



# **Avaya Operational Analyst**

Release 6.1

What's New in Operational Analyst

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Issue 1.0  
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Select **Support**, then select **Escalation Lists**. This Web site includes telephone numbers for escalation within the United States. For escalation telephone numbers outside the United States, select **Global Escalation List**.

#### Comments

To comment on this document, send e-mail to [crminfodev@avaya.com](mailto:crminfodev@avaya.com).

#### Acknowledgment

This document was written by the CRM Information Development group.

**Avaya Operational Analyst  
Release 6.1  
What's New in Operational Analyst**

**Contents**

<b>Preface</b> . . . . .	<b>5</b>
About Avaya Operational Analyst Release 6.1 . . . . .	6
Purpose of this document . . . . .	6
Intended users of this document . . . . .	6
Overview of this document . . . . .	7
Reasons for reissuing this document . . . . .	7
Safety labels . . . . .	8
Availability of this document . . . . .	8
Related documentation . . . . .	9
<b>Software upgrade and data migration</b> . . . . .	<b>11</b>
<b>Hardware and software requirements</b> . . . . .	<b>13</b>
Client PC minimum hardware requirements . . . . .	13
Server machine hardware sizing . . . . .	14
RAID configurations for server machines . . . . .	14
Client software requirements . . . . .	15
Server software requirements . . . . .	16
Software required for the historical database and Historical subsystem servers . . . . .	17
Historical subsystem coresident with the historical database . . . . .	18
Historical subsystem not coresident with the historical database . . . . .	19
Software required for real-time servers . . . . .	20
Software required for Report servers . . . . .	21
Basic Report server . . . . .	21
Advanced Report server . . . . .	22
Software required for Source-CMS collection subsystem . . . . .	23
Software required for Source-EC (Event Collector) collection subsystem . . . . .	23
Software required for Source-EC Bridge (Event Collector Bridge) collection subsystem . . . . .	24
<b>Data collection functionality</b> . . . . .	<b>25</b>
Report data consolidation . . . . .	25
Event collector bridge . . . . .	26
<b>Reports</b> . . . . .	<b>27</b>
Basic reports . . . . .	27
CMS report . . . . .	27

## Contents

Outbound Contact reports . . . . .	28
Business Advocate reports . . . . .	28
Save Report Configuration . . . . .	28
IC report date-time information. . . . .	29
Advanced reports . . . . .	29
CMS reports . . . . .	29
Business Advocate reports . . . . .	30
Outbound Contact reports . . . . .	31
<b>Administration . . . . .</b>	<b>33</b>
Historical stores . . . . .	33
Container archives . . . . .	34
Container profiles . . . . .	34
Workgroups . . . . .	34
Source ID . . . . .	34
Container status . . . . .	34
Adjust container rules. . . . .	35
Monitor container status and scheduled job status . . . . .	35
Change container definition . . . . .	35
Daily intervals . . . . .	35
Interface services . . . . .	36
Subsystem administration . . . . .	36
<b>Data export . . . . .</b>	<b>37</b>
Data API Utility. . . . .	37
Data API. . . . .	38
<b>User documentation . . . . .</b>	<b>39</b>
<b>Index . . . . .</b>	<b>41</b>



# Preface

Avaya™ Operational Analyst Release 6.1 (OA R6.1) offers a number of enhancements to functionality provided by OA Release 6.0, as well as new functionality not available before OA R6.1.

The section includes the following topics:

- [About Avaya Operational Analyst Release 6.1](#) on page 6
- [Purpose of this document](#) on page 6
- [Intended users of this document](#) on page 6
- [Overview of this document](#) on page 7
- [Reasons for reissuing this document](#) on page 7
- [Safety labels](#) on page 8
- [Availability of this document](#) on page 8
- [Related documentation](#) on page 9

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# About Avaya Operational Analyst Release 6.1

Avaya OA R6.1 allows businesses to perform operational reporting for a multimedia contact center. OA is a required component of Avaya Interaction Center 6.1 (IC), functioning as its operational data store and contact center performance analysis system. OA is also an optional add-on to Avaya Call Management System (CMS) for extended, online historical data storage and multi-site analysis.

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## Purpose of this document

The purpose of this document is to describe functionality in OA R6.1 that is either new or updated since OA R6.0.

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## Intended users of this document

This document is written for:

- Systems integrators
- Contact Center managers and supervisors
- Contact Center administrators

Users of this document should have working knowledge of Avaya IC or Avaya Call Management System (CMS), or both, and how they interact with OA. Users who have not installed and configured OA R6.0 may not find the information presented in this document to be of interest.

## Overview of this document

This document includes the following topics:

- [Software upgrade and data migration](#) on page 11
- [Hardware and software requirements](#) on page 13
- [Data collection functionality](#) on page 25
- [Reports](#) on page 27
- [Administration](#) on page 33
- [Data export](#) on page 37
- [User documentation](#) on page 39
- [Index](#) on page 41

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## Reasons for reissuing this document

This is the first issue of this document.

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## Safety labels

If you see any of the following safety labels in this document, take careful note of the information presented.

 **CAUTION:**

Caution statements call attention to situations that can result in harm to software, loss of data, or an interruption in service.

 **WARNING:**

Warning statements call attention to situations that can result in harm to hardware or equipment.

 **DANGER:**

Danger statements call attention to situations that can result in harm to personnel.

 **SECURITY ALERT:**

Security alert statements call attention to situations that can increase the potential for unauthorized use of a telecommunications system.

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## Availability of this document

Copies of this document are available from one or both of the following sources. Although there is no charge for documents obtained through the Avaya Web site, documents obtained through the Avaya Publications Center must be purchased.

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**Write:** Globalware Solutions  
200 Ward Hill Avenue

Haverhill, MA 01835 USA  
Attention: Avaya Account Manager

**E-mail:** totalware@gwsmail.com

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## Related documentation

You might find the following documentation useful.

### **Avaya documentation:**

Avaya documentation is available through the Avaya online support Web site, <http://www.avayadocs.com>.

- *Avaya Operational Analyst Installation Planning and Prerequisites*, document number 585-248-118, Issue 1.0, August 2003.
- *Avaya Operational Analyst Installation and Configuration*, document number 585-248-119, Issue 1.0, August 2003.
- *Avaya Operational Analyst Maintenance and Troubleshooting*, document number 585-248-120, Issue 1.0, August 2003.
- *Avaya Operational Analyst Reports Reference*, document number 585-248-506, Issue 1.0, August 2003.
- *Avaya Operational Analyst Release 6.1 Data API Utility*, document number 585-248-603, issue 1.0, August 2003.
- Avaya Operational Analyst Release 6.1 Administration Client Online Help.
- Avaya Operational Analyst Release 6.1 Basic Reports Online Help.

### **Other documentation:**

- Troubleshooting information associated with the server you are using. Such information is typically part of an administration manual.
- Database management documentation for the database you are using.
- Cognos user documentation for information about using the Cognos tools Impromptu, Transformer and PowerPlay.





## Software upgrade and data migration

OA R6.1 provides new functionality to enhance your contact center reporting capabilities. Customers currently using OA R6.0 or later must upgrade their OA software and perform data migration tasks before the new functionality is available for use.

A future release of OA R6.1 will provide procedures and tools for accomplishing the upgrade and migration tasks. The new release will include *Avaya Operational Analyst Release 6.1 Software Upgrade and Data Migration*, a guide to successfully moving to OA R6.1.

## Software upgrade and data migration

# Hardware and software requirements

OA R6.1 offers new and updated support for databases, server machines, and Web servers. This section provides an overview of the OA R6.1 hardware and software requirements. Please refer to *Avaya Operational Analyst Release 6.1 Installation Planning and Prerequisites* for full details.

This section includes the following topics:

- [Client PC minimum hardware requirements](#) on page 13
- [Server machine hardware sizing](#) on page 14
- [RAID configurations for server machines](#) on page 14
- [Client software requirements](#) on page 15
- [Server software requirements](#) on page 16

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## Client PC minimum hardware requirements

The minimum hardware requirements for a desktop PC running OA reports or using the Administration client are listed below:

Component	Minimum requirement
CPU	Intel-compatible 233 MHz
RAM	256 MB
Video	A graphics adapter capable of displaying 1024 x 768 pixels and 32,768 colors, with at least 8 MB of on-board RAM, and supporting 3D OpenGL acceleration. The latest driver version specifically issued for the video adapter (not the Microsoft version) must be used.
Virtual memory	700 MB allocated to the paging file
Free disk space	50 MB

## Server machine hardware sizing

The OA server software can run on Windows 2000 Server machines, Solaris machines, or AIX machines. The hardware requirements for servers depend upon the deployment of an Avaya OA system, the volume of contacts in the contact center, and performance requirements. For assistance with sizing an OA configuration, contact your Avaya representative or Avaya Business Partner representative.

**Note:**

When OA-related software is being installed on Avaya IC machines, the machine must support the minimum requirements for Avaya IC as defined in *Avaya Interaction Center Release 6.1 Installation Planning and Prerequisites*.

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## RAID configurations for server machines

Redundant Array of Inexpensive Disks (RAID) uses multiple physical disks to implement one logical disk, as seen by the operating system. RAID configurations can consist of hardware only or a combination of hardware and software.

RAID provides an additional level of performance and fault tolerance. There are a number of common RAID configurations: RAID 0 (striping), RAID 1 (mirroring), and RAID 5 (striping with parity) are the most common configurations.

RAID 0, RAID 1, RAID 0+1, and RAID 5 are all acceptable configurations for OA when the Historical subsystem software is not coresident on the same machine with the historical database.

RAID 5 is not recommended for the historical database used with OA, which is an update-intensive application. RAID 5 tends to degrade write operations because the data and the parity must be read and then written with each update.

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## Client software requirements

The minimum software requirements for a desktop PC running OA reports or using the Administration client are listed in the following table:

Component	Minimum requirement
Operating system	Windows 2000 Professional, SP3 or Windows XP Professional (32-bit), SP1a or Windows NT 4.0 Workstation, SP6a
Web browser	Internet Explorer 6.0 SP1 or later
JRE	Java Plug-in or Java Runtime Environment 1.3.1_06

 **CAUTION:**

The Report client software must not be installed on an Avaya OA or Avaya IC server machine. Running reports on a server machine can adversely affect the performance of the server software.

## Server software requirements

This section outlines the generic software requirements for OA components. Every effort was made to ensure that this information was complete and accurate at the time of publication. The actual installation steps for each software package may vary depending upon the version of the software media being used and other site-specific factors.



### Important:

Avaya certifies support for the software versions documented in this section. Avaya will make an effort to support service packs that are guaranteed to be backwards compatible to the software versions shown in this section. Because this information is dependent upon third-party software, information is subject to change.

For an installation that includes Avaya IC and OA, OA processes and analyzes the data provided by Avaya IC. Therefore, you must install Avaya IC on your network before you install OA. In addition to Avaya IC, OA requires that other licensed (third-party) system-level software programs must be installed prior to installing OA. Avaya IC components and licensed system-level supporting software packages are available on separate distribution media. The OA distribution media includes internally developed features and associated software. All non-Avaya software, except that software noted in the tables that are bundled with OA software, must be purchased separately from OA software.

The following sections detail the OA software infrastructure required for each OA subsystem or client package. This information is intended only for reference. Deployment of software components may vary, depending on your system configuration and performance requirements. The version numbers associated with the supporting applications are specific to this release of OA.

This section includes the following topics:

- [Software required for the historical database and Historical subsystem servers](#) on page 17
- [Software required for real-time servers](#) on page 20
- [Software required for Report servers](#) on page 21
- [Software required for Source-CMS collection subsystem](#) on page 23
- [Software required for Source-EC \(Event Collector\) collection subsystem](#) on page 23
- [Software required for Source-EC Bridge \(Event Collector Bridge\) collection subsystem](#) on page 24

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## Software required for the historical database and Historical subsystem servers

The software required for machines with the historical database and the Historical subsystem depends on whether:

- the server machine has the historical database coresident on the same machine with the Historical subsystem ([Historical subsystem coresident with the historical database](#) on page 18), or
- the historical database is on a dedicated (back-end) machine and the Historical subsystem is on a separate machine with other OA software ([Historical subsystem not coresident with the historical database](#) on page 19).

 **Important:**

The historical database cannot be coresident with any Avaya IC components. Only OA components, typically the Historical subsystem, are ever installed on the same server with the historical database.

## Hardware and software requirements

### Historical subsystem coresident with the historical database

The following table lists the software required on a server machine when the historical database is coresident on the same machine with the Historical subsystem:

<b>Component</b>	<b>Windows</b>	<b>Solaris</b>	<b>AIX</b>
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3	Solaris 8	AIX 5.1L Maintenance Level 3 plus Patch IY34030
Time synchronization utility	NTP	NTP	NTP
Historical database	Microsoft SQL Server 2000 SP3 (Standard or Enterprise Edition) or Oracle 8.1.7 Patch 4.0 (Standard or Enterprise Edition) or Oracle 9.2.0 Patch 1.0 (Standard or Enterprise Edition)	Oracle 8.1.7 Patch 4.0 (Standard or Enterprise Edition) or Oracle 9.2.0 Patch 1.0 (Standard or Enterprise Edition)	IBM DB2 7.2, FP9 Enterprise Edition (32-bit)

## Historical subsystem not coresident with the historical database

The following table lists the software required on a server machine when the historical database is not coresident on the same machine with the Historical subsystem (that is, the historical database is located on a dedicated, back-end database server machine):

Component	Windows	Solaris	AIX
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3	Solaris 8	AIX 5.1L Maintenance Level 3 plus Patch IY34030
Time synchronization utility	NTP	NTP	NTP
Historical database	Microsoft SQL Server 2000 SP3 client (Standard or Enterprise Edition) or Oracle 8.1.7 Patch 4.0 client or Oracle 9.2.0 Patch 1.0 client (Standard or Enterprise Edition)	Oracle 8.1.7 Patch 4.0 client or Oracle 9.2.0 Patch 1.0 client (Standard or Enterprise Edition)	IBM DB2 7.2, FP9 Enterprise Edition (32-bit)

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## Software required for real-time servers

The following table lists the software required on real-time server machines when using the Real-time subsystem:

<b>Component</b>	<b>Windows</b>	<b>Solaris</b>	<b>AIX</b>
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3	Solaris 8	AIX 5.1L Maintenance Level 3 plus Patch IY34030
Time synchronization utility	NTP	NTP	NTP
Real-time database	TimesTen 4.5.25 Real-time Database (bundled with OA software)	TimesTen 4.5.25 Real-time Database (bundled with OA software)	TimesTen 4.5.25 Real-time Database (bundled with OA software)

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## Software required for Report servers

This section provides the software required for Report server machines, both basic Report servers and Advanced Report servers.

### Basic Report server

The following table lists the software required on basic Report server machines when using the Report subsystem:

Component	Windows	Solaris	AIX
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3	Solaris 8	AIX 5.1L Maintenance Level 3 plus Patch IY34030
Time synchronization utility	NTP	NTP	NTP
Web server	Microsoft IIS 5.0 (installed when the OS is installed)	Sun One Web Server 6.0 SP5	IBM WebSphere 5.0.1, which includes IBM HTTP Server 1.3.26.1

## Hardware and software requirements

### Advanced Report server

The following table lists the software required on Advanced Report server machines when using the Advanced Report subsystem:

**Note:**

The Advanced Report subsystem can be installed only on machines with Windows server operating system. The Advanced Report subsystem is not supported on Solaris or AIX.

Component	Windows
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3
Browser (optional)	Internet Explorer 6.0 or later or Netscape 4.76 or later
Cognos software	Cognos PowerPlay Transformation Server Version 7.0, MR1
	Cognos Impromptu Administrator Version 7.0, MR1
	Cognos Impromptu Web Reports for Windows Version 7.0, MR1 (optional)
	Cognos PowerPlay Enterprise Server Version 7.0, MR1 (optional)

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## Software required for Source-CMS collection subsystem

The following table lists the software required for Avaya CMS server machines (Solaris only) when OA is used to collect data from the CMS:

Component	Solaris
Operating system	Solaris 8

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## Software required for Source-EC (Event Collector) collection subsystem

The following table lists the software required for Avaya IC server machines when OA is used to collect data from Avaya IC:

Component	Windows	Solaris	AIX
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3	Solaris 8	AIX 5.1L Maintenance Level 3 plus Patch IY34030
Time synchronization utility	NTP	NTP	NTP

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## Software required for Source-EC Bridge (Event Collector Bridge) collection subsystem

The following table lists the software required for Avaya IC server machines when OA is used to collect data from Avaya IC:

**Note:**

The Source-EC Bridge subsystem can only be installed on machines with Windows server operating system. The Source-EC Bridge is not supported on Solaris or AIX.

Component	Windows
Operating system	Windows 2000 Server with SP3 or Windows 2000 Advanced Server with SP3
Time synchronization utility	NTP

# ■ ■ ■ ■ ■ ■

## Data collection functionality

Data collection functionality in OA R6.1 is enhanced to support data feeds from multiple real-time data servers and Business Advocate. This section describes this new functionality.

This section includes the following topics:

- [Report data consolidation](#) on page 25
- [Event collector bridge](#) on page 26

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## Report data consolidation

OA R6.1 supplies one report data server (RDS) per real-time database. When a real-time subsystem is added, a report data server is also added. The report data server obtains data required to populate a real-time report from the real-time database and passes it to the reporting subsystem.

Some OA installations contain multiple real-time databases, and data about a particular entity may reside in more than one real-time database. For example, information regarding current counts and durations pertaining to a service class may be contained in several databases.

In OA R6.0, to review such distributed data, one must run reports against each real-time database and then manually consolidate the data to get a complete view of the counts and durations associated with the service class. This task requires knowledge of which database contains the data.

OA R6.1 introduces the central report data server (CRDS). This process is automatically added when the second real-time subsystem, and therefore the second report data server, is added to the system. The CRDS forwards requests for report data to all RDSs, then transparently consolidates all returned data into one row in the database before passing it on to the reporting subsystem. The consolidated data provides a single report that replaces the multiple reports and manual intervention required in OA R6.0.

Similar data consolidation occurs in historical databases before data is aggregated.

Refer to the Operational Analyst R6.1 Administration Client Online Help for more information about the CRDS.

## Event collector bridge

Avaya Interaction Center (IC) ADU event data is collected and passed to the OA real-time data manager by a process called the event collector (EC). A new process called the event collector bridge (ECB) collects administrative events from Business Advocate, and passes the events on to the EC which in turn passes the data to OA.

The ECB is installed co-resident with Avaya Business Advocate for Interaction Center. Multiple ECBs can be installed to provide greater availability, but only one ECB can actively pass data to an EC. Other ECBs function in a standby mode. If a primary ECB fails, the EC will connect with a standby ECB to continue the data flow.

See *Avaya Operational Analyst Release 6.1 Installation and Configuration* for more information about the ECB.

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## Reports

OA R6.1 offers an updated set of predefined reports to provide more accurate data and to include more complete coverage for Avaya Call Management System (CMS), Business Advocate, and Avaya Outbound Contact. Refer to *Avaya Operational Analyst Release 6.1 Reports Reference* for details.

This section includes the following topics:

- [Basic reports](#) on page 27
- [Advanced reports](#) on page 29

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## Basic reports

OA R6.1 Basic reports differ from the OA R6.0 Basic reports in several ways.

This section includes the following topics:

- [CMS report](#) on page 27
- [Outbound Contact reports](#) on page 28
- [Business Advocate reports](#) on page 28
- [Save Report Configuration](#) on page 28
- [IC report date-time information](#) on page 29

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## CMS report

The new report added to support CMS is:

- CMS Call Detail - This set of drill-down reports presents CMS Call History data to show the "beginning-to-end" history of a customer contact.

**Note:**

This report was added for OA R6.0.2.

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## Outbound Contact reports

New reports added to support Outbound Contact are:

- Job Performance (real-time) - This report provides a real-time view of the performance of your outbound jobs.
- Job Performance (historical) - This report provides an historical view of outbound job performance over a period of time.
- Agent Performance by Job (real-time) - This report provides a real-time view of how agents are performing with respect to the kind of outbound work that they are asked to do.
- Agent Performance by Job (historical) - This report provides an historical view of the performance of outbound agents over a period of time.
- Agent Set Outcome Codes (real-time) - This report provides a real-time view of the completion codes being assigned by agents to particular jobs.
- Agent Set Outcome Codes (historical) - This report provides an historical view of the outcomes assigned by agents to outbound calls over a period of time.
- System Set Completion Codes (real-time) - This report provides a real-time view of what is happening to call attempts associated with a set of jobs.
- System Set Completion Codes (historical) - This report provides an historical view of what happens to call attempts over a period of time.
- Telephone Number States (real-time) - This report provides a real-time view of how many telephone numbers are in a particular state for a set of jobs.

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## Business Advocate reports

Most of the Basic reports provided in OA R6.0 to support IC have been updated to also support Business Advocate.

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## Save Report Configuration

Report configurations saved via the Save Report Configuration option in OA R6.0.x Basic reports are not carried forward when you upgrade to OA R6.1. All such saved report configurations must be re-saved from R6.1 reports. The process for saving report configurations has not changed.

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## IC report date-time information

Date-time information display for IC reports depends on the data type option selected:

- If you select the 30-minute interval data type (non-aggregated or half-hour aggregated), the date-time information displayed in IC reports is converted to your local time zone.
- If you select any of the aggregated data type options, the date-time information displayed in IC reports is based on the OA Archive Time Zone without conversion to your local time zone.

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## Advanced reports

The predefined Advanced reports included in OA R6.1 are for CMS, Business Advocate, and Outbound Contact.

This section includes the following topics:

- [CMS reports](#) on page 29
- [Business Advocate reports](#) on page 30
- [Outbound Contact reports](#) on page 31

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## CMS reports

To answer the business question "What are my busy times?":

- Number of Calls by Time of Day (by ACD/Skill)
- Number of Calls by Time of Day (by ACD/VDN)
- Percentage of Calls by Time of Day for All ACDs (by ACD/Skill)
- Percentage of Calls by Time of Day for All ACDs (by ACD/VDN)
- Percentage of Calls by Time of Day for an ACD (by ACD/Skill)
- Percentage of Calls by Time of Day for an ACD (by ACD/VDN)

To answer the business question "What are my queue abandon rates?":

- Number of Abandons by Time of Day (by ACD/Skill)
- Number of Abandons by Time of Day (by ACD/VDN)
- Percentage of Abandons by Time of Day (by ACD/Skill)

## Reports

- Percentage of Abandons by Time of Day (by ACD/VDN)

To answer the business question "What skill do I need more coverage in?":

- Number of Abandons by ACD/Skill
- Average Wait Time by ACD/Skill

To answer the business question "Which skills have the longest work time?":

- Average Talk Time by ACD/Skill
- Average ACW Time by ACD/Skill

---

## Business Advocate reports

To answer the business question "What are my busy times?":

- Number of Contacts by <selected time version> (by Site)
- Number of Contacts by <selected time version> (by Media Type)
- Number of Contacts by Time of Day (by Site)

To answer the business question "What kind of work is handled at my sites?":

- Number of Contacts by Site and Media Type

To answer the business question "What are my busy times?":

- Number of Contacts by Time of Day (by Queue)
- Number of Contacts by Time of Day (by Service Class)
- Number of Contacts by Time of Day (by Media Types)
- Percentage of Contacts by Time of Day (by Queue)
- Percentage of Contacts by Time of Day for All Service Classes
- Percentage of Contacts by Time of Day (by Media Type)

To answer the business question "What are my queue abandon rates?":

- Number of Abandons by Time of Day (by Queue)
- Number of Abandons by Time of Day (by Service Class)
- Percentage of Abandons by Time of Day (by Media Types)
- Percentage of Abandons by Time of Day (by Queue)
- Percentage of Abandons by Time of Day (by Service Class)

To answer the business question "Which types of work have the longest work time?":

- Average Work Time by Queue
- Average Work Time by Service Class

- Average Wrap-Up Time by Queue
- Average Wrap-Up Time by Service Class

---

## Outbound Contact reports

To answer the business question "When is the most effective time of day or month to run a particular job?":

- Number of Connects
- Average Talk Time
- Average After Call Work Time
- Hit Rate
- Nuisance Call Rate

To answer the business question "What is my blended agent utilization?":

- Number of Completed Contacts by Agent
- Average Completion Time by Agent
- Total Talk Time by Agent
- Total After Call Work Time by Agent
- Average Talk Time by Agent
- Average After Call Work Time by Agent

To answer the business question "What is the percent of work distribution for each agent?":

- Total Work Time by Agent
- Average Work Time by Agent
- Number of Contacts by Agent and Job
- Number of Contacts by Job and Agent



# ■ ■ ■ ■ ■ ■

## Administration

OA R6.1 provides updates to OA administration. This section provides an overview of those changes, organized by the area of the OA Administration Client that is affected. For complete information refer to the OA R6.1 Administration Client Online Help.

This section includes the following topics:

- [Historical stores](#) on page 33
- [Container archives](#) on page 34
- [Container profiles](#) on page 34
- [Container status](#) on page 34
- [Daily intervals](#) on page 35
- [Interface services](#) on page 36
- [Subsystem administration](#) on page 36

---

## Historical stores

OA R6.1 adds the following four new historical stores to support Outbound Contact reporting:

- Agent Completion Code
- Agent Job
- Job Summary
- System Completion Code

## Container archives

For OA R6.1 all container limits (maximum enabled containers, maximum disabled containers, and maximum number of rules per container) are removed, and Container Limits is renamed to Container Archives.

Container archive management is changed to allow the OA administrator to specify a time zone to which all archives are relative, referred to by Basic reports as OA Archive Time Zone. Start of day is fixed to be midnight of the specified time zone. Archival no longer occurs relative to GMT.

---

## Container profiles

### Workgroups

The Container Profiles section of the OA R6.1 Administration Client is changed to use Avaya Interaction Center (IC) workgroups rather than agent display names to create container profiles for the following historical stores:

- Agent State
- Agent Service Class
- Agent Job
- Agent Completion Code

### Source ID

IC containers are no longer created using SourceID (source subsystem) in OA R6.1. This change prevents R6.0 IC containers from being migrated to R6.1. OA R6.1 carries forward all IC containers in a disabled state. You must re-create your IC containers in OA R6.1.

CMS containers continue to use SourceID and are functional in OA R6.1.

---

## Container status

The removal of all container limits (see [Container archives](#) on page 34) opens the possibility that OA performance could be affected if too many containers or too many rules

are administered. In such a situation OA might not be able to complete all aggregation before the interval completes. To address this possibility, OA R6.1 provides the following means by which you can monitor OA's behavior and resolve problems before they occur.

### **Adjust container rules**

A new row is added to the various status screens to inform you of the number of rows added, aggregated, or archived in each container. Careful tracking of this data may be helpful in locating where too much activity is taking place. Adjusting container rules may help balance how much data is being handled in any particular interval.

### **Monitor container status and scheduled job status**

Container status and scheduled job status indicate if there is a problem with the aggregation of summary interval data. If aggregation lasts beyond the end of the current interval, aggregation will not run for the next interval. In addition, the scheduled job status for the system scheduled aggregation job will show every other interval's execution with a failed status.

Aggregated data status (a new status type for OA R6.1) shows the number of rows aggregated for each selected container for a selected interval, and the total number of rows aggregated.

### **Change container definition**

When recovery aggregation runs, the job aggregates data for the intervals that missed being aggregated previously. A more permanent solution is to change the definition of the container requiring long aggregation so that it contains less data and therefore aggregates faster.

---

## **Daily intervals**

For OA R6.1 there is one set of daily intervals for all real-time subsystems. The status information for each interval (start time in operation, start time pending) is removed since the same information applies to all real-time subsystems.

You can still change the start time of an interval in the Daily Intervals screen, however, the new start time does not become effective until the new time comes about again. Even though the Daily Intervals screen and reports may show the new start time, the interval is still collecting data from the original start time.

## Interface services

The Interface Services section of the OA Administration Client now shows data concerning the central report data server (CRDS). A CRDS is automatically added to the system and enabled when the second real-time source subsystem is added. You can use the Interface Services screen to enable or disable the CRDS.

---

## Subsystem administration

When subsystems are administratively deleted in OA R6.0, their entries are actually removed from the database. For OA R6.1, however, the entry is simply "marked" as deleted by pre-pending the subsystem name with an asterisk (\*).

Even though deleted subsystem names do not appear in the Subsystems screen, they do appear in appropriate fields for selection on report Input Pages. This helps to assure accurate reporting.

# ■ ■ ■ ■ ■ ■

## Data export

OA R6.1 offers two options for exporting data from the real-time and historical databases to support work force management software:

- The Data API Utility, which is part of the standard OA R6.1 product. The Utility can be used without any programming expertise.
- The Data API, which is part of the OA R6.1 SDK and must be purchased separately from OA R6.1, and requires programming support for customization to your OA R6.1 installation.

This section includes the following topics:

- [Data API Utility](#) on page 37
- [Data API](#) on page 38

---

## Data API Utility

The Data API Utility is a command line program for exporting real-time or historical data from the OA Reporting Framework. The Utility returns data for SQL SELECT statements as either XML or delimiter-separated text. The Utility is a java program that calls the Data API. For more information about the Data API, see [Data API](#) on page 38.

You can use the Data API Utility on Windows, Solaris, or AIX platforms. You must have a valid OA userid and user profile on the host where the Utility is installed and where the Reporting Framework is installed. The Utility may be installed on the same host as the Reporting Framework, but this is not required. For information on OA userid and profiles, refer to *Operational Analyst Release 6.1 Installation Planning and Prerequisites*.

Once you have established your username with the Data API Utility, you can execute it by passing a set of parameters to specify options like the type of output, the databases to access, the time periods from which to draw the data, and the file in which to deposit the query result.

*Avaya Operational Analyst Release 6.1 Data API Utility* contains complete documentation of the Utility including parameter definition, usage examples, and setup information.

---

## Data API

The Data API (Application Programming Interface) supports retrieval of OA real-time or historical data from the Stumbras real-time or Database Connection Pool services, through a Simple Object Access Protocol (SOAP) interface. The data is retrieved in response to SQL SELECT statements. The results are returned as either XML formatted text or delimiter-separated text. You can specify the delimiter for the delimiter-separated format. In either case, the results are returned inside a SOAP response message, which is itself XML.

You can use the Data API to export moderate amounts of data for use in external applications such as work force management tools. Care must be exercised in using the Data API to minimize performance impact on OA. Attempting to export large amounts of data is not encouraged.

For OA R6.1, the Data API is available as a separately purchased Software Development Kit (SDK). The SDK is intended for use by Avaya or customer-supplied services personnel who are experts in OA customization tasks. Documentation, required executables, and sample code are included in the SDK.



# User documentation

OA R6.1 offers a separate documentation CD-ROM containing all user documentation. This is a departure from the OA R6.0 offering where documentation was provided in PDF format on the OA product CD.

The documentation CD-ROM contains an HTML-based library contains all documents and individual documents in PDF format. The library runs in a standard Microsoft Internet Explorer browser, providing navigation aids and hyperlinking within and between documents.

Selecting a link available on every page of every document brings you a PDF version of the entire document for printing purposes. You may print individual sections or the complete document.

The documents included on the OA R6.1 documentation CD-ROM are:

- *What's New in Avaya Operational Analyst Release 6.1*
- *Avaya Operational Analyst Release 6.1 Installation Planning and Prerequisites*
- *Avaya Operational Analyst Release 6.1 Installation and Configuration*
- *Avaya Operational Analyst Release 6.1 Maintenance and Troubleshooting*
- *Avaya Operational Analyst Release 6.1 Reports Reference*
- *Avaya Operational Analyst Release 6.1 Data API Utility*
- *Avaya Operational Analyst Release 6.1 Administration Client Online Help*



# Index

## A

About Avaya Operational Analyst Release 6.1 . . . . .	6
adjust container rules . . . . .	35
administration . . . . .	33
Advanced Report server . . . . .	22
Advanced reports . . . . .	29
Availability of this document . . . . .	8

## B

basic report server . . . . .	21
Basic reports . . . . .	27
Business Advocate reports . . . . .	28, 30

## C

Central real-time data server . . . . .	25
change container definition . . . . .	35
client applications	
hardware requirements . . . . .	13
software requirements . . . . .	15
CMS report . . . . .	27
CMS reports . . . . .	29
container archives . . . . .	34
container profiles . . . . .	34
container status . . . . .	34

## D

daily intervals . . . . .	35
Data API . . . . .	38
Data API Utility . . . . .	37
data collection functionality . . . . .	25
data export . . . . .	37
data migration . . . . .	11

## E

event collector bridge . . . . .	26
----------------------------------	----

## H

hardware and software requirements . . . . .	13
hardware requirements	
client . . . . .	13

server . . . . .	14
historical server	
coresident database . . . . .	18
without coresident database . . . . .	19
Historical stores . . . . .	33

## I

IC report date-time information . . . . .	29
Intended users of this document . . . . .	6
interface services . . . . .	36

## M

migration data . . . . .	11
monitor container status and scheduled job status . . . . .	35

## O

Outbound Contact reports . . . . .	28, 31
Overview of this document . . . . .	7

## P

Preface . . . . .	5
Purpose of this document . . . . .	6

## R

RAID configurations . . . . .	14
Reasons for reissuing this document . . . . .	7
Related documentation . . . . .	9
report data consolidation . . . . .	25
reports . . . . .	27
requirements	
hardware . . . . .	13
software . . . . .	13, 16

## S

Safety labels . . . . .	8
Save Report Configuration . . . . .	28
server	
hardware requirements . . . . .	14
software requirements . . . . .	16
software	

required for historical servers . . . . .	17
required for Real-time servers . . . . .	20
required for report servers . . . . .	21
required for source-CMS collection subsystem . . . . .	23
required for source-EC (Event Collector) collection subsystem . . . . .	23, 24
requirements . . . . .	16
client . . . . .	15
upgrade . . . . .	11
Source ID . . . . .	34
subsystem administration . . . . .	36

---

## U

upgrade software. . . . .	11
user documentation . . . . .	39

---

## W

workgroups . . . . .	34
----------------------	----



