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New in this release

The following sections detail what is new in *Avaya Aura™ Contact Center Overview* (NN44400-111) for Release 6.0/6.1.

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- [Features \(page 5\)](#)
- [Other changes \(page 5\)](#)

Features

This document includes minor changes to modify the overview content so that it aligns with the new features introduced in Avaya Aura™ Contact Center Release 6.0/6.1. These modifications include changing the description of the Contact Center Manager Administration features to include Contact Center Multimedia management, and modifying the overview of Contact Center Multimedia to include information on the new contact types supported.

Other changes

There are no other changes in this document.

New in this release

Introduction

Avaya Aura™ Contact Center Release 6.0/6.1 provides a contact center solution for varied and changing business requirements by offering a suite of applications:

- voice and multimedia contact processing
- agent handling
- management and reporting
- networking
- third-party application interfaces

In addition to the main contact center components, the contact center requires a PABX for telephony services and voice network connectivity, and an optional front-end IVR system for voice processing capabilities.

This document briefly describes of the components of Contact Center Release 6.0/6.1.

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- [Hardware requirements \(page 11\)](#)
- [Software applications \(page 17\)](#)
- [Network configurations \(page 25\)](#)
- [Other products that work with Avaya Aura™ Contact Center \(page 29\)](#)
- [Customer service \(page 33\)](#)

Overview

Avaya Aura™ Contact Center represents the next generation of contact center software. Contact Center is a collection of software components that addresses the business requirements of sophisticated contact center environments. Contact Center is sold as a single software media suite with a licensing mechanism that offers custom functionality and features, using either corporate or nodal licensing.

Navigation

- [Introduction \(page 9\)](#)

Introduction

Contact Center integrates seamlessly with Avaya unified messaging solutions (Avaya CallPilot™ and self-service solutions and SIP for synergies that simplify deployment and operation.

Contact Center delivers contact management capabilities with up-to-date communications technologies:

- Advanced skill-based routing ensures individual contact treatment and connects customers with an agent who is most qualified to serve the customer, locally or across a network.
- Extensive real-time and historical reporting tools, including a Report Creation Wizard generate meaningful reports managers use to improve efficiency and productivity.
- Support for multiple platforms such as Time Division Multiplexing (TDM), Internet Protocol (IP), and Session Initiation Protocol (SIP) to enable a full range of functionality covering inbound and outbound voice, and multimedia contact support (e-mail messages, voice mail, Web chat, text messaging, short message service (SMS) and document transmission).
- Universal networking capabilities provide network skill-based routing, reporting, and management of multiple contact centers across a variety of PABX platforms.
- Graphical tool help you create contact flow and treatment rules with click and place capabilities for rapid and flexible programming.
- Multimedia-enabled agent desktop and supervisor tools that you can use to manage multimedia contacts.
- Integrated outbound capability to create, modify, and monitor outbound campaigns.
- Campus and geographic redundancy solutions minimize chances of failure to provide maximum assurance of business continuity.
- Corporate license management options reduce the cost of ownership by centralizing the control of software licensing for all elements on a node and all nodes in the network.

Overview

- Generic database lookup and call data attachment capabilities with no requirements for coding or application programming are available in the Database Integration Wizard.
- The Communications Control Toolkit provides development integration of contact center solutions with business applications.

Hardware requirements

This chapter briefly describes the Avaya Aura™ Contact Center hardware requirements.

You can purchase your choice of server hardware as long as it complies with the Platform Vendor Independence (PVI) specification for Contact Center software. This provides the flexibility to purchase a hardware specification that conforms with your corporate standard. A further benefit is that you need not seek approval for hardware that does not comply with your corporate specification. Contact Center is a suite of software applications. Contact Center has two utilities to help you choose and check your hardware for compliance with the Contact Center Platform Vendor Independence (PVI) specification.

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- [Supported Phones \(page 14\)](#)

Server requirements

The server deploys Contact Center software on platform vendor-independent, industry-standard servers with the Windows Server 2008 64-bit Release 2.0 Enterprise or Standard Edition operating system.

The number of servers required depends on the features you purchase, and the capacity of the disk drives on the servers.

The general minimum hardware requirements for each server are listed below:

Configuration	Minimum server requirements
DVD drive required	Yes, dual layer DVD (for all servers)
CPU requirements	Quad-core Xeon 2.8 GHz Single-Server requires dual Quad-core Xeon 2.5 GHz
Hard disk requirements (minimum/recommended)	See the <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210) for specific hard disk requirements for each server. The following values are approximate: CCMS: 235 GB CCMA: 60GB CCMM: 440 GB CCT: 81 GB Single-Server: 505 GB

Hardware requirements

Configuration	Minimum server requirements
RAM (minimum)	8 GB
Operating system	Windows Server 2008 64-bit Release 2 Standard edition Windows Server 2008 64-bit Release 2 Enterprise edition

You can install multiple Contact Center components on a single server to reduce operations and implementation costs as follows:

- Contact Center Manager Server (CCMS) and Contact Center Manager Administration (CCMA) can co-reside on the same server with Contact Center License Manager (CCLM) and Contact Center Manager Server Utility (SU).
- Contact Center Manager Server (CCMS) and Contact Center Manager Administration (CCMA), and Communication Control Toolkit (CCT) can co-reside on the same server with Contact Center License Manager (CCLM) and Contact Center Manager Server Utility (SU).
- CCMS, CCT, CCLM, and SU can co-reside on the same server in a self-service environment.
- Contact Center Network Control Center requires a separate server.
- CCMA and CCT must be installed on the same server for CCMM to co-reside with CCMS.
- CCMS, CCMA, CCT, and CCMM must be installed on the same server for Media Application Server (MAS) to co-reside with CCMS. MAS is supported only in SIP-enabled contact centers.

Client requirements

All Contact Center clients run the software applications from the server through Internet Explorer version 7.0 or Internet Explorer version 8.0. You must install one of the following operating systems on each client:

- Windows 7
- Windows Vista Business SP1 or later
- Windows Vista Enterprise SP1 or later
- Windows XP Professional Service Pack 2 or later

If you use Windows Vista, you must download a patch from Microsoft to view Windows-based help in some of the components.

Network requirements

The following provides information about the networking requirements for the Contact Center suite.

The network architecture of Contact Center Manager Server has three requirements:

- single network interface card (NIC) Contact Center Manager Server configuration
- routed ELAN subnet
- contact center subnet

Network interface card binding order

Configure the binding order of the NICs so that the NIC connected to the contact center subnet card is first, followed by others such as the virtual adapters for remote access.

If more than one network interface card is enabled, you can experience delays in request and response messages between the clients and the server.

Routed ELAN subnet

You must connect the ELAN subnet to the contact center subnet with one router only.

In a Contact Center environment, Communication Control Toolkit communicates with the PABX either directly or through a router in the contact center subnet for the following communications:

- client communication
- IVR messages
- call data networking messages between Communication Control Toolkit servers

The Embedded LAN is an Ethernet link for server communications with the PABX. The ELAN subnet must be simple, protected, and local. For example, do not extend the ELAN subnet over a WAN.

Contact center subnet

Use the contact center subnet for interserver communications, such as Communication Control Toolkit with Contact Center Manager Server. The contact center subnet connects to the ELAN subnet using a routed solution that adheres to the ELAN Engineering requirements in the Avaya Communication Server 1000 documentation.

For more information about the Avaya Communication Server 1000 documentation, see *Communication Server 1000M and Meridian 1 Large System Planning and Engineering* (NN43021-220).

Supported PABX

Contact Center provides support for the Avaya Communication Server 1000 software releases and switching platforms for TDM or standard Contact Center Manager Server as shown in the following table.

Hardware requirements

TDM-compatible PABX	Supported versions
Avaya Communication Server 1000E	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E SA Co-res	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E SA	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E HA	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000M Single Group	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000M Multi Group	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000 PABX 11C - Chassis	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000 PABX 11C - Cabinet	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000 PABX 61C	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000 PABX 51C	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000 PABX Option 81C	5.0, 5.5, 6.0, 7.0

Contact Center provides support for the Avaya Communication Server 1000 software releases and switching platforms for a converged OCS Avaya Communication Server 1000 with SIP as shown in the following table.

SIP-compatible PABX	Supported versions
Avaya Communication Server 1000E	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E SA Co-res	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E SA	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000E HA	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000M Single Group	5.0, 5.5, 6.0, 7.0
Avaya Communication Server 1000M Multi Group	5.0, 5.5, 6.0, 7.0

Contact Center provides support for the Avaya Aura™ Unified Communications platform as shown in the following table.

Avaya Aura PABX	Supported versions
Avaya Aura Unified Communications platform	5.2.1 or later

No other PABX are supported.

Supported Phones

Agents and supervisors use digital phones with built-in displays, add-on modules, optional data adapters, and connections that offer a choice to use a headset or handset. Additionally, agents and supervisors in an IP contact center environment can use IP phones.

Contact Center primarily supports two models of phones:

- Avaya 1150E IP Deskphone
- Avaya 3905 Digital Deskphone

Contact Center also supports other models of phones:

- Avaya 2050 IP Softphone
- Avaya 1140E IP Deskphone
- Avaya 1120E IP Deskphone
- Avaya 2002 IP Deskphone
- Avaya 2004 IP Deskphone
- Avaya 2007 IP Deskphone
- Avaya 3904 Digital Deskphone

The Avaya Aura Unified Communications platform supports the following deskphones:

- Avaya 4600 Series IP Deskphone
- Avaya 9600 Series IP Deskphone
- Avaya one-X Communicator, Release 5.2 or later

Hardware requirements

Software applications

This chapter provides a brief high-level description of the Avaya Aura™ Contact Center Release 6.0/6.1 software applications.

A single DVD provides all Contact Center components, including the documentation. During installation, the system prompts you to select the components to install. You can choose one or more applications to install together, if you can install the software co-resident. You can choose to install non-voice multimedia-only versions of the Contact Center components.

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Contact Center Manager Server

Contact Center Manager Server is the core contact center component that provides the intelligent routing capability for voice and multimedia contacts to route contacts to the most qualified agent. The most qualified agent is the agent with the appropriate ability to handle the type of contact.

Rules for contact treatment (what happens while the customer waits for a response) and contact routing (what happens to the contact) can be simple or complex. Use the Contact Center Manager Server to create the applications that provide queuing, routing, reporting, and management of voice, outbound, e-mail messages, Web communications and instant message (SIP) contacts.

You can use Contact Center Manager Server in a SIP-enabled contact center, in which communication sessions are established over Internet Protocol (IP) networks for interactive communication between two or more entities.

The comprehensive reporting tools of Contact Center Manager Server help managers and supervisors accurately track agent performance, resource usage, and trends. You can use the system for real-time and historical reporting to plan staffing levels in peak periods, or to forecast business requirements and human resource needs over the long term.

Contact Center Manager Server provides a number of open interfaces that third-party developers can use to build applications that work with Contact Center Manager Server. Real Time Statistics Multicast (RSM) and Real-Time Interface (RTI) provide real-time information to applications such as wall boards. Use the Host Data Exchange (HDX) to connect the application processing contacts to the information in an external database. With the Open Database Connectivity (ODBC) interface, an application extracts information from the Contact Center Manager Server database. The Meridian Link Service Manager (MLSM) interface provides messaging and resource control on the PABX. Use the MLSM interface to implement telephone features.

Network Control Center server

The Network Control Center server manages the Network Skill-Based Routing (NSBR) configuration and communication between servers in a Contact Center Manager Server network. You need the Network Control Center server when servers in multiple Contact Center Manager Server sites are networked and operate as a single distributed contact center. The Network Control Center server runs the Network Control Center (NCC) software application, a feature of the Contact Center Manager Server application software.

Contact Center License Manager

Avaya uses a Contact Center License Manager for the central licensing and control of all Contact Center components and features across the Contact Center suite (Contact Center Manager Server, Contact Center Manager Administration, Communication Control Toolkit, and Contact Center Multimedia).

You must install the Contact Center License Manager on the Contact Center Manager Server or on the primary Contact Center Manager Server in a networked contact center. If you work in a Knowledge Worker environment, in which no Contact Center Manager Server exists, install the Contact Center License Manager on the Communication Control Toolkit server.

A Corporate License feature is available with Contact Center. Licensing for the entire contact center network is centralized on a Contact Center License Manager server, thereby reducing administration overhead. With corporate licensing, you can enable the concurrent agent licenses across a contact center network. For example, if an agent logs off in California, the seat (agent license) becomes available for use by an agent based in Texas, thereby making the most efficient use of your corporate license investment.

You can install a backup Contact Center License Manager server on another Contact Center Manager Server to ensure business continuity if the primary Contact Center License Manager server fails.

Contact Center Manager Server Utility

You can use the Contact Center Manager Server Utility to monitor and maintain Contact Center Manager Server. The Contact Center Manager Server Utility provides functionality that is not available through Contact Center Manager Administration.

With the Contact Center Manager Server Utility, you can perform the following activities:

- Monitor and maintain user accounts.
- Use the Provider application to receive Contact Center routing information over the Host Data Exchange (HDX) interface. Additionally, you can configure the Provider application to return information to the Contact Center.
- Use the Service Monitor application to monitor the status of Contact Center Manager Server services from a stand-alone computer.
- Use PC Event Browser to view events that occur on the client on which the Contact Center Manager Server Utility runs.

Contact Center Manager Administration

Contact Center Manager Administration is a browser-based tool for contact center administrators and supervisors. You can use Contact Center Manager Administration to manage and configure a contact center and users, define access to data, and view real-time and historical reports. You can install the Contact Center Manager Administration component on the same server as Contact Center Manager Server or on a separate networked server.

With the Contact Center Manager Administration Web-based platform, you can perform the following functions based on the Avaya Communication Server 1000 or SIP configuration of your contact center:

- Contact Center Management: Configure access levels for agent-to-skillset and agent-to-supervisor assignments.
- Access and Partition Management: Create a Contact Center Manager administrator, partitions, and access classes for agents and supervisors. Partitions define which information a user can view; access classes define which information the user can create, change, or modify.
- Configuration: Configure data such as users and skillsets for the contact center. You can use templates in Microsoft Excel spreadsheets to upload Contact Center Manager information.
- Application development: Create, modify, and validate contact routing and tracking instructions for the contact center using the Service Creation Environment.

Software applications

- **Real-Time Reporting:** Display real-time skillset reports, select filters for real-time displays, and configure threshold warning colors for both networked and single-node contact centers.
- **Historical Reporting:** View and print historical report schedules, modify report templates on a network drive, and print access and partition management information.
- **Report Creation Wizard:** Create, maintain, and modify custom historical or real-time reports through a user-friendly interface.
- **Emergency Help:** View notifications of agent emergencies. Agents can click an Emergency button on the Agent Desktop to alert supervisors of contact emergencies.
- **Audit Trail:** View a record of all actions performed in the Contact Center Manager Administration configuration application.
- **Multimedia:** Configure multimedia servers and multimedia settings for your contact center. You can specify how to process multimedia contacts including e-mail messages, fax, SMS, scanned document, voice mail, Web communication, IM, outbound and predictive outbound types. You can configure parameters for the Avaya Aura™ Agent Desktop and the multiplicity feature.
- **Outbound:** Configure outbound campaigns if you install the Multimedia/Outbound server software. For more information about the Multimedia/Outbound server, see [Contact Center Multimedia \(page 21\)](#).

Service Creation Environment

Use the Service Creation Environment in a stand-alone application to create contact flows to route and treat contacts off-line before you install and configure the Contact Center environment. You can use the off-line version of the Service Creation Environment to create the script or flow applications, validate the application, obtain approval for the application, and then implement the application after you configure the remainder of the Contact Center software suite.

Agent Desktop Display

The Agent Desktop Display (ADD) application optionally provides real-time skillset monitoring on agent desktops.

Security Framework

The Security Framework provides identity management for integration with your directory services infrastructure (for example, Active Directory) for authentication and authorization of application users. The identify framework helps to reduce administrative costs and eliminates redundant user information associated with per-application solutions. Single sign-on is a core feature of the framework that minimizes the necessity for users to provide credentials after they log on.

Communication Control Toolkit

The Communication Control Toolkit server helps you implement Computer-Telephony Integration (CTI) for browser-based client integrations. For PABX, the Communication Control Toolkit facilitates the integration of contact center, Knowledge Worker, and self-service solutions with your client applications. In the SIP-enabled contact center, the Communication Control Toolkit integrates the contact center users with the SIP CTI on the Microsoft Office Communication Server (OCS).

The Communication Control Toolkit contains the Communication Control Toolkit server, which is the component that manages client sessions. The Communication Control Toolkit server contains the following subcomponents:

- **Contact Management Framework:** An infrastructure component manages the states of contacts, agents, terminals, and addresses for assigning contacts.
- **Telephony Application Program Interface (TAPI) Connector:** A connector converts Communication Control Toolkit requests to TAPI calls, and TAPI events to Communication Control Toolkit events. The TAPI Connector sits between the Avaya TAPI Service Provider and the Contact Management Framework. The TAPI Connector is not used in SIP-enabled contact centers.
- **TAPI Service Provider:** A Microsoft TAPI client that handles CTI operations of all lines controlled by the Communication Control Toolkit platform that are initialized by TAPI. TAPI Service Provider is not installed in SIP-enabled contact centers. TAPI legacy clients are not supported.
- **SIP Connector:** SIP-enabled contact centers require a Communication Control Toolkit Connector to accommodate Contact Center Manager Server agent logons from the Agent Desktop application. SIP-enabled contact centers also require the functionality of a Communication Control Toolkit Connector that is built into the Contact Center Manager Server product as a SIP service.
- **Communication Control Toolkit API:** An application programming interface (API) controls voice resources. The API is published as a Microsoft .NET type and distributed as a Windows assembly, which is referenced by application developers.
- **Client applications:** Third-party components including software phones, agent telephony toolbars, or call management applications. The Agent Desktop is an Avaya software application that provides the agent telephony toolbar functions.

Contact Center Multimedia

The Contact Center Multimedia server expands the contact center so agents can view, respond to, and track requests over the Internet. Customer requests can include e-mail messages, instant messages, Web communication, voice mail, scanned documents, faxes, and SMS text messages. The Contact Center Multimedia server also supports outbound contact types so agents can operate on progressive or predictive outbound campaigns. Multimedia contacts are queued and prioritized in the same manner as voice contacts. Supervisors and administrators can use real-time displays and historical reports to determine volume and completion statistics for multimedia contacts.

The Contact Center Multimedia server contains the following components:

- **E-mail Manager:** This application processes inbound e-mail contacts (including SMS, voice mail, scanned documents, and faxes) and routes them to the correct skillset. You can configure rules to specify how the E-mail Manager routes contacts. You can also set up automatic responses to common queries, and suggestions for replies for agents to use in their responses.
- **Web Communications:** Customers use Web Communications to submit contacts directly from a Web page and engage in Web communications sessions with agents. Web chat can include intelligent form and page sharing between the agent and the customer. You can configure Web on hold content to display to the customer while they are waiting for an agent to respond to their chat request.
- **Outbound Campaign Management Tool:** Access the Outbound Campaign Management Tool from the Contact Center Manager Administration application. Administrators use the integrated Outbound Campaign Management Tool to create, modify, and monitor outbound campaigns. An outbound campaign is a series of outbound calls to customers for one specific purpose, for example, a customer survey or a sales promotion.
- **Agent Desktop:** Agents use Internet Explorer to connect to a new Web service-based Agent Desktop interface on the Contact Center Multimedia server. The Communication Control Toolkit pushes e-mail messages, Web requests, outbound contacts, and voice calls to the Agent Desktop interface. Agents use the Agent Desktop interface to receive and respond to multimedia contacts. Agents also use the Agent Desktop as a soft client for call control on voice contacts. The Agent Desktop is deployed using .NET smart technology, and agents access it by entering a URL in Windows Explorer or Internet Explorer.
- **Multimedia database:** The server component includes a Caché database that stores all incoming multimedia contacts, outbound campaigns, and associated records in a structured format.

Media Application Server

Media Application Server (MAS) is a software based media processing platform. All media processing is performed in software on the host CPUs. The MAS architecture is uniquely scalable for all core functions of the platform, including media processing, signaling, application execution, and content management.

The Avaya Aura™ Contact Center DVD contains an enhanced version of MAS which contains an additional component—Contact Center Services for MAS (CCSM). CCSM provides three services required by SIP-enabled Contact Center:

- **Conference**—This service is used to create a MAS conference and anchor customer calls, announcements, and agent calls to the MAS conference.
- **Announcement**—This service is used to play treatment (ringback, announcements) into the MAS conference.

- **Dialog**—This service is used to play and collect DTMF digits entered in the MAS conference.

In SIP-enabled contact centers the Avaya Aura™ Contact Center DVD version of Media Application Server software may be installed co-resident with Contact Center Manager Server, Contact Center Manager Administration, Communication Control Toolkit, and Contact Center Multimedia.

MAS requires licenses for the CCSM conference, announcement, and dialog features. When installed co-resident with Contact Center Manager Server MAS uses the Contact Center License Manager, otherwise MAS uses the MAS License Server.

Avaya Aura™ Agent Desktop

If your contact center is licensed to handle telephony calls, you can install the Agent Desktop toolbar on the Communication Control Toolkit server to provide agents with a softphone on their desktop.

High Availability

Contact Center supports High Availability (HA) hot standby resiliency for Contact Center Manager Server (CCMS), Communication Control Toolkit (CCT), Contact Center Multimedia (CCMM) and Contact Center Manager Administration (CCMA).

One set of applications (a CCMS, a CCT, a CCMA, and an optional CCMM) actively processes scripts and contacts. This set of applications is called the active set. Another set of applications in the same contact center system, is running in hot standby mode. This standby set of applications monitors and shadows the active applications in the system and does not process calls.

- The standby CCMS monitors the active CCMS.
- The standby CCT monitors the active CCT.
- The standby CCMM monitors the active CCMM.

Each active and standby pair of applications forms a resilient or replication pair. If any active application fails, the standby applications recognize the failure and start processing contacts. You must configure the standby applications the same as the active applications. Configuration changes to the active system during normal operation are automatically copied to the standby applications, and the standby applications are configured to take over processing from the active system. Statistical data is also automatically copied to the standby applications.

Use the High Availability utility in Database Utilities to configure High Availability for CCMS, CCT, and CCMM. Configure High Availability for CCMA when you install CCMA.

You can configure a server as a Geographic Redundancy node. The Geographic Redundancy node shadows the active server. Geographic Redundancy nodes do not automatically take over if the active system fails.

Network configurations

This chapter provides an overview of the Avaya Aura™ Contact Center system network configurations.

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- [Network configurations \(page 25\)](#)
- [Network traffic \(page 27\)](#)

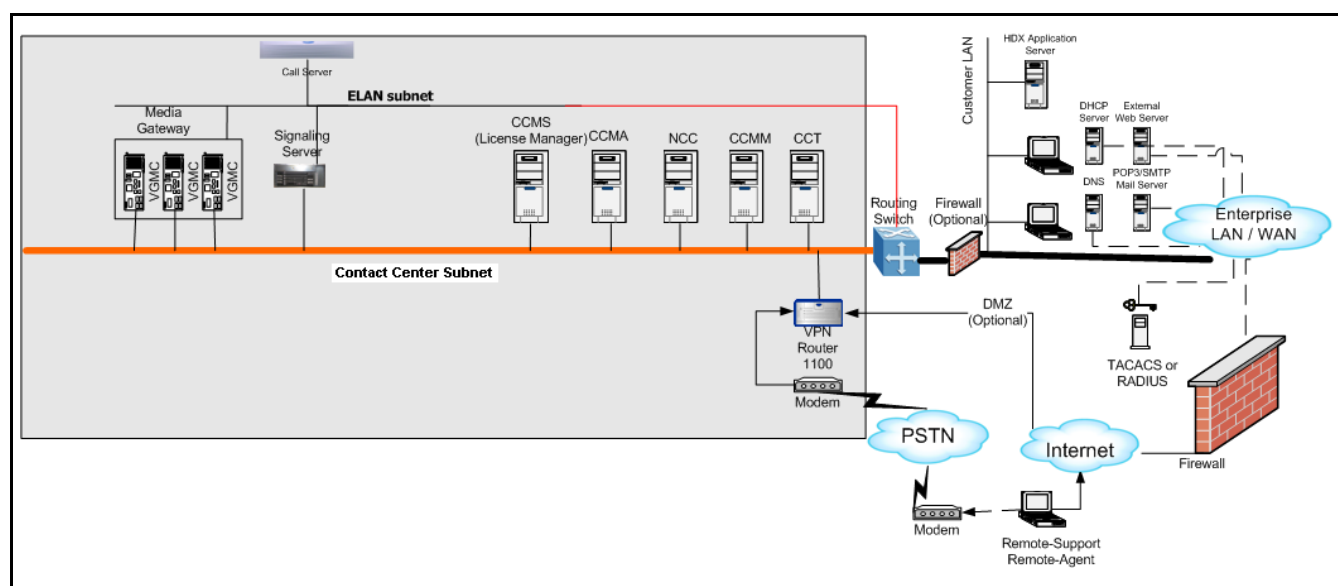
Network configurations

Several network configurations for Contact Center are available:

- [Avaya Communication Server 1000 PABX in a nodal environment \(page 25\)](#)
- [Avaya Communication Server 1000 PABX in a multinode environment \(page 26\)](#)
- [Mixed PABX network environment \(page 26\)](#)
- [SIP-enabled Contact Center environment \(page 26\)](#)
- [Knowledge worker environment \(page 26\)](#)
- [Self-service environment \(page 26\)](#)

Avaya Communication Server 1000 PABX in a nodal environment

The following illustration shows a contact center that is based on an Avaya Communication Server 1000 PABX in a nodal environment.



Avaya Communication Server 1000 PABX in a multinode environment

Your contact center can use multiple Avaya Communication Server 1000 PABX. Each PABX connects to a Contact Center Manager Server and Communication Control Toolkit server to route contacts. Only one Network Control Center is required to administer all sites.

Mixed PABX network environment

In a mixed PABX network environment, you can have multiple PABX handling contacts. For each PABX, you must configure a Contact Center Manager Server and a Communication Control Toolkit server.

You need only one Network Control Center server for the entire environment.

SIP-enabled Contact Center environment

The Voice over IP community adopted Session Initiation Protocol (SIP) as the protocol of choice for signalling. SIP is used to establish sessions in an IP network. A session can be a simple two-way telephone call or it can be a collaborative multimedia conference session. SIP sessions support a host of services, such as voice-enriched e-commerce, Web page click-to-call, instant messaging, buddy lists, presence, and IP services.

Knowledge worker environment

In a knowledge worker environment, Communication Control Toolkit communicates over the contact center subnet and, in turn, over the ELAN subnet to the PABX.

In a knowledge worker environment, skill-based routing is not required. The PABX directs incoming calls to agents. Communication Control Toolkit delivers caller information, such as ANI/DNIS or CLID.

In the knowledge worker environment, if the Communication Control Toolkit is not connected to the contact center subnet through a router, Communication Control Toolkit connects directly to the PABX over the contact center subnet and the ELAN subnet. Communication Control Toolkit connects to clients and application servers over the enterprise IP network.

Self-service environment

In contact center and self-service environments, the Contact Center Manager Server communicates to other servers through the contact center subnet and to the PABX through both the contact center subnet and the ELAN subnet.

In a self-service environment, callers use an IVR system to answer queries or request services. For example, bank customers use self-service applications to find their account balance or to transfer funds. Voice contacts are not handled by agents. Communication Control Toolkit and the IVR server connect to the PABX through Contact Center Manager Server. Communication Control Toolkit connects to the IVR system over the enterprise IP network.

Network traffic

Contact Center Manager Server uses remote method calls between the client and the Communication Control Toolkit server. Avaya recommends that you design and develop the applications to minimize the number of remote calls and thereby reduce the demands on the underlying network and increase application responsiveness.

Other products that work with Avaya Aura™ Contact Center

This chapter provides a brief, high-level description of software that works with Avaya Aura™ Contact Center.

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- [Avaya Secure Access Link support \(page 29\)](#)
- [Avaya Agent Greeting \(page 29\)](#)
- [Avaya Remote Agent Observe \(page 29\)](#)
- [Avaya Voice Portal \(page 29\)](#)
- [Avaya Voice Portal \(page 29\)](#)
- [Avaya Self-Service \(page 30\)](#)
- [Avaya Unified messaging products \(page 31\)](#)

Avaya Secure Access Link support

Avaya Aura™ Contact Center supports Avaya Secure Access Link (SAL). SAL is a remote-access architecture that provides simplified network management and increased support options for greater security, reliability and flexibility. Secure Access Link (SAL) gives you complete control of when and how Avaya, or any other service partner, can access your equipment. You can take advantage of channel-neutral support by enabling self-service, Avaya, and/or business-partner support of your networks.

Avaya Agent Greeting

Avaya Agent Greeting automates the agent greeting to enable each agent to prerecord single or multiple greetings by skillset that the system can play to callers before the agent handles the call.

Avaya Remote Agent Observe

With Avaya Remote Agent Observe, contact centers monitor and record calls in real time from a remote location using a Dual-Tone Multi-Frequency (DTMF)-enabled telephone. For example, companies can remotely observe the quality of service provided in a contact center. Remote Agent Observe simplifies quality assurance activities and provides a flexible monitoring solution.

Avaya Voice Portal

Avaya Voice Portal is an open standards based self service software platform which offers industry leading reliability and scalability. Avaya Voice Portal offers robust management and reporting features, to help reduce costs and simplify operations.

A combined Avaya Voice Portal self service system and Avaya Aura™ Contact Center solution gives customers exceptional service and improved efficiency. Front end self service automation reduces contact center operating costs and improves Customer Satisfaction (CSAT).

Avaya Voice Portal uses XML speech applications to integrate with Avaya Aura Contact Center open standard Web services.

Avaya Call Recording Quality Monitoring

Avaya Contact Recording is a call-recording solution for organizations that need bulk or selective call-recording abilities for reasons such as compliance, risk reduction, fraud prevention, business verification, business optimization, or quality monitoring.

Avaya Contact Recording delivers the ability to

- scale from one to many thousands of channels within an enterprise
- be independent of the data infrastructure functionality such as port mirroring
- record IP voice communications full time
- record traditional digital phone lines
- make recording decisions in real time based on configurations
- be administered and supported locally at any enterprise level

Avaya Quality Monitoring records agent interactions with customers and the agent's corresponding desktop activities, such as data entry, screen navigation, and data retrieval. By capturing both voice and desktop activity and by synchronizing them during replay, contact centers achieve a thorough customer interaction recording for use in continuous performance improvement initiatives.

Avaya Quality Monitoring delivers the ability to

- trigger recordings based on custom business rules
- record interactions randomly to use CTI, outbound CRM, or custom integration
- monitor synchronized voice and data interactions
- evaluate and analyze agent performance using customizable evaluation forms
- organize recorded interactions according to user-defined categories
- share recordings throughout the enterprise

Avaya Self-Service

The following Avaya IVR hardware and software solution works with Contact Center.

Avaya Media Processing Server (Interactive Voice Response)

The Avaya Media Processing Server (MPS) provides DTMF, speech, and Web self-service solutions for both enterprise and carrier. With the MPS, you can reduce the number of contacts that agents handle, increase overall operating system efficiency, and dramatically enhance customer offerings by linking customers directly to your business. Customers can have quick automated access to information and services without waiting in a queue to speak to a contact center agent.

The MPS uses the following advanced speech technologies to increase customer satisfaction by offering friendly self-service while improving contact center efficiencies:

- Large vocabulary recognition (LVR) with natural language understanding (NLU): The MPS accurately recognizes tens of thousands of words to automate many transaction types.
- Speaker Verification: The MPS can compare live speech samples to stored voice prints for quick and accurate approval or denial of caller identity.
- Text to Speech (TTS): The MPS can convert ordinary text into intelligible speech. This technology communicates information to customers when possible selections include large numbers of items from databases that must be spoken to callers.

The MPS also offers options for writing self-service applications:

- the enhanced and industry-standard markup language of VoiceXML
- the intuitive, graphical development environment of MPS Developer

The MPS supports IP or TDM, and can support mixed implementations of IP and TDM digital voice protocols to provide hybrid digital and VoIP options. With hybrid digital and VoIP options, businesses can standardize on one self-service system across multiple switching environments, or they can grow their self-service solutions with IP technology without abandoning legacy systems until they are ready.

Avaya Unified messaging products

The following unified messaging products work with Contact Center.

Avaya CallPilot™

Avaya CallPilot™ is a unified messaging tool that combines voice mail, e-mail messages, and fax to create a feature-rich message-management system. In a contact center environment, Avaya CallPilot™ integrates with Contact Center Manager Server to send customers to interactive voice sessions while retaining their place in the queue. Additional voice services available with Avaya CallPilot™ include the following

- playing broadcast announcements to callers
- playing expected wait time and position in queue announcements
- prompting and collecting information from callers that the system can use as routing criteria

Other products that work with Avaya Aura™ Contact Center

- leaving queued messages for call-backs

Customer service

Visit the Avaya Web site to access the complete range of services and support that Avaya provides. Go to www.avaya.com.

Navigation

- [Updated versions of documentation \(page 33\)](#)
- [Getting help \(page 33\)](#)

Updated versions of documentation

To get the latest updates for documentation go to www.avaya.com/support and navigate to the Avaya Aura™ Contact Center Release 6.0/6.1 collection.

Getting help

If you purchased a service contract for your Avaya product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance; or visit our Technical Support site at www.avaya.com/support.

