Cisco Unified IP Phone solutions

Pros:
- Allows you to perform basic call-control functions such as answer, hold, and transfer
- Also allows you to see the presence and line-state (BLF) information for other phone users
- Allows you to answer calls ringing on lines of other individuals by using shared-line functions
- Provides a scalable solution:
  - Cisco Unified IP Phone 7900 + Two Cisco Unified Expansion Module 7915 or 7916 models = Support for up to 48 additional lines
  - Cisco Unified IP Phone 8961 + One Cisco Unified IPKEM = Support for up to 36 additional lines
  - Cisco Unified IP Phone 9951 + Two Cisco Unified IPKEMs = Support for up to 72 additional lines
  - Cisco Unified IP Phone 9971 + Three Cisco Unified IPKEMs = Support for up to 108 additional lines

Cons:
- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

The Knowledge Worker

Knowledge workers typically do not have a primary job function related to answering phone calls on behalf of other parties. Their main responsibilities are to provide other services to customers, partners, or internal colleagues, and use the phone as one of their business tools.

Knowledge workers, however, often use the Cisco Unified Attendant Console as a mechanism to view the line state of other users in a team or a department with which they have an interest; for example, a sales manager who wishes to see which members of the sales team are currently available as opposed to being on another call.

In this scenario, knowledge workers do not typically answer calls on behalf of the organization - as attendants or operators do. They also do not answer calls in an administrator or personal-assistant function - they simply monitor the line state (BLF) of other users while performing their daily tasks.

What do they need?

Because knowledge workers typically do not answer calls on behalf of a group of individuals, their main requirement is to view the line status (BLF) of other colleagues or team members. As such, their main requirements follow:

- Use the IP phone to make and receive phone calls, and attend conferences and Cisco WebEx calls related to their daily activities
- View the line state (BLF) and presence status of other colleagues or team members

Which product or solution?

Because the primary job function is not an attendant or operator, an attendant-console solution may not be the best solution to service the knowledge worker's needs.

The most appropriate solutions for the knowledge worker follow:

- Cisco Unified Personal Communicator (UPC)
- Cisco WebEx Connect
- Cisco Unified IP Phones 7900 Series with one or two Cisco Unified IP Phone Expansion Module 7915 or 7916 models to provide up to 48 additional lines
- Cisco Unified IP Phone 8961 with one Cisco Unified IPKEM to provide up to 36 additional lines
- Cisco Unified IP Phone 9951 with two Cisco Unified IPKEMs to provide up to 72 additional lines
- Cisco Unified IP Phone 9971 with three Cisco Unified IPKEMs to provide up to 108 additional lines

Why these recommendations?

The main requirement for knowledge workers is to be able to use their own IP phones and monitor the status of other users. They do not require enhanced call-control features, so the new Cisco Unified IP Phones or Cisco Unified Personal Communicator can meet their requirements.

The flexibility of the Cisco Unified IP Phones with Cisco Unified IP Phone Expansion Modules allows knowledge workers to use "Speed Dial/BLF Lines" on the handsets themselves to provide a visible indication of the line status of the users whom they support.

Using Cisco Unified Personal Communicator

Pros:
- The application allows you to perform basic call-control functions such as answer, hold, and transfer
- It also allows you to see the presence and line state (BLF) information for other phone users
- For users with Cisco Unified Workspace Licensing (UWL), the Cisco Unified Personal Communicator application is already included, so no additional license cost is incurred.

Cons:
- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

Using Cisco WebEx Connect

Pros:

- Allows you to perform basic call-control functions such as answer, hold, and transfer
- Also allows you to see the presence information for other Cisco WebEx users

Cons:

- Loss of advanced call-control functions such as transfer recall

Using Cisco Unified IP Phone solutions

Pros:

- Allows you to perform basic call-control functions such as answer, hold, and transfer
- Also allows you to see the presence and line state (BLF) information for other phone users
- Allows you to answer calls ringing on the other individual's lines by using shared-line functions
- Provides a scalable solution:
  - Cisco Unified IP Phone 7900 + Two Cisco Unified IP Phone Expansion Module 7916 = Support for up to 48 additional lines
  - Cisco Unified IP Phone 8961 + One Cisco Unified IPKEM = Support for up to 36 additional lines
  - Cisco Unified IP Phone 9951 + Two Cisco Unified IPKEMs = Support for up to 72 additional lines
  - Cisco Unified IP Phone 9971 + Three Cisco Unified IPKEMs = Support for up to 108 additional lines

Cons:

- Loss of advanced call-control functions such as transfer recall
- Loss of advanced directory searching and lookup functions - for example, searching on "job title"

Sample Scenario: 50 Cisco Unified Attendant Consoles Currently Deployed

This section shows a common scenario and how you can apply the methodology of this paper to provide the appropriate solution.

Scenario

The customer is running an older version of Cisco Unified Communications Manager and is planning to upgrade to Version 8.0. This customer has 50 Cisco Unified Attendant Consoles deployed that require migration.

Of the 50 Cisco Unified Attendant Consoles deployed:

- Ten users are dedicated attendants or operators: Based on the user profile, they would require a true attendant-console solution; we recommend Cisco Unified Enterprise Attendant Console.
- Ten users are in branch-office or remote locations: If they need advanced call-control features, they could also use the Cisco Unified Enterprise Attendant Console. If they do not need advanced call control, they can use either Cisco Unified Personal Communicator or a Cisco Unified IP Phone + Expansion Module solution (as detailed previously).
- Twenty users are administrators or personal assistants: They can use either Cisco Unified Personal Communicator or a Cisco Unified IP Phone + Expansion Module solution (as detailed previously).
- Ten users are knowledge workers: They can use either Cisco Unified Personal Communicator or a Cisco Unified IP Phone + Expansion Module solution (as detailed previously).

In this example, we replace 50 Cisco Unified Attendant Consoles with only 10 Cisco Unified Enterprise Attendant Consoles, and then use either Cisco Unified Personal Communicator or Cisco Unified IP Phone solutions to meet the other requirements.

When to Migrate

Another item to identify is when the attendant-console migration should take place. This decision is based predominantly on the customer requirements and time scales. All products mentioned in the earlier sections are backward-compatible to current versions of Cisco Unified Communications Manager, including:

- Cisco Unified Department, Business, and Enterprise Attendant Consoles
- Cisco Unified Personal Communicator
- Cisco Unified IP Phones and Expansion Modules

We recommend that you migrate the attendant consoles to the new platform before you upgrade to Cisco Unified Communications Manager v8.0 or later because this scenario typically makes the transition to the new solution easiest for the end users. If you are performing the migration at the same time as the Cisco Unified Communications Manager upgrade, it generally takes only a weekend to migrate all of the users, and then all new users are on the upgraded Cisco Unified Communications Manager version and the new attendant-console solution at the same time.

By migrating the attendant-console solution first, the end users have the time to familiarize themselves and receive training on the new solution. Therefore, at the time that the Cisco Unified Communications Manager upgrade itself is performed, the users are already familiar with the attendant-console solution. This scenario should make the entire upgrade process as smooth and successful as possible.

Conclusion

This paper has provided Cisco customers and partners with numerous Cisco Unified Attendant Console migration options that will result in a superior attendant-console customer solution. In addition to the new feature-rich Cisco Unified Department, Business, and Enterprise Attendant Consoles and the Arc Enterprise Attendant Console, other customer options are available, including using the Cisco Unified IP Phones 9900 Series IP devices with Cisco Unified Key Expansion Modules, Cisco Unified Presence, and Cisco WebEx Connect.

For More Information

For information about the Cisco Unified Department, Business, and Enterprise Attendant Consoles, as well as the Arc Enterprise Attendant Console, please visit:
http://www.cisco.com/en/US/products/ps7282/index.html.

For information about the Cisco Unified IP Phones 9900 Series IP devices, please visit:
http://www.cisco.com/en/US/products/ps10453/index.html.

For information about the Cisco Unified IP Phones 8900 Series IP devices, please visit:
http://www.cisco.com/en/US/products/ps10451/index.html.

For information about Cisco Unified Presence, please visit:
http://www.cisco.com/en/US/prod/collateral/voicesw/ps6788/vcallcon/ps6837/data_sheet_c78-483318.html.

For information about Cisco WebEx Connect, please visit:
http://www.cisco.com/en/US/products/ps10528/index.html.