



Avaya Business Advocate User Guide

Release 6.2
07-300653
Issue 2
December 2012

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 generally makes available to users of its products. 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 its hardware and Software ("Product(s)"). 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>. Please note that if you acquired the Product(s) from an authorized Avaya reseller outside of the United States and Canada, the warranty is provided to you by said Avaya reseller and not by Avaya. "Software" means computer programs in object code, provided by Avaya or an Avaya Channel Partner, whether as stand-alone products or pre-installed on hardware products, and any upgrades, updates, bug fixes, or modified versions.

Licenses

THE SOFTWARE LICENSE TERMS AVAILABLE ON THE AVAYA WEBSITE, [HTTP://SUPPORT.AVAYA.COM/LICENSEINFO](http://support.avaya.com/licenseinfo) ARE APPLICABLE TO ANYONE WHO DOWNLOADS, USES AND/OR INSTALLS AVAYA SOFTWARE, PURCHASED FROM AVAYA INC., ANY AVAYA AFFILIATE, OR AN AUTHORIZED AVAYA RESELLER (AS APPLICABLE) UNDER A COMMERCIAL AGREEMENT WITH AVAYA OR AN AUTHORIZED AVAYA RESELLER. 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 AUTHORIZED RESELLER; 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. "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.

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.

Heritage Nortel Software

"Heritage Nortel Software" means the software that was acquired by Avaya as part of its purchase of the Nortel Enterprise Solutions Business in December 2009. The Heritage Nortel Software currently available for license from Avaya is the software contained within the list of Heritage Nortel Products located at <http://support.avaya.com/LicenseInfo> under the link "Heritage Nortel Products". For Heritage Nortel Software, Avaya grants Customer a license to use Heritage Nortel Software provided hereunder solely to the extent of the authorized activation or authorized usage level, solely for the purpose specified in the Documentation, and solely as embedded in, for execution on, or (in the event the applicable Documentation permits installation on non-Avaya equipment) for communication with Avaya equipment. Charges for Heritage Nortel Software may be based on extent of activation or use authorized as specified in an order or invoice.

Copyright

Except where expressly stated otherwise, no use should be made of materials on this site, the Documentation, Software, or hardware provided by Avaya. All content on this site, the documentation 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.

Third Party Components

"Third Party Components" mean certain software programs or portions thereof included in the Software that 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"). 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>. 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>. 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, and "Linux" is a registered trademark of Linus Torvalds.

Downloading Documentation

For the most current versions of Documentation, see the Avaya Support website: <http://support.avaya.com>.

Contact Avaya Support

See the Avaya Support website: <http://support.avaya.com> for product notices and articles, or to report a problem with your Avaya product. For a list of support telephone numbers and contact addresses, go to the Avaya Support website: <http://support.avaya.com>, scroll to the bottom of the page, and select Contact Avaya Support.

Contents

Chapter 1: Introduction	7
Purpose	7
Intended audience	7
Document changes since last issue	7
Related resources	7
Documentation	7
Avaya Mentor videos	8
Support	8
Chapter 2: Business Advocate overview	9
Feature combinations to meet business objectives	9
Selection methods	11
Agent selection methods	11
Agent selection examples	12
Call selection methods	14
Call selection measurement	18
Call selection examples	19
Automated agent staffing	21
Auto Reserve Agents	22
Dynamic Percentage Adjustment	22
Service Level Supervisor	23
Selection methods and feature compatibility	25
Agent licensing	26
Chapter 3: Business Advocate examples	27
Example of balancing agent workload	27
Screen reference for balancing agent workload	29
Reports for reviewing agent workload	30
Example of increasing call handling efficiency	30
Screen reference for increasing call handling efficiency	33
Reports for reviewing call handling efficiency	34
Example of maintaining service levels	34
Screen reference for maintaining service levels	36
Reports for reviewing service levels	37
Example of managing unexpected call volume	38
Screen reference for managing call volume	41
Reports for reviewing call volume	42
Example of segmenting the customer base	43
Screen reference for segmenting the customer base	45
Reports for reviewing the effects of segmenting the customer base	45
Chapter 4: Administering Business Advocate	47
Administering Business Advocate through Communication Manager	48
Adding Business Advocate licenses to the total ACD agent count	48
Business Advocate screen reference	49
Administering Call Selection Measurement	54
Administering Greatest Need	55

Administering Service Level Supervisor.....	55
Administering Skill Level.....	57
Using Percent Allocation.....	58
Using Service Objective.....	60
Administering Business Advocate through CMS Supervisor.....	63
Administering the existing agent login IDs.....	63
Change Agent Skills window.....	64
Multi-Agent Skill Change window.....	67
Administering service level.....	70
Database items and calculations.....	71
Chapter 5: Feature interactions.....	81
BCMS and VuStats interactions.....	81
Direct Agent Calls interactions.....	81
Location Preference Distribution interactions.....	82
Percent Allocation interactions.....	82
Service Level Supervisor interactions.....	83
Service Objective interactions.....	84
Work time and occupancy interactions.....	85
Index.....	87

Chapter 1: Introduction

Purpose

This document describes how to use Business Advocate for call selection and agent selection.

Intended audience

This document is intended for contact center managers, system administrators, and supervisors.

Document changes since last issue

The following changes have been made to this document since the last issue:

- Added a new topic: [DQP effects on call selection](#) on page 62.
 - Corrected the maximum range for [Dynamic Threshold Adjustment](#) on page 24. The range is between 0% to 200% of the administered value.
-

Related resources

Documentation

The following table lists the documents related to Business Advocate. Download the documents from the Avaya Support website at <http://support.avaya.com>.

Title	Description	Audience
Administration		
<i>Administering Avaya Aura® Call Center Elite Features</i>	Call Center Elite screen reference and administration steps	Implementation engineers and system administrators
<i>Administering Avaya Aura® Communication Manager</i>	Communication Manager screen reference and administration steps	Implementation engineers and system administrators
Overview		
<i>Avaya Aura® Call Center Elite Overview and Specification</i>	Call Center Elite overview, salient features, and specifications	Implementation engineers, sales engineers, and solution architects
Understanding		
<i>Avaya Aura® Call Center Elite Feature Reference</i>	Automatic Call Distribution (ACD) and Call Vectoring features	Implementation engineers, sales engineers, and solution architects

Avaya Mentor videos

Avaya Mentor is an Avaya-run channel on YouTube that includes technical content on how to install, configure, and troubleshoot Avaya products.

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.

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: Business Advocate overview

Business Advocate is an Avaya Aura® Call Center Elite feature that uses a patented routing algorithm to:

- Manage agents and call volumes.
- Meet service levels.
- Predict call wait time.
- Reduce agent burnout.

Business Advocate automates the activation of reserve agents to prevent overflow of calls in a queue.

Dynamic Advocate, which is a Business Advocate feature, automatically adjusts the overload threshold based on the service level requirements.

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

- Percent Allocation for call selection and Percent Allocation Distribution (PAD) for agent selection
- Predicted Wait Time (PWT), which is applicable during call surplus conditions, as a systemwide call selection measurement
- Service Level Supervisor (SLS) with Call Selection Override and Reserve Agent
- Service Objective (SO) by Skill or Vector Directory Number (VDN)

Feature combinations to meet business objectives

Business objective	Feature combination
Automate agent staffing.	<ul style="list-style-type: none">• Dynamic Threshold Adjustment• Greatest Need or Skill Level• Service Level Supervisor (SLS)• Expert Agent Distribution-Least Occupied Agent (EAD-LOA) or Uniform Call Distribution-Least Occupied Agent (UCD-LOA)
Balance workload and service levels.	<ul style="list-style-type: none">• Greatest Need• Service Objective (SO)• UCD-LOA

Business objective	Feature combination
Control agent work time in each skill.	<ul style="list-style-type: none"> • Call Selection Override • Dynamic Percentage Adjustment • Percent Allocation • Percent Allocation Distribution (PAD) • SLS
Deliver calls to top agents.	<ul style="list-style-type: none"> • Skill Level • EAD-LOA
Differentiate customer service without increasing skills.	<ul style="list-style-type: none"> • Dynamic Queue Position (DQP) • Greatest Need or Skill Level • EAD-LOA or UCD-LOA
Increase revenue opportunities.	<ul style="list-style-type: none"> • Greatest Need • SO • SLS • UCD-LOA
Maintain service levels without increasing agent time in one skill.	<ul style="list-style-type: none"> • Dynamic Percentage Adjustment • Percent Allocation • PAD
Meet agent staffing needs.	<ul style="list-style-type: none"> • Dynamic Threshold Adjustment • Greatest Need • SLS • UCD-LOA
Meet the needs of critical skills.	<ul style="list-style-type: none"> • Activate on Oldest Call Waiting (OCW) • Call Selection Override • Greatest Need • SLS • UCD-LOA

Selection methods

Agent selection methods

Use agent selection methods in an agent surplus condition, that is, when more than one agent is available to receive a call.

With Business Advocate, you can select agents based on the following:

- Agent occupancy
- Idle time
- Percentage of time in each skill
- Skill level for each agent

When calculating the agent occupancy, Avaya Aura[®] Communication Manager adds the time that elapsed during each of the following activities:

- ACD calls ringing at a station
- ACD calls that an agent receives
- ACD calls on hold
- After Call Work (ACW) if you enter n in the **ACW Considered Idle** field

The following table describes how Communication Manager routes calls based on the agent selection method that you administer on the Hunt Group screen.

Agent selection method	Call routing decision
Expert Agent Distribution-Least Occupied Agent (EAD-LOA)	The least occupied agent across skills with the highest skill level for the call. Communication Manager checks the skill level before agent occupancy.
Expert Agent Distribution-Most Idle Agent (EAD-MIA)	The most idle agent with the highest skill level for the call. Communication Manager checks the skill level before idle time.
Percent Allocation Distribution (PAD)	The agent with the lowest ratio of adjusted work time to target allocation for the skill. Communication Manager selects agents with a higher target allocation based on the premise that agents with a higher target allocation are top agents for the skill.

Agent selection method	Call routing decision
	For example, Communication Manager selects an agent with a target allocation of 80% over another agent with only 30% allocation for the skill.  Note: Use PAD as the agent selection method if you use Percent Allocation as the call selection method.
Uniform Call Distribution-Least Occupied Agent (UCD-LOA)	The least occupied agent across skills regardless of the skill level.
Uniform Call Distribution-Most Idle Agent (UCD-MIA)	The most idle agent in a skill regardless of the skill level.

For more information, see *Avaya Aura® Call Center Elite Feature Reference*.

Agent selection examples

Example of agent selection using EAD-LOA

Use Expert Agent Distribution-Least Occupied Agent (EAD-LOA) to deliver calls to the agent with the lowest occupancy and the highest skill level.

The following table describes how Communication Manager selects agents when the agent selection method is EAD-LOA.

Agent	Skill level	Occupancy in percentage
A	1	90
B	1	95
C	2	78

Agents A and B have the highest, that is, the primary skill level for the call. Therefore, Agent C does not receive the call.

Agent A receives the call in place of Agent B because Agent A has the lowest occupancy, that is, 90%.

Example of agent selection using EAD-MIA

Use Expert Agent Distribution-Most Idle Agent (EAD-MIA) to deliver calls to the most idle agent with the highest skill level.

The following table describes how Communication Manager selects agents when the agent selection method is EAD-MIA.

Agent	Skill level	Time in seconds since the last Sales call
A	1	5
B	1	10
C	2	30

Agents A and B have the highest, that is, the primary skill level for the call. Therefore, Agent C does not receive the call.

Agent B receives the call in place of Agent A because Agent B has the longest idle time, that is, 10 seconds since agent B received a call to the Sales skill.

Example of agent selection using PAD

Use Percent Allocation Distribution (PAD) to deliver calls to agents based on the percentage of time that you allocate for agents in each skill.

Note:

Use PAD as the agent selection method if you use Percent Allocation as the call selection method.

The following table describes how Communication Manager selects agents when the agent selection method is PAD.

Agent	Target allocation in percentage	Current work time in percentage	Adjusted work time in percentage	Ratio of adjusted time to target
A	25	30	35	1.4
B	50	45	49	0.98
C	75	76	78	1.04

Communication Manager selects the agent with the lowest ratio of adjusted work time to target allocation for a skill. Therefore, Agent B receives the call.

Example of agent selection using UCD-LOA

Use Uniform Call Distribution-Least Occupied Agent (UCD-LOA) to deliver calls to the agent with the lowest occupancy across all skill levels.

The following table describes how Communication Manager selects calls when the agent selection method is UCD-LOA.

Agent	Skill level	Occupancy in percentage
A	1	90
B	1	95
C	2	68

Communication Manager selects the agent with the lowest occupancy. Therefore, Agent C receives the call.

Example of agent selection using UCD-MIA

Use Uniform Call Distribution-Most Idle Agent (UCD-MIA) to deliver calls to the agent with the longest idle time regardless of the skill level.

The following table describes how Communication Manager selects calls when the agent selection method is UCD-MIA.

Agent	Skill level	Time in seconds since the last Sales call
A	1	5
B	1	10
C	2	30

Communication Manager selects the agent with the longest idle time. Therefore, Agent C receives the call.

Call selection methods

Use call selection methods in a call surplus condition, that is, when more than one call is in a queue and agents are unavailable to receive calls.

To select calls, Communication Manager uses the following information:

- Call selection method that you administer on the Agent LoginID screen
- Call selection measurement, that is, Current Wait Time (CWT) or Predicted Wait Time (PWT)
- Call Selection Override
- Queue priority for a call in the queue
- Skill levels or reserve levels that you assign to agents

- Threshold levels of a skill
- Use of Service Objective (SO) by Skill or Vector Directory Number (VDN)

The following table describes how Communication Manager selects calls.

Call selection method	Call selection decision
Greatest Need without SO	Calls with the longest CWT or PWT.
Greatest Need with SO	Calls with the highest ratio of CWT to SO or PWT to SO.
Percent Allocation	Call that is waiting for the longest time and that best meets the target allocations for a skill.
Skill Level without SO	Call for the highest skill level and with the longest CWT or PWT.
Skill Level with SO	Call for the highest skill level and with the highest ratio of CWT to SO or PWT to SO.

Call handling preference

Use call handling preference to determine how Communication Manager selects calls when more than one call is in a queue and agents are unavailable to receive calls.

Greatest Need

Use Greatest Need to deliver the oldest and highest priority calls to agents. This method reduces Average Speed of Answer (ASA) and the maximum delay for calls.

Percent Allocation

Use Percent Allocation to deliver calls based on the percentage of agent work time in a skill. For example, you can allocate 70% of the agent work time to the Sales skill if the agent excels at closing deals.

With Percent Allocation, you can use the following related features to balance agent workload and the service levels:

- Auto Reserve Agents: To leave agents idle when the current work time meets the target allocation for a skill.
- Dynamic Percentage Adjustment: To automatically adjust the target allocation.

Note:

Use Percent Allocation with Percent Allocation Distribution (PAD) to control the selection of calls and agents during call surplus and agent surplus conditions.

Skill Level

Use Skill Level to deliver calls to the primary skill that you assign to an agent.

With Skill Level, Communication Manager delivers calls to agents in the following order of preference:

1. Primary skill of the agent
2. Priority of the call
3. Current Wait Time (CWT) or Predicted Wait Time (PWT) for calls in the queue

You can administer up to 16 skill levels for an agent. Level 1 is the highest level and also the primary skill of an agent.

Direct Agent Calls

Use Direct Agent Calls to ensure that the same agent is available for a follow-up call. You can administer the system so that Direct Agent Calls override call handling preferences and the system sends Direct Agent Calls before other ACD calls. Direct Agent Calls also have preference over calls for skills that exceed the threshold levels.

The following table indicates how Direct Agent Calls interact with other call handling preferences.

Call handling preference	Interaction
Greatest Need	Direct Agent Calls override Greatest Need.
Percent Allocation	Direct Agent Calls override Percent Allocation if you: <ul style="list-style-type: none"> • Administer the Direct Agent Calls First field on the Agent LoginID screen of Communication Manager. • Select the check box on the Change Agent Skills screen of CMS Supervisor.
Skill Level	Direct Agent Calls override Skill Level if you assign the direct agent skill as the primary skill of an agent.

Service Objective

With Service Objective (SO), you can assign different levels of service to different skills. For example, you can assign 20 seconds for a premium customer skill and 25 seconds for a silver customer skill. A shorter SO time indicates that a call for the skill is important to the organization.

When you administer SO at the agent level and the skill level, Communication Manager selects calls based on the ratio of Current Wait Time (CWT) or Predicted Wait Time (PWT) to the administered SO for the skill.

If you select **Greatest Need** or **Skill Level** as the call selection method, use SO and not Percent Allocation as SO ensures that Communication Manager selects calls to critical skills. Percent Allocation ensures uniform distribution of agent work time in each skill.

When you administer SO at the Vector Directory Number (VDN) level, Communication Manager assigns priorities to calls in a queue. The priority is based on the number of seconds within which agents must receive calls from the VDNs with SO.

 **Note:**

Use SO by VDN to place calls from multiple VDNs to a single skill queue.

Dynamic Queue Position

Use Dynamic Queue Position (DQP) to queue calls to a single skill while offering different levels of service to different customer segments.

For example, you can administer a VDN for each customer segment with a Service Objective (SO) of less than 10 seconds for critical segments. When calls arrive at VDNs, Communication Manager checks the SO for each VDN and places calls in a single skill queue. Communication Manager places calls from critical segments ahead of calls from other VDNs.

The following image describes how Communication Manager assigns priorities to calls in a queue.

Dynamic Queue Position

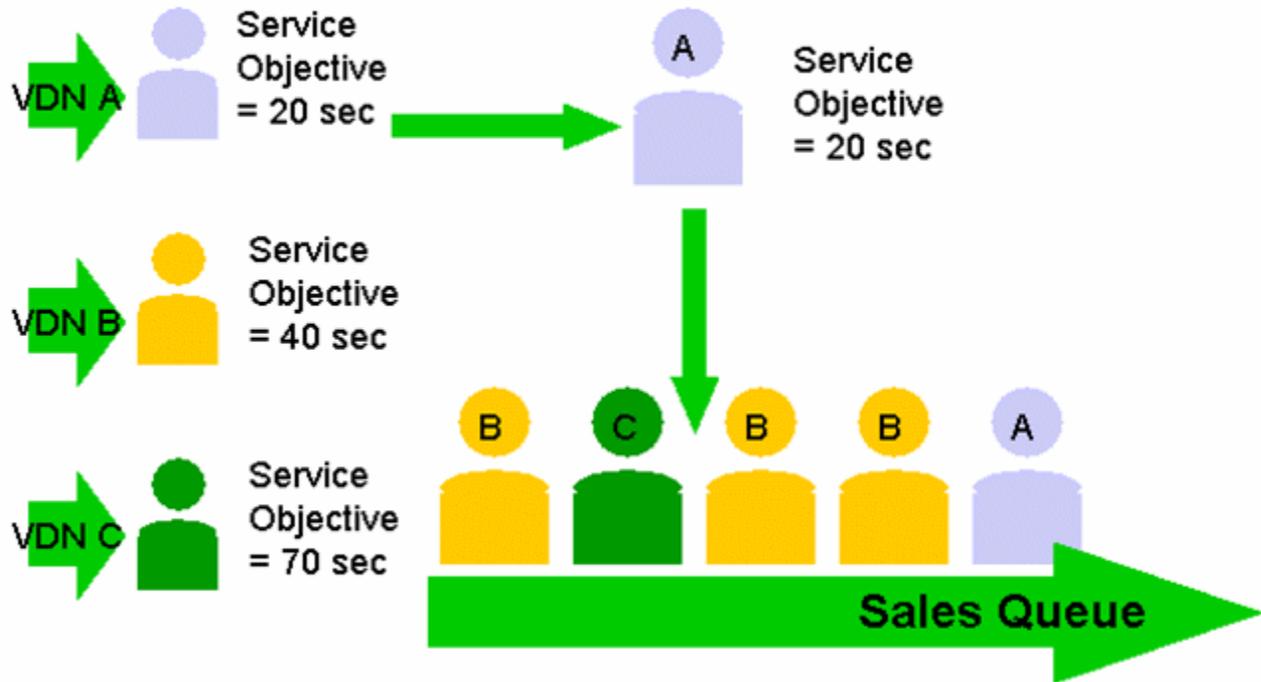


Figure 1: Determining call position in a queue

Calls arrive from three VDNs, each with a different SO. VDN A has an SO of 20 seconds, VDN B has an SO of 40 seconds, and VDN C has an SO of 70 seconds.

With DQP, Communication Manager assigns priorities to calls in the queue based on the SO that you administer for each VDN and places the call with the lowest SO ahead of most calls in the queue.

Communication Manager selects a position for the call in the queue to match Average Speed of Answer (ASA) and the SO of the VDN.

Related topics:

[DQP effects on call selection](#) on page 62

Call selection measurement

Communication Manager uses a call selection measurement to calculate the wait time for calls in a queue.

The call selection measurement that you administer on the Feature-Related System Parameters screen is applicable to all skills.

Current Wait Time

Current Wait Time (CWT) or Oldest Call Waiting (OCW) is the time that a call is in the queue.

If you use CWT, Communication Manager delivers the oldest call to an available agent regardless of the agent skill.

Predicted Wait Time

Predicted Wait Time (PWT) is the time that a call will wait in the queue if an available agent does not receive the call.

The following table describes call selection with PWT.

Call	Time in seconds spent in the queue	PWT in seconds
A	10	35
B	20	5

As indicated in the table, PWT is 5 seconds for call B and 35 seconds for call A. As the total wait time for call B is 25 seconds, which is less than the total wait time for call A, Communication Manager selects call A before call B.

Call selection examples

Example of call selection using Greatest Need

Use Greatest Need to deliver the oldest and highest priority calls to agents.

Use Service Objective (SO) with Greatest Need to deliver calls based on the ratio of Predicted Wait Time (PWT) to SO.

The following tables describe how Communication Manager selects calls when the call selection method is Greatest Need.

Table 1: Greatest Need without SO

Skill number	PWT in seconds
1	45
2	90
3	50

If all calls have the same priority, Communication Manager selects the call for Skill 2 as the call has the longest wait time, that is, 90 seconds.

Table 2: Greatest Need with SO

Skill number	SO in seconds	PWT in seconds
1	20	45
2	45	90
3	20	50

Communication Manager checks the ratio of PWT to SO for each call and selects the call with the highest ratio.

Communication Manager selects the call for Skill 3 as the call has the highest ratio of PWT to SO.

Example of call selection using Percent Allocation

Use Percent Allocation to deliver calls that meet the target allocations for each agent skill.

The following table describes how Communication Manager selects calls when the call selection method is Percent Allocation.

Table 3: Percent Allocation

Skill number	Target allocation in percentage	Current work time in percentage	Adjusted work time in percentage	PWT in seconds
1	60	45	49	45
2	30	35	40	90
3	10	10	17	50

Communication Manager compares the target allocation and the adjusted work time for each skill that you assign to an agent.

The adjusted work time of the agent in Skills 2 and 3 exceeds the target allocation. As the adjusted work time in Skill 1 is 49%, which is less than the target allocation of 60%, Communication Manager selects the call for Skill 1.

*** Note:**

Communication Manager disregards PWT because the Percent Allocation method determines call selection based on the target allocation for agents in each skill regardless of the wait time.

Example of call selection using Skill Level

Use Skill Level to deliver calls to the highest, that is, the primary skill of an agent.

The following tables describe how Communication Manager selects calls when the call selection method is Skill Level.

Table 4: Skill Level without SO

Skill number	Skill level	PWT in seconds
1	1	45
2	1	90
3	2	50

Communication Manager selects the call for Skill 2 because the call has the longest wait time and requires the primary skill of an agent.

Table 5: Skill Level with SO

Skill number	Skill level	SO in seconds	PWT in seconds
1	1	20	45
2	1	45	90
3	2	20	50

Communication Manager checks the primary skill first. As the call to Skill 3 requires a secondary skill, the agent does not receive calls to Skill 3.

Communication Manager checks the ratio of PWT to SO for each call and selects the call with the highest ratio.

The call to Skill 1 has the highest ratio of PWT to SO. Therefore, the agent receives the call to Skill 1.

Automated agent staffing

With Business Advocate, supervisors can automate staffing to meet the changes in call volumes. As automation reduces the time that supervisors spend in moving agents between skills, supervisors can focus on coaching agents and meeting organization goals.

Business Advocate uses the following features to automatically balance workload and the service levels:

- Auto Reserve Agents: Makes reserve agents unavailable to receive calls to a skill when the current work time exceeds the target allocation for the skill.
- Dynamic Percentage Adjustment: Adjusts the agent work time allocation to meet the target service levels.
- Dynamic Threshold Adjustment: Makes reserve agents available to receive calls to a skill by adjusting the overload thresholds to meet the target service levels.

Auto Reserve Agents

Supervisors can use Auto Reserve Agents to ensure that top agents receive calls that meet organization goals. For example, a supervisor can change the work state of a top sales agent so that the agent receives calls only to the Sales skill.

Use Auto Reserve Agents to make agents unavailable to receive calls to a skill if the current work time exceeds the target allocation for the skill.

When an agent is an auto reserve agent and a call is in the queue, Communication Manager performs one of the following actions:

- Adjusts the agent work time allocation to make the agent available to receive the call.
- Delivers the call to a skill for which the agent is not a reserve agent.
- Makes another agent available to receive the call.

Dynamic Percentage Adjustment

Use Dynamic Percentage Adjustment to maintain service-level targets by adjusting the agent work time in each skill.

When you administer a service-level target for each skill and allocate the agent work time, Communication Manager automatically adjusts the work time allocation to meet the targets.

The following table describes how Communication Manager uses Dynamic Percentage Adjustment to change the work time allocation based on the changes in call volumes.

Work time allocation	Sales skill allocation in percentage	Service skill allocation in percentage
Administered	70	30
Adjusted: Increase in calls to the Sales skill	78	22

Work time allocation	Sales skill allocation in percentage	Service skill allocation in percentage
Adjusted: Increase in calls to the Service skill	62	38

If call volumes to the Sales skill increase in the morning, Dynamic Percentage Adjustment automatically increases the work time allocation to 78% for calls to the Sales skill. Agents do not lose sales opportunities due to fixed allocations.

Similarly, if call volumes to the Sales skill drop in the afternoon, Dynamic Percentage Adjustment reduces the work time allocation to 62% for calls to the Sales skill and agents receive calls to the Service skill.

Dynamic Percentage Adjustment ensures that service-level targets are unaffected by the changes in the work time allocation.

Service Level Supervisor

Communication Manager uses Service Level Supervisor (SLS) to manage agent movement between skills during emergencies and unexpected increase in call volumes.

SLS uses the following features when a skill exceeds the administered thresholds:

- Call Selection Override
- Dynamic Threshold Adjustment
- Reserve agents

Note:

You can administer Call Selection Override at the skill level or the system level. However, the feature applies at the skill level only if you administer the feature at the system level.

You can assign reserve agents to each skill and administer two overload thresholds. If a skill exceeds an overload threshold, SLS activates Reserve agents or Call Selection Override.

To determine the overload thresholds for a skill, use Expected Wait Time (EWT) for incoming calls or the time that current calls spend in a queue.

Reserve levels

You can administer two reserve levels to control the activation of reserve agents.

- Reserve level 1 agents receive calls to a skill when the skill exceeds the first or second overload threshold.
- Reserve level 2 agents receive calls to a skill only when the skill exceeds the second overload threshold.

For example, you can assign a top sales agent as a reserve level 2 agent for a Service skill. The agent receives service calls when agents with Service as the primary skill or reserve level 1 skill are unavailable to receive a service call.

If you have two critical skills, for example, Sales and Emergency, assign the top sales agents as reserve level 1 agents for the Emergency skill. You can prevent agent burnout by not assigning the top sales agents as reserve level 2 agents for the Service skill.

Call Selection Override

With Call Selection Override, Communication Manager disregards call selection methods and delivers calls for the skill that exceeds an overload threshold.

Use Predicted Wait Time (PWT) or the time in the queue, that is, the Oldest Call Waiting (OCW) time, to determine when a skill exceeds an overload threshold.

The following table describes how Communication Manager selects calls for an agent.

Skill	Skill level	Overload threshold in seconds	PWT in seconds
Sales	1	20 seconds	5 seconds
Collections	1	20 seconds	10 seconds
Service	2	20 seconds	40 seconds

Calls are in the queue for three skills: Collections, Sales, and Service. Agents list Collections and Sales as the primary skills and Service as a secondary skill.

With Call Selection Override, Communication Manager disregards the skill level and selects a call with the longest PWT.

The overload threshold is 20 seconds for all three skills, but as the call for the Service skill has the longest PWT, Communication Manager delivers the call for the Service skill.

If you do not use Call Selection Override, Communication Manager delivers a call for the highest skill level and with the longest PWT. According to the table, Communication Manager delivers the call for the Collections skill.

Dynamic Threshold Adjustment

Use Dynamic Threshold Adjustment to maintain service-level targets by adjusting the overload thresholds for each skill. Dynamic Threshold Adjustment changes the overload threshold from 0% to 200% of the administered value.

When you administer a service-level target for a skill and assign an overload threshold to the skill, Communication Manager automatically adjusts the threshold to meet the targets. Adjusting the threshold results in activation or deactivation of reserve agents.

Dynamic Threshold Adjustment is most effective when you use only one overload threshold level and administer the level at the service objective for the skill.

Selection methods and feature compatibility

The following table lists the features that work with the call selection methods.

Table 6: Call selection methods in call surplus conditions

Call handling preference	Compatible features
Greatest Need	<ul style="list-style-type: none"> • Predicted Wait Time (PWT) • Service Objective (SO) • Service Level Supervisor (SLS) • Uniform Call Distribution-Least occupied Agent (UCD-LOA) • Uniform Call Distribution-Most Idle Agent (UCD-MIA)
Percent Allocation	<ul style="list-style-type: none"> • Auto Reserve Agents • Dynamic Percentage Adjustment • Percent Allocation Distribution (PAD) • SLS
Skill Level	<ul style="list-style-type: none"> • Expert Agent Distribution-Least Occupied Agent (EAD-LOA) • Expert Agent Distribution-Most Idle Agent (EAD-MIA) • PWT • SO • SLS

The following table lists the features that work with the agent selection methods.

Table 7: Agent selection method in agent surplus conditions

Group Type on the Hunt Group screen	Compatible features
EAD-LOA and EAD-MIA	<ul style="list-style-type: none"> • PWT • Skill Level • SO • SLS

Group Type on the Hunt Group screen	Compatible features
PAD	<ul style="list-style-type: none"> • Auto Reserve Agents • Dynamic Percentage Adjustment • Percent Allocation • SLS
UCD-LOA and UCD-MIA	<ul style="list-style-type: none"> • Greatest Need • PWT • SO • SLS

*** Note:**

Use PAD as the agent selection method if you use Percent Allocation as the call selection method.

Agent licensing

Expert Agent Selection (EAS) agents that use Business Advocate have a Right-To-Use (RTU) license. The RTU license is part of the logged-in advocate Remote Feature Activation (RFA) license material code.

The RFA license material code defines the maximum number of concurrently logged-in advocate agents.

Business Advocate agents are part of the total ACD agent count. The system counts a Business Advocate agent as a logged-in ACD agent and a logged-in advocate agent. Therefore, the number of licenses for the maximum logged-in advocate agents must be less than or equal to the number of licenses for the logged-in ACD agents.

*** Note:**

Business Advocate agent licensing is required for Call Center Elite releases prior to Release 6.x. Call Center Elite 6.x includes Business Advocate.

Related topics:

[Adding Business Advocate licenses to the total ACD agent count](#) on page 48

Chapter 3: Business Advocate examples

Example of balancing agent workload

One way to balance agent workload is to adjust the time that an agent spends in each skill. Supervisors can allocate work time so that the top agents do not receive calls to non-critical skills.

This example describes how the following features meet the needs of contact centers:

- Auto Reserve Agents
- Dynamic Percentage Adjustment
- Percent Allocation as a call selection method
- Percent Allocation Distribution (PAD) as an agent selection method

Background

A company that sells fax machines has two skills: Sales and Service. All agents can handle calls to both the skills, but five agents excel at closing sales deals.

The company wants top agents to handle more sales calls. Therefore, the company decides to allocate the work time of top agents.

Service level targets

Agents must answer 85% of all Sales calls within 25 seconds and 80% of all Service calls within 40 seconds.

Call handling target

Agents must complete each call and all activities related to that call within 300 seconds. Therefore, the administrator sets the expected call handling time as 300 seconds.

Skill assignment

For the top sales agents, the administrator allocates 50% of the work time to the Sales skill and 50% to the Service skill.

The administrator assigns the Sales skill as the primary skill of the top agents and the Service skill as the secondary skill.

For other agents, the administrator allocates the work time and assigns both the skills, that is, Sales and Service, as the primary skill.

The following table shows the agent skill assignment.

Agent type	Sales skill at 50% allocation	Service skill at 50% allocation
Top sales agents	Skill level 1	Skill level 2
All other agents	Skill level 1	Skill level 1

The administrator reserves the top sales agents as *secondary-only* for the Service skill. Therefore, Communication Manager places the top sales agents on standby for the secondary skill.

Agent selection

The administrator selects **pad** as the agent selection method. Therefore, during agent surplus conditions, Communication Manager routes a call to the agent with the lowest ratio of adjusted work time to the target allocation for the skill.

As the company encourages agents to complete all call-related activities during the call, Communication Manager adds the time spent in After Call Work (ACW) to the idle time calculations.

Call selection

The administrator selects **percent-allocation** as the call handling preference for agents. Therefore, during call surplus conditions, Communication Manager selects a call that meets the allocation target of the available agent.

The administrator reserves the top sales agents as secondary agents for the Service skill. Therefore, the top sales agents are idle when the current allocation for the Service skill exceeds the administered allocation.

Top sales agents are unavailable for calls to the Service skill but are available to receive calls to the Sales skill.

Automated agent staffing

The administrator uses the Dynamic Percentage Adjustment feature to match the target allocation and the service level for a skill.

For example, if call volumes for a skill are higher than the forecast, Dynamic Percentage Adjustment changes the target allocation to meet the administered service level.

Summary

Percent Allocation and PAD balance the time that an agent spends in each skill during call surplus and agent surplus conditions.

With these features, Communication Manager selects calls or agents after comparing the agent work time and the target allocation for a skill.

The administrator uses Auto Reserve Agents to ensure that the top sales agents are idle for Service calls if the current allocation exceeds the target.

Screen reference for balancing agent workload

The following table includes the screens, fields, and field entries that you can use to administer the features that are described in this example.

Organization need	Screen title	Field title	Field entry
Adjust agent allocation to meet the service level.	Hunt Group	Dynamic Percentage Adjustment	Y
Allocate work time.	Agent LoginID and Hunt Group	<ul style="list-style-type: none"> • Call Handling Preference on the Agent LoginID screen • Group Type on the Hunt Group screen 	<ul style="list-style-type: none"> • percent-allocation for call handling preference • pad for hunt group type
Assign a skill level for each skill.	Agent LoginID	Skill Level (SL)	<ul style="list-style-type: none"> • For top sales agents, skill level 1 for Sales and skill level 2 for Service • For other agents, skill level 1 for both Sales and Service
Complete call-related activities during the call.	Feature-Related System Parameters	ACW Considered Idle	Y
Determine the percentage of work time in each skill.	Agent LoginID	Percent Allocation (PA)	50 for Sales and 50 for Service
Determine the call handling time for calls in each skill.	Hunt Group	Expected Call Handling Time (sec)	300
Determine the service levels for each skill.	Hunt Group	Service Level Target (% in sec)	<ul style="list-style-type: none"> • For Sales: 85% in 25 seconds • For Service: 80% in 40 seconds
Prevent agent burnout.	Feature-Related System Parameters	Auto Reserve Agents	secondary-only

Reports for reviewing agent workload

Supervisors can generate the following reports to determine whether balancing agent workload benefits the company and the agents.

Report type	Parameters	Purpose
Real-Time or Historical Split/Skill Graphical Status	<ul style="list-style-type: none"> Percentage of calls within the service levels Average Speed of Answer (ASA) Average call handling time 	To determine: <ul style="list-style-type: none"> If each skill meets the target levels The time within which agents answer calls The average talk time for each skill
Split/Skill Graphical Average Position Staffed	Agent staffing	To determine the number of agents logged in to a skill

Example of increasing call handling efficiency

Contact centers can increase revenue by improving the sales opportunity for each call through up-selling or cross-selling. To improve sales opportunities, contact centers classify customers and connect top agents with potential buyers.

This example describes how the following features meet the needs of contact centers:

- Greatest Need as a call selection method
- Predicted Wait Time (PWT)
- Service Level Supervisor (SLS)
- Service Objective (SO)
- Uniform Call Distribution-Least Occupied Agent (UCD-LOA) as an agent selection method

Background

A home furnishings catalog company wants to connect the top sales agents to premium customers and increase the sales opportunity per call.

The company classifies customers into the following skills:

- Premium: Most profitable customers who are likely to buy add-on merchandise.
- Gold: Profitable customers who discourage up-selling or cross-selling.

- Silver: Customers who buy items that are marked for clearance.
- New: First time callers, prospective customers, or callers with queries about a catalog item.

The company wants agents to focus on the Premium skill and the Gold skill categories without losing customers in the Silver skill and the New skill categories.

Skill assignment

The administrator groups agents into the following tiers with the top sales agents in Tier 1 and inexperienced agents in Tier 4.

- Tier 1 agents receive calls to the Premium skill and serve as reserve agents for the Gold skill.
- Tier 2 agents receive calls to the Gold skill and the New skill. Tier 2 agents serve as reserve agents for the Premium skill and the Silver skill.

Tier 2 agents are proficient at selling merchandise and providing information about catalog items but unsuccessful with add-on sales.

- Tier 3 agents receive calls to the Gold skill and the New skill. Tier 3 agents serve as reserve agents for the Premium skill and the Silver skill.

Tier 3 agents receive calls to the Premium skill only if all agents in Tier 1 and Tier 2 are busy.

- Tier 4 agents are inexperienced and receive calls to the Silver skill. Tier 4 agents serve as reserve agents for the Gold skill and the New skill.

The following table shows the agent skill assignment.

Agent tiers	Premium skill	Gold skill	Silver skill	New skill
Tier 1	Primary	Reserve level 1 (R1)	—	—
Tier 2	Reserve level 1 (R1)	Primary	Reserve level 2 (R2)	Primary
Tier 3	Reserve level 2 (R2)	Primary	Reserve level 1 (R1)	Primary
Tier 4	—	Reserve level 2 (R2)	Primary	Reserve level 1 (R1)

Overload thresholds

As all agents, except Tier 1 agents, serve as reserve agents for two skills, the administrator sets two levels of thresholds for each skill.

The following table lists the reserve agent activation time for each skill.

Skill	Overload threshold in seconds	SO in seconds
Premium	Level 1: 20	20

Skill	Overload threshold in seconds	SO in seconds
	Level 2: 30	
Gold	Level 1: 45 Level 2: 60	45
Silver	Level 1: 60 Level 2: 75	60
New	Level 1: 45 Level 2: 60	45

The administrator assigns service objectives at the skill level and the agent level.

Agent selection

The administrator selects **UCD-LOA** as the agent selection method. Communication Manager routes calls to the agent with the lowest percentage of time on ACD calls since login.

As the company encourages agents to complete all call-related activities during the call, Communication Manager adds the time spent in After Call Work (ACW) to the idle time calculations.

Call selection

The administrator selects **greatest-need** as the call handling preference and uses SO. Communication Manager selects calls based on the ratio of PWT to administered SO for a skill.

 **Note:**

Use SO to:

- Reduce Average Speed of Answer (ASA).
- Improve call selection for agents with more than one primary skill.

Automated agent staffing

The administrator uses SLS to activate reserve agents when the threshold levels for a skill exceed the administered limit.

The administrator does not use Call Selection Override so that Communication Manager delivers calls in the queue for the primary skills of agents.

Summary

PWT and SO determine call selection for agents with two primary skills or reserve skills when a reserve skill exceeds the threshold.

SLS activates reserve agents when the threshold levels for a skill exceed the administered limit.

By administering hunt groups and reserve agents based on skill proficiency, the company ensures that:

- All calls are handled efficiently.
- Sales opportunities are not lost.

Screen reference for increasing call handling efficiency

The following table includes the screens, fields, and field entries that you can use to administer the features that are described in this example.

Organization need	Screen title	Field title	Field entry
Assign service objective at the agent level.	Agent LoginID	Service Objective	y
Complete call-related activities during the call.	Feature-Related System Parameters	ACW Considered Idle	y
Deliver calls based on agent occupancy.	Hunt Group	Group Type	ucd-loa
Deliver calls based on the predicted wait time.	Feature-Related System Parameters	Call Selection Measurement	predicted-wait-time
Determine call selection method.	Agent LoginID	Call Handling Preference	greatest-need
Determine overload thresholds.	Hunt Group	Level 1 Threshold (sec) and Level 2 Threshold (sec)	0 to 99
Improve the Average Speed of Answer (ASA) for calls to each skill.	Hunt Group	Service Objective	20 seconds
Reserve agents for calls to critical skills.	Agent LoginID	Reserve Level (RL)	1 or 2
Start reserve agents when a skill exceeds a threshold level.	Hunt Group	Service Level Supervisor	y

Reports for reviewing call handling efficiency

Supervisors can generate the following reports to determine whether agents handle calls efficiently.

Report type	Parameters	Purpose
Custom	Reserve agents	To determine: <ul style="list-style-type: none"> • The number of calls that reserve agents receive for a skill. • If the average talk time increases when reserve agents receive calls to a skill.
Historical Graphical Skill Overload	Time, in percentage, that skills are in an overload condition	To determine if skills frequently exceed the thresholds. A greater percentage indicates that the skill needs more primary agents.
Real-Time Split/Skill Graphical Status	<ul style="list-style-type: none"> • Average Speed of Answer (ASA) • Average abandon time • Average ACD time • Maximum delay 	To determine the performance of each skill.

Example of maintaining service levels

Contact centers must maintain service levels for various reasons, such as contractual obligations or critical requirements from business units within the company.

Adjusting the threshold levels for each skill is a method of maintaining service levels and managing call volumes.

This example describes how the following features meet the needs of contact centers:

- Dynamic Threshold Adjustment
- Greatest Need as the call selection method
- Predicted Wait Time (PWT)
- Service Level Supervisor (SLS)
- Uniform Call Distribution-Least Occupied Agent (UCD-LOA) as the agent selection method

Background

A Business Process Outsourcing (BPO) company has three customers with contracts that require different service levels. The company must maintain the service levels to prevent penalties or loss of business.

The service level requirement for each customer is as follows:

- Customer X: 90% within 15 seconds
- Customer Y: 80% within 20 seconds
- Customer Z: 75% within 45 seconds

The company creates a skill for each customer and trains agents in all skills.

Skill assignment

The administrator adds three skills, A, B, and C for customers X, Y, and Z respectively. The administrator assigns skills to agents as follows:

- Top agents: Skill A and Skill B as primary skills.
- Average agents: Skill B as the primary skill and Skills A and C as reserve skills with the **Level 1** threshold.
- New agents: Skill C as the primary skill and Skill B as the reserve skill with the **Level 1** and **Level 2** thresholds.

The administrator assigns threshold levels based on the performance of new agents. For example, new agents who consistently meet service-level targets are **Level 1** agents for Skill B.

New agents do not receive calls to Skill A.

The following table shows the agent skill assignment.

Level of expertise	Skill A	Skill B	Skill C
Top agents	Primary	Primary	—
Average agents	Reserve level 1 (R1)	Primary	Reserve level 1 (R1)
New agents • Consistent performers • Average performers	—	• Reserve level 1 (R1) • Reserve level 2 (R2)	Primary

Overload thresholds

The administrator sets two reserve levels for new agents. Therefore, the administrator must set two overload threshold levels for Skill B.

The following table lists the reserve agent activation time for each skill.

Skill	Overload threshold in seconds	Service level target
A	Level 1: 10	90% in 15 seconds
B	Level 1: 12 Level 2: 17	80% in 20 seconds
C	Level 1: 35	75% in 45 seconds

Agent selection

The administrator selects **UCD-LOA** as the agent selection method. Communication Manager routes calls to the agent with the lowest percentage of time on ACD calls since login.

Before selecting an agent for the call, Communication Manager includes After Call Work (ACW) in the agent occupancy calculations.

Call selection

The administrator uses PWT as the call selection measurement to determine how long must a call wait in the queue if the currently available agent does not receive the call.

The administrator uses Greatest Need as the call selection method to ensure that an agent receives the highest priority call with the longest PWT.

Automated staffing

The administrator uses SLS to activate reserve agents when the threshold levels for a skill exceed the administered limit.

The administrator does not use Call Selection Override so that Communication Manager delivers calls in the queue for the primary skills of agents.

The administrator uses Dynamic Threshold Adjustment to automatically change service-level targets.

Summary

SLS activates reserve agents when the threshold levels for a skill exceed the administered limit.

Dynamic Threshold Adjustment ensures that the company does not miss service-level targets.

Screen reference for maintaining service levels

The following table includes the screens, fields, and field entries that you can use to administer the features that are described in this example.

Organization need	Screen title	Field title	Field entry
Automatically adjust the service-level target.	Hunt Group	Dynamic Threshold Adjustment	Y

Organization need	Screen title	Field title	Field entry
Complete call-related activities during the call.	Feature-Related System Parameters	ACW Considered Idle	y
Deliver calls based on agent occupancy.	Hunt Group	Group Type	ucd-loa
Deliver calls based on the predicted wait time.	Feature-Related System Parameters	Call Selection Measurement	predicted-wait-time
Determine a call selection method.	Agent LoginID	Call Handling Preference	greatest-need
Determine overload thresholds.	Hunt Group	Level 1 Threshold (sec) and Level 2 Threshold (sec)	0 to 99
Determine the service level.	Hunt Group	Service Level Target (% in sec)	<ul style="list-style-type: none"> • Skill X: 90% in 15 seconds • Skill Y: 80% in 20 seconds • Skill Z: 75% in 40 seconds
Reserve agents for calls to critical skills.	Agent LoginID	Reserve Level (RL)	1 or 2
Start reserve agents when a skill exceeds a threshold.	Hunt Group	Service Level Supervisor	y

Reports for reviewing service levels

Supervisors can generate the following reports to determine whether the company meets service-level targets.

Report type	Parameters	Purpose
Custom	<ul style="list-style-type: none"> • Reserve agents • Average ACD time 	To determine: <ul style="list-style-type: none"> • The number of calls that reserve agents receive for a skill. • If the average talk time increases when reserve agents receive calls to a skill.

Report type	Parameters	Purpose
Graphical Skill Overload	<ul style="list-style-type: none"> • Normal time • Overload time 1 • Overload time 2 	To determine: <ul style="list-style-type: none"> • The time spent before a skill exceeds a threshold level. • The time spent after a skill exceeds a threshold level.
Graphical Staffing Profile	Staffing	To determine agent staffing and agent work.
<ul style="list-style-type: none"> • Real-Time Split/Skill Graphical Status • Historical Split/Skill Graphical Service Level 	Percentage within the administered service level	To determine if the skills meet the service levels.

Example of managing unexpected call volume

Contact centers can receive unexpected call volumes. For example, in the following scenarios:

- Emergency calls
- Holiday season promotions
- Unexpected and temporary failure of a service

The challenge is to manage call volumes without losing the service levels for critical skills.

This example describes how the following features meet the needs of contact centers:

- Dynamic Threshold Adjustment
- Expert Agent Distribution-Least Occupied Agent (EAD-LOA) as an agent selection method
- Greatest Need as the call selection method
- Predicted Wait Time (PWT)
- Service Level Supervisor (SLS)
- Uniform Call Distribution-Least Occupied Agent (UCD-LOA) as an agent selection method

Background

A utility company receives calls with the following types of requests:

- Billing-related queries
- Disconnection requests

- Emergency calls
- New connection for domestic users or commercial users
- Power outage complaints

The company has an Interactive Voice Response (IVR) system to determine call routing and to receive customer information. The company also uses a call classification method to differentiate routine calls from urgent calls, for example, from a police department or a fire station.

All agents can handle routine calls that include the following services:

- Requests to close residential connections
- Current residential connection complaints
- New residential connections
- Residential power outage complaints

Skill assignment

The administrator creates four skills of the following type:

- Commercial
- Emergency
- Payment
- Routine

As the company requires all agents to handle emergency calls, the administrator assigns the Emergency skill to all agents.

The administrator groups agents into the following tiers with Tier 1 including the most experienced agents.

- Tier 1 agents receive calls from critical skills, that is, Emergency and Payment. Tier 1 agents have the Commercial skill as a reserve skill.
- Tier 2 agents excel at payment-related queries and collections. Therefore, Tier 2 agents have Payment as the primary skill with Emergency and Commercial as reserve skills.
- Tier 3 agents excel at handling calls to the Commercial skill. Therefore, Tier 3 agents have Commercial as the primary skill with Emergency and Routine as reserve skills.
- Tier 4 agents are new hires and receive calls to the Routine skill. The company is training Tier 4 agents for the Emergency skill if the call volume to the skill increases unexpectedly.

The following table shows the agent skill assignment.

Agent tiers	Emergency	Payment	Commercial	Routine
Tier 1	Primary	Primary	Reserve level 1 (R1)	—
Tier 2	Reserve level 1 (R1)	Primary	Reserve level 2 (R2)	—

Agent tiers	Emergency	Payment	Commercial	Routine
Tier 3	Reserve level 2 (R2)	—	Primary	Reserve level 1 (R1)
Tier 4	Reserve level 2 (R2)	—	—	Primary

Tier 1 and Tier 2 agents do not receive calls to the Routine skill as the company wants the best agents to be available for calls to critical skills.

Overload thresholds

The administrator sets two levels of threshold for Emergency and Commercial skills.

The following table lists the reserve agent activation time for each skill.

Skills	Overload threshold in seconds	Service level target
Emergency	Level 1: 5 Level 2: 8	Not applicable
Payment	No thresholds	Not applicable
Commercial	Level 1: 20 Level 2: 30	85% in 20 seconds
Routine	Level 1: 40	85% in 40 seconds

Agent selection

The administrator uses **EAD-LOA** for the Commercial and Payment skills. Communication Manager routes calls to the agent with the highest skill level and the lowest percentage of time on ACD calls since agent login.

The administrator uses **UCD-LOA** for Emergency and Routine skills because all agents can handle calls to the skills. Communication Manager routes the call to the agent with the lowest percentage of time on ACD calls since agent login regardless of the skill level.

Call selection

The administrator selects **greatest-need** without Service Objective (SO) as the call handling preference to ensure that Communication Manager selects calls with the longest PWT.

The administrator uses **Call Selection Override** for the Emergency skill to ensure that the skill does not exceed the threshold limit.

When the Emergency skill status is in the overload threshold, Communication Manager delivers an Emergency skill call before calls to the primary skill of an agent. For example, a Tier 2 agent with Payment as the primary skill receives an emergency call before a payment-related call.

Automated agent staffing

The administrator uses SLS to activate reserve agents when the threshold levels for a skill exceed the administered limit.

The administrator selects **Activate on Oldest Call Waiting** to ensure that the contact center does not miss calls to the Emergency skill.

Summary

Call Selection Override ensures that agents receive emergency calls before calls to primary skills.

As calls to the Emergency skill are unpredictable, Expected Wait Time (EWT) calculations to activate reserve agents can be ineffective.

With **Activate on Oldest Call Waiting**, Communication Manager monitors the wait time of calls in the queue for the Emergency skill. If the wait time of the oldest call for the Emergency skill exceeds the overload thresholds levels, SLS activates reserve agents for the skill.

Dynamic Threshold Adjustment automatically adjusts the thresholds for the non-emergency skills to maintain service-level targets.

Screen reference for managing call volume

The following table includes the screens, fields, and field entries that you can use to administer the features that are described in this example.

Organization need	Screen title	Field title	Field entry
Assign a skill level.	Agent LoginID	Skill Level (SL)	Skill level 1 for primary skills
Automatically adjust the service-level target of non-emergency skills.	Hunt Group	Dynamic Threshold Adjustment	y
Complete call-related activities after the call.	Feature-Related System Parameters	ACW Considered Idle	n
Deliver calls based on agent occupancy.	Hunt Group	Group Type	<ul style="list-style-type: none"> • EAD-LOA • UCD-LOA
Deliver calls based on the predicated wait time.	Feature-Related System Parameters	Call Selection Measurement	predicted-wait-time
Determine a call selection method.	Agent LoginID	Call Handling Preference	greatest-need
Determine overload thresholds.	Hunt Group	Level 1 Threshold (sec) and Level 2 Threshold (sec)	0 to 99

Organization need	Screen title	Field title	Field entry
Determine the service level.	Hunt Group	Service Level Target (% in sec)	<ul style="list-style-type: none"> • Commercial: 85% in 20 seconds • Routine: 85% in 40 seconds
Reserve agents for calls to critical skills.	Agent LoginID	Reserve Level (RL)	1 or 2
Set the highest priority to emergency calls.	Feature-Related System Parameters Hunt Group	Call Selection Override	y n: For non-emergency skills
Set the highest priority to the oldest call for the Emergency skill.	Hunt Group	Activate on Oldest Call Waiting	y
Start reserve agents when a skill exceeds a threshold.	Hunt Group	Service Level Supervisor	y

Reports for reviewing call volume

Supervisors can generate the following reports to track the variations in call volume.

Report type	Parameters	Purpose
Custom	Reserve agents	To determine the number of calls that reserve agents receive for a skill.
Real-Time Split/Skill Graphical Status	Average abandon time	To determine the wait time before a caller abandons the call.
<ul style="list-style-type: none"> • Real-Time Split/Skill Graphical Status • Historical Split/Skill Graphical Service Level 	<ul style="list-style-type: none"> • Average ACD time • Average Speed of Answer (ASA) • Maximum delay • Percentage within the administered skill level 	<p>To determine:</p> <ul style="list-style-type: none"> • Average talk time for a skill. • Response time for calls. • Service levels. <p>If the maximum delay exceeds the second overload threshold for the Emergency skill, increase the number of primary agents and reserve agents.</p>

Example of segmenting the customer base

To increase profits, contact centers must balance the services levels and the cost of providing different service levels.

One way to reduce costs, especially when entering new markets, is to segment the customer base without adding skills.

This example describes how the following features meet the needs of contact centers:

- Dynamic Queue Position (DQP) or Service Objective (SO) by VDN
- Expert Agent Distribution-Least Occupied Agent (EAD-LOA) as an agent selection method
- Predicted Wait Time (PWT)
- Skill Level as a call selection method

Background

A company that sells home security systems is entering a new market. The company must increase sales and also offer superior customer service. Therefore, the Sales skill and the Service skill are equally important to the company.

As all agents can handle calls from the new market, the company decides to segment the customer base as follows.

- Region 1: New market customers who need high levels of service before they buy security systems from the company.
- Region 2: Current customers who abandon calls because of the wait time.
- Region 3: Current customers who tolerate wait time.

Skill assignment

As all agents handle Sales and Service calls, the administrator creates a single skill.

The administrator determines the skill level for each agent based on the proficiency to handle a call type.

Service Objective by VDN

The administrator uses DQP to place calls from multiple VDNs to a single skill queue while maintaining the service levels for the VDN. Communication Manager places calls based on the service objective of the VDN from where the call originates.

Note:

DQP is also known as SO by VDN.

The following table describes how the administrator uses customer segmentation to assign the speed of answer for calls.

VDN	Description	SO in seconds
11	Sales VDN for Region 1	10
12	Sales VDN for Region 2	15
13	Sales VDN for Region 3	20
21	Service VDN for Region 1	10
22	Service VDN for Region 2	15
23	Service VDN for Region 3	20

Agent selection

The administrator uses **EAD-LOA** as the agent selection method. Communication Manager routes calls to the agent with the highest skill level and the lowest percentage of time on ACD calls since agent login.

The administrator does not select **Service Objective** at the agent level.

Call selection

As all agents must receive calls from all regions, the administrator:

- Matches the skill proficiency of each agent to the level of skill required for the Sales skill and the Service skill.
- Selects **skill-level** as the call selection method.
- Uses PWT to determine how long must a call stay in the queue if an available agent does not receive the call.

The levels determine the proficiency for each skill. For example:

- Level 1 indicates high proficiency.
- Level 2 indicates average proficiency.
- Level 3 indicates low proficiency.

Therefore, an available agent with the lowest occupancy and the highest proficiency for the Sales skill receives a call for the Sales skill.

If a least occupied agent with high proficiency for both the skills is available, Communication Manager delivers the call with the highest PWT.

Summary

With the **EAD-LOA** and **skill-level** field entries, the company ensures that agents receive calls based on skill proficiency.

With DQP, the company can match Average Speed of Answer (ASA) and the service objectives of the VDN from where the call originates. Therefore, Communication Manager can place a call from a new market customer ahead of most calls in the queue.

Screen reference for segmenting the customer base

The following table includes the screens, fields, and field entries that you can use to administer the features that are described in this example.

Organization need	Screen title	Field title	Field entry
Assign skill levels based on proficiency.	Agent LoginID	Skill Level (SL)	1, 2, or 3
Deliver calls based on agent occupancy.	Hunt Group	Group Type	EAD-LOA
Deliver calls based on the predicated wait time.	Feature-Related System Parameters	Call Selection Measurement	predicted-wait-time
Determine a call selection method.	Agent LoginID	Call Handling Preference	skill-level
Determine Service Objectives (SOs) at the VDN level.	Vector Directory Number (VDN)	Service Objective	y
Determine the position of a call in a queue based on the SO of the originating VDN.	Hunt Group	Dynamic Queue Position	y
Do not administer SOs at the agent level.	Agent LoginID	Service Objective	n

Reports for reviewing the effects of segmenting the customer base

Supervisors can generate the following reports to determine whether the company meets the administered service objectives.

Report type	Parameters	Purpose
<ul style="list-style-type: none"> • Real-Time Split/Skill Graphical Status • Historical Split/Skill Graphical Service Level 	<ul style="list-style-type: none"> • Average Speed of Answer (ASA) • Percentage of abandoned calls • Percentage within service levels 	To determine the performance of a skill.

Business Advocate examples

Report type	Parameters	Purpose
<ul style="list-style-type: none">• VDN Call Profile or VDN Graphical Call Profile• VDN Service Level	<ul style="list-style-type: none">• Average Speed of Answer (ASA)• Maximum delay• Percentage of abandoned calls• Percentage within service levels	To determine if the current service objectives for each VDN match the administered value.

Chapter 4: Administering Business Advocate

Administer Business Advocate through one of the following:

- Communication Manager: To create new login IDs.
- CMS Supervisor: To administer existing agent login IDs.

The following table lists the tasks that you can perform through Communication Manager and CMS Supervisor.

Administration tasks	Communication Manager	CMS Supervisor
Activating Service Objective (SO) by agent.	Yes	Yes
Adding or deleting skills per agent.	Yes	Yes
Administering call handling preference.	Yes	Yes
Administering call selection measurement.	Yes	No
Administering Dynamic Queue Position (DQP).	Yes	No
Administering hunt group types.	Yes	No
Administering Service Level Supervisor (SLS).	Yes	No
Administering SO by skill.	Yes	No
Assigning reserve agents.	Yes	Yes
Creating agent login IDs.	Yes	No
Creating hunt groups.	Yes	No
Including After Call Work (ACW) in Least Occupied Agent (LOA) calculations.	Yes	No
Viewing or changing agent skills.	Yes	Yes

Administering Business Advocate through Communication Manager

Adding Business Advocate licenses to the total ACD agent count

About this task

The maximum logged-in agent count is a function of the number of agents. Therefore, the following field settings do not add to the logged-in ACD agent count:

- The **Service Objective** field settings on the Hunt Group screen.
- Least Occupied Agent (LOA) skill assignment of type **ucd-loa** or **ead-loa**.

Procedure

1. At the command prompt, type `change hunt-group xxx`, where `xxx` is the number of the hunt group. Press **Enter**.
2. In the **Group Type** field, select **pad**.
 - * **Note:**
Use the **pad** field option if **Dynamic Advocate** is active for the system.
3. In the **Dynamic Queue Position** field, enter `y`.
4. In the **Service Level Supervisor** field, enter `y`.
5. Press **Enter** to save the changes.
6. At the command prompt, type `change agent-loginid xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
7. In the **Call Handling Preference** field, select **percent-allocation**.
8. In the **Service Objective** field, enter `y`.
9. In the **RL** field, enter a reserve level of 1 or 2.
10. Press **Enter** to save the changes.

Related topics:

[Agent licensing](#) on page 26

Business Advocate screen reference

The following table lists the screens and the fields for agent, skill, system, and VDN levels of administration.

Screen title	Field title
<i>Agent-level administration</i>	
Agent LoginID	Call Handling Preference <ul style="list-style-type: none"> • greatest-need • percent-allocation • skill-level
	Direct Agent Calls First
	Percent Allocation (PA)
	Reserve Level (RL)
	Service Objective
<i>Skill-level administration</i>	
Hunt Group	Activate on Oldest Call Waiting
	Dynamic Percentage Adjustment
	Dynamic Queue Position
	Dynamic Threshold Adjustment
	Expected Call Handling Time (sec)
	Group Type <ul style="list-style-type: none"> • ead-loa • ead-mia • pad • ucd-loa • ucd-mia
	Level 1 Threshold (sec)
	Level 2 Threshold (sec)
	Service Level Supervisor
	Service Level Target (%)
	Service Objective
<i>System-level administration</i>	

Screen title	Field title
Feature-Related System Parameters	ACW Agents Considered Idle
	Auto Reserve Agents
	Call Selection Measurement
	MIA Across Splits/Skills
	Service Level Supervisor Call Selection Override
<i>VDN-level administration</i>	
Vector Directory Number (VDN)	Service Objective

Agent LoginID field descriptions

To make changes that affect agents, administer the fields on the Agent LoginID screen.

Agent-level changes include decisions about call handling, service objective, reserve agent, and target allocation.

Field title	Field description
Call Handling Preference	To determine a call selection method during call surplus conditions. Valid entries are as follows: <ul style="list-style-type: none"> • greatest-need • percent-allocation: Applicable if Business Advocate is active for the system. • skill-level: The default setting. You can administer skill levels from 1 to 16 for each skill that you assign to an agent. For reserve agents, the reserve level options are 1 or 2.
Direct Agent Calls First	To select Direct Agent Calls before calls to other skills, including calls for skills that exceed threshold limits. Valid entries are <i>y</i> and <i>n</i> . This field replaces Service Objective if you select percent-allocation in the Call Handling Preference field.
Percent Allocation (PA)	To enter a target allocation, from 1 to 100, as a percentage for each non-reserve skill that you assign to an agent. The sum of the

Field title	Field description
	target allocation for all non-reserve skills must equal 100. This field is applicable if you select percent-allocation in the Call Handling Preference field.
Service Objective	To select calls based on the ratio of call selection measurement to administered service objective for a skill. This field is applicable if you select greatest-need or skill-level in the Call Handling Preference field.
Reserve Level (RL)	To assign agents as reserve agents for a skill or a group of skills.

Hunt Group field descriptions

To make changes that affect skills, administer the fields on the Hunt Group screen.

Skill-level changes include decisions about group type, call selection in agent surplus conditions, call handling, threshold levels, service-level targets, and automatic adjustment of parameters that affect the performance of a skill.

Field title	Field description
Activate on Oldest Call Waiting	To activate reserve agents based on Expected Wait Time (EWT) and the time in a queue. The field is applicable if you use Service Level Supervisor (SLS).
Dynamic Percentage Adjustment	To determine whether the system automatically adjusts the target allocation of an agent based on the difference between the current and the administered service-level target for the assigned skills. The field is applicable if you: <ul style="list-style-type: none"> • Select ead-loa, pad, or ucd-loa in the Group Type field. • Use Dynamic Advocate.
Dynamic Queue Position	To allow calls from different Vector Directory Numbers (VDNs) with varying service objectives to queue to a single skill. The field is applicable if you use Dynamic Advocate.

Field title	Field description
Dynamic Threshold Adjustment	To dynamically adjust the overload thresholds for skills to meet the administered service-level targets. The field is applicable if you use Dynamic Advocate and SLS.
Expected Call Handling Time (sec)	To include the average call handling time for a skill. Call handling time includes the talk time and can include the After Call Work (ACW) time. The system uses this administered time for EWT and percent allocation calculations.
Group Type	To determine an agent selection method during agent surplus conditions.
Level 1 Threshold (sec) and Level 2 Threshold (sec)	To determine when to activate reserve agents or Call Selection Override. The fields are applicable if you use SLS.
Service Level Supervisor	To use reserve agents, Call Selection Override, and Dynamic Threshold Adjustment.
Service Level Target (%)	To set a target, that is, the percentage of calls answered within a specified number of seconds. The default field setting is 80% in 20 seconds. The field is applicable if you select pad in the Group Type field and enter \bar{y} in the following fields: <ul style="list-style-type: none"> • Dynamic Threshold Adjustment or Dynamic Percentage Adjustment • Dynamic Advocate Use the field with: <ul style="list-style-type: none"> • Dynamic Threshold Adjustment: For SLS. • Dynamic Percentage Adjustment: For Percent Allocation.
Service Objective	To determine the number of seconds within which agents must answer calls. The default is 20 seconds. This field replaces Acceptable Service Level (sec) if you use Business Advocate.

Feature-Related System Parameters field descriptions

To make changes that affect the system, administer the fields on the Feature-Related System Parameters screen.

System-level changes include decisions about the need for auto reserve agents, wait-time methods, agent availability, and service levels.

Field title	Field description
ACW Agents Considered Idle	To determine whether to add After Call Work (ACW) to the idle time calculations. Valid entries are <i>y</i> and <i>n</i> .
Auto Reserve Agents	To reserve agents for critical skills that do not meet service-level targets. Valid entries are as follows: <ul style="list-style-type: none"> • all: To leave reserve agents idle if the current work time meets the target allocation for a skill. • none: To disregard reserve agents. • secondary-only: To leave reserve agents idle for all assigned skills, except the primary skill, that is, skill level 1. Use this field option so that Communication Manager checks the skill levels that you assign on the Agent LoginID screen.
Call Selection Measurement	To determine the wait-time criterion for call selection. If Business Advocate is active, the default field setting is predicted-wait-time . If you select current-wait-time , the system selects the Oldest Call Waiting (OCW) for any agent skill. The field is applicable if you select greatest-need or skill-level in the Call Handling Preference field.
MIA Across Splits/Skills	To determine whether to remove an agent from the Most Idle Agent (MIA) queue when the agent receives a call for an assigned split or skill. Valid entries are <i>y</i> and <i>n</i> .
Service Level Supervisor Call Selection Override	To override the call selection method and to deliver calls for skills that exceed the overload thresholds.

Field title	Field description
	The field is applicable on a system level and a skill level. To apply the field on the skill level, administer the field on the Hunt Group screen for each skill.

Vector Directory Number field descriptions

Field title	Field description
Service Objective (sec)	To place calls from multiple VDNs in a single skill queue. To use this field, enter the number of seconds within which agents must receive calls from the VDN.

Administering Call Selection Measurement

About this task

Use the procedure to determine how Communication Manager selects calls when calls are in a queue and an agent is available to receive calls.

Procedure

1. At the command prompt, type `change system-parameters features` and press **Enter**.
2. In the **Call Selection Measurement** field on page 12 of the Feature-Related System Parameter screen, select one of the following options:
 - **current-wait-time**
 - **predicted-wait-time**

*** Note:**

If you use Percent Allocation as the call selection method, leave this field at the default value because Communication Manager selects calls based on the target allocation for agents in each skill regardless of the wait time.

3. Press **Enter** to save the changes.
-

Administering Greatest Need

About this task

With Greatest Need, Communication Manager selects the oldest and highest priority call for any assigned skill.

For administered agent login IDs, you can administer the Agent LoginID screen through CMS Supervisor.

Procedure

1. At the command prompt, type `change agent-loginid xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
2. In the **Call Handling Preference** field, select **greatest-need**.
3. In the **Service Objective** field, enter `y` to use Greatest Need with Service Objective (SO).
4. Enter a skill number from 1 to 8000 for each skill that you assign to the agent.
5. In the **SL** field, enter a skill level from 1 to 16. For a primary skill, enter 1.
6. In the **RL** field, enter a reserve level of 1 or 2.

Reserve levels 1 and 2 indicate the Expected Wait Time (EWT) threshold levels.

Note:

The **RL** field applies if you enter `y` in the **Service Level Supervisor** field on the Hunt Group screen.

7. Press **Enter** to save the changes.
-

Administering Service Level Supervisor

About this task

Use the procedure to manage calls, agents, and overload thresholds during high call volumes.

Procedure

1. At the command prompt, type `change hunt-group xxx`, where `xxx` is the number of the hunt group. Press **Enter**.
2. In the **Service Level Supervisor** field, enter `y`.

3. In the **Activate on Oldest Call Waiting** field, enter one of the following field options:
 - **y**: SLS uses the time in a queue and Expected Wait Time (EWT) when activating reserve agents.
 - **n**: SLS uses only EWT when activating reserve agents.
 4. (Optional) If you administer **Call Selection Override** at the system level, enter one of the following field options in the **Call Selection Override** field:
 - **y**: Communication Manager overrides the administered call selection method when the skill exceeds an overload threshold level.
 - **n**: Call Selection Override is not active for the skill.
 5. In the **Level 1 Threshold (sec)** and **Level 2 Threshold (sec)** fields, enter the time when SLS must activate reserve agents.
The best practice for **Level 1 Threshold (sec)** is to enter five seconds less than the Average Speed of Answer (ASA) for calls to the skill.

 **Note:**
 - Call Selection Override starts when a skill exceeds the time in **Level 1 Threshold (sec)**.
 - Administer **Level 2 Threshold (sec)** if you do not use Dynamic Threshold Adjustment.
 6. In the **Dynamic Threshold Adjustment** field, enter **y**.
Use Service Level Target with Dynamic Threshold Adjustment.
 7. In the fields associated with the **Service Level Target** field, enter the percentage and the number of seconds.
 8. Press **Enter** to save the changes.
-

Administering a reserve agent

Procedure

1. At the command prompt, type `change agent-loginid xxx`, where **xxx** is the login ID of an agent. Press **Enter**.
2. Perform the following steps to assign an agent ID as a reserve agent for a skill:
 - a. In the **SL** field, enter the skill number.
 - b. In the **RL** field, enter **1** to use the reserve agent when the skill exceeds the time in **Level 1 Threshold (sec)**.
 - c. In the **RL** field, enter **2** to use the reserve agent when the skill exceeds the time in **Level 2 Threshold (sec)**.

*** Note:**

Enter 2 if you use two threshold levels, not for a single threshold level. Agents receive calls when the skill exceeds the second threshold level. In this case, leave the **SL** field blank.

3. Repeat Step 3 to administer another reserve agent.
 4. Press **Enter** to save the changes.
-

Administering SLS Call Selection Override

Procedure

1. At the command prompt, type `change system-parameters features` and press **Enter**.
 2. In the **Service Level Supervisor Call Selection Override** field, enter `y`.
 3. Press **Enter** to save the changes.
-

Administering Skill Level

About this task

With Skill Level, Communication Manager selects the oldest and highest priority call for the highest skill level of an available agent.

For administered agent login IDs, you can administer the Agent LoginID screen through CMS Supervisor.

Procedure

1. At the command prompt, type `change agent-loginid xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
2. In the **Call Handling Preference** field, select **skill-level**.
3. In the **Service Objective** field, enter `y` to use Skill Level with Service Objective (SO).
4. Enter a skill number from 1 to 8000 for each skill that you assign to the agent.
5. In the **SL** field, enter a skill level from 1 to 16. For a primary skill, enter 1.
6. In the **RL** field, enter a reserve level of 1 or 2.
Reserve levels 1 and 2 indicate the Expected Wait Time (EWT) threshold levels.

*** Note:**

The **RL** field applies if you enter **y** in the **Service Level Supervisor** field on the Hunt Group screen.

7. Press **Enter** to save the changes.
-

Using Percent Allocation

About this task

To use Percent Allocation and the related features, administer the features in the following order:

1. Agent-level decisions on the Agent LoginID screen
2. Skill-level decisions on the Hunt Group screen
3. System-level decisions on the Feature-Related System Parameters screen

Procedure

1. On the Agent LoginID screen, administer **percent-allocation**.
 2. On the Hunt Group screen, administer **pad** and **Dynamic Percentage Adjustment**.
 3. On the Feature-Related System Parameters screen, administer **Auto Reserve Agents**.
-

Administering Percent Allocation

Procedure

1. At the command prompt, type `change agent-loginid xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
2. In the **Call Handling Preference** field, select **percent-allocation**.
3. In the **Direct Agent Calls First** field, enter **y** to deliver direct agent calls before other ACD calls.
This field replaces **Service Objective** and precedes percent allocation if the contact center receives direct agent calls.
4. Enter a skill number from 1 to 8000 for each skill that you assign to the agent.
5. In the **SL** field, enter a skill level from 1 to 16. For a primary skill, enter 1.

6. In the **RL** field, enter a reserve level of 1 or 2.
 7. In the **PA** field, enter a percentage from 1 to 100.
Agents receive calls for a reserve skill only when the skill exceeds an overload threshold. Therefore, do not enter target percentages for reserve skills.
 8. Verify that the total allocation is 100%.
 9. Press **Enter** to save the changes.
-

Administering Dynamic Percentage Adjustment and PAD

Procedure

1. At the command prompt, type `change hunt-group xxx`, where `xxx` is the number of the hunt group. Press **Enter**.
 2. In the **Group Type** field, select **pad**.
 **Note:**
Use the **pad** field option if **Dynamic Advocate** is active for the system.
 3. In the **Expected Call Handling Time (sec)** field, enter the average call handling time.
 4. In the **Dynamic Percentage Adjustment** field, enter `y`.
This field is applicable when you select **ead-loa**, **pad**, or **ucd-loa** as the agent selection method.
 5. In the fields associated with the **Service Level Target** field, enter the percentage and the number of seconds.
 6. Press **Enter** to save the changes.
-

Administering Auto Reserve Agents

Procedure

1. At the command prompt, type `change system-parameters features` and press **Enter**.
2. In the **ACW Agents Considered Idle** field on page 12 of the Feature-Related System Parameters screen, enter one of the following options:
 - `y`: Communication Manager includes After Call Work (ACW) in the idle time calculation.

- **n**: Communication Manager includes ACW in the agent total work time calculation.
3. In the **Auto Reserve Agents** field, select one of the following options:
 - **all**: Communication Manager leaves reserve agents idle if the current work time meets the target allocation for a skill.
 - **none**: Communication Manager disregards reserve agents.
 - **secondary-only**: Communication Manager leaves reserve agents idle for all assigned skills, except the primary skill, that is, skill level 1.
 4. Press **Enter** to save the changes.
-

Using Service Objective

About this task

Use Dynamic Queue Position (DQP) to administer Service Objective (SO) at the VDN level.

Administer SO in the following order:

1. Agent-level decisions on the Agent LoginID screen
2. Skill-level decisions on the Hunt Group screen
3. System-level decisions on the Feature-Related System Parameters screen

Procedure

1. On the Agent LoginID screen, administer **Call Handling Preference** and **Service Objective**.
 2. On the Hunt Group screen, administer **Dynamic Queue Position** and **Service Objective (sec)**.
 3. On the Feature-Related System Parameters screen, administer **Call Selection Measurement**.
-

Administering SO for an agent

Procedure

1. At the command prompt, type `change agent-loginid xxx`, where `xxx` is the login ID of an agent. Press **Enter**.
2. In the **Call Handling Preference** field on the Agent LoginID screen, select **greatest-need** or **skill-level**.

3. In the **Service Objective** field, enter *y*.
 4. Enter a skill number from 1 to 8000 for each skill that you assign to the agent.
 5. In the **SL** field, enter a skill level from 1 to 16. For a primary skill, enter 1.
 6. In the **RL** field, enter a reserve level of 1 or 2.
 7. Press **Enter** to save the changes.
-

Administering SO for a skill

Procedure

1. At the command prompt, type `change hunt-group xxx`, where *xxx* is the number of the hunt group. Press **Enter**.
 2. In the **Service Objective (sec)** field on page 2 of the Hunt Group screen, enter the number of seconds.
 3. Press **Enter** to save the changes.
-

Administering Dynamic Queue Position

Procedure

1. At the command prompt, type `change hunt-group xxx`, where *xxx* is the number of the hunt group. Press **Enter**.
 2. In the **Dynamic Queue Position** field, enter *y*.
 3. Press **Enter** to save the changes.
-

Next steps

After you administer Dynamic Queue Position (DQP) for a skill, determine Service Objective (SO) for each VDN that routes calls to the skill.

Administering SO for a VDN

Procedure

1. At the command prompt, type `change vdn xxx`, where *xxx* is the number of the VDN. Press **Enter**.

2. In the **Service Objective** field on the Vector Directory Number (VDN) screen, enter the number of seconds.
 3. Press **Enter** to save the changes.
-

DQP effects on call selection

The Dynamic Queue Position (DQP) field settings on the Hunt Group screen affect call selection for an agent login ID that has **Service Objective** active on the Agent LoginID screen.

The following conditions determine call selection:

- If you assign only DQP-enabled skills to an agent and the agent is available to receive calls, Communication Manager delivers a call from the skill queue with the oldest waiting call at the top of the skill queue.
- If you assign some DQP-enabled skills, Communication Manager delivers calls based on the Service Objective (SO) for each skill.

You can select calls based on the skill SO for agents with only DQP-enabled skills, but the administration varies with the **Direct Agent Calling** (DAC) field settings.

Administering call selection based on skill SO when DAC is in use

Procedure

1. In the **Direct Agent Skill** field on the Agent LoginID screen, enter the skill number.
 2. In the **Dynamic Queue Position** field, enter *n*.
-

Administering call selection based on skill SO when DAC is not in use

Procedure

1. Create a hunt group.
 2. In the **Dynamic Queue Position** field on the Hunt Group screen, enter *y*.
 3. Assign the hunt group to agents with only DQP-enabled skills.
-

Administering Business Advocate through CMS Supervisor

Administering the existing agent login IDs

About this task

To administer the existing agent login IDs, use one of the following CMS Supervisor administration windows:

- Change Agent Skills
- Multi-Agent Skill Change

Note:

Use Communication Manager to create new agent login IDs.

Procedure

1. In the Controller window, select **Commands > Agent Administration**.
CMS Supervisor displays the Agent Administration window.
2. In the **ACD** field, select the Communication Manager server.
3. Click the **Operations** tab and select one of the following administration windows:
 - Change Agent Skills
 - Multi-Agent Skill Change
4. Click **OK**.

Related topics:

- [Adding agent skills](#) on page 64
- [Changing agent skills](#) on page 65
- [Deleting agent skills](#) on page 66
- [Adding multiple agents to a skill](#) on page 68
- [Moving multiple agents to a skill](#) on page 68
- [Removing multiple agents from a skill](#) on page 69
- [Administering service level](#) on page 70

Change Agent Skills window

Use this administration window to perform the following tasks:

- Add agent skills.
- Administer call handling preferences.
- Administer reserve agents.
- Change or view agent skills.
- Delete agent skills.

Adding agent skills

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

Procedure

1. In the Change Agent Skills window, click **Add Skills**.
The system displays the Add Agent Skills window.
2. In the **Available Skills** field in the Add Agent Skills window, select the skills.
3. In the **Level** field, select the skill level for each skill that you assign to the agent login ID.
4. Click **OK** .

Related topics:

[Administering the existing agent login IDs](#) on page 63

Administering call handling preference

Procedure

1. In the **Call Handling Preference** check box on the Change Agent Skill window, select one of the following options:
 - **Greatest Need**
 - **Percent Allocation**
 - **Skill Level**

2. If you select **Greatest Need** or **Skill Level**, administer **Service Objective** and click **Add Skills**.
3. If you select **Percent Allocation**, click **Add Skills**.
4. Administer the skill level or target allocation for each skill.
5. (Optional) To administer a skill as the primary skill of the agent, select a skill from the **Assigned Skills** column and click **Make Top Skill**.

*** Note:**

If you select **Skill Level** and assign only reserve levels to an agent, the system disables **Make Top Skill**. Reserve agents must be available for critical skills that do not meet service-level targets. Therefore, do not add primary skills to reserve agents.

6. Click **OK** to save the changes.
-

Administering reserve agents

Procedure

1. In the **Call Handling Preference** field in the Change Agent Skills window, select one of the following field options:
 - **Greatest Need**
 - **Skill Level**
 2. In the Change Agent Skills window, click **Add Skills**.
The system displays the Add Agent Skills window.
 3. In the **Available Skills** field in the Add Agent Skills window, select the skills.
 4. In the **Level** field, select the reserve level as **r1** or **r2**.
 5. Click **OK** to save the changes.
-

Changing agent skills

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

Procedure

1. In the Select Agent/Template window, type one of the following agent-related information to change skills:
 - Agent login ID
 - Agent name
 - Agent template
2. Click **OK**.
CMS Supervisor displays the Change Agent Skills window with the agent or template name and the agent login ID.

Related topics:

[Administering the existing agent login IDs](#) on page 63

Deleting agent skills

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

Procedure

1. In the **Assigned Skills** field in the Change Agent Skills window, select the skill.
2. Click **Delete Skill**.
3. In the Delete Agent Skills dialog box, click **OK**.

 **Note:**

An agent must have at least one skill.

4. Repeat the steps to delete other skills.

Related topics:

[Administering the existing agent login IDs](#) on page 63

Using agent templates

About this task

A template is an existing agent profile with skill settings. You can apply these skill settings to other agent profiles.

The Change Agent Skills window includes agent templates that include information about agent skills, levels, interrupt types, and target allocations. Using an agent template saves time as all agents have the same skill settings.

Procedure

1. In the Select Agent/Template window, enter the title of the agent template in the **Agent** field.
CMS Supervisor displays the Change Agent Skills window with the skills profile of the template.
2. Select the **Agent Name(s)/Login ID(s)** check box, and type up to 50 agent IDs in the **Agent** field.
You can enter a maximum of 250 characters. Separate agent IDs by semicolons. You can also use the **Available Agents** list or **Browse** dialog box to select agents.
3. Click **OK** to save the changes. The system forwards the change request to Communication Manager.
CMS Supervisor displays the Status dialog box with the status of each change request.

You can click **Script** to run an executable file to change agent skills for up to 50 agents.

Multi-Agent Skill Change window

Use this administration window to perform the following tasks:

- Add multiple agents to a skill.
- Move multiple agents to a skill.
- Remove multiple agents from a skill.

Any skill that you change takes effect immediately for agents in the Auxiliary (AUX) or Available (AVAIL) work modes. The system displays a pending flag next to the agent login ID for agents with:

- Active ACD or non-ACD calls
- Calls on hold
- Direct Agent Calls in a queue

Adding multiple agents to a skill

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

Procedure

1. On the **Skills** menu, click **Skill List**.
CMS Supervisor displays the Skill List window that lists all administered skills.
2. On the **Agents** menu, click **List All Staffed Agents**.
CMS Supervisor displays the Agent List window that lists all active and logged-in agents.
3. In the Agent List window, press and hold **Control** and select multiple agent IDs.
4. Right-click and select **Add Agents to Skill**.
CMS Supervisor displays the Add Agents to Skill window that lists all active and logged-in agents.
5. In the **To Skill** field, select a skill.
6. In the **Level** field, select the skill level or the reserve level to assign new levels to the agent.
Field options for skill level range from 1 to 16, where 1 is the highest skill assignment.
Field options for reserve levels include **r1** or **r2**, where **r1** is the first threshold level.
7. Click **OK** to save the changes or **Script** to save the procedure as an executable template.

Related topics:

[Administering the existing agent login IDs](#) on page 63

Moving multiple agents to a skill

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

Procedure

1. On the **Agents** menu, click **List All Staffed Agents**.
CMS Supervisor displays the Agent List window that lists all active and logged-in agents.

2. In the Agent List window, press and hold **Control** and select multiple agent IDs.
3. Right-click and select **Move Agent to Another Skill**.
CMS Supervisor displays the Move Agent to Another Skill window.
4. In the **To Skill** field, select a skill.
5. Perform one of the following actions:
 - Select the **Preserve Original Levels** check box to keep the administered skill level of the agent.
 - In the **Level** field, select the required skill level or reserve level to assign new levels to the agent.

Field options for skill level range from 1 to 16, where 1 is the highest skill assignment. Field options for reserve levels include **r1** or **r2**, where **r1** is the first threshold level.
6. Click **OK** to save the changes or **Script** to save the procedure as an executable template.

Related topics:

[Administering the existing agent login IDs](#) on page 63

Removing multiple agents from a skill

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab and to select the administration window.

About this task

Caution:

If you perform the following steps to remove agent IDs with call handling preference as **percent-allocation**, the system deletes all administered target allocations.

Procedure

1. On the **Skills** menu, click **Skill List**.
CMS Supervisor displays the Skill List window that lists all administered skills.
2. Double-click the skill to remove agents.
CMS Supervisor displays a list of agents with the skill.
3. To remove the agents:
 - a. Press and hold **Control**, and select agent names.
 - b. Right-click and select **Remove Agents From Skill**.

CMS Supervisor displays the Remove Agents From Skill window.

4. Click **OK** to save the changes or **Script** to save the procedure as an executable template.

Related topics:

[Administering the existing agent login IDs](#) on page 63

Administering service level

Reporting adjuncts, such as Call Management System, track and generate reports on the percentage of calls that meet the administered service level.

Before you begin

Perform the steps in Administering the existing agent login IDs to navigate to the **Operations** tab.

Procedure

1. Click the **Operations** tab and select **Split/Skill Call Profile Setup**. Click **OK**.
2. In the **Split(s)/Skill(s)** field, select the skill name or skill number.
3. In the **Acceptable service level** field, enter a number from 0 to 9999.
The number is the speed of answer for calls to the skill.
For more information, see *Avaya Call Management System Administration*.
4. In each **Service level increments (seconds)** field, enter the number of seconds in ascending order.
The field includes nine subfields of type **Inc** with the first subfield as **Inc 1** and the last subfield as **Inc 10 and above**.
The range for each subfield entry is from 0 to 999. For example, you can set **Inc 1** as 5 or 15, indicating an increment from 0 to 5 seconds or 0 to 15 seconds.
You can also set different intervals in each subfield. For example, you can set **Inc 1** to 5, **Inc 2** to 12, and **Inc 3** to 15. The interval between the first two subfields is 7, and the interval between the last two subfields is 3.

*** Note:**

- CMS tracks this interval for answered calls and abandoned calls.
- Each subfield entry indicates a longer wait time for a call.

5. Click **Action** and select **Add** to complete the procedure.
-

Related topics:

[Administering the existing agent login IDs](#) on page 63

Database items and calculations

CMS database tables

CMS stores all ACD data in real-time and historical databases. You can use the data to generate reports.

CMS tracks a call from the time the call arrives on a trunk till the end of the call. CMS also tracks After Call Work (ACW) as part of the call data. After call completion, CMS stores the call data in different database tables.

The following table indicates how CMS captures the call data in different database tables.

Table 8: Call flow data capture

Database tables	Call flow							
	Call seizes trunk	Call enters VDN or vector	Call queues to skill	Vector processing ends	Call rings at agent station	Agent responds to the caller	Trunk drops the call	Agent leaves ACW
Trunk or Trunk Group	Start						Stop	
Vector		Start				Stop		
VDN		Start						Stop
Split/Skill			Start					Stop
Agent					Start			Stop
Call Work Codes						Start		Stop

Each database table consists of database items with the following types of data.

Table 9: CMS database items

Data type	Description
Administrative	Data that you administer through Communication Manager or CMS Supervisor.

Data type	Description
Busy Hour	Data that CMS tracks during the peak time.
Cumulative	Data that CMS tracks during a data collection interval. Most real-time database items contain the cumulative data type.
Maximum Interval Value	The maximum value reached for a specified interval.
Row Identifier	Data common to all tables.
Special Table	Data in a specific table.
Status	Data indicating the status of a specific parameter.

For more information, see *Avaya Call Management System Database Items and Calculations*.

Agent database items

Table 10: Administrative data type items

Database item	Description
DACALLS_FIRST	An indication that an agent with call handling preference as percent-allocation requested for Direct Agent Calls before other calls. An item value of one (1) indicates that an agent requested for Direct Agent Calls. This item is part of the real-time database.
GNSKILL	The order in which agents with the greatest need preference receive calls. Assign levels to each skill to ensure that an agent handles the oldest and highest priority calls. This item is part of the real-time database.
PERCENT	The time, in percentage, that an agent spends in a skill. This item is part of the real-time database.
PREFERENCE	The call handling preference of an agent. Item values are as follows: <ul style="list-style-type: none"> • LVL (skill level) • NEED (greatest need) • PCNT (percent allocation) The item is blank if you do not administer call handling preference on the Agent LoginID screen. This item is part of the real-time database.
SKLEVEL	The skill level or reserve level of the first skill that an agent logs in to.

Database item	Description
	The item applies to the LOGONSKILL database item, which identifies the first skill that an agent logs in to.
SKPERCENT	The allocated time, in percentage, for an agent in the first skill that an agent logs in to.
USE_SVC_OBJ	An indication that an agent with an administered Service Objective (SO) requested for calls. An item value of one (1) indicates that an agent requested for calls. This item is part of the real-time database.

Table 11: Status data type items

Database item	Description
LEVEL	The skill level or reserve level of a skill that an agent logs in to. This item is part of the real-time database.
ROLE	The service type assignment for an agent in a skill. Item values are as follows: <ul style="list-style-type: none"> • Allocated: Agents with call handling preference as percent-allocation. • Backup: Agents with call handling preference as skill-level and without primary skill or reserve level assignments. • Reserved: Agents with reserve levels of R1 or R2 for the skill. • Roving: Agents with call handling preference as greatest-need and with all administered skill levels, from 1 to 16. • Top: Agents with the skill as the primary skill, that is, skill level 1. This item is part of the real-time database.
TOPSKILL	The primary skill of an agent. This item is part of the real-time database.
WORKSKLEVEL	The skill level or reserve level for each skill that an agent handles at a time. The item applies to the WORKSKILL database item, which is the number of skills that an agent handles at a time. This item is part of the real-time database.

Agent Login/Logout database items

The following table lists the database items that support Business Advocate.

Table 12: Administrative data type items

Database item	Description
PREFERENCE	<p>The call handling preference of an agent. Item values are as follows:</p> <ul style="list-style-type: none"> • LVL (skill level) • NEED (greatest need) • PCNT (percent allocation) <p>The item is blank if you do not administer call handling preference on the Agent LoginID screen. This item is part of the real-time database.</p>
SKLEVEL	<p>The skill level or reserve level of the first skill that an agent logs in to. The item applies to the LOGONSKILL database item, which identifies the first skill that an agent logs in to.</p>
SKPERCENT	<p>The allocated time, in percentage, for an agent in the first skill that an agent logs in to.</p>

Split/Skill database items

Table 13: Administrative data type items

Database item	Description
MAX_TOT_PERCENTS	<p>The maximum total staffed agent percentage that is allocated to a skill.</p>
TOT_PERCENTS	<p>The total staffed agent percentage allocated to a skill. This item is part of the real-time database.</p>

Table 14: Cumulative data type items

Database item	Description
ACDCALLS_R1	<p>The number of ACD calls that a reserve level 1 agent answers for a skill.</p>
ACDCALLS_R2	<p>The number of ACD calls that a reserve level 2 agent answers for a skill.</p>
I_NORMTIME	<p>The length of time that a skill is within all administered overload threshold levels.</p>
I_OL1TIME	<p>The length of time that a skill is in overload threshold level 1.</p>
I_OL2TIME	<p>The length of time that a skill is in overload threshold level 2.</p>

Table 15: Status database item

This item is part of the real-time database.

Database item	Description
SKSTATE	The state of a skill compared to all administered thresholds. Skill state options include: <ul style="list-style-type: none"> • AUTORSV • BEHIND • NORMAL • OVRLD1 • OVRLD2 • UNKNOWN

Table 16: Status data type items for flex agents

All database items in this table are part of the real-time database.

Database item	Description
FAGINRING	The number of flex agents for whom ACD calls are ringing at the station.
FAVAILABLE	The number of flex agents available to receive ACD calls.
FINACW	The number of flex agents in the ACW mode for a skill.
FINAUX	The number of flex agents in the AUX mode for a skill.
FONACD	The number of flex agents who are on ACD calls for a skill.
FOTHER	The number of flex agents who are in the OTHER work mode for a skill.
FSTAFFED	The number of flex agents who are staffed for a skill. These agents are not reserve agents and have the skill assigned as a secondary skill.
Flex agents have the following work roles: <ul style="list-style-type: none"> • Allocated: Agents with call handling preference as percent-allocation. • Backup: Agents with call handling preference as skill-level and without primary skill or reserve level assignments. • Roving: Agents with call handling preference as greatest-need and with all administered skill levels, from 1 to 16. 	

Table 17: Status data type items for agents with call handling preference as greatest-need

All database items in this table are part of the real-time database.

Database item	Description
GNAGINRING	The number of agents with ACD calls ringing at the stations.
GNAVAILABLE	The number of available agents.
GNDA_INACW	The number of agents in the ACW mode for direct agent calls. The total number of agents in ACW is the sum of GNDA_INACW and GNINACW.
GNDA_ONACD	The number of agents on direct agent ACD calls.
GNINACW	The number of agents in the ACW mode.
GNINAUX	The number of agents in the AUX work mode for inbound or outbound extension calls.
GNINAUX0	The number of agents in the AUX work mode with the reason code zero (0) for all assigned skills.
GNINAUX10 through GNINAUX99	The number of agents in the AUX work mode with a reason code from 10 to 99.
GNONACD	The number of agents who are on ACD calls.
GNONACDAUXOUT	The number of multiple call handling agents on AUXOUT calls with an ACD call on hold for a skill.
GNONACDOUT	The number of agents on outbound calls that an adjunct makes to the skill. This item is applicable with the Adjunct-Switch Application Interface (ASAI) feature.
GNONACWIN	The number of agents in the ACW mode and on inbound extension calls.
GNONACWOUT	The number of agents in the ACW mode and on outbound extension calls.
GNONAUXIN	The number of agents: <ul style="list-style-type: none"> • In the AUX work or Available work mode • With ACD AUXIN or ACD AUXOUT calls on hold • On inbound extension calls where the skill is the oldest skill the agents logged in to.
GNONAUXOUT	The number of agents: <ul style="list-style-type: none"> • In the AUX work or Available work mode • With ACD AUXIN or ACD AUXOUT calls on hold • On outbound extension calls where the skill is the oldest skill that the agents logged in to.
GNOTHER	The number of agents in the OTHER work mode.
GNSTAFFED	The number of agents who are staffed for a skill.

Table 18: Status data type items for reserve levels

All database items in this table are part of the real-time database.

Database item	Description
R1AGINRING	The number of reserve level 1 agents with ACD call ringing for the skill.
R1AVAILABLE	The number of reserve level 1 agents available for a call to the skill.
R1INACW	The number of reserve level 1 agents in the ACW mode for a skill.
R1INAUX	The number of reserve level 1 agents in the AUX mode for a skill. The item does not include reserve level 1 agents for a normal skill, that is, a skill where the current service level matches the administered level.
R1ONACD	The number of reserve level 1 agents who are on ACD calls for the skill.
R1OTHER	The number of reserve level 1 agents who are in the OTHER work mode when active to receive calls for a critical skill. The item does not include reserve level 1 agents who are logged-in and in standby for a normal skill.
R1STAFFED	The number of reserve level 1 agents who are logged-in to receive calls for a critical skill.
R2AGINRING	The number of reserve level 2 agents with ACD call ringing for the skill.
R2AVAILABLE	The number of reserve level 2 agents available for a call to the skill.
R2INACW	The number of reserve level 2 agents in the ACW mode for a skill.
R2INAUX	The number of reserve level 2 agents in the AUX mode for a skill. The item does not include reserve level 2 agents for a normal skill, that is, a skill where the current service level matches the administered level.
R2ONACD	The number of reserve level 2 agents who are on ACD calls for the skill.
R2OTHER	The number of reserve level 2 agents who are in the OTHER work mode when active to receive calls for a critical skill. The item does not include reserve level 2 agents who are logged in and in standby for a normal skill.
R2STAFFED	The number of reserve level 2 agents who are logged in to receive calls for a critical skill.

CMS dictionary calculations

Use the following calculation types for real-time, historical, and integrated CMS and CMS Supervisor reports.

You can also use the calculations for custom reports and designer reports.

 **Caution:**

Modifications to standard calculations change the meaning of the data in the reports.

Table 19: Standard dictionary calculations

Calculation title	Description
AVG_EQV_AGENTS_STFD	The average position staffed for a skill across all call handling preferences.
DEDICATED_AGENT	The number of dedicated agents assigned to a skill.
FACTIVE_AG	The number of flex agents in a skill with the following conditions: <ul style="list-style-type: none"> • In the ACW mode • On ACD calls • With ACD calls ringing at the station
FTE_AGENTS	The number of full time equivalent (FTE) agents staffed for a skill.
MAX_DEDICATED_AGT	The maximum number of dedicated agents assigned to a skill. The calculation includes top agents and FTE agents.
MAX_FTE_AGENTS	The maximum number of FTE agents for a skill.
R1ACTIVE_AGT	The number of reserve agents with R1 threshold assignment. The calculation includes reserve agents with the following conditions: <ul style="list-style-type: none"> • In the ACW mode • On ACD calls • With ACD calls ringing at the station
R2ACTIVE_AGT	The number of reserve agents with R2 threshold assignment.

Calculation title	Description
	<p>The calculation includes reserve agents with the following conditions:</p> <ul style="list-style-type: none"> • In the ACW mode • On ACD calls • With ACD calls ringing at the station

The calculation types in the following table are not standard CMS calculations but provide information specific to Business Advocate.

Table 20: Report-specific calculations

Calculation title	Description
% Aban	Percentage of abandoned calls to all VDNs of a selected ACD system.
% Busy	Percentage of busy calls to all VDNs of a selected ACD system.
% Disconnect	Percentage of disconnected calls to all VDNs of a selected ACD system.
% Flow Out	Percentage of redirected calls to all VDNs of a selected ACD system.
% Agent Occup (Group) w/ACW	Percentage of agent or agent group occupancy, including ACW time.
% Agent Occup (Group) w/o ACW	Percentage of agent or agent group occupancy, excluding ACW time.

For more information, see *Avaya Call Management System Database Items and Calculations*.

Chapter 5: Feature interactions

BCMS and VuStats interactions

Feature	Interaction
Acceptable Service Level (ASL)	You can use ASL to view the service levels through BCMS and VuStats.  Note: ASL requires Service Objective (SO).
Service Level Supervisor (SLS)	BCMS tracks the work mode of reserve agents as OTHER on the Monitor BCMS Skill report when the skills do not exceed overload thresholds. BCMS tracks the work mode of reserve agents as ACD, ACW, AUX, or OTHER when the skills exceed overload thresholds.

Direct Agent Calls interactions

Feature	Interaction
Least Occupied Agent (LOA)	When an agent receives a direct agent call, Communication Manager adds the time spent on the call to the total work time and occupancy calculations.
Percent Allocation	Direct Agent Calls First replaces Service Objective on the Agent LoginID screen when percent-allocation is the call selection method. If you use Direct Agent Calls First , the system overrides percent allocation and delivers direct agent calls before any ACD call.
Service Level Supervisor (SLS)	SLS activates reserve agents when a skill exceeds an overload threshold. Agents with only reserve skills cannot receive direct agent calls because the agents must be available for calls to critical skills.

Feature	Interaction
	If you use direct agent calls with SLS, agents with primary and reserve skills receive direct agent calls before any ACD call regardless of overload thresholds. Therefore, administering SLS with direct agent calls overrides SLS and does not meet the business objective of maintaining the service levels.
Skill Level	Direct Agent Calls First is inapplicable when the call selection method is skill-level .

Location Preference Distribution interactions

With Location Preference Distribution, Communication Manager first attempts to route ACD calls to agents at the same location as the originating trunk. Communication Manager routes calls to agents at a different location if the local resources cannot meet the administered service objectives.

The field settings for Location Preference Distribution take precedence over the settings for Business Advocate.

Agent selection and call selection based on Location Preference Distribution take precedence over Service Level Supervisor (SLS) and Percent Allocation. However, the SLS and Percent Allocation settings override the settings for Location Preference Distribution in the following situations when a reserve agent receives calls:

- When skills exceed the Estimated Wait Time (EWT) threshold with SLS active.
- When the current service level is less than the administered threshold with Percent Allocation active.

If more than one reserve agent is available for a call, Communication Manager follows the Location Preference Distribution settings.

Percent Allocation interactions

Feature	Interaction
Add/Remove skills by Feature Access Codes (FACs)	Do not use FACs to add or remove skills when the call handling preference is percent-allocation as change in skills can affect the service levels. Communication Manager denies requests for changes in skills and plays an intercept tone.

Feature	Interaction
Agent login and logout	With percent-allocation and Least Occupied Agent (LOA) , Communication Manager starts calculations for total work time and occupancy when agents log in to the system. If an agent logs out of the system and logs in again, Communication Manager restarts the calculations.
Auto Reserve Agent	With percent allocation , auto reserve agents do not receive calls for skills when the Expected Wait Time (EWT) is within the threshold level.
Multiple Call Handling (MCH)	Do not use MCH with Percent Allocation as MCH affects the total work time calculations for an agent.
Percent Allocation Distribution (PAD)	To use percent-allocation as a call selection method, you must select pad as the Group Type on the Hunt Group screen.
Predicted Wait Time (PWT)	PWT does not work with Percent Allocation as Percent Allocation does not use the time in a queue for call selection.

Related topics:

[Location Preference Distribution interactions](#) on page 82

Service Level Supervisor interactions

Feature or condition	Interaction
Abandoned calls	Abandoned calls can cause the threshold levels for a skill to drop if SLS activates reserve agents during an overload threshold condition. Abandoned calls can interfere with SLS and also lead to inaccurate reporting.
AUDIX™	AUDIX™ is a voicemail system. Therefore, do not administer an AUDIX™ hunt group when you use SLS.
Auto-Available Skill (AAS)	SLS monitors the threshold levels of each skill and activates reserve agents only when a skill exceeds the threshold levels. Therefore, reserve agents can be idle even if calls are in the queue. Most supervisors use AAS for non-human agents, such as Voice Response Units (VRUs), to ensure that auto-in agents in a skill are continuously available for calls. Therefore, do not administer AAS agents as reserve agents.

Feature or condition	Interaction
Multiple Call Handling (MCH)	SLS overrides the MCH settings for a skill if the skill is within the overload thresholds. Therefore, a reserve agent, if available, in an MCH skill does not receive calls if the skill does not exceed the overload threshold.
Multiple skill queuing	With Call Vectoring, Communication Manager can place calls in up to three skill queues at a time. If SLS is active, placing calls to multiple skills can affect the service levels of the skills. For example, a skill can exceed a threshold level because calls are in the queue. Multiple Skill Queuing can interfere with SLS and lead to inaccurate performance statistics.
Redirection on No Answer (RONA)	A redirected call can affect the threshold levels of a skill and cause SLS to activate reserve agents.

Related topics:

[Location Preference Distribution interactions](#) on page 82

Service Objective interactions

Feature	Interaction
Acceptable Service Level (ASL)	You can use ASL to view the service levels through BCMS and VuStats.  Note: ASL requires Service Objective (SO).
Priority Queuing	Dynamic Queue Position (DQP) or SO by VDN places calls in a queue based on the priority of the VDN from where the call originates. Therefore, the system places calls from VDNs with critical SOs before most calls in the queue. Priority queuing overrides DQP because priority can vary with the following: <ul style="list-style-type: none"> • Class of Restriction (COR) • Dialed number • Incoming trunk group • Number of available agents • Number of calls in a queue • Wait time for calls in a queue

Work time and occupancy interactions

Feature or condition	Interaction
Agent Hold	Communication Manager counts all time, including ACD calls on hold, in the calculations for total work time and occupancy. If Multiple Call Handling (MCH) is active, Communication Manager includes the time spent in all skills.
Agent Login and Logout	With percent-allocation and Least Occupied Agent (LOA) , Communication Manager starts calculations for total work time and occupancy when agents log in to the system. If an agent logs out of the system and logs in again, Communication Manager restarts the calculations.
Call Coverage	Communication Manager includes the time that calls ring at a station.
Call Forwarding	Communication Manager includes the time that calls ring at a station.
Call Park	Communication Manager does not include parked calls.
Call Pickup	Communication Manager includes the time that calls ring at a station.
Conference or Transfer	Communication Manager includes the time calls are on hold before a conference or a transfer.
Non-ACD calls	Communication Manager does not include the time spent on non-ACD calls.
Redirection on No Answer (RONA) calls	Communication Manager includes the time that calls ring at a station.
Timed After Call Work (TACW)	If you set ACW Considered Idle to <i>y</i> , Communication Manager does not include the time spent in call-related activities.
VDN of Origin Announcement (VOA)	Communication Manager includes the time that an agent spends listening to VOA.

Table 21: Extension calls and Least Occupied Agent (LOA)

Extension call status	LOA action
Auxiliary (AUX)	Communication Manager disregards the AUX work time.
Auto-in or Manual-in with no ACD call on hold	Communication Manager includes the time spent as idle time.

Feature interactions

Extension call status	LOA action
Auto-in or Manual-in with an ACD call on hold	Communication Manager includes the time spent as work time.
ACW	If you set ACW Considered Idle to <i>y</i> , Communication Manager does not include the time spent in call-related activities.

Index

A

abandon time	42
abandoned calls	45, 70
acceptable service level (ASL)	70, 81, 84
ACD agent count	26, 48
activating reserve agents	30
ACW as idle time	53
adjusting target allocations	15
adjusting thresholds	24, 55
adjusting work time	22
administration decisions	56, 58–61
agent level	56, 58, 60
service targets for skills	61
skill level	58–61
skill level decisions	61
system level	58–60
VDN level	60, 61
administrative data type items	72–74
after call work (ACW)	47, 53, 59
agent allocation, adjusting	29
agent hold time	85
agent level decisions	56, 58, 60
agent licensing, adding	48
agent login IDs, creating	47
agent occupancy	11, 33, 41, 45
agent profiles	66
agent removal warning	69
agent selection	11, 27
criteria	11
idle time	11
occupancy	11
skill level	11
time spent in skills	11
agent selection example	12–14
EAD-LOA	12
EAD-MIA	13
PAD	13
UCD-LOA	14
UCD-MIA	14
agent selection method	25, 30, 35, 38, 43
agent skills	47, 63–66
adding	47, 63, 64
changing	47, 63, 65
deleting	47, 63, 66
viewing	47, 63

agent staffing	9, 37
agent surplus	11, 27
agent template	65
agent work	22, 27
adjusting time	22
allocating time	27
changing state	22
agent work time	53
agent work time, allocating	29
agent-level administration	49
assigned skills	64, 66
assigning reserve levels	23
assigning service objectives	33
assigning skill levels	68
audience	7
auto reserve agents	15, 21, 22, 25, 27, 53, 58, 59
auto-available skill (AAS)	83
available skills	64
Avaya Mentor videos	8
average speed of answer (ASA)	15, 30, 34, 42, 43, 45, 60
average talk time	30

B

balancing workload	27, 58
BCMS interactions	81
BCMS reports	81
Business Advocate screens	49

C

call abandon time	34
call coverage	85
call flow	71
call forwarding	85
call handling	50
call handling preference	14, 45, 47, 55, 57, 60, 63–65, 73, 74
call handling preference, administering	64
call handling time	29, 30, 59
call park	85
call pickup	85
call priority, assigning	38
call routing decisions	11
call selection	14, 27, 62
call selection example	19–21

greatest need	19
percent allocation	20
skill level	21
call selection measurement	35 , 47 , 49 , 53 , 54
call selection method	16 , 25 , 30 , 33 , 35 , 36 , 38 , 43 , 49 , 55
greatest need	49
percent allocation	49
skill level	49
call selection override	9 , 14 , 38 , 53 , 55 , 57
call selection with DQP	62
call selection, overriding	55
call surplus	14 , 27
call surplus condition	9
call volume changes	21
call volumes, managing	9 , 38 , 41
calls to single skill	43
changes in document	7
changing work states	22
changing work time allocation	22
CMS database	71
data types	71
historical	71
items	71
real-time	71
tables	71
CMS Supervisor administration window	63–65 , 67 , 68
Change Agent Skills	63–65
Multi-Agent Skill Change	63 , 67 , 68
creating templates	69
cumulative data type items	74
current wait time (CWT)	14 , 19 , 53 , 54 , 60
custom reports	34 , 37 , 42
customer segmentation	43

D

DAC interactions	81
database items	72–74
delivering calls to primary skills	15
delivering priority calls	15
dictionary calculations	78
direct agent calling (DAC)	62
direct agent calls first	16 , 64
document audience	7
document changes	7
document purpose	7
documentation	7
dynamic percentage adjustment	9 , 15 , 21 , 22 , 25 , 27 , 51 , 58
dynamic queue position (DQP)	17 , 43 , 47 , 51 , 54 , 60–62 , 84
dynamic threshold adjustment	9 , 21 , 24 , 35 , 38 , 51 , 55

E

EAD-LOA example	12
EAD-MIA example	13
existing login IDs	63
expected call handling time	27 , 51
expected wait time (EWT)	23 , 55 , 57 , 82
expert agent distribution (EAD)	9 , 25 , 38 , 43

F

feature access codes (FACs)	82
feature compatibility	25
flex agents	74

G

greatest need	64
greatest need example	19
group type	49 , 51
ead-loa	49
ead-mia	49
pad	49
ucd-loa	49
ucd-mia	49
group types, administering	47

H

highest priority call selection	55
historical reports	34
hunt group type	59
hunt groups	47

I

idle time	11
idle time calculation	59
increasing revenue	9

L

least occupied agent (LOA)	9 , 25 , 30 , 35 , 38 , 43 , 47
LOA interactions	85
location preference distribution	82
logged-in advocate agents	26

M

maintaining service levels	9 , 35 , 43
maximum logged-in agents	26 , 48
most idle agent (MIA)	25 , 53
moving agents between skills	23
moving multiple agents	68
multiple agents, removing	69
multiple call handling (MCH)	82 , 83
multiple skill change	67
multiple skill queuing	83
multiple skills, adding	68

O

oldest call selection	55
oldest call waiting (OCW)	9 , 19 , 24 , 51
overload thresholds	9 , 37 , 55
overriding call handling preference	16
overriding call selection	24

P

PAD example	13
percent allocation	20 , 25 , 27 , 29 , 58 , 64 , 81 , 82
percent allocation distribution (PAD)	9 , 25 , 27 , 58 , 82
percent allocation interactions	82
percent allocation, overriding	58
percent allocation, using	58
predicted wait time (PWT) ...	14 , 19 , 24 , 25 , 30 , 35 , 43 , 53 , 54 , 60
preserving skill levels	68
preventing agent burnout	15 , 23
priority queuing	84
purpose	7

Q

queue priority	14
----------------------	--------------------

R

real-time reports	34
reducing ASA	60
reducing cost of service	43
related documentation	7
related resources	8
Avaya Mentor videos	8
remote feature activation (RFA)	26
report type	30

reports	30 , 34 , 37 , 42 , 45
agent workload	30
call handling efficiency	34
call volume	42
custom	34 , 37 , 42
customer base segmentation	45
historical	34
real-time	34
service levels	37
reserve agent performance	37 , 42
reserve agents	33 , 36 , 50 , 56 , 74
reserve agents, activating	9
reserve agents, administering	65
reserve agents, assigning	47 , 63 , 64
reserve levels	23 , 50 , 55 , 57 , 68
right-to-use (RTU)	26
routing calls locally	82

S

screen reference	29 , 33 , 36 , 41 , 45 , 49
agent workload	29
Business Advocate	49
call handling efficiency	33
call volume	41
customer base segmentation	45
service levels	36
segmenting customers	43
selecting oldest call in queue	15
service level supervisor (SLS) ...	9 , 23–25 , 30 , 35 , 38 , 47 , 51 , 53 , 55 , 81–83
service level targets	59
service levels	35 , 38 , 51
service levels, administering	70
service levels, reviewing	45
service objective (SO) ...	9 , 14 , 16 , 17 , 19 , 21 , 25 , 30 , 43 , 47 , 51 , 54 , 55 , 57 , 60 , 62 , 64 , 84
service objective by VDN	43 , 45
service objective interactions	84
skill call profile	70
skill level	50 , 55 , 57 , 64 , 68 , 73 , 81
skill level decisions	60
skill level example	21
skill levels, assigning	29 , 41 , 60
skill performance, reviewing	34 , 45
skill-level administration	49
SLS interactions	82 , 83
speed of answer	70
status data type items	72 , 74
support	8
contact	8
system level decisions	60

system-level administration [49](#)

T

target allocation [50](#)

threshold levels [14](#), [53](#)

total logged-in agents [26](#)

U

ucd-loa [35](#)

UCD-LOA example [14](#)

UCD-MIA example [14](#)

uniform call distribution (UCD) [25](#), [30](#), [35](#), [38](#)

V

VDN level decisions [60](#), [61](#)

videos [8](#)

 Avaya Mentor [8](#)

VuStats interactions [81](#)

W

work roles [72](#)

 allocated [72](#)

 backup [72](#)

 reserved [72](#)

 roving [72](#)

 top [72](#)

work time calculation [59](#)

work time interactions [85](#)