



Planning for an Avaya Aura[®] Call Center Elite Implementation

Release 6.3.6
Issue 1
June 2014

© 2014 Avaya Inc.

All Rights Reserved.

Notice

While reasonable efforts have been made to ensure that the information in this document is complete and accurate at the time of printing, Avaya assumes no liability for any errors. Avaya reserves the right to make changes and corrections to the information in this document without the obligation to notify any person or organization of such changes.

Documentation disclaimer

"Documentation" means information published by Avaya in varying mediums which may include product information, operating instructions and performance specifications that Avaya may generally make available to users of its products and Hosted Services. Documentation does not include marketing materials. Avaya shall not be responsible for any modifications, additions, or deletions to the original published version of documentation unless such modifications, additions, or deletions were performed by Avaya. End User agrees to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation, to the extent made by End User.

Link disclaimer

Avaya is not responsible for the contents or reliability of any linked websites referenced within this site or documentation provided by Avaya. Avaya is not responsible for the accuracy of any information, statement or content provided on these sites and does not necessarily endorse the products, services, or information described or offered within them. Avaya does not guarantee that these links will work all the time and has no control over the availability of the linked pages.

Warranty

Avaya provides a limited warranty on Avaya hardware and software. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya's standard warranty language, as well as information regarding support for this product while under warranty is available to Avaya customers and other parties through the Avaya Support website: <http://support.avaya.com> or such successor site as designated by Avaya. Please note that if you acquired the product(s) from an authorized Avaya Channel Partner outside of the United States and Canada, the warranty is provided to you by said Avaya Channel Partner and not by Avaya.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE, [HTTP://SUPPORT.AVAYA.COM/LICENSEINFO](http://support.avaya.com/licenseinfo) OR SUCH SUCCESSOR SITE AS DESIGNATED BY AVAYA, ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS AVAYA SOFTWARE, PURCHASED FROM AVAYA INC., ANY AVAYA AFFILIATE, OR AN AVAYA CHANNEL PARTNER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH AVAYA OR AN AVAYA CHANNEL PARTNER. UNLESS OTHERWISE AGREED TO BY AVAYA IN WRITING, AVAYA DOES NOT EXTEND THIS LICENSE IF THE SOFTWARE WAS OBTAINED FROM ANYONE OTHER THAN AVAYA, AN AVAYA AFFILIATE OR AN AVAYA CHANNEL PARTNER; AVAYA RESERVES THE RIGHT TO TAKE LEGAL ACTION AGAINST YOU AND ANYONE ELSE USING OR SELLING THE SOFTWARE WITHOUT A LICENSE. BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (HEREINAFTER REFERRED TO INTERCHANGEABLY AS "YOU" AND "END USER"), AGREE TO THESE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND AVAYA INC. OR THE APPLICABLE AVAYA AFFILIATE ("AVAYA").

Avaya grants you a license within the scope of the license types described below, with the exception of Heritage Nortel Software, for which the scope of the license is detailed below. Where the order documentation does not expressly identify a license type, the applicable license will be a Designated System License. The

applicable number of licenses and units of capacity for which the license is granted will be one (1), unless a different number of licenses or units of capacity is specified in the documentation or other materials available to you. "Software" means Avaya's computer programs in object code, provided by Avaya or an Avaya Channel Partner, whether as stand-alone products, pre-installed, or remotely accessed on hardware products, and any upgrades, updates, bug fixes, or modified versions thereto. "Designated Processor" means a single stand-alone computing device. "Server" means a Designated Processor that hosts a software application to be accessed by multiple users. "Instance" means a single copy of the Software executing at a particular time: (i) on one physical machine; or (ii) on one deployed software virtual machine ("VM") or similar deployment.

License type(s)

Concurrent User License (CU). End User may install and use the Software on multiple Designated Processors or one or more Servers, so long as only the licensed number of Units are accessing and using the Software at any given time. A "Unit" means the unit on which Avaya, at its sole discretion, bases the pricing of its licenses and can be, without limitation, an agent, port or user, an e-mail or voice mail account in the name of a person or corporate function (e.g., webmaster or helpdesk), or a directory entry in the administrative database utilized by the Software that permits one user to interface with the Software. Units may be linked to a specific, identified Server or an Instance of the Software.

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, Hosted Service, or hardware provided by Avaya. All content on this site, the documentation, Hosted Service, and the Product provided by Avaya including the selection, arrangement and design of the content is owned either by Avaya or its licensors and is protected by copyright and other intellectual property laws including the sui generis rights relating to the protection of databases. You may not modify, copy, reproduce, republish, upload, post, transmit or distribute in any way any content, in whole or in part, including any code and software unless expressly authorized by Avaya. Unauthorized reproduction, transmission, dissemination, storage, and or use without the express written consent of Avaya can be a criminal, as well as a civil offense under the applicable law.

Virtualization

Each product has its own ordering code and license types. Note that each Instance of a product must be separately licensed and ordered. For example, if the end user customer or Avaya Channel Partner would like to install two Instances of the same type of products, then two products of that type must be ordered.

Third Party Components

"Third Party Components" mean certain software programs or portions thereof included in the Software or Hosted Service may contain software (including open source software) distributed under third party agreements ("Third Party Components"), which contain terms regarding the rights to use certain portions of the Software ("Third Party Terms"). As required, information regarding distributed Linux OS source code (for those Products that have distributed Linux OS source code) and identifying the copyright holders of the Third Party Components and the Third Party Terms that apply is available in the Documentation or on Avaya's website at: <http://support.avaya.com/Copyright> or such successor site as designated by Avaya. You agree to the Third Party Terms for any such Third Party Components

Preventing Toll Fraud

"Toll Fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there can be a risk of Toll Fraud associated with your system and that, if Toll Fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Toll Fraud intervention

If you suspect that you are being victimized by Toll Fraud and you need technical assistance or support, call Technical Service Center Toll Fraud Intervention Hotline at +1-800-643-2353 for the United

States and Canada. For additional support telephone numbers, see the Avaya Support website: <http://support.avaya.com> or such successor site as designated by Avaya. Suspected security vulnerabilities with Avaya products should be reported to Avaya by sending mail to: securityalerts@avaya.com.

Trademarks

Avaya, the Avaya logo, Avaya one-X® Portal, Communication Manager, Application Enablement Services, Modular Messaging, and Conferencing are either registered trademarks or trademarks of Avaya Inc. in the United States of America and/or other jurisdictions.

All non-Avaya trademarks are the property of their respective owners. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Downloading Documentation

For the most current versions of Documentation, see the Avaya Support website: <http://support.avaya.com>, or such successor site as designated by Avaya.

Contact Avaya Support

See the Avaya Support website: <http://support.avaya.com> for Product or Hosted Service notices and articles, or to report a problem with your Avaya Product or Hosted Service. For a list of support telephone numbers and contact addresses, go to the Avaya Support website: <http://support.avaya.com> (or such successor site as designated by Avaya), scroll to the bottom of the page, and select Contact Avaya Support.

Contents

Chapter 1: Introduction	5
Purpose	5
Intended audience	5
Related resources	5
Documentation	5
Avaya Mentor videos	5
Support	6
Chapter 2: Setting up a call center	7
Setting up a call center with Call Vectoring and without EAS example	7
Non-EAS worksheet 1: Call center objectives	12
Non-EAS worksheet 2: Current split operation	13
Non-EAS worksheet 3: Customer needs	14
Non-EAS worksheet 4: Vector design	15
EAS worksheet 1: Call center objectives	16
EAS worksheet 2: Current split operation	17
EAS worksheet 3: Customer needs	18
EAS worksheet 4: Individual agent skills	19
EAS worksheet 5: Agent skills	20
EAS worksheet 6: VDN skill preferences	21
EAS worksheet 7: Vector design	22
Chapter 3: Converting a call center to EAS	23
Pre-EAS cutover administration for Communication Manager	23
Pre-EAS cutover administration for CMS	27
Pre-EAS cutover administration for AUDIX™	27
Pre-EAS cutover administration for ASAI	28
EAS cutover	28
Chapter 4: Upgrading to a Call Vectoring environment	30
Call Vectoring feature availability	30
Chapter 5: Avaya reporting adjuncts and Communication Manager compatibilities	34

Chapter 1: Introduction

Purpose

The document describes how to transition from a basic call center environment to an Expert Agent Selection (EAS) and a Call Vectoring environment.

Intended audience

This document is intended for implementation engineers and sales engineers.

Related resources

Documentation

See the following related documents.

Title	Use this document to:	Audience
Understanding		
<i>Avaya Aura® Call Center Elite Feature Reference</i>	Know about Automatic Call Distribution (ACD) and Call Vectoring features.	All users of Call Center Elite
<i>Avaya Aura® Call Center Elite Overview and Specification</i>	Know about Call Center Elite features, performance, specifications, security, licensing information.	Implementation engineers, sales engineers, and solution architects

Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

Procedure

- To find videos on the Avaya Support website, go to <http://support.avaya.com>, select the product name, and check the *videos* checkbox to see a list of available videos.
- To find the Avaya Mentor videos on YouTube, go to <http://www.youtube.com/AvayaMentor> and perform one of the following actions:
 - Enter a key word or key words in the Search Channel to search for a specific product or topic.
 - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the site.

Note:

Videos are not available for all products.

Support

Visit the Avaya Support website at <http://support.avaya.com> for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Chapter 2: Setting up a call center

Determine the goals of your organization before you set up Call Vectoring and Expert Agent Selection (EAS). Once you set the goals, you can create measurable objectives to meet the goals. You can include parameters such as call abandon rate, Automatic Call Distribution (ACD) calls per agent, or Average Speed of Answer (ASA). Measure the objectives to assess the deviation from the goal and to take corrective actions. Use the reporting adjuncts for real-time and historical reports on the ACD activities.

The following list identifies and defines some parameters that most call center managers consider when measuring ACD performance:

Volume

Number of ACD calls. (How many calls did split 1 answer?)

Productivity

Call volume per unit of time. (How many calls did split 1 answer between 8 a.m. and 9 a.m.?)

Utilization

Overall use of the phone center. (What was the agent occupancy?)

Accessibility

Availability of lines and agents when a customers calls. (Were all lines busy when customers called or did customers have to wait too long?)

Service Quality

Accuracy of information, a pleasant manner, responsiveness to caller concerns, successful completion of business, and efficient time utilization. (Was the caller given good service?)

Setting up a call center with Call Vectoring and without EAS example

Before you begin

Determine the objectives of your call center. Think about how you want your call center to handle calls. To list the objectives, use Non-EAS Worksheet #1: Call center objectives.

The basic goals of a company are to increase profits and market share and to decrease costs. The purpose of setting up a call center is to monitor the goals using Avaya Call Management System

(CMS) or Basic Call Management System (BCMS) reports. Some customers set and live by only one objective. In this case, create call center objectives to meet a single goal. Communicate the objectives to the split supervisor or to the administrator managing the call center.

The following list is an exemplary set of call center objectives:

- Establish measurable entities, such as the following:
 - Average Speed of Answer (ASA) = 15 seconds
 - Abandon rate <= 3 percent
 - Average talk time = 2 1/2 minutes
 - ACD calls per agent = 80 to 90 per day
 - Number of calls in queue = 6
 - Percentage of calls answered within the service level = 95 percent
 - Agent occupancy > 90 percent
 - Percentage of trunks busy < 3 percent
- Generate revenue through the call center.
- Train agents to back up each other.
- Train agents to provide service that meets customer expectations.

After you determine the objectives, perform the following tasks:

Procedure

1. Review your existing operation and determine your call center needs. Use Non-EAS Worksheet #2: Current split operation.
2. Assign a unique hunt group number and a call distribution method to each caller need. The hunt group number is the number of the split. Use Non-EAS Worksheet #3: Customer needs.
3. Assign the Dialed Number Identification Service (DNIS), that is, the number dialed, as a Vector Directory Number (VDN). You can assign one VDN for a main number and use Call Prompting to route the call to the proper split.

The following table illustrates the guidelines given up to this point.

Table 1: Customer or call center needs guidelines

Need	Split number	Call distribution	VDN
New policy	1	UCD	555-6543
Questions about policy, rate quotes, billing	2	UCD	555-6432
Spanish speaking for policy, service, and claims	3	DDC	555-6321
Claims	4	UCD	555-6210
Call distribution options include Direct Department Calling (DDC) and Uniform Call Distribution (UCD).			

*** Note:**

The call center has only one split for all Spanish calls. However, resources permitting, you can create new splits. For example, a New Policy split, a Service split, and a Claims split, each containing agents who speak Spanish. You can also use one main VDN to point to a Call Prompting vector designed to route the calls to the splits.

4. Assign extensions to the terminal locations.
5. In CMS, enter the number of the loginID on the **Login ID** field of the Dictionary Login Identification screen to assign a name to each loginID. CMS uses agent login IDs to identify measured ACD. If assigned, reports refer to an agent by name, not by the login ID.

The following table illustrates the assignments.

Table 2: Extension or LoginID assignments

Agent name	Extension	LoginID
Randy Tyler	1231	2000
Cathy Smith	1232	2001
Carla Silva	1238	2002
Agent name and loginID are assigned in the CMS Dictionary subsystem.		

*** Note:**

When you add names to extensions, use the same agent names as the loginID names assigned in CMS.

6. On Communication Manager, assign agent extensions to splits.

You can assign more than four splits to an agent. However, the agent can log in to a maximum of four splits. In CMS, you can view and change the agent assignment to splits on the Move Extensions Between Splits screen if the agent is logged off.

The following table illustrates the assignment of agent extensions to splits.

Table 3: Agent extension or split assignments

Split number	Agent extensions
1 - Sales	1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239
2 - Service	1231, 1232, 1234, 1238, 1239, 1240
3 - Spanish	1238, 1240, 1245
4 - Claims	1238, 1239, 1240, 1241, 1242

7. You can modify the VDN-to-vector assignments on CMS or Communication Manager. In CMS, you can assign a VDN to a vector on the VDN Assignments screen. A VDN can point to only one vector. However, a vector can have more than one VDN pointing to the vector.

The following table illustrates VDN or vector assignments.

Table 4: VDN or vector assignments

VDN	Vector
6543	1 (Sales)
6432	2 (Service)
6321	3 (Spanish)
6210	4 (Claims)

8. You can create vectors on CMS or Communication Manager. Use Non-EAS Worksheet #4: Vector design.

The vectors must match the objectives of your call center. To meet the objectives, you must make a number of decisions. For example, you can decide how quickly you must increase an agent pool or what kind of treatment must callers receive. If the VDN and vector reports do not satisfy your call center objectives, you must take corrective actions. For instance, you can train agents or increase the time elapsed from when a call queues to one split and then to another split.

The following lists indicate the actions produced by two different vectors:

Actions produced by vector 1:

- a. Vector 1 prompts the caller to select one of the following:
 - 1 = Sales
 - 2 = Service
 - 3 = Spanish
 - 4 = Claims
 - 0 = Service
- b. Vector 1 queues the call.
- c. Vector 1 plays an announcement to the caller.

Actions produced by vector 2:

- a. Vector 2 queues the call to the correct service at a medium priority.
- b. If no agents are available, vector 2 provides a message and then plays music.
- c. If the call is not answered within 10 seconds, vector 2 provides a second message and then plays music.
- d. If the call is not answered within 7 more seconds, vector 2 queues the call to the Service split.
- e. If the call is not answered within 7 more seconds, vector 2 queues the call to the Spanish split at a high priority.

 Note:

A **check split** command queues the call to up to three splits if the conditions are met. If the conditions are not met, the **check split** command does not get read again, if the vector step in which the command appears is not executed again.

9. In CMS, on the Dictionary screen, assign names to the splits, VDNs, and vectors.
10. Once the system is up and operational, ensure the system meets all the objectives of your call center.

Use CMS to measure deviations from the objectives. You must monitor and adjust some objectives in real time. For example, if the number of calls waiting, the ASA, or the percentage of answered call within a service level does not meet the objectives, you must take corrective actions. You can move some agents immediately, direct calls to another vector, or look-ahead interflow some calls. You must monitor items, such as the agent occupancy and the percentage of all trunks busy, to spot trends.

Non-EAS worksheet 1: Call center objectives

[illegible]

Non-EAS worksheet 2: Current split operation

Split: _____		
Primary backup: _____	Secondary backup: _____	Tertiary backup: _____
List your customer or caller needs and your agent knowledge levels for this split:		
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		
9. _____		
Split: _____		
Primary backup: _____	Secondary backup: _____	Tertiary backup: _____
List your customer or caller needs and your agent knowledge levels for this split:		
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		
9. _____		

Non-EAS worksheet 3: Customer needs

[illegible]

Non-EAS worksheet 4: Vector design

[illegible]

EAS worksheet 1: Call center objectives

[illegible]

EAS worksheet 2: Current split operation

Split: _____							
Primary backup			Secondary backup			Tertiary backup	
Customer or caller needs and agent skill sets in the split:					Is agent expertise available? (y/n)		Separate skill sets with EAS? (y/n)
1. _____					_____		_____
2. _____					_____		_____
3. _____					_____		_____
4. _____					_____		_____
Split: _____							
Primary backup			Secondary backup			Tertiary backup	
Customer or caller needs and agent skill sets in this split:					Is agent expertise available? (y/n)		Separate skill set with EAS? (y/n)
1. _____					_____		_____
2. _____					_____		_____
3. _____					_____		_____
4. _____					_____		_____

EAS worksheet 3: Customer needs

[illegible]

EAS worksheet 4: Individual agent skills

[illegible]

EAS worksheet 5: Agent skills

Agent name	Login ID	1st skill	2nd skill	3rd skill	4th skill	COR

EAS worksheet 6: VDN skill preferences

[illegible]

EAS worksheet 7: Vector design

[illegible]

Chapter 3: Converting a call center to EAS

Before you begin

Before you transition to EAS, you must take decisions on the following issues:

- **Dial Plan:** The area of the current dial plan that you will use for EAS agent login IDs. EAS agent login IDs cannot conflict with already defined extension numbers. For example, an EAS agent login ID cannot be the same as a station extension number.
- **VDNs and Vectors:** Determine if the current incoming call routing through VDNs and vectors will remain the same after the EAS upgrade or you will create new VDNs and vectors.
- **Call Traffic:** The method of handling an incoming call traffic during EAS cutover.

You can start the pre-EAS cutover administration in preparation for the conversion of the call center to EAS.

Note:

Non-EAS ACD call handling and agent operations are unaffected even after you make the EAS administration changes. Once the cutover to EAS is completed, all non-EAS ACD call handling and agent operations cease.

Pre-EAS cutover administration for Communication Manager

Procedure

1. At the command prompt, type `display system-parameters customer-options` to ensure that the field option in the **ACD**, **Expert Agent Selection**, and **Vectoring (Basic)** fields is **y**.

If you use increased capacities of Expert Agent Selection-Preference Handling Distribution (EAS-PHD), ensure that the field option in the **Expert Agent Selection-Preference Handling Distribution** field is **y**.
2. On the Feature Access Code (FAC) screen, administer FACs.
3. In the **Agent Login ID - Record** field on the CDR System Parameters screen, select **y** so that the EAS login ID or the terminal extension where the agent is logged in appears on the Call Detail Record (CDR) reports.
4. For new Vector Directory Numbers (VDNs) in the EAS environment, use the Vector Directory Number screen to administer VDN skills and other VDN-related information.

Administer the 1st, 2nd, and 3rd skill fields associated with the VDNs to use the skill options in the vectors or for Avaya Call Management System (CMS) tracking.

5. On the Vector screen, administer the vectors associated with the VDNs added in the previous step.

You can use the **1st Skill**, **2nd Skill**, and **3rd Skill** fields in the vector step fields where a skill hunt group is entered instead of entering an absolute skill hunt group number.

6. On the Hunt Group screen, administer new skill hunt groups.

 Note:

If you administer the **Skills** field as **y**, the system automatically administers the **ACD** and **Vector** fields as **y**. If you administer the **EAS** field as **y**, you cannot administer members for a skill hunt group.

7. On the Coverage Path screen, assign coverage paths for the EAS agent login IDs.

 Note:

Coverage treatment is different for an EAS direct agent call, where the calling party and the called login ID have the **Direct Agent Calling COR** field administered as **y**, and an EAS personal call where the calling party or the called login ID does not have the **Direct Agent Calling COR** field administered as **y**.

 Note:

Communication Manager routes a direct agent call to an EAS agent as an ACD call. The coverage behavior is, therefore, considerably different from the coverage for a normal station call. For example, if an EAS agent is not available for an ACD call when a direct agent call is made to the agent, the direct agent call is queued to the direct agent skill administered on the Agent Login ID screen after initiating a ring and then fluttering the active work-mode button at the agent station. On the other hand, a personal call to an EAS agent is not an ACD call and the coverage behavior is similar to the coverage treatment for a call to a station extension. For example, a personal call to an EAS agent who is busy on another call results in the call being sent to an idle call appearance at the agent station.

Based on the type of coverage criteria for direct agent and personal calls to EAS login IDs, administer the following coverage path criteria:

- **Active:** To provide coverage for a non-ACD personal call when the EAS agent is logged in and active on another call appearance, administer the **Active** field coverage criteria as **y**. The **Active** field coverage criteria does not apply for a direct agent call to an EAS login ID.
- **Busy:** To provide coverage for calls when the EAS agent is logged out of the system, administer the **Busy** field coverage criteria as **y**. Apply the **Busy** field coverage criteria to a logged-in EAS agent when one of the following conditions occur:
 - A direct agent call is made to an EAS agent, but there are no available queue slots in the first skill hunt group of the agent.
 - A personal call is made to an EAS agent, but the agent station has no idle call appearances.

- **Don't Answer:** To provide coverage for calls when the EAS agent is logged in but does not answer after a certain number of ring cycles, administer the **Don't Answer** field coverage criteria as **y** and enter a number to indicate the ring timeout in the **Number of Rings** field.
 - **All:** To provide immediate coverage for calls whether the agent is logged in or logged out, administer the **All** field coverage criteria as **y**.
 - **DND/SAC/Goto Cover:** To provide coverage for calls when the call is to a logged-in EAS agent who has activated the Send All Calls (SACs) or Go To Cover features, administer the **DND/SAC/Goto Cover** field coverage criteria as **y**.
8. You can link up to three coverage paths for different types of call coverage criteria by administering the **Next Path Number** field on the Coverage Path screen.

If the criteria for the first coverage path are not met, the system checks the criteria for the next linked coverage path. This can be used to provide different coverage paths for calls when the associated EAS agent is logged in or logged out.

 Note:

If a call to a logged-in EAS agent is a personal call and coverage goes into effect, the redirected call maintains a simulated bridged appearance at the terminal of the agent. The agent answers the call after redirection takes place by going off-hook on the line appearance. However, if a call to a logged-in EAS agent is a direct agent call, the redirected call does not maintain a simulated bridged appearance at the terminal of the agent. The agent does not answer the call after redirection takes place.

 Note:

If you administer the **Redirection on No Answer (RONA)** field as **y** for skill hunt groups, administer the ring timeout interval for RONA to match the coverage ring timeout criteria.

9. If you administer the coverage paths for the EAS login IDs on the Feature-Related System Parameters screen, administer the **Coverage - Subsequent Redirection No Answer Interval** field to a ring timeout interval for calls routed to administered coverage points.

 Note:

You can administer EAS login IDs as coverage points for a coverage path. The administered coverage no-answer interval applies to direct agent or personal calls made to the coverage points as well.

10. In the **Direct Agent Calling** field on the Class of Restriction screen, select **y** to assign a Class of Restriction (COR) number to one of the following:
- A trunk or station user who sends direct agent calls to an EAS agent.
 - An EAS agent who receives direct agent calls.
11. If you administer the EAS agent login ID passwords on the Feature-Related System Parameters screen, administer the **Minimum Agent-LoginID Password Length** field to a length from 0 to 9 digits. You must specify the number when you administer agent passwords on the Agent Login ID screen.

The total number of digits assigned to a password is between the value of the **Minimum Agent-Login ID Password Length** field and 9 digits. If you administer a password for an agent login ID, the agent must enter the password in addition to the login ID.

12. On the Agent Login ID screen, add the desired EAS login IDs to be associated with human agents, AUDIX™ ports, or Auto-Available Split (AAS) VRU ports.

For human agents, administer the following fields:

- **Name**
- **COR**
- **Skills**

For human agents, administer the following optional fields:

- **Coverage Path**
 - **LWC Reception**
 - **Password**
 - **Security Code**: Optional for Demand Print feature.
 - **AUDIX Name**: If the field option in the **LWC Reception** field is **audix** or if an administered coverage path for the agent has an AUDIX™ coverage point.
13. When the AUDIX™ and AAS VRU port extensions are associated with ACD hunt groups, ensure that the extensions are associated with skill hunt groups as part of the cutover to EAS.

For skill hunt groups used for AAS ports, administer the **AAS** field as **y** for the hunt groups before you administer an EAS AAS agent.

 Note:

AUDIX™ hunt groups are not required to be vector-controlled, which allows for Adjunct Switch Application Interface (ASAI) monitoring of the skill hunt group.

If AUDIX™ port extensions, such as for the Embedded AUDIX™ product, are not associated with an ACD hunt group, the ports do not require administration as part of the cutover to EAS. Add EAS agent login IDs for the AUDIX™ or AAS ports that are associated with ACD hunt groups and administer only the following fields:

- **Name**
- **COR**
- **Coverage Path**: This field is optional.
- **AUDIX** : Administer as **y** for AUDIX™ ports.
- **AAS**: Administer as **y** for AAS VRU ports.
- **Port Extension**: Assign the AUDIX™ or AAS port extension administered in the non-EAS environment.
- **Skills**: Assign a single skill for the skill hunt group associated with the AUDIX™ or AAS station ports.

14. On the Station screen, administer the stations for EAS agents and the work-mode buttons for each station.

If you administered stations with work-mode buttons associated with splits, do not re-administer the buttons for EAS. If you add new work-mode buttons to the station, you cannot type data in the **Grp** field after you administer the **EAS** field as **y**, except for the **aux-work** button. Administer the **aux-work** button with a hunt group number if the entered hunt group is a non-ACD hunt group.

If you administer more than one set of work-mode buttons on a station set, the system leaves the buttons as is until after the cutover to EAS. After the cutover, remove the extra sets of work-mode buttons because EAS requires only one set of work-mode buttons for agent operations.

Pre-EAS cutover administration for CMS

For information about how to configure Call Management System (CMS) for Expert Agent Selection (EAS), see *Avaya Call Management System Administration*.

Pre-EAS cutover administration for AUDIX™

Before you begin

To administer Expert Agent Selection (EAS) agent login IDs with a coverage path that routes to an AUDIX™ coverage point, use the AUDIX™ console so that the caller hears the appropriate AUDIX™ voice response for calls made to login IDs.

Procedure

1. At the command prompt, type `change agent-loginID xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
2. Administer the following on the Agent Login ID screen:
 - AUDIX™ name: To provide an AUDIX™ coverage for calls to EAS agents.
 - Leave Word Calling (LWC) message: To receive LWC messages to AUDIX™ for EAS agent login IDs.
3. Press **Enter** to save the changes.

Pre-EAS cutover administration for ASAI

Procedure

1. Upgrade the ASAI-related application software on the adjunct.
2. Administer specialized vectors to launch calls from Vector Directory Numbers (VDNs). Splits launch Outgoing Call Management (OCM) calls in a non-EAS environment.

EAS cutover

Before you begin

After you complete all pre-EAS activities, administer the EAS feature. Prior to EAS cutover, back up the current Communication Manager translations for recovery in case of difficulties during cutover. As the transition to EAS deletes all ACD hunt group members, the pre-EAS backup saves time when restoring non-EAS hunt group translations.

Block incoming ACD call traffic to prevent queuing of new ACD calls to existing splits during the cutover from the non-EAS to EAS environment. To block new incoming calls, perform one or both of the following tasks:

- Busy out the appropriate trunk groups.
- Administer the first vector step for actively-used incoming call vectors as the **busy** step.

After you block the calls, perform the following tasks:

Procedure

1. Ensure that all EAS agents are logged out of all splits. If Basic Call Management System (BCMS) or Call Management System (CMS) is operational, use the CMS real-time reports for splits or the `mon bcms split` command to identify stations where agents are still logged in.
2. Type `busy mis` to busy-out the CMS link.
3. Type `busy link xxx` to busy-out any AUDIX™ switch-to-adjunct links.
4. Type `busy station xxx` to busy-out any AAS ports.
5. In the **Skill** field on the Hunt Group screen, select **y** to change the split hunt groups to skill hunt groups.
6. Administer the **Expert Agent Selection (EAS)** and **Adjunct CMS Release** fields on the Feature-Related System Parameters screen.
7. If CMS is installed, type `release mis` to release the CMS link.
8. Check CMS for EAS authorization. Change the switch setup in CMS to track data and to establish a communication link between Communication Manager and CMS.
9. Inform the onsite agents to follow the EAS login procedure to log in to the system. The agents are now available to receive ACD calls using the auto-in or manual-in work mode.

10. Restore the vector steps that you busied out to the previous vector step format. You must busy out vector steps before the cutover to block incoming calls.
11. On the Trunk Group screen, change call routing for incoming trunks to EAS-related VDNs. Administer the **Incoming Destination** field for the trunk groups to the appropriate VDN extension number.
12. Type `release station xxx` to release AAS ports.
13. Type `release link xxx` to release the adjunct AUDIX™ links.
14. Back up the switch translations after the cutover to preserve EAS-related administration changes. If you have administered agent stations with multiple sets of work mode buttons, delete all but one set of work mode buttons.

Chapter 4: Upgrading to a Call Vectoring environment

About this task

If you have ACD and want to use Call Vectoring, you must upgrade to a Call Vectoring environment. This involves installing VDNs, vectors and hunt groups for the desired Call Vectoring features.

The set of guidelines that follows serves as a general procedure for upgrading to a Call Vectoring environment.

Procedure

1. Verify the vector options on the System-Parameters Customer-Options screen.
2. Add VDNs.
3. Evaluate the number of queue slots assigned to each split. Assign queue slots to allow all calls processed by Call Vectoring to be queued.
4. Change hunt-groups to be vector-controlled.
5. Administer the vectors and one test hunt group at the minimum.
6. Test all the vectors to be installed.
7. Change the trunk groups and night destinations to use the VDNs.

Call Vectoring feature availability

Vectoring enhancement	Description
Vectoring (G3V4 Enhanced)	Provides the following capabilities: • The ability to specify a priority level with the oldest-call-wait conditional on the check and goto commands. • The use of enhanced comparators, such as <>, >=, and <=, with the goto and route-to commands, none as an entry for digits checking, and active or latest Vector Directory Number (VDN) thresholds for indirect VDN references. • The use of the interflow-qpos conditional with the goto and route-to commands to achieve First In First Out (FIFO) or FIFO-like call processing.

Vectoring enhancement	Description
	• The use of wild cards in digit strings to match collected digits and Automatic Number Identification (ANI) or Information Indicator Digits (II-Digits). • The use of Vector Routing Tables to match collected digits and ANI or II-Digits. • The use of multiple audio or music sources for use with the wait-time command.
Vectoring (G3V4 Advanced Routing)	Provides the following capabilities: • Rolling Average Speed of Answer (ASA) routing • Expected Wait Time (EWT) routing • VDN calls routing The field option in the Vectoring (G3V4 Enhanced) field on the System-Parameter Customer-Options screen must be y. For more information, see <i>Avaya Aura® Call Center Elite Feature Reference</i>.
Vectoring (ANI/II-Digits Routing)	Provides the following additional capabilities. • ANI routing • II-Digits routing The field option in the Vectoring (G3V4 Enhanced) field on the System-Parameter Customer-Options screen must be y. For more information, see <i>Programming Call Vectoring Features in Avaya Aura® Call Center Elite</i>.
Vectoring (CINFO)	Provides the ability to collect Caller Entered Digits (CED) and Customer Database Provided Digits (CDPD) for a call from the network. The field option in the Call Prompting field on the System-Parameter Customer-Options screen must be y.
Vectoring (Best Service Routing)	Automatically compares splits or skills in Automatic Call Distribution (ACD) environments to find the split or skill that can provide the best service to each caller. You can operate Best Service Routing (BSR) at a singlesite or use BSR with Look-Ahead Interflow (LAI) to integrate a network of geographically distributed locations into a virtual call center.
Vectoring (Best Service Routing) without LAI enabled (singlesite BSR)	Provides the following capabilities: • The use of the consider split/skill command. • The use of the best keyword with queue-to, check, and goto commands. • The wait-improved conditional for check and goto commands. For a call that has already been queued, you can use the wait-improved conditional to make any subsequent queuing conditional on the improvement in Expected Wait Time (EWT) and not the EWT of the call in the current queue.
Vectoring (Best Service Routing) with LAI enabled (multisite BSR)	Provides the following capabilities: • The use of the consider split/skill and consider location commands.

Vectoring enhancement	Description
	• The use of the reply-best command to return data to the sending switch in response to a status poll. • The use of the best keyword with queue-to, check, and goto commands. • The wait-improved conditional for check and goto commands. For a call that has already been queued, you can use the wait-improved conditional to make any subsequent queuing conditional on the improvement in EWT and not the EWT of the call in the current queue. Enhanced Information Forwarding sends existing and new call information, such as Universal Call ID and BSR. With Timed After Call Work (TACW), you can assign a timed ACW interval to a VDN.
Vectoring (Holidays)	Simplifies vector writing for holidays. With Holiday Vectoring, you can administer 999 different Holiday Tables to make vectoring decisions. Each table can contain up to 15 dates or date ranges.
Vectoring (Variables)	Creates variables that you can use in vector commands to: • Improve the general efficiency of vector administration. • Provide increased application control over call treatments. • Create more flexible vectors to better serve the call center operations. The vector variables are defined in a central variable administration table. You can change the values assigned to some types of variables using special vectors, VDNs or Feature Access Codes (FACs). Different types of variables match different types of call processing needs. Depending on the variable type, variables can use either call-specific data or fixed values that are identical for all calls. In either case, you can reuse an administered variable in many vectors.
Vectoring (3.0 Enhanced)	Provides the following capabilities: • An increase in the number of Auxiliary (AUX) work time reason codes from the limit of 10 codes (0-9) to 100 codes (0-99). • The ability to administer the following ACD options for individual agents: - MIA Across Skills - ACW Agent Considered Idle - Aux Work Reason Code Type - Logout Reason Code Type • Forced Agent Logout from After Call Work (ACW): Automatically logs out an EAS agent who spends too much time in the ACW mode. Enhanced vectoring specifies the timeout period on a system and an agent basis. Enhanced vectoring reports the timeout with a customer-assignable reason code set on a system basis. • Location Preference Distribution: Attempts to route incoming ACD calls to agents located at the same location as the incoming trunk on which the call originated. If

Vectoring enhancement	Description
	there is a choice, calls are routed to agents at a different location only if a locally-routed call cannot meet the administered objectives for speed of answer or service level. • Locally-sourced Music and Announcements: Call centers can use any or all the VAL or vVAL sources in the gateways as sources for the same announcement. This feature can improve the quality of the audio, reduce resource usage, and provide backup for announcements because a working announcement source with the same announcement file can be selected from the sources. For more information, see <i>Administering Avaya Aura® Call Center Elite</i>. • Vector Subroutines: For common vector programs. Different vectors use subroutines without duplicating the same sequence in each vector. Subroutines significantly decrease the number of steps and vectors. • VDN Variables: A single vector can support multiple VDNs. • Return command: Returns vector processing to the step following the goto vector command after a subroutine is processed. • Set command: To perform numeric and digit string operations and to assign values to a user-assignable vector variable or to the digits buffer during vector processing. • The addition of the following variable types: - <i>ani</i> - <i>stepcnt</i> - <i>vdntime</i> • The addition of three registered and unregistered vector conditionals with the goto step or goto vector commands that are used to set up alternate routing of calls. The three conditionals test the type of server that is processing the vector. The conditionals also test the registration status of media gateways and port networks connected with the server. The three conditionals are as follows: - Media-gateway: Monitors the H.248 Media Gateway registration status. - Port-network: Monitors the port network gateway registration status. - Server: Monitors the type of server currently processing the vector step for the call. • VDN Time-Zone Offset: Designed for call centers with locations in different time zones. You can program a single vector that handles each time zone based on the active VDN for the call.

Chapter 5: Avaya reporting adjuncts and Communication Manager compatibilities

Avaya IQ 5.1, Call Management System (CMS) R16.1, and Communication Manager 6.0, 6.1, 6.2, and 6.3 provide full reporting support including support for all enhancements and capacity increases.

You can administer Communication Manager to work with earlier releases of CMS or Avaya IQ on a limited feature and capacity basis.

The following table lists the field options for the **CMS (appl mis)** and **IQ (appl ccr)** fields on the Feature-Related System Parameters screen.

CMS (appl mis)	IQ (appl ccr)
• R16.1/R16.x • R16/R15 • R14.1 • R14 • R13.1 • R13 • R12	• 5.1/5.2 • 5.0 • 4.0: This field option applies to Avaya IQ 4.0, 4.1, and 4.2.
 Note: R12 and R13 are incompatible with Avaya IQ.	

The following table lists the minimum release field entry combinations for the **CMS (appl mis)** and **IQ (appl ccr)** fields.

The table also lists the Switch Protocol Interpreter (SPI) language that Communication Manager uses to establish connections with the reporting adjuncts.

CMS release setting	Avaya IQ release setting	SPI language
R13.1	4.0	20
R14	4.0	21
R14.1	4.0	21
R15/R16	5.0	22

CMS release setting	Avaya IQ release setting	SPI language
R16.1/R16.x	5.1/5.2	23
 Note: To use CMS R17.0, select R16.1/R16.x in the CMS (appl mis) field for SPI language 23 support.		

To use other combinations of CMS and Avaya IQ releases, select the lowest release of one reporting adjunct, that is, CMS or Avaya IQ, enter the supported release for the other reporting adjunct, and set the Communication Manager release on the respective reporting adjuncts to the lowest release supported by the lowest release of the reporting adjunct.

For example, to configure CMS R13.1 with Avaya IQ 5.1, set:

- **CMS (appl mis)** to **R13.1**
- **IQ (appl ccr)** to **4.0**
- Communication Manager release to **3.1**, which is the lowest Communication Manager release supported by the lowest reporting adjunct release of the combination.

 Note:

For backward compatibility, set the Communication Manager release on CMS or Avaya IQ to the latest Communication Manager release supported by the earlier release reporting adjunct.

To connect CMS and Avaya IQ to Communication Manager, match the releases of the two reporting adjuncts and the assignment of the Communication Manager release on the adjuncts using the release settings that are required to run the same link interface protocol language, that is, the SPI language.

With Communication Manager 6.3, the number of locations for the Multiple Locations feature increased from 250 to 2000. Call Center Elite and the CMS and Avaya IQ reporting adjuncts do not support the increase in locations.

Until support is available in a future release, the Communication Manager administration will display a warning message when the system already has:

- Locations or network regions above 250 and you attempt to administer a CMS or an Avaya IQ release that does not support the increase in locations.
- A CMS or an Avaya IQ release that does not support the increase in locations and you attempt to add a location or network region above 250.

Communication Manager converts any location number above 250 to the default zero (0) location and sends the default location to the reporting adjunct as the location for an agent or a trunk. CMS or Avaya IQ system reports display the location as location zero (0).

ACD

Automatic Call Distribution (ACD) is a telephony feature for processing and distributing inbound, outbound, and internal calls to groups of extensions.

ACD call

A call that Communication Manager:

- Delivers to an agent with the required skill.
- Delivers to an agent or puts in a queue as a direct agent call.
- Puts in a queue for an agent skill.

ACD split

A method of routing calls of a similar type among agents in a call center. Also, a group of extensions that are staffed by agents trained to handle a certain type of incoming call.

agent occupancy

The ratio of the total time spent on ACD calls and call-related activities, such as ACW, to the total staffed time in a skill.

ASA

Average Speed of Answer (ASA) is the average number of seconds that a call waits in a queue before an agent answers the call. ASA includes the queue time and the station ring time.

ASAI

Adjunct-Switch Application Interface (ASAI) is an Avaya protocol that applications use to gain access to the call-processing capabilities of Communication Manager.

AUDIX™

Audio Information Exchange (AUDIX™) is an Avaya messaging system.

BCMS

A software package residing on Communication Manager that monitors the operations of ACD systems. Basic Call Management System (BCMS) collects data related to the calls on Communication Manager and organizes data into reports that help supervisors manage ACD facilities and personnel.

best

The split/skill or location that can provide the best service to a caller as determined by BSR.

CMS

A software program for reporting and managing agents, splits, trunks, trunk groups, vectors, and VDNs. With Call Management System (CMS), you can also administer some ACD features.

CDR reports

Call Detail Recording (CDR) reports contain information about incoming calls and outgoing calls for accounting and administrative purpose.

cdpd

Customer Database Provided Digits (CDPD).

ced

Caller-Entered Digits (CED) are digits that a caller enters in response to system prompts

CO

Central Office (CO) is a switch that a local phone company owns to provide local phone service (dial-tone) and access to toll facilities for long-distance calling.

check best

A vector command that Communication Manager uses to verify if the best found split or skill meets all the conditions in the vector. For example, Communication Manager can use the **check** command to verify if the best found split or skill has the best Expected Wait Time (EWT).

consider

A vector command for collection of Best Service Routing (BSR) status data that Communication Manager uses for comparison of splits or skills. Use the **check best** and **queue-to best** commands in the consider series to identify and queue calls to the best split or skill.

COR

Class of Restriction (COR) is a feature that allows classes of call-origination and call-termination restrictions for phones, phone groups, data modules, and trunk groups.

coverage answer group

A group of up to eight telephones that ring simultaneously when a call is redirected by Call Coverage. Any one of the group can answer the call.

coverage path

An order in which calls are redirected to alternate answering positions.

coverage point

An extension or attendant group, VDN, or ACD split designated as an alternate answering position in a coverage path.

covering user

A person at a coverage point who answers a redirected call.

DDC

A call distribution method with which Communication Manager routes calls to the first available agent in the sequence of administration. Direct Department Calling (DDC) is also called hot seat distribution.

EWT

Expected Wait Time (EWT) is an estimate of how long must a call wait in a queue before an agent answers the call. Communication Manager calculates EWT based on the current call traffic, past call traffic, call handling time, and agent staffing conditions.

LWC reception

The storage point for Leave Word Calling (LWC) messages.

network region

A group of IP endpoints and Communication Manager IP interfaces that are interconnected by an IP network.

queue

An ordered sequence of calls waiting to be processed.

queue-to best

A vector command for queuing calls to the best split or skill that is determined by a consider series.

simulated bridged appearance

A feature with which a terminal user can bridge onto a call answered by another user. A simulated bridged appearance is a temporary bridged appearance.

split number

An identification of the split to Communication Manager and to BCMS.

status poll

A call that Communication Manager makes to gain status data from a remote place in a multisite BSR application plan.

trunk

A dedicated telecommunications channel between two communications systems or Central Offices (COs).

trunk group

An arrangement of communication channels that carry multiple calls for the same phone number.

VAL

Voice Announcement over LAN (VAL) is a circuit pack for announcements that you can store on an external file server in your LAN. Use this circuit pack to share stored announcements across multiple systems.

VDN

Vector Directory Number (VDN) is an extension number that directs calls to a vector. VDNs can represent a call type or a service category, such as Billing or Customer Service.

vector-controlled split

A hunt group that you can gain access to only by dialing a VDN extension.

vector subroutine

A sequence of vector commands that you can reuse in different call vectors. For example, you can use a subroutine in all call vectors to determine whether an incoming call arrives within business hours.

VIV

Variables in Vectors (VIV) is a Call Vectoring feature with which you can create variables for use with vector commands. VIV includes letters from A to Z or AA to ZZ that you can use as conditionals or thresholds.

work mode

A function that an agent performs during the work shift. ACD work modes include AUX work, auto-in, manual-in, and ACW.

Index

A

ACD	
performance indicators	7
advanced routing	30
ANI routing	30
audience	5

B

BSR	
multisite	30
singlesite	30
virtual call center	30
with LAI	30

C

call center setup	
call vectoring	7
non-EAS	7
call prompting	30
call vectoring	
upgrading	30
Communication Manager compatibility	
CMS releases	34
IQ releases	34
converting to EAS	23

D

document purpose	5
------------------------	-------------------

E

EAS	
worksheet	16
EAS cutover	28
enhanced vectoring	30
EWT routing	30

H

holiday vectoring	30
-------------------------	--------------------

I

II-Digits routing	30
interflow-qpos conditional, using	30

R

reporting adjunct compatibility	34
---------------------------------------	--------------------

S

simulated bridged appearance	23
singlesite BSR	30
skills, comparing	30
support	
contact	6

V

vector subroutines	30
vector variables	30
videos	5