



Customer Guide to Cisco Integrations

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WFM v2

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Introduction

Audience

This document is written for customers and prospective customers interested in integrating inContact Workforce Management v2 with the specified contact center system. Readers who will perform tasks discussed in this guide should have a basic level of familiarity with general networking, the Windows operating system, the contact center system that serves as the integration source, and inContact Workforce Management v2.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed inContact WFM v2 integration, and to configure the integration source system's equipment, software, or both to support the integration.

Note:

This document is NOT intended as a specific system or network design document. If further clarification is needed regarding the integration source, consult with that vendor.

Assumptions

This document assumes the reader has access to an inContact WFO Sales Engineer, Project Manager, or other resource to assist in applying this information to the reader's environment.

Need-to-Knows

For information and tasks related to inContact WFM v2 configuration, consult your installation team.

inContact Workforce Management v2 Integrations Overview

inContact Workforce Management v2 can integrate with a number of other contact center systems, such as PBX/ACD platforms and call center management systems, to obtain real-time and historical data. This information is used by inContact WFM v2 to populate real-time reports and produce accurate forecasts for scheduling. For all integrations, you are responsible for supplying the physical connections, IP connection(s), or both, to the contact center system. There may also be customer prerequisite tasks that must be completed; where applicable, these are outlined in the integration guide.

Regardless of the integration type, inContact WFM v2 uses the components listed in the following table. Components specific to the contact center system are discussed later in this guide.

| Component | Function |
|----------------|---|
| Historical Hub | The Historical Hub connects to the integration source, imports historical call volume data, and writes it to the inContact WFM v2 database. |
| Real-Time Hub | The Real-Time Hub receives a stream of data from the integration source and feeds it into inContact WFM v2 for a variety of purposes. |

Cisco Unified Contact Center Enterprise (UCCE) Integration

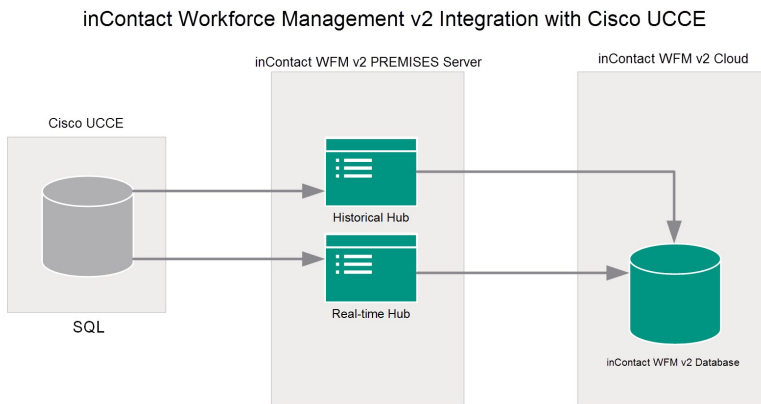
This section provides an overview of the Cisco UCCE integration, including server and site requirements.

Cisco UCCE Integration Overview

inContact Workforce Management v2 can integrate with Cisco Unified Contact Center Enterprise (UCCE) to receive both historical call data and real-time agent status information. Historical data is imported via ODBC from the UCCE SQL database. Agent status information is obtained from the UCCE Real-Time Reporting feed.

Integration Components

The following diagram shows a general architecture for this solution. The purpose of each Cisco UCCE component is explained in the accompanying table. For details on the inContact WFM v2 components, see [inContact Workforce Management v2 Integrations Overview](#).



| Component | Function |
|---------------------|---|
| Cisco UCCE Database | inContact WFM v2 imports telephony information on agents, devices, and statistics from the UCCE database via ODBC connection. |

Known Limitations

- This integration has been tested against and is supported for UCCE environments where the database server has the Cisco role "Administration Server, Real-time and Historical Data Server, and Detail Data Server (AW-HDS-DDS)". Additional testing would be required for inContact WFM v2 integration in other UCCE environments.

Customer Responsibilities

Customers are responsible for supplying the physical connection(s), IP connection(s), or both to the Cisco system, as well as for obtaining any licensing required by Cisco.

The following table provides a high-level overview of the customer configuration steps in Cisco UCCE integrations.

Note:

Some of these steps are tasks that must be performed in Cisco UCCE. Consult your Cisco UCCE documentation for details on performing these steps.

| Step | Description |
|------|---|
| 1 | Complete all necessary physical and IP connections between the inContact WFM v2 server(s) and the LAN. |
| 2 | Obtain any necessary Cisco software and licensing. |
| 3 | Create a UCCE database user account and password for inContact WFM v2. The minimum permissions level for this account is <i>db_datareader</i> . |
| 4 | Configure the UCCE database server for the AW-HDS-DDS role to enable real-time reporting. |
| 6 | <p>Provide the following information to the inContact WFM v2 installation team:</p> <ul style="list-style-type: none"> Type of database (SQL or Informix) IP address and server name for the AW-HDS-DDS server. Name(s) of the UCCE database(s). Username and password for the UCCE database account that inContact WFM v2 will use. Time zone(s) for both the Cisco UCM and Cisco UCCE servers. |

Related References

- [Cisco Requirements for UCCX Integrations](#)
- [inContact Workforce Management v2 Requirements for Cisco UCCX Integrations](#)

Cisco Requirements for UCCE Integrations

inContact Workforce Management v2 can integrate with Cisco Unified Call Center Enterprise (UCCE) to receive both historical call data and real-time agent status information.

This section provides a reference to the required Cisco components for this integration.

For more information, see [Cisco UCCE Integration Overview](#).

Hardware

Review the Cisco UCCE installation and configuration guide, the administrator guide, and the hardware and system software specifications. These documents address server, agent computer, and telephone hardware requirements and restrictions that Cisco recommends.

Software

This integration has been tested with and is supported for:

- Cisco UCCE v10.5

Licensing

Additional Cisco licensing may be required to fully use features in this integration. Contact your Cisco representative to confirm any additional licensing requirements.

inContact Workforce Management v2 Requirements for Cisco UCCE Integrations

inContact Workforce Management v2 can integrate with Cisco Unified Call Center Enterprise(UCCE) to receive both historical call data and real-time agent status information.

This section provides a reference to the required inContact WFM v2 components for this integration.

For more information, see [Cisco UCCE Integration Overview](#).

Hardware

A physical or virtual server is required at the customer's site to host the **Hub** services that obtain information from the UCCE server. inContact WFM v2 hardware requirements vary depending on the deployment model and whether additional inContact Workforce Optimization products are being deployed. Appropriate hardware is identified during the discovery process.

Software

This integration has been tested with and is supported for:

- inContact Workforce Management v2 16.2 or later

Licensing

This integration requires the following licensing:

- One (1) inContact WFM v2 license per user

Cisco Unified Contact Center Express (UCCX) Integration

This section provides an overview of the Cisco UCCX integration, including server and site requirements.

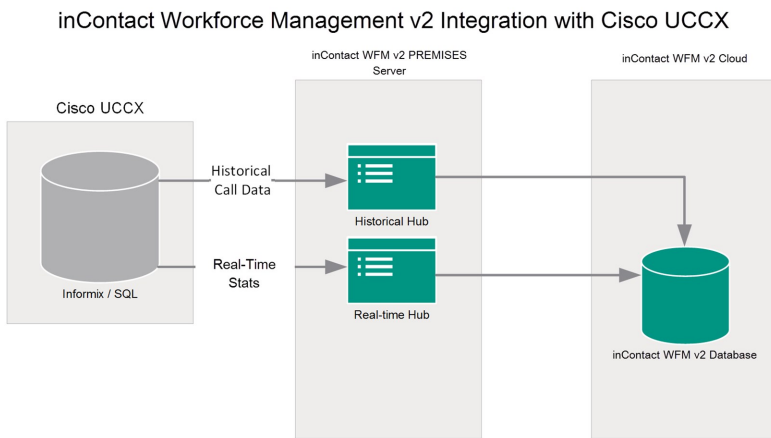
Cisco UCCX Integration Overview

inContact Workforce Management v2 can integrate with Cisco Unified Contact Center Express (UCCX) to receive both historical call data and real-time agent status information from the UCCX database.

Historical data is imported via ODBC from the UCCX database, which may be either Informix or SQL. This integration can work with either.

Integration Components

The following diagram shows a general architecture for this solution. The purpose of each Cisco UCCX component is explained in the accompanying table. For details on the inContact WFM v2 components, see [inContact Workforce Management v2 Integrations Overview](#).



| Component | Function |
|---------------------|---|
| Cisco UCCX Database | inContact WFM v2 imports telephony information on agents, devices, and statistics from the UCCX database via ODBC connection. |

Known Limitations

- The UCCX server must be on its own domain. This is a Cisco requirement and is not related to inContact WFM v2.
- If the UCCX server is built to Cisco's minimum specifications, this integration cannot be used to obtain real-time data. The historical integration can still be used.

- inContact WFM v2 cannot report properly on agent-based routing. Contact Service Queues (CSQs) must use Resource Skill routing (not Resource Group routing) and each CSQ must have exactly one matching Resource Skill.
- UCCX must be configured using only one profile. For instance, UCCX cannot have different settings in effect during the day as opposed to at night.

Customer Responsibilities

Customers are responsible for supplying the physical connection(s), IP connection(s), or both to the Cisco system, as well as for obtaining any licensing required by Cisco.

The following table provides a high-level overview of the customer configuration steps in Cisco UCCX integrations.

Note:

Some of these steps are tasks that must be performed in Cisco UCCX. Consult your Cisco UCCX documentation for details on performing these steps.

| Step | Description |
|------|--|
| 1 | Complete all necessary physical and IP connections between the inContact WFM v2 server(s) and the LAN. |
| 2 | Obtain any necessary Cisco software and licensing. |
| 3 | Create a UCCX database user account and password for inContact WFM v2. You can use the default <i>uccxhruser</i> account instead as it has the necessary permissions. The password for this account can be managed in UCCX Administration under Tools > Password Management > Historical Reporting User . |
| 4 | Configure the real-time snapshot interval for UCCX. |
| 5 | Informix database only: provide the inContact WFM v2 installation team with the Informix-specific ODBC driver from the Cisco UCCX installation disk. |

| Step | Description |
|------|--|
| 6 | <p>Provide the following information to the inContact WFM v2 installation team:</p> <ul style="list-style-type: none">• Type of database (SQL or Informix)• IP address for the server hosting the database. If the database is Informix, also provide the exact server name.• Name of the UCCX database.• Username and password for the UCCX database account that inContact WFM v2 will use.• Time zone(s) for both the Cisco UCM and Cisco UCCX servers. |

- [Configure the Real-Time Snapshot Interval](#)

Related References

- [Cisco Requirements for UCCX Integrations](#)
- [inContact Workforce Management v2 Requirements for Cisco UCCX Integrations](#)

Cisco Requirements for UCCX Integrations

inContact Workforce Management v2 can integrate with Cisco Unified Call Center Express (UCCX) to receive both historical call data and real-time agent status information.

This section provides a reference to the required Cisco components for this integration.

For more information, see [Cisco UCCX Integration Overview](#).

Hardware

Review the Cisco UCCX installation and configuration guide, the administrator guide, and the hardware and system software specifications. These documents address server, agent computer, and telephone hardware requirements and restrictions that Cisco recommends.

Software

This integration has been tested with and is supported for:

- Cisco UCCX v10.6

Licensing

Additional Cisco licensing may be required to fully use features in this integration. Contact your Cisco representative to confirm any additional licensing requirements.

inContact Workforce Management v2 Requirements for Cisco UCCX Integrations

inContact Workforce Management v2 can integrate with Cisco Unified Call Center Express(UCCX) to receive both historical call data and real-time agent status information.

This section provides a reference to the required inContact WFM v2 components for this integration.

For more information, see [Cisco UCCX Integration Overview](#).

Hardware

A physical or virtual server is required at the customer's site to host the Hub services that obtain information from the UCCX server. inContact WFM v2 hardware requirements vary depending on the deployment model and whether additional inContact Workforce Optimization products are being deployed. Appropriate hardware is identified during the discovery process.

Ports

The following table provides details about the ports used in this integration.

| Process | Port | Transport | Direction | Description |
|---------|------|-----------|-----------|--|
| ODBC | 1504 | TCP | Outbound | Default listener port on the UCCX server for ODBC connection requests. |

Software

This integration has been tested with and is supported for:

- inContact Workforce Management v2 16.1 or later

The following third-party software is also required if the Cisco database is Informix:

- IBM Informix ODBC driver and SDK (available on the Cisco UCCX installation disk)

Informix databases allow a maximum of eight connections. inContact WFM v2 requires two connections: one for historical and one for real-time data.

Licensing

This integration requires the following licensing:

- One (1) inContact WFM v2 license per user

Customer Integration Tasks

This section covers knowledge and tasks you must perform as part of the initial integration.

Configure the Real-Time Snapshot Interval

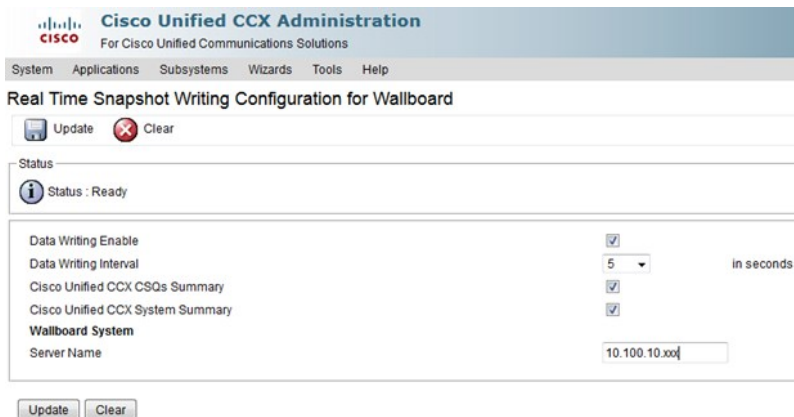
inContact Workforce Management v2 receives real-time information from the UCCX real-time snapshot. inContact recommends setting the data writing interval at the lowest available setting (5 seconds). The shorter the interval between snapshots, the more current the information delivered to inContact WFM v2.

This explains how to configure the data writing interval for the real-time snapshot.

For more information, see [Cisco UCCX Integration Overview](#).

Note:

This information is provided for your reference only. You should always use the appropriate manufacturer/developer manuals and guides to install and configure Cisco components.



The screenshot shows the Cisco Unified CCX Administration interface. The page title is "Real Time Snapshot Writing Configuration for Wallboard". At the top, there are navigation tabs: System, Applications, Subsystems, Wizards, Tools, and Help. Below the tabs, there are "Update" and "Clear" buttons. The status section shows "Status : Ready". The configuration section includes the following options:

- Data Writing Enable:
- Data Writing Interval: 5 (in seconds)
- Cisco Unified CCX CSQs Summary:
- Cisco Unified CCX System Summary:
- Wallboard System:
 - Server Name: 10.100.10.xx

At the bottom, there are "Update" and "Clear" buttons.

1. Log into Cisco UCCX Administration with an appropriately-permissioned account.
2. Click **Tools** and then select **Real Time Snapshot Config**.
3. Select the **Data Writing Enable** checkbox
4. For **Data Writing Interval**, select the number of seconds from the drop-down list.
5. Select the checkboxes for **Cisco Unified CCX CSQs Summary** and **Cisco Unified CCX System Summary**.
6. For **Server Name**, type the IP address of the UCCX server.
7. Click **Update**.