



# **Avaya Aura<sup>®</sup> Call Center Elite Overview and Specification**

Release 6.2  
Issue 2.0  
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# Chapter 1: Introduction

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## Purpose

This document describes tested product characteristics and capabilities including product overview and feature descriptions, interoperability, performance specifications, security, and licensing requirements.

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## Intended audience

This document is intended for anyone who wants to gain a high-level understanding of the product features, functions, capacities, and limitations within the context of solutions and verified reference configurations.

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## Revision history

Issue	Date	Summary of changes
1.0	July 2012	First issue.
2.0	Oct 2012	Second issue. Avaya Aura <sup>®</sup> Call Center Elite Multichannel is now part of the Call Center Elite product offering. For more information, see <a href="#">Call Center Elite overview</a> on page 11.

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## Related resources

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### Documentation

Title	Purpose	Link
<i>Avaya Aura® Call Center Elite Multichannel Overview</i>	Overview	<a href="http://support.avaya.com/">http://support.avaya.com/</a>
<i>Avaya Aura® Communication Manager System Capacities Table</i>	Capacity and scalability	<a href="http://support.avaya.com/">http://support.avaya.com/</a>
<i>Avaya Aura® Communication Manager Feature Description and Implementation</i>	Reference	<a href="http://support.avaya.com/">http://support.avaya.com/</a>
<i>Avaya Aura® Call Center Elite Feature Reference</i>	Reference	<a href="http://support.avaya.com/">http://support.avaya.com/</a>
<i>Programming Call Vectoring Features in Avaya Aura® Call Center Elite</i>	Reference	<a href="http://support.avaya.com/">http://support.avaya.com/</a>

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### Training

The following courses are available on [www.avaya-learning.com](http://www.avaya-learning.com). Enter the course code in the **Search** field, and click **Go** to search for the course.

Course code	Course title
ASC00673WEN	Avaya Contact Center Fundamentals – Assisted Care
2C00092O	Avaya Aura® Call Center Elite 6.2 Level 1
2C00010O	Avaya Aura® Call Center Elite 6.2 Level 2
3C00004O	Avaya Aura® Call Center Elite 6.2 Technical Sales Knowledge Session
AVA00741WEN	Introduction to Call Center Operations
AVA00742WEN	Avaya Call Center - Analyze, Design and Plan Implementation
AVA00743H00	Avaya Call Center - Implementation Workshop
5C00091V	Avaya Aura® Call Center Elite Implementation and Maintenance

Course code	Course title
5C00091I	Avaya Aura® Call Center Elite Implementation and Maintenance
5C00092W	Avaya Aura® Call Center Elite 6.2 Multichannel Overview Availability: October 22, 2012
5C00092A	Avaya Aura® Call Center Elite 6.2 Multichannel Overview-Assessment Availability: November 05, 2012
A: Assessment I: Instructor Led O: On Demand V: Virtual W: Web Based	

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## Avaya Mentor videos

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Visit <http://www.youtube.com/AvayaMentor>.

Enter a key word or key words in the Search channel to search for a specific product or topic. Click the name of a playlist to scroll through the posted videos.

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## Warranty

Avaya provides a 90-day limited warranty on Call Center Elite. To understand the terms of the limited warranty, see the sales agreement or other applicable documentation.

For information about the standard Avaya warranty and support for Call Center Elite during the warranty period, see the Avaya Support website at <http://support.avaya.com/> in **HELP & POLICIES > Policies & Legal > Maintenance and Warranty Information**.

See also **HELP & POLICIES > Policies & Legal > License Terms**.



# Chapter 2: Call Center Elite overview

Avaya Aura® Call Center Elite is the flagship voice product for assisted experience management. It is coresident on Avaya Aura® Communication Manager which is a key component of the Avaya Aura® communications platform.

Communication Manager supports multiple communications protocols, such as H.323 and Session Initiation Protocol (SIP), and is configured as an Evolution server to integrate Call Center Elite with traditional circuit switched Time Division Multiplexing (TDM), H.323, SIP, and hybrid environments.

Call Center Elite offers conditional call routing that can be coupled with the following routing options:

- Greatest Need (GN)
- Skill Level (SL)
- Service Level Maximizer (SLM)
- Service Objective (SO) by Skill/Vector Directory Number (VDN)
- Service Level Supervisor (SLS) with Call Selection Override and Reserve Agent

Call Center Elite 6.0 on Communication Manager 6.x increases agent productivity by providing resource selection capabilities such as Least Occupied Agent (LOA) and the following Best Service Routing (BSR) Available Agent strategies that are applied for each VDN:

- First Found
- Uniform Call Distribution-Most Idle Agent (UCD-MIA)
- Uniform Call Distribution-Least Occupied Agent (UCD-LOA)
- Expert Agent Distribution-Most Idle Agent (EAD-MIA)
- Expert Agent Distribution-Least Occupied Agent (EAD-LOA)

With virtual routing capabilities, multilocation call centers can maximize resource utilization across all sites.

Avaya Business Advocate, which is included in Call Center Elite 6.0, is a set of patented algorithms that balance competing business objectives. As agents become available, Business Advocate selects the next contact based on the defined business objectives to meet service levels across the enterprise.

Call Center Elite integrates with performance management applications, such as Avaya Call Management System (CMS), Avaya IQ, and the upcoming Avaya Aura® Performance Center (AAPC), for real-time reporting and performance analytics.

Call Center Elite integrates with the Avaya Aura® Workforce Optimization (WFO) solution suite for quality monitoring. It also works with call recording solutions, such as Verint ContactStore and NICE Loggers.

Call Center Elite leverages the multimedia service offerings of Avaya Aura® Contact Center (AACC) and Avaya Interaction Center (IC) to route and manage transactions across multiple channels such as voice, video, email, and Web chat.

With Release 6.2, Call Center Elite Multichannel is part of the Call Center Elite product offering. Call Center Elite Multichannel provides intelligent routing, reporting, and multimedia interactions, such as email, Web chat, Short Message Service (SMS), data-directed routing, and screen-pop.

For information about Call Center Elite Multichannel, see *Avaya Aura® Call Center Elite Multichannel Overview* on the Avaya Support website at <http://support.avaya.com/>.

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## Feature description

Call Center Elite offers the following salient features:

- Business Advocate for resource matching
- Call Center Elite Multichannel for multimedia capabilities, such as email, SMS, Web chat, data-directed routing, and screen-pop
- Call Vectoring for conditional routing
- Expert Agent Selection (EAS) for skill-based routing
- Multi-site Best Service Routing (BSR) for virtual routing

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## Business Advocate

Business Advocate is a Call Center Elite feature that uses a patented routing algorithm to:

- Manage agent work pools and call spikes
- Meet service levels
- Predict call wait time
- Reduce agent burnout

Business Advocate prevents a queue from overflowing by automating the activation of reserve agents. Dynamic Advocate, which is a feature component of Business Advocate, automatically adjusts the overload threshold based on the service level requirements.

Business Advocate leverages the following features to balance the business needs such as service levels, caller segmentation, and multiskilled agent management:

- Percent Allocation and Percent Agent Distribution (PAD)
- Predicted Wait Time (PWT) as a system-wide call selection measurement, applicable under call surplus conditions

- Service Level Supervisor (SLS) with Call Selection Override and Reserve Agent
- Service Objective (SO) by Skill/Vector Directory Number (VDN)

For more information about Business Advocate, see *Avaya Business Advocate User Guide* on the Avaya Support website at <http://support.avaya.com/>.

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## Call Center Elite Multichannel

Call Center Elite Multichannel provides intelligent routing through Call Center Elite and supports Computer Telephony Integration (CTI), multimedia, and reporting features.

You can use the feature to manage voice and multimedia interactions through a single queue. For example, if there are no voice calls in a queue, Call Center Elite Multichannel delivers pending emails to assigned and staffed, that is, logged-in agents.

The Preview Contact capability blends the on-screen customer contact prompts with inbound calls to save the call handling time.

For businesses that require continuity, Call Center Elite Multichannel supports duplicate CTI links and redundant servers to ensure call continuity in the event of a server failure.

Call Center Elite Multichannel consists of the following applications:

- *Desktop application for agents*: The Agent application provides ease of access to customer information as a call bar on the agent desktop. Agents can use the Wallboard to view real-time statistics about their performance and the performance of their workgroup.
- *Desktop application for supervisors*: The Supervisor application provides active coaching and agent training. Supervisors can monitor calls or join calls that are in progress.
- *Developer toolset*: Businesses can use the developer toolset to customize the Desktop application.
- *Server applications*: The server applications that reside on customer-provided servers consist of:
  - A call routing server to route inbound calls.
  - An interaction data server to monitor skill groups.
  - A configuration server to store all associated configuration data.
  - A media director to distribute non voice contacts, such as email, Short Message Service (SMS), and Web chat.

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## Call Vectoring

Call Vectoring is the process of defining vector programs for call routing and call treatment.

Call vectors are a series of user-defined commands that you can use to route internal or network calls and to determine the treatment for each call. You can route calls to on-network or off-network destinations, or to staffed ACD agents.

Communication Manager directs all incoming calls to an administered VDN which could represent a service category, such as Billing, Customer Service, or Sales. The VDN directs calls to a vector with commands such as **announcement**, **busy**, **collect digits**, **goto step**, or **wait-time** for call routing and call treatment.

Use vector commands to perform the following call-related functions:

- Collection of touchtone digits
- Call treatment such as an announcement or a busy tone
- Call routing to more than one skill if an agent fails to answer the call
- Conditional and unconditional branching from one vector step to another step or vector
- Execution of voice scripts on a Voice Response Unit (VRU) to provide information to the caller

For information about Call Vectoring features and commands, see *Avaya Aura® Call Center Elite Feature Reference* and *Programming Call Vectoring Features in Avaya Aura® Call Center Elite* on the Avaya Support website at <http://support.avaya.com/>.

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## Expert Agent Selection

Expert Agent Selection (EAS) is a skill-based routing feature that reduces the call transfer and call-holding time by matching caller needs with agent skills.

When **EAS** is set to *y*, Communication Manager associates each phone with an agent login ID, which is an extension in the dial plan, and not with a skill hunt group. Hence, when an agent logs in, Communication Manager associates the phone with all the skill hunt groups that a system administrator assigns to the agent login ID.

With Call Center Elite 6.0, an administrator can assign up to 120 skills to each agent. The administrator can set the call handling preference, that is, administer distribution of calls with the greatest need before skill level under call surplus conditions. Conversely, staffed agents can be moved to handle calls under agent surplus conditions. Agent occupancy and the administered skill levels determine which agents handle calls under agent surplus conditions.

EAS supports a *direct agent calling* capability that a caller can use to speak with a specific agent. Communication Manager prioritizes and delivers a direct agent call before a skill hunt group call. Communication Manager receives the call as an ACD call but delivers or queues the call to the agent and not to a skill hunt group.

For more information, see *Avaya Aura® Call Center Elite Feature Reference* on the Avaya Support website at <http://support.avaya.com/>.

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## Multi-site Best Service Routing

A virtual routing feature that ensures efficient use of network resources by comparing local and remote skills for call routing to the resource that can provide the best service.

Agents that share a common skill set are part of a single virtual pool where Communication Manager routes calls based on the administered agent selection criteria and the distribution algorithms regardless of the agent location.

Location Preference Distribution is another Call Center Elite feature that is quite popular in addition to the traditional Avaya Virtual Routing settings of Multi-site Best Service Routing (BSR) and Look Ahead Interflow (LAI).

Virtual routing builds on the LAI feature to route calls to the best skill. Communication Manager uses a series of **consider** vector steps to determine the best skill and interflows the call using the **queue-to best** or **check best** vector commands.

For information about vector steps and vector commands, see *Programming Call Vectoring Features in Avaya Aura® Call Center Elite* on the Avaya Support website at <http://support.avaya.com/>.

In a call surplus condition, Communication Manager treats a skill as best if the skill has the shortest Expected Wait Time (EWT). In an agent surplus condition, the administered **Available Agent Strategy** field on the Communication Manager server which receives the call determines the best skill for handling the call or work item.

For more information, see *Avaya Aura® Call Center Elite Feature Reference* on the Avaya Support website at <http://support.avaya.com/>.

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## New in this release

Call Center Elite 6.0 on Communication Manager 6.2 offers the following capabilities:

- Enhanced agent productivity
  - 96x1 Deskphone SIP 6.2
  - 96x1 Deskphone H.323 6.2
  - Block hang up by logged-in auto-answer agents
  - Vector Directory Number (VDN) Observing by Location
  - Separate Auxiliary (AUX) Work reason codes for Redirection on No Answer (RONA) and Redirection on OPTIM Failure (ROOF)
- Enhanced caller experience
  - VDN Time Zone for Holiday Vectoring
  - Remove ringback tones for auto-answer calls

- VDN Return Destination (VRD) for internal calls
- Enhanced administrator agility
  - Two additional Switch Protocol Interpreter (SPI) links for future use
  - Vector variables usage data on the Measurement Summary report
  - Additional duplicate administration commands for VDN and hunt group skill
- Enhanced product interoperability
  - Call recording using Single Step Conference (SSC) with Exclusion
  - Enhanced reporting for Intelligent Customer Routing (ICR)

### **Multimedia capabilities**

Avaya Aura<sup>®</sup> Call Center Elite Multichannel, which provides intelligent routing, reporting, and multimedia interactions, such as email, Web chat, SMS, data-directed routing, and screen-pop, is available with Call Center Elite 4.0, 5.0, and 6.0 on Communication Manager 4.0, 5.x, and 6.x.

Call Center Elite Multichannel supports up to 400 concurrent agents.

Call Center Elite Multichannel requires Application Enablement Services (AES) 5.2 or later.

#### **\* Note:**

Call Center Elite Multichannel is not yet certified as compatible with 96X1 Deskphones SIP.

# Chapter 3: Interoperability

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## Product compatibility

The following Avaya products are compatible with Call Center Elite 6.2.

Product	Release
96X1 Deskphones H.323	6.2
96x1 Deskphones SIP	6.2 <b>* Note:</b> Call Center Elite Multichannel is not yet certified as compatible with 96X1 Deskphones SIP.
Avaya Aura <sup>®</sup> Application Enablement Services (AES)	4.2, 5.2, 6.1, 6.2
Avaya Aura <sup>®</sup> Contact Center (AACC)	6.2 <b>! Important:</b> AACC 6.2 was initially compatible only with Call Center Elite 6.0 on Communication Manager 6.0.1. As of August 2012, AACC Service Pack 6 is also compatible with Communication Manager 6.0.
Avaya Aura <sup>®</sup> Experience Portal (AAEP)	6.0
Avaya Aura <sup>®</sup> Session Manager (SM)	6.2
Avaya Aura <sup>®</sup> System Manager (SMGR)	6.2
Avaya Aura <sup>®</sup> Workforce Optimization (WFO)	10.x, 11.0
Avaya B5800 Branch Gateway	6.2
Avaya Interaction Center (IC)	7.2, 7.3
Avaya Integrated Management	6.0
Avaya Interactive Response (IR)	4.0
Avaya IP Agent	7.0

Product	Release
Avaya IQ	4.0, 5.0, 5.1, 5.2
Avaya one-X Agent	1.0, 2.0, 2.5
Avaya Proactive Contact	4.2, 5.0
Avaya Proactive Outreach Manager (POM)	2.0, 2.5
Avaya Voice Portal (VP)	4.1, 5.1
Basic Call Management System Reporting Desktop	2.4
Call Management System (CMS)	15, 16, 16.1, 16.2, 16.3
CallMaster®	IV, V, VI

The following Avaya products are compatible with Call Center Elite Multichannel.

Product	Release
96X1 Deskphones H.323	6.2
Application Enablement Services (AES)	5.2, 6.1, 6.2
Avaya Aura® Experience Portal (AAEP)	6.0
Avaya Aura® Workforce Optimization (WFO)	10.x
Avaya Voice Portal (VP)	5.1
Call Management System (CMS)	15.0, 16.1, 16.3
Communication Manager	4.0, 5.2, 5.2.1, 6.2

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## Third-party product requirements

Third-party products	Description	Connectivity and limitations
Verint Quality and ContactStore	<ul style="list-style-type: none"> <li>• Call recording software developed by Avaya and Verint that requires no proprietary hardware.</li> <li>• Supports TDM, IP, or mixed environments. You can use the products for Service Observing.</li> </ul>	<ul style="list-style-type: none"> <li>• Requires Application Enablement Services (AES) 4.2 or later to connect to Communication Manager 6.2.</li> <li>• Requires the Communication Manager API (CMAPI), that is, the Device, Media, and Call Control (DMCC) service to gain access to media and to record calls.</li> </ul>

Third-party products	Description	Connectivity and limitations
NICE Loggers	Call recording solution developed by Nice that offers the following recording models: <ul style="list-style-type: none"> <li>• Record on Demand.</li> <li>• Selective recording.</li> <li>• Quality management recording.</li> <li>• All call recording.</li> </ul>	<p><b>* Note:</b></p> <p>With Communication Manager 6.0, you can complete the DMCC registration for call recording solutions only through an AES license file.</p>

For application notes on third-party connectivity, see the Avaya Support website at <http://support.avaya.com/>.



# Chapter 4: Performance specifications

The number of vector steps, announcements, Computer Telephony Integration (CTI) applications, and other design components affect the performance of the processor and the Busy Hour Call Completion (BHCC) ratings. SIP trunks might require up to 60 percent more processing power when compared to the H.323 and TDM trunks.

With Call Center Elite 6.0, the total extension count is 64,000. VDNs function as extensions. Hence, if you administer 30,000 VDNs, you must consider the following:

- 9,000 extension numbers in the dial plan that are used for announcements or music sources
- 30,000 potentially administered EAS agent login IDs

The following indicates the current CTI throughput for each Communication Manager instance when connected to Application Enablement Services (AES):

- 1,000 messages per second for AES 5.2 and later
- 24 domain-control associations per call
- 6 active associations per call, skill, and VDN domain
- 10,000 event notification associations

For information about capacity, see *Avaya Aura® Communication Manager System Capacities Table* on the Avaya Support website at <http://support.avaya.com/>.

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## Capacity and scalability specification

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### Capacity increase

The following is a list of increased maximum capacity for a variety of Call Center Elite resources. The capacity increase supports 10,000 concurrently logged-in EAS agents.

For more information about interactions with the Avaya reporting capacities based on the actual number of agent-skill pairs in use, see *Avaya Aura® Communication Manager System Capacities Table* on the Avaya Support website at <http://support.avaya.com/>.

Call Center Elite resource	Release 5.0	Release 6.0
Administered agent login IDs	20,000	30,000

Call Center Elite resource	Release 5.0	Release 6.0
Administered agent-skill pairs in Communication Manager	180,000	999,999
Concurrently logged-in ACD agents	7,000	10,000
Holiday tables	99	999
Separate VDN extensions from station extensions	36,000	N/A. Allows full capacity for VDNs and stations.
Policy Routing Tables (PRTs) of 15 steps each	2,000	8,000
PRT routing destination points	6,000	24,000
Service Hours Tables	99	999
Skills or hunt groups per Communication Manager instance	2,000	8,000
Skills per agent	60	120
Station extensions	36,000	41,000
Total extensions	55,733	64,000
VDN extensions	20,000	30,000
VDN variables	V1 to V9 for each of the 20,000 VDNs.	V1 to V9 for each of the 30,000 VDNs.
Vector Routing Tables	100	999
Vectors of 99 steps each	2,000	8,000

**\* Note:**

Station extensions comprise attendant extensions, station set assignments, including ACD agent physical set, Administration Without Hardware (AWOH), and administered EAS logical agent IDs.

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## Servers and gateway capacities

The following parameters determine the number of concurrent agents:


- Agent occupancy
- Announcement sources
- Codecs

- Station type
- Trunk termination location

The following servers support Communication Manager and Call Center Elite:

- Dell™ PowerEdge™ R610
- HP ProLiant DL360 G7
- Avaya S8300D embedded server

Read the *Avaya Aura® Communication Manager System Capacities Table* before undertaking any solution design.

Dell R610 and HP DL360 G7 server capability	
Maximum number of agents for each G700 Media Gateway with the External Call Controller (ECC) configuration	60
Maximum number of agents for each G450 Media Gateway	60–200
Maximum number of agents for each G430 Media Gateway	80–200
Maximum number of agents for each G350 Media Gateway with the ECC configuration	10
Maximum number of agents for each G250 Media Gateway with the ECC configuration	<ul style="list-style-type: none"> <li>• 4 concurrent agents for the G250 Analog and Basic Rate Interface (BRI) ECC configuration</li> <li>• 12 concurrent agents for the G250 DS1 and Digital Communications Protocol (DCP) ECC configuration</li> </ul>
IG550 <ul style="list-style-type: none"> <li>• JD1 Media Gateways (model J4350)</li> <li>• JD1 Media Gateways (model J6350)</li> <li>• JD1.2 Media Gateways (model J2320)</li> <li>• JD1.2 Media Gateways (model J2350)</li> </ul>	<ul style="list-style-type: none"> <li>• 80 IP stations for the Central Distribution to Remote Sites configuration</li> <li>• 48 concurrent agents with no queuing for independent call centers</li> </ul>
Maximum number of logged-in ACD agents	10,000
Maximum number of logged-in SIP EAS agents	2500  <b>Note:</b> The maximum number of logged-in ACD agents includes the logged-in SIP EAS agent count of 2500.

<b>S8300D capability</b>	
Maximum number of agents for each G700 Media Gateway with the External Call Controller (ECC) configuration	60
Maximum number of agents for each G450 Media Gateway	60–200
Maximum number of agents for each G430 Media Gateway	80–200
Maximum number of agents for each G350 Media Gateway with the ECC configuration	10
Maximum number of agents for each G250 Media Gateway with the ECC configuration	<ul style="list-style-type: none"> <li>• 4: Basic Call Center that is available only for the G250 configuration</li> <li>• 12: Any Call Center package for the DS1 configuration</li> </ul>
IG550 <ul style="list-style-type: none"> <li>• JD1 Media Gateways (model J4350)</li> <li>• JD1 Media Gateways (model J6350)</li> <li>• JD1.2 Media Gateways (model J2320)</li> <li>• JD1.2 Media Gateways (model J2350)</li> </ul>	<ul style="list-style-type: none"> <li>• 80 IP stations for the Central Distribution to Remote Sites configuration</li> <li>• 48 concurrent agents with no queuing for independent call centers</li> </ul>
Maximum number of logged-in ACD agents	450
Maximum number of logged-in SIP EAS agents	<ul style="list-style-type: none"> <li>• 4: S8300D with G250 or G350</li> <li>• 50: S8300D with G700 or G450</li> </ul>

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## Scalability of 96X1 SIP agent deskphones

The Dell™ PowerEdge™ R610 and HP ProLiant DL360 G7 servers support up to 2500 concurrently logged-in SIP Expert Agent Selection (EAS) agents using the 96X1 SIP agent deskphones.

**\* Note:**

Call Center Elite Multichannel is not yet certified as compatible with 96X1 Deskphones SIP.

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## Traffic specification

### Important:

The Avaya Technology and Consulting (ATAC) Design Center must review all Call Center Elite designs. The Avaya Sales Factory must review all Call Center Elite designs that involve SIP trunking.

The Avaya Sales Factory derives the Communication Manager CPU occupancy for upgrades and new installations to ensure that the proposed solution design can handle the anticipated traffic load.

The following are some of the major considerations:

- Busy Hour Call Completion (BHCC) for inbound calls.
- Call Vectoring with a focus on the announcements that Communication Manager plays for calls in queue.
- The number of simultaneously active SIP trunks. Active SIP trunks that support calls in queue have a greater impact on the Communication Manager CPU occupancy than the number of active SIP trunks that support calls being handled by agents.
- The Communication Manager release, CPU clock speed, and server duplication mode.
- CTI operations such as monitoring, adjunct routing, and third-party call control.
- Intelligent Customer Routing (ICR) and Best Service Routing (BSR) operations.



# Chapter 5: Dial plan specification

With the dial plan feature, you can use up to 13 digits. Use Uniform Dial Plan (UDP) to scale up the extension dialing to 18 digits. Although you can use the Per-Location Dial Plan feature to set unique short extensions for branch offices, you must use UDP with Per-Location Dial Plan.

**\* Note:**

All products, except Basic Call Management System Reporting Desktop (BCMSRD) 2.4, that are listed in [Product compatibility](#) on page 17 support 13 digits.

Announcements or music sources that require dial plan assignment are limited to 3 to 7 digits to be compatible with the entry limit for the call vectoring announcement.

Define the following dial plan information for each type of call:

- Attendant
- Automatic Alternate Routing (AAR)
- Automatic Route Selection (ARS)
- Dial Access Codes (DACs) that include Feature Access Codes (FACs) and Trunk Access Codes (TACs)
- Extensions. EAS agent login IDs and VDN extensions can range only from 3 to 13 digits.
- Prefixed extensions

Administer the dial plan on the following screens:

- Dial Plan Analysis Table
- Dial Plan Parameters
- Location Parameters
- Uniform Dial Plan Table
- Station

For more information about dial plan administration, interactions, and considerations, see *Avaya Aura® Communication Manager Feature Description and Implementation* on the Avaya Support website at <http://support.avaya.com/>.



# Chapter 6: Security

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## Security specification

Avaya incorporates security features in all products. However, the customer is responsible for setting the security configurations on the customer data network and for configuring the security features that are available in the products.

### Call Center Elite security features

- Access codes for all Meet-me Conference VDNs: To prevent hackers from using the Meet-me Conference facilities.
- Barrier codes: To provide remote access.
- Call Vectoring and Call Prompting: To prevent unauthorized user access.
- Converse-on vector step: To route calls to a Voice Response Unit (VRU) where you can set stringent security checks, such as voice recognition.
- Expert Agent Selection (EAS): To lock stations with unstaffed agents.
- Recorded announcements: To indicate that unauthorized calling is illegal and that the call is monitored or recorded.
- Service observing and console permissions: To disable the capabilities for individuals who do not need the feature.
- VDN Class of Restriction (COR): To limit the outgoing facility path. For instance, you can set the Facility Restriction Level (FRL) in the COR to zero for restricted access to network routing preference.

For more information about security designs, testing, and violation reports, see *Avaya Aura® Communication Manager Reports* and *Avaya Aura® Communication Manager Security Design* on the Avaya Support website at <http://support.avaya.com/>.

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## Port utilization

Announcements that are stored on a circuit pack can play through any port on the circuit pack. Announcements that are not administered for barge-in can be played through multiple ports.

Storage type	Storage time	Playback ports
TN2501AP	60 minutes	31
G700 MG	20 minutes	15
G350 MG	10 minutes	6
G450 MG	45 minutes with internal flash memory or 240 minutes with external compact flash card	63
G430 MG	45 minutes with internal flash memory or 240 minutes with external compact flash card	15

For more information about port matrix, see the Communication Manager port matrix on the Avaya Support website at <http://support.avaya.com/>.

# Chapter 7: Licensing requirements

Call Center Elite is a separately licensed software application inside Communication Manager and therefore, the Call Center Elite release cannot be greater than the Communication Manager release.

Call Center Elite is licensed as a whole number release such as 6.0, which means that the Call Center Elite software is licensed in Product Licensing and Delivery System (PLDS) as Call Center Elite 6.0.

Call Center Elite is licensed on the basis of each Concurrent User (CU), which means that only the specified number of licensed units can gain access and use the software on an Avaya server supporting Communication Manager at any given time, but without regard to the named user. The CU license is ideal for call centers as agents in shifts can use the same license.

---

## Call Center Elite license policy

Effective August 2009, Avaya changed the pricing from 9-Tier to 1-Tier for all product offerings except for Avaya Aura<sup>®</sup> Communication Manager Standard, Enterprise, Call Center Elite, and Call Management System. For these products, Avaya changed the pricing from 9-Tier to 3-Tier.

3-Tier pricing offers:

- Each user or agent ordering: Customers do not have to purchase fixed bundles. This provides maximum flexibility in ordering new or add-on agents.
- New and add-on agents have common pricing tiers but not the same prices. Add-on licenses for non current releases are priced slightly higher than for the current release.
- Add-on agents always start at the first tier. As all software products have a consistent add-on user policy, customers can determine their aftermarket needs.
- Common pricing tiers with built-in volume discounts. While most Avaya products are offered in a single price tier, Call Center Elite continues to offer 3-Tier pricing, which means customers get built-in volume discounts on each transaction.

Effective May 2010, Avaya transitioned Call Center Elite upgrades to 1-Tier pricing, that is, one material code, one path, and one price, for transactional upgrades. 3-Tier pricing remains in effect for new and add-on agents.

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## Product licensing and delivery system

Communication Manager 6.0 and later releases use Product Licensing and Delivery System (PLDS).

Use Remote Feature Activation (RFA) for earlier releases on Communication Manager, for DEFINITY R10 through Communication Manager 5.2.1.

For more information about PLDS, including training, documentation, and job aids, see <http://plds.avaya.com>.

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## License enforcement

Communication Manager denies service if the number of concurrent agent login IDs exceed the licensed quantity.

For example, the Call Center Elite licensing controls the following:

- ACD Agent Limit
- BCMS Measured Agents
- BCMS Measured ACD Members
- CMS Measured ACD Members

If an agent has at least one assigned Advocate skill, Communication Manager treats the agent as an Advocate Agent.

If an agent attempts to log in to the system when the Advocate Right-to-Use (RTU) license limit is reached, Communication Manager plays a reorder tone and denies agent login.

## Glossary

<b>ASAI</b>	Adjunct-Switch Application Interface (ASAI) is a recommendation for interfacing adjuncts and communications systems, based on the CCITT Q.932 specification for layer 3.
<b>AES</b>	Application Enablement Services (AES) is an Avaya product that provides a platform for the development of CTI-based applications for Communication Manager 3.0 or later.
<b>agent surplus condition</b>	A condition where more than one agent is available, that is, idle to receive an incoming call.
<b>available agent strategy</b>	A strategy that determines how the Best Service Routing (BSR) commands in a vector identify the best skill when multiple skills have available, that is, idle agents.
<b>Avaya Aura<sup>®</sup></b>	A converged communications platform unifying media, modes, network, devices, applications. Avaya Aura <sup>®</sup> is based on the SIP architecture with Session Manager at the core.
<b>Business Advocate</b>	A Call Center Elite feature that establishes different service levels for different types of calls. For example, a company decides that a premium customer must receive service before the other types of customers.
<b>BHCC</b>	Busy-Hour Call Completion (BHCC) is a measure of the number of calls that Communication Manager successfully completes during the peak hour of a network.
<b>call vector</b>	A set of vector, that is, call or work flow scripting commands that are used to process an incoming or internal call. If Call Center Elite Multichannel is active, a non voice work item that is delivered as phantom, that is, virtual call is mapped to a Vector Directory Number (VDN) which then directs the call to a vector for call routing and call treatment.
<b>call surplus condition</b>	A condition where ACD calls are in queue and no agents are available.
<b>check best command</b>	A vector command to verify if the best found split or skill meets all the conditions in the vector before queuing a call to the split or skill. For instance, you can use the <b>check</b> command to determine if the best found split or skill has the best Expected Wait Time (EWT).
<b>consider command</b>	A vector command for collection of the Best Service Routing (BSR) status data that Communication Manager uses for comparison of splits or skills. As the <b>consider</b> command compares splits or skills, the command is

DMCC

written as a series of vector commands called a consider series. Use the **check best** and **queue-to best** commands in the consider series to identify and queue calls to the best split or skill.

**DMCC**

Device, Media, and Call Control (DMCC) is the new name for Communication Manager Application Programming Interface (API), that is, CMAPI.

**Dynamic Percentage Adjustment**

A Business Advocate feature that automatically adjusts the agent target allocations to meet the administered service level targets.

**Dynamic Queue Position**

A Business Advocate feature that queues calls from multiple VDNs to a single skill, while maintaining the service objectives of each originating VDN. For instance, DQP positions a premium customer call with an assigned service objective of 10 seconds before a regular customer call with an assigned service objective of 25 seconds. Dynamic Queue Position (DQP) is also known Service Objective by VDN.

**Dynamic Threshold Adjustment**

A Business Advocate Service Level Supervisor (SLS) feature that meets the administered service levels by automatically adjusting the overload thresholds to engage reserve agents.

**EAD-LOA**

Expert Agent Distribution-Least Occupied Agent (EAD-LOA) is an agent selection method for delivery of calls under agent surplus conditions. With EAD-LOA implemented, calls are delivered to the available, that is, idle agent with the highest skill level and the lowest percentage of work time since login. The comparison before call delivery is done for all available agents with the same skill level.

**EAD-MIA**

Expert Agent Distribution-Most Idle Agent (EAD-MIA) is an agent selection method for delivery of calls under agent surplus conditions. With EAD-MIA implemented, calls are delivered to the available agent with the highest skill level who has been idle the longest since the last ACD call that the agent received. The comparison before call delivery is done for all idle agents with the same skill level.

**ECC**

External Call Controller (ECC) is an external Media Gateway Controller (MGC) that communicates with the G250 or G350 media gateways in a network.

**first found**

A Best Service Routing (BSR) feature that delivers calls to the first available agent under agent surplus conditions.

**ICC**

Internal Call Controller (ICC) is an internal MGC that communicates with the G250 or G350 media gateways in a network.

<b>MGC</b>	Media Gateway Controller (MGC) controls the phone services on a media gateway.
<b>queue-to best command</b>	A vector command for queuing calls to the best split or skill that is determined by a consider series. See also <a href="#">consider command</a> on page 33.
<b>reserve agent</b>	An agent who is made available by Communication Manager when a critical skill does not meet its service level targets.
<b>SIP</b>	Session Initiation Protocol (SIP) is an application-layer control signaling protocol for creating, modifying, and terminating sessions with more than one participant using http like text messages.
<b>UCD-LOA</b>	Uniform Call Distribution-Least Occupied Agent (UCD-LOA) is an agent selection method for delivery of calls under agent surplus conditions. With UCD-LOA implemented, calls are delivered to the available, that is, idle agent with the lowest percentage of work time since login.
<b>UCD-MIA</b>	Uniform Call Distribution-Most Idle Agent (UCD-MIA) is an agent selection method for delivery of calls under agent surplus conditions. With UCD-MIA implemented, calls are delivered to the available agent who has been idle the longest since the last ACD call that the agent received.
<b>UDP</b>	Uniform Dial Plan (UDP) is a feature that allows a unique number assignment for each terminal in multi-switch configurations, such as a Distributed Communications System (DCS) or main-satellite-tributary system.

UDP

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