inContact

WFM v2

Customer Guide to Avaya Integrations

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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.

Avaya CMS Integration

This section provides an overview of the Avaya CMS integration, including server and site requirements.

![inContact logo]

# Avaya CMS Integration Overview

inContact Workforce Management v2 can integrate with the Avaya Call Management System (CMS) to receive both historical call data and real-time agent status information.

Historical data is imported via ODBC from the IBM Informix database in CMS. Avaya CMS offers both an External Call History Interface (ECHI) and an Internal Call History Interface (ICHI). Only one can be active at any given time. This integration can work with either.

Real-time agent status is obtained via the CMS Real Time Adherence (Generic-RTA) interface. Split/skill data is obtained through the CMS RT-Socket interface.

Integration Components

The following diagram shows a general architecture for this solution. The purpose of each Avaya CMS component is explained in the accompanying table. For details on the inContact WFM v2 components, see inContact Workforce Management v2 Integrations Overview.

inContact Workforce Management v2 Integration with Avaya Call Management System
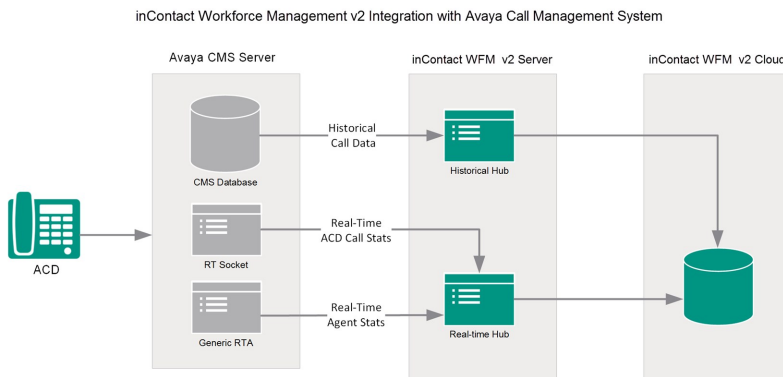
Component	Function
Avaya CMS	inContact WFM v2 imports historical call data from the CMS Informix database using an ODBC connection.
Generic-RTA Interface	Used by CMS to provide real-time statistical data for agents and splits/skills.
RT-Socket Interface	Used by CMS to provide real-time statistical data for agents and splits/skills.

Customer Responsibilities

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

The following table provides a high-level overview of the customer configuration steps in Avaya CMS integrations. For links to tasks discussed in this guide, see Related Tasks.

Step	Description
1	Complete all necessary physical and IP connections between the inContact WFM v2 server(s) and the LAN.
2	Obtain any necessary Avaya software and licensing.
3	Configure (or confirm configuration of) the switch in CMS.
4	Allocate space for call records.
5	On the CMS server, create a user account for inContact WFM v2 and make it a member of the UNIX dbaccess group.
6	Enable either the ECHI or ICHI interface.
7	Start the Generic-RTA and RT-Socket interfaces.
8	Provide the CMS installation disk to the inContact WFM v2 installation team so they can install the Informix SDK with ODBC driver on the inContact WFM v2 server.
9	Provide the following information to the installation team: - IP address, server name, database name, and time zone for the Avaya CMS server - Port used for ODBC access if different from the default port - Ports used by the Generic-RTA and RT-Socket interfaces if different from the default ports - Username and password for the CMS account created for inContact WFM v2

RELATED TASKS

- **Confirm the Avaya Switch Configuration**
- **Allocate Space for Call Records in Avaya CMS**
- **Start the Generic-RTA and RT-Socket Interfaces**

RELATED REFERENCES

- **Avaya Requirements for Avaya CMS Integrations**
- **inContact Workforce Management v2 Requirements for Avaya CMS Integrations**

Avaya Requirements for Avaya CMS Integrations

inContact Workforce Management v2 can integrate with Avaya Call Management System (CMS) to receive both historical call data and real-time agent status information.

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

For more information, see [Avaya CMS Integration Overview](#).

Hardware

This integration has been tested with and is supported for:

- Avaya CMS-compatible Media Server (typically Avaya S8300, S8500, or S8700)

Software

This integration has been tested with and is supported for:

- Avaya Call Management System R17
- RT_Socket Interface v4.3.28
- Generic-RTA Interface v6.1.17, pl:0

Licensing

In addition to CMS licenses, this integration requires the following licensing:

- One CMS user account license for inContact WFM v2. This account must be a UNIX dbaccess group member.
- RT-Socket license
- Generic-RTA license

RT-Socket has a built-in limit of 3,500 agents that can be increased by Avaya. Contact Avaya Professional Services for more information.

inContact Workforce Management v2 Requirements for Avaya CMS Integrations

inContact Workforce Management v2 can integrate with Avaya Call Management Systems (CMS) 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 Avaya CMS 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 Avaya system. 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	50000	TCP	Outbound	Default Avaya listener port on the CMS server for ODBC connection requests. This port must be open on both the Avaya CMS and inContact WFM v2 servers.
Generic-RTA	6970	TCP	Inbound	Listener for real-time agent status information from Avaya CMS. This port must be open on both the Avaya CMS and inContact WFM v2 servers.
RT-Socket	6996	TCP	Inbound	Listener for ACD Call/Split status information from Avaya CMS. This port must be open on both the Avaya CMS and inContact WFM v2 servers.

Process	Port	Transport	Direction	Description
inContact WFM v2 Hubs	80	HTTP	Bi-dir-ectional	Communication between the inContact WFM v2 Real-Time and Historical Hubs, and the inContact WFM v2, takes place over this standard Internet port. The port must be open on the inContact WFM v2 server and any network firewalls.

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:

- Informix Client Software Development Kit with ODBC

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.

Confirm the Avaya Switch Configuration

Avaya Call Management Systems (CMS) receive call center information from Avaya Communication Manager (CM), which is usually referred to as a switch in CMS. The switch must be configured in CMS to enable the communication with CMS. If this is not set up, inContact WFM v2 cannot collect information needed for the integration.

Switch configuration is typically done during CMS installation. Consult your Avaya resource if you have questions.

This explains how to display the switch configuration in CMS so you can verify it.

For more information, see Avaya CMS 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 Avaya components.

1. Telnet into CMS using proper credentials.

2. Run the **cmssvc** command to view the Avaya Call Management System **Service Menu**.

3. Select **6** to display switch information.

4. When prompted, type the ACD (switch) number that corresponds to the correct Avaya CM.

Allocate Space for Call Records in Avaya CMS

You must allocate space for the call records of each ACD (switch) from which data is acquired. If this is not set up, inContact WFM v2 cannot collect historical call data needed for the integration.

This provides basic information regarding how to allocate space for call records in Avaya CMS.

For more information, see Avaya CMS 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 Avaya components.

You can configure the number of records stored using the CMS Terminal Emulator and the Data Storage Allocations (DSA) settings. The appropriate number of stored records depends on call volume, available storage, and the frequency that call record data is sent to inContact WFM v2. Your inContact Sales Engineer may be able to guide you in determining the number that is right for your organization.

Consult your Avaya documentation regarding how to access and use the Terminal Emulator.

1. Use a terminal emulator to connect to the Avaya CMS server and log in with the proper credentials.

2. Navigate to the DSA Settings menu.

3. In the **Number of call records** field, type the number of records to be stored.
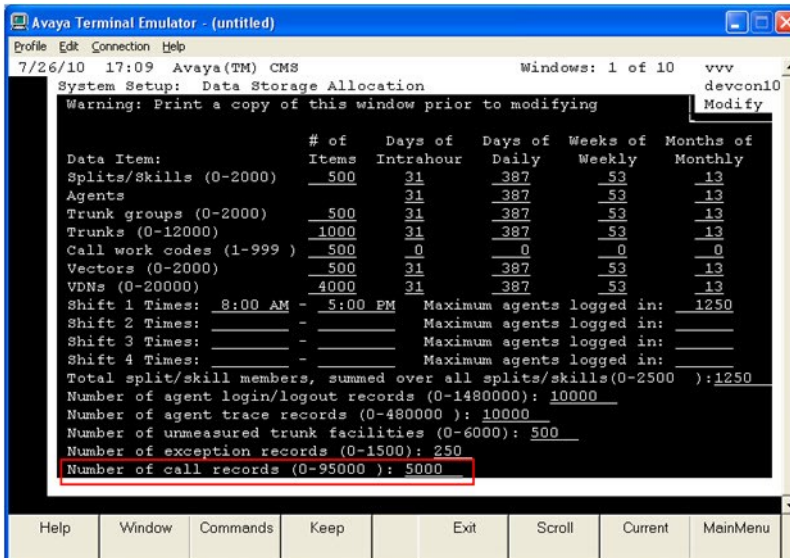
Once the specified number of call records is reached, CMS automatically begins deleting the oldest records in the table to make room for newer records. The CMS Maintenance Backup will back up the call_rec table, which can be restored or migrated. The rate of writing records to the database table is limited to 4,000 within a 20-minute interval.

Start the Generic-RTA and RT-Socket Interfaces

You must start the Generic-RTA and RT-Socket interfaces if they are not running. If they are not, inContact WFM v2 cannot collect real-time data needed for the integration.

This explains how to start these interfaces if they are not running.

For more information, see Avaya CMS 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 Avaya components.

In most cases, you will have Avaya Professional Services configure the Generic-RTA and RT_Socket interfaces. The interfaces must be pointed to the inContact WFM v2 server IP address.

1. Use a terminal emulator to connect to the Avaya CMS server and log in with the proper credentials.

2. Type **cms** at the command prompt to display the MainMenu screen.

3. Select **Generic-RTA** and press **[Enter]**.

4. When the Generic-RTA Menu appears, type **1** to start the interface and type **all** for all sessions.

5. Return to the MainMenu screen and select **RT_Socket**.

6. Type **1** to start the interface.

7. Type the RT_Socket session for the connection between the Avaya CMS and inContact WFM v2, and then press **[Enter]**.