



## Cisco Automated Administrator for Symposium (AAS) Installation and Troubleshooting Guide

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# CONTENTS

<b>About This Guide</b>	<b>i</b>
Purpose	i
Audience	i
Organization	i
Conventions	ii
Obtaining Documentation, Obtaining Support, and Security Guidelines	ii
Documentation Feedback	iii

---

## CHAPTER 1

<b>About Automated Administrator for Symposium</b>	<b>1-1</b>
About Automated Administrator for Symposium	1-1
AAS Architecture	1-2
AAS Performance and Scalability	1-3
AAS Performance	1-3
AAS Analyzer	1-4
AAS Scalability	1-4
Multiple AAS connecting to single AW	1-4
Force Synchronization	1-6

---

## CHAPTER 2

<b>Installing and Configuring Automated Administrator for Symposium</b>	<b>2-1</b>
Types of Installation	2-1
Standalone Installation	2-1
Integrated Installation	2-1
Supported Configurations	2-2
Fully Redundant	2-2
Partially Redundant	2-3
Not Redundant	2-4
Supported Configurations with Firewall	2-5
Fully Redundant	2-5
Partially Redundant	2-6
No Redundancy	2-7
Firewall Usage and Configuration	2-7
Prerequisites for Installing AAS	2-8
Minimum System Requirements	2-9

- ICM Requirements 2-9
- Supported ICM Versions 2-9
- Pre-installation Checklist 2-9
  - Enabling the CMS Node Check box 2-10
- Installation Guidelines 2-10
  - Order of Installation/Configuration 2-11
- Installing AAS 2-12
  - How to Install AAS on ICM Releases Earlier Than ICM 7.1(3) (Standalone Installer) 2-13
    - How to reinstall AAS on ICM Releases Earlier Than ICM 7.1(3) 2-23
    - How to uninstall AAS on ICM Releases Earlier Than ICM 7.1(3) 2-24
  - How to Install or Reinstall AAS on ICM 7.1(3) (Integrated Installer) 2-24
    - How to uninstall AAS for ICM 7.1(3) 2-27

---

CHAPTER 3

- Configuring the ICM ConAPI Connection 3-1**
  - About ICM Application Instances 3-1
  - About Configuring Application Instances 3-1
  - About Establishing Administration Connections 3-2

---

CHAPTER 4

- Troubleshooting Automated Administrator for Symposium 4-1**
  - Troubleshooting AAS Installation Problems 4-1
  - AAS Throttling Guidelines 4-4
  - Debugging 4-5
    - Debug Trace Levels for AAS 4-5
  - Symptoms and Troubleshooting Actions 4-6
    - Troubleshooting Duplex AAS Configuration 4-15
    - Troubleshooting Multiple PIM – Multiple AAS Configuration 4-16

---

CHAPTER 5

- Limitations of Automated Administrator for Symposium 5-1**
  - Limitations of AAS 5-1
  - Nortel SCCS Limitations 5-2
  - Limitations of Standalone Installer 5-2
  - Limitations of Integrated Installer 5-2
  - Real-time Monitoring Limitations 5-2

---

CHAPTER A

- Working with Registry Settings A-1**
  - Working with Registry Settings A-1
    - Configuration Registry Settings A-2
    - Dynamic Registry Settings A-7

---

INDEX





## About This Guide

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### Purpose

This manual provides installation and troubleshooting information about Cisco Automated Administrator for Symposium (AAS), which is referred to as “AAS” throughout this document. It also provides information about creating application instances using the ICM Configuration Manager and describes how to establish administration connections.



Note

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For information about Cisco ICM, refer to <http://www.cisco.com> for the complete set of ICM manuals.

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### Audience

This document is intended for contact center administrators and contact center technology experts, who will install and use AAS.

### Organization

The following table describes the information contained in each chapter of this guide.

Chapter	Title	Description
Chapter 1	<a href="#">About Automated Administrator for Symposium</a>	Provides an overview of the functionality and performance of AAS.
Chapter 2	<a href="#">Installing and Configuring Automated Administrator for Symposium</a>	Provides prerequisites and installation instructions for installing AAS.
Chapter 3	<a href="#">Configuring the ICM ConAPI Connection</a>	Describes how to configure the ICM ConAPI connection.
Chapter 4	<a href="#">Troubleshooting Automated Administrator for Symposium</a>	Provides information on debugging and troubleshooting AAS.

Chapter	Title	Description
Chapter 5	<a href="#">Limitations of Automated Administrator for Symposium</a>	Describes the limitations of AAS.
Appendix A	<a href="#">Working with Registry Settings, page 1</a>	Describes the configuration and dynamic registry settings in AAS.

## Conventions

This manual uses the following conventions:

Format	Example
Boldface type is used for user entries, keys, buttons, and folder and submenu names.	Click <b>Logger</b> , then click the <b>Edit</b> button in the Instance Components section.
Italic type indicates one of the following: <ul style="list-style-type: none"> <li>A newly introduced term</li> <li>For emphasis</li> <li>A generic syntax item that you must replace with a specific value</li> <li>A title of a publication</li> </ul>	<ul style="list-style-type: none"> <li>A <i>skill group</i> is a collection of agents who share similar skills.</li> <li><i>Do not</i> use the numerical naming convention that is used in the predefined templates (for example, <b>persvc01</b>).</li> <li>IF (<i>condition, true-value, false-value</i>)</li> <li>For more information, see the <i>Cisco ICM Software Database Schema Handbook</i>.</li> </ul>
An arrow (>) indicates an item from a pull-down menu.	The Save command from the File menu is referenced as <b>File &gt; Save</b> .

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# CHAPTER 1

## About Automated Administrator for Symposium

---

This chapter describes Automated Administrator for Symposium (AAS), the prerequisites needed before installing AAS, and lists the procedure for installing AAS.

This chapter includes the following sections:

- [About Automated Administrator for Symposium, page 1-1](#)
- [AAS Architecture, page 1-2](#)
- [AAS Performance and Scalability, page 1-3](#)

## About Automated Administrator for Symposium

Automated Administrator for Symposium (AAS) is middleware software, which converts Nortel Symposium Event Interface (SEI) messages into Cisco ICM ConAPI messages. The purpose of this software is to synchronize administrative changes made on the Symposium system with the ICM database, thereby eliminating the need for a system administrator to execute changes twice (once in the Nortel Symposium Administration and once in the ICM administration). All additions and updates to agents and their skill sets made using Nortel Symposium administration are also dynamically made to the ICM database in real time. However, changes made in ICM are not reflected in Nortel Symposium.

AAS is optional software for ICM. AAS is co-resident with Symposium PG and interacts only with ICM DB and SCCS SEI Server. AAS is controlled by the ICM Node Manager.

Prior to integration of AAS with ICM, you would need to install AAS using a standalone installer. Patches of AAS were also available as a standalone installer.

After integration of AAS with ICM, AAS patches are available as a part of the ICM installer. In addition, from ICM 7.1(3), you can install AAS using the ICM installer.

The following points describe the packaging and bundling information of AAS:

- AAS can be installed on existing ICM PGs as well as new installations.
- AAS is available as a standalone installer up to ICM 7.1(2).
- AAS is available as an integrated installer from ICM versions 7.1(3) and later.



### Note

From 6.0(0) SR8, although AAS is installed using a standalone installer, AAS patches are integrated with the ICM installer. This is applicable to the 6.0(0) stream only.

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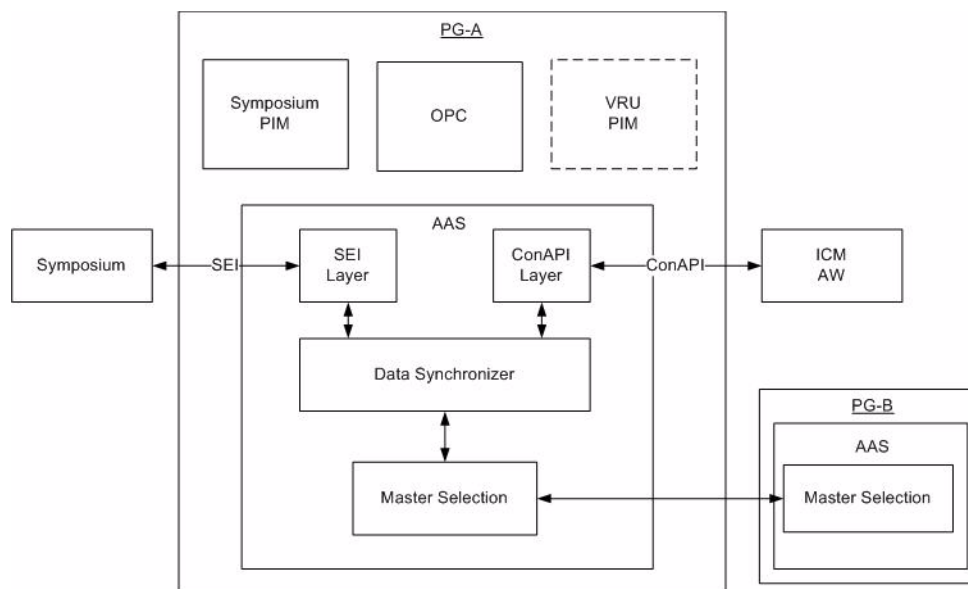
# AAS Architecture

Following are the components of AAS:

- The Symposium interface (SEI layer), which encapsulates the interface between AAS and Nortel Symposium.
- The ICM interface (ConAPI layer), which encapsulates the interface between AAS and ICM AW.
- Data Synchronizer, which compares the information from Symposium and ICM AW to determine what information to send to ICM AW.
- Master Selection, which determines the master AAS in a duplex environment.

Figure 1-1 illustrates the AAS components.

**Figure 1-1 AAS Software Key Subsystem Components**



SEI (also referred to as “SEI Lite”) is the connection between AAS and Symposium Call Center System (SCCS). SEI is a Nortel product that enables third-party products (such as AAS) to receive events from Nortel SCCS.

Refer to the *Cisco ICM Software ACD Supplement for Nortel Symposium* for more details about the Nortel Symposium PG. The *Cisco ICM Software Supported Switches (ACDs)* document lists the ACD supported switches. (All Cisco documentation is located on the [Cisco web site](#).) The Nortel SEI documentation set provides detailed information about SEI.

The following points describe the functionality of the AAS architecture:

- AAS is controlled by ICM NodeManager like other ICM components. AAS can be started/stopped via ICM Service Control for PG.
- For duplex AAS systems, Master Selection will determine which AAS will be active (master) and which will be in warm standby mode (subscriber).
- SEI layer is responsible for managing connection with SCCS and requesting and getting SEI events from SCCS.
- ConAPI layer is responsible for managing connection with ICM Admin Workstation(s) (AW), requesting and updating agent, skill, and skill assignments information in ICM via ConAPI.

- Data synchronizer layer is responsible for converting and synchronizing the SEI and ConAPI data.
- After an AAS becomes active:
  - ConAPI layer will connect with ICM AW.
  - SEI layer will connect to SCCS.
  - SEI layer will request synchronization from SCCS, and the SCCS begins to send a snapshot of its configuration.
  - SEI layer will pass data to Data synchronizer, which synchronizes the data from the ICM AW and sends the changes back to the ICM AW through the ConAPI layer.
  - After initial synchronization, SCCS sends any subsequent changes in SCCS administration as they occur to SEI layer where it goes through the above process again.
- AAS fault tolerance is not the same as regular ICM. The master selection decides the active AAS (master) and the inactive AAS (slave).

## AAS Performance and Scalability

This section provides information on AAS performance parameters and scalability.

### AAS Performance

All messages sent to the ConAPI interface are “throttled” by AAS. This includes startup messages as well as any messages sent at run time. Throttling will prevent flooding the ConAPI interface. Throttling parameters are controlled by the AAS registry. Refer [Working with Registry Settings, page A-1](#) for more information on the throttling parameters.

The performance parameters of AAS are as follows:

- Runs as high priority like other ICM processes.
- Uses an average of < 10% CPU time on resynchronization.
- Uses < 5% CPU for normal changes in Symposium.
- Resynchronization for 1000 agents with 100 skill groups takes < 10 minutes.
- Normal changes in Symposium appear in ICM within 5 seconds.
- Uses approximately 40 MB memory during resynchronization.
- Uses approximately 20 MB memory during normal operations.
- AAS supports a maximum of 600 configuration changes/hour.

The number of configuration transactions updated by AAS to ICM AW depends on the number and type of configuration changes made on the Nortel SCCS.

For ICM Releases earlier than ICM 7.2.(3):

- Each configuration change reported by the SCCS to AAS will require AAS to make one configuration transaction from AAS to ICM AW. For example, 100 configuration changes reported by SCCS to AAS will need 100 configuration transactions from AAS to the ICM AW.

From ICM Release 7.2.(3):

- Events for certain configuration changes (For example, Agent Skill Assignment and De-assignment) are combined by AAS as a single configuration transaction.

- Events for certain configuration changes (For example, Skillgroup Priority Change) cannot be combined by AAS as a single configuration transaction.

For example, 100 configuration changes reported by SCCS to AAS will get updated in less than 100 configuration transactions from AAS to the ICM AW. The actual number will depend on the combination and interleaving of the various types of events from SCCS.

The number of records updated in each transaction depends on the following registry key:  
**AASConAPIThrottleMaxModificationsPerTrans.**

**Note**

The CMS Node has a record retrieval limit of 1024 \* 1024 characters. To ensure that this limit is not exceeded, AAS has a registry key (AASConAPIThrottleMaxResults) to control the number of records from AW. The default value of this registry key is 1500. This value can be increased up to 3500, which is the maximum recommended value. For more information on AAS Throttling Guidelines, refer [AAS Throttling Guidelines, page 4-4](#).

## AAS Analyzer

AAS Analyzer is a built-in feature of AAS used to determine AAS performance and is available from ICM 7.2(3) and later versions. The purpose of the AAS Analyzer is to determine the number of events sent by the Nortel Symposium over the SEI link to AAS. AAS Analyzer logs the events received from the Symposium. The logs are captured on hourly basis.

AAS can be run in the following modes:

- Analyzer Mode: To run AAS in Analyzer mode, set AASAnalyseMode to 1
- Normal Mode: To run AS in Normal mode, set AASAnalyseMode to 0

The following registry controls the operation of AAS in the Analyzer and Normal modes:

**Config registry "AASAnalyseMode" of type REG\_DWORD**

This registry is available at:

My Computer\HKEY\_LOCAL\_MACHINE\SOFTWARE\Cisco Systems, Inc.\ICM\<icm instance>\PGxx\PG\CurrentVersion\AASS\as1\AASData\Config

**Note**

- AAS Analyzer does not modify the configuration changes to ICM and has no adverse impact on your system.
- For additional information regarding the set up and operation of AAS in Analyzer mode, contact TAC.

## AAS Scalability

The scalability features of AAS are described in this section.

### Multiple AAS connecting to single AW

- During startup, you must start each instance of AAS one by one. A delay of 2 minutes before starting another instance is recommended.
- On reaching steady state, multiple AAS instances will remain connected to a single AW and update the configuration changes to AW. A maximum of three concurrent AAS instances can connect to a single AW at a time.

## Two AAS connecting to single AW

The following configurations are supported in a duplex AAS environment.

Both sides of AAS (A and B) are on two different machines and connect to ICM AW on a different machine.

### Case 1: AAS side A and side B use the same server name but different client names.

Configure the AAS config registries **AASConAPIRemoteServiceName1** and **AASConAPILocalServiceName1** as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer1, AASClient2

Configure the **ICM Distributor AW link** and **Application link** parameters in CMS Control at ICM AW as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer1, AASClient2

### Case 2: AAS side A and side B use different server and client names.

Configure the AAS config registries **AASConAPIRemoteServiceName1** and **AASConAPILocalServiceName1** as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer2, AASClient2

Configure the **ICM Distributor AW link** and **Application link** parameters in CMS Control at ICM AW as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer2, AASClient2

**Case 3: AAS side A and side B use the same server and client names.**

Configure the AAS config registries **AASConAPIRemoteServiceName1** and **AASConAPILocalServiceName1** as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer1, AASClient1

Configure the **ICM Distributor AW link** and **Application link** parameters in CMS Control at ICM AW as follows:

- AAS side A: AASServer1, AASClient1
- AAS side B: AASServer1, AASClient1

## Force Synchronization

AAS synchronization process gets triggered after AAS has become active. The synchronization can be forced by modifying the dynamic registry key given below:

HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems,  
Inc./ICM/<ICMinstance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic/AASForce  
Resync.





## CHAPTER 2

# Installing and Configuring Automated Administrator for Symposium

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This chapter describes Automated Administrator for Symposium (AAS), the prerequisites needed before installing AAS, and details the procedure for installing AAS.

This chapter includes the following sections:

- [Types of Installation, page 2-1](#)
- [Supported Configurations, page 2-2](#)
- [Supported Configurations with Firewall, page 2-5](#)
- [Prerequisites for Installing AAS, page 2-8](#)
- [Installing AAS, page 2-12](#)

## Types of Installation

### Standalone Installation

Standalone installation applies to the installation of AAS on ICM releases 5.0(0), 6.0(0), and 7.0(0). Refer the [Appendix 2, “How to Install AAS on ICM Releases Earlier Than ICM 7.1\(3\) \(Standalone Installer\)”](#) section for more information on standalone installation.

### Integrated Installation

Integrated installation applies to the installation of AAS on ICM releases from 7.1(3). Refer the [Appendix 2, “How to Install or Reinstall AAS on ICM 7.1\(3\) \(Integrated Installer\)”](#) section for more information on integrated installation.



**Note**

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Standalone installation of AAS is not supported if you are running ICM version 7.1(3) and later. If you have AAS installed as a standalone installer with 7.1(2), you can upgrade to 7.1(3) and continue to run AAS without impacting your existing configuration.

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# Supported Configurations

The supported combination of single and dual redundant components is given in the [Table 2-1](#) below:

**Table 2-1** Supported Configurations

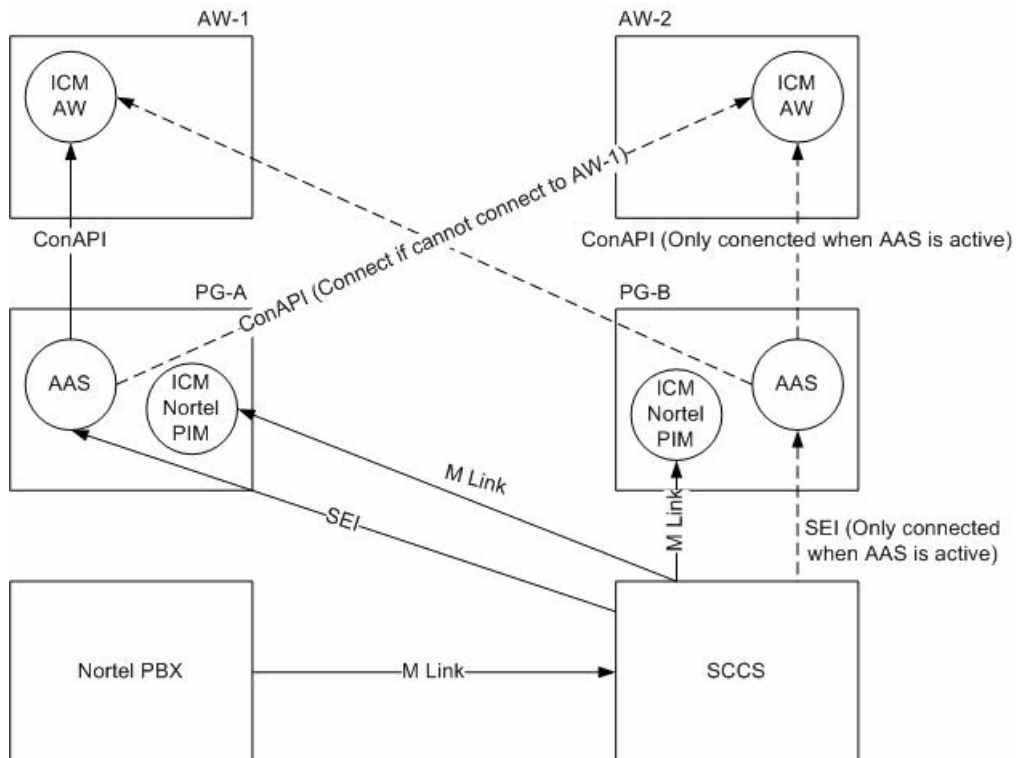
	PG (with AAS)	ICM AW	SCCS
Fully redundant	Duplex	Connecting to primary and secondary AW	Single
Partially redundant	Duplex	Single	Single
No redundancy	Single	Single	Single

## Fully Redundant

In a fully redundant configuration, there are two AAS servers: one is active and the other is in standby. The active AAS server is connected to SCCS and ICM AW. The standby AAS server does not have a connection to SCCS or ICM AW.

The active server will have the word **Active** in its console window. The standby server will have the word **Idle** in its console window. If the active AAS server cannot connect to one ICM AW, it will try the other ICM AW. If the active AAS server cannot connect to SCCS and/or both ICM AW, it will failover to the other AAS server. [Figure 2-1](#) shows the fully redundant configuration.

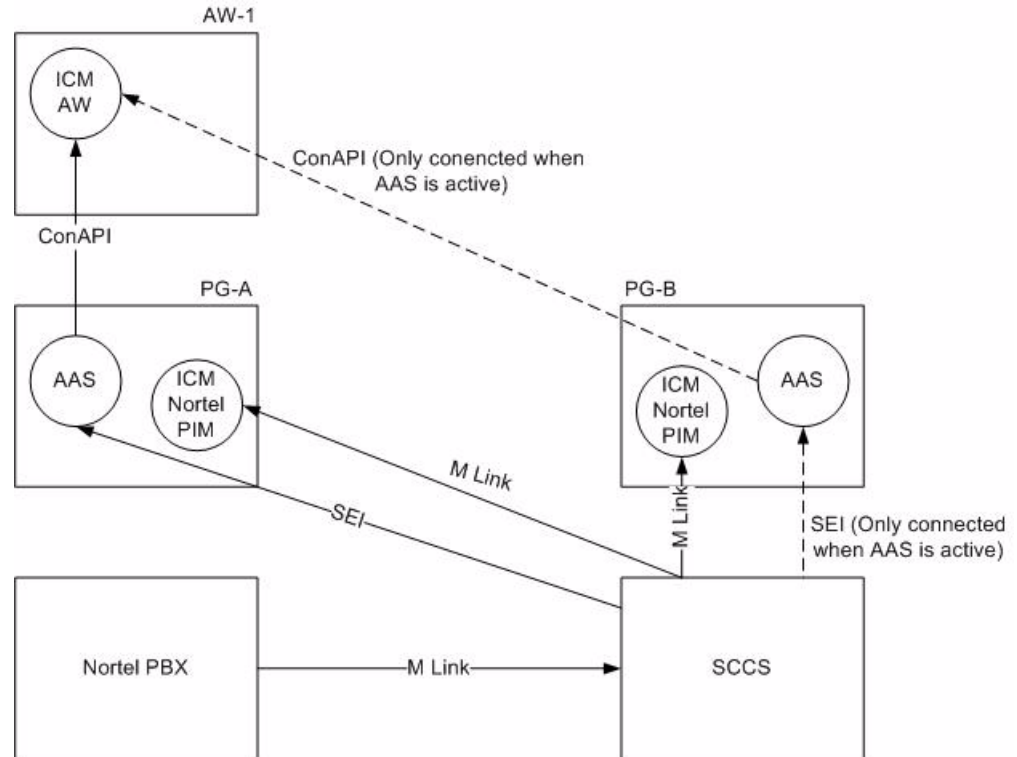
**Figure 2-1** Fully Redundant Configuration



## Partially Redundant

In a partially redundant configuration, there is only one ICM AW. The AAS server will only connect to this ICM AW. The AAS server can failover to the other AAS server if it has problems. [Figure 2-2](#) shows the partially redundant configuration.

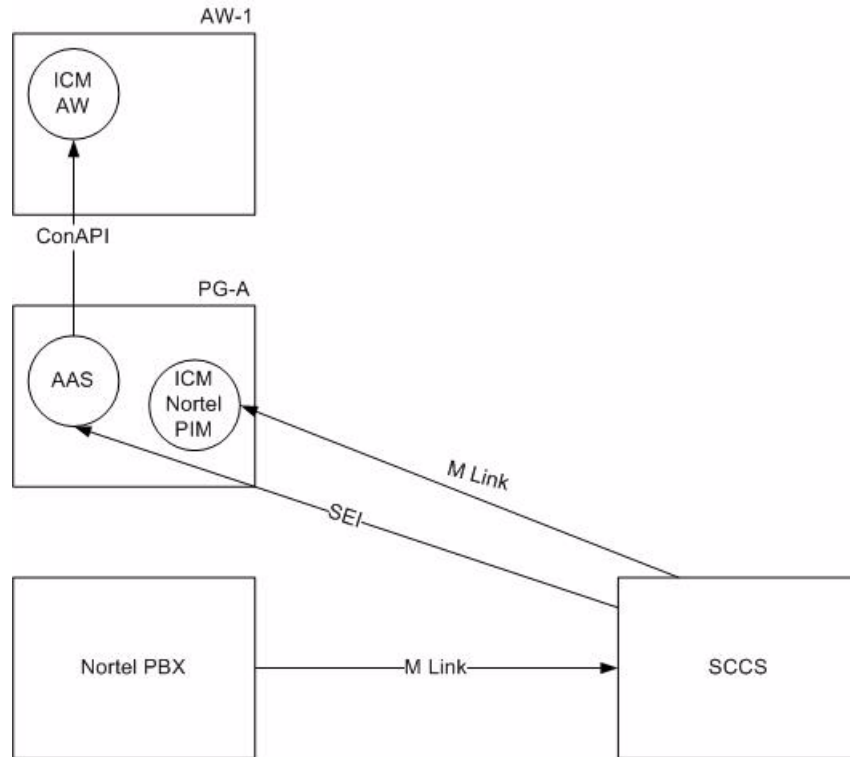
**Figure 2-2** Partially Redundant Configuration



## Not Redundant

In the absence of redundancy, there is only one ICM AW and one AAS. In case of AW failure, AAS will continue trying to connect to ICM AW until the connection is established. [Figure 2-3](#) shows the non-redundant configuration.

**Figure 2-3 Configuration without Redundancy**



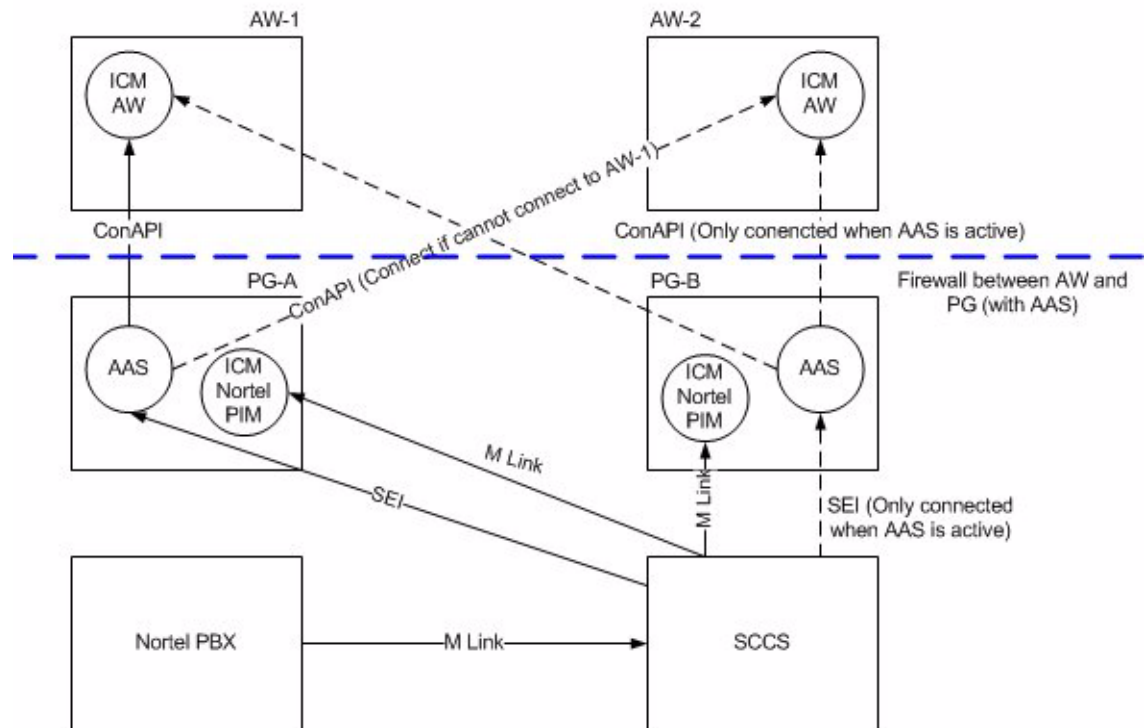
## Supported Configurations with Firewall

The below diagrams depict the firewall configurations supported between AAS and AW. Firewall between AAS and SCCS is not supported because the Nortel SCCS port is dynamic.

### Fully Redundant

Figure 2-4 shows the fully redundant configuration with firewall.

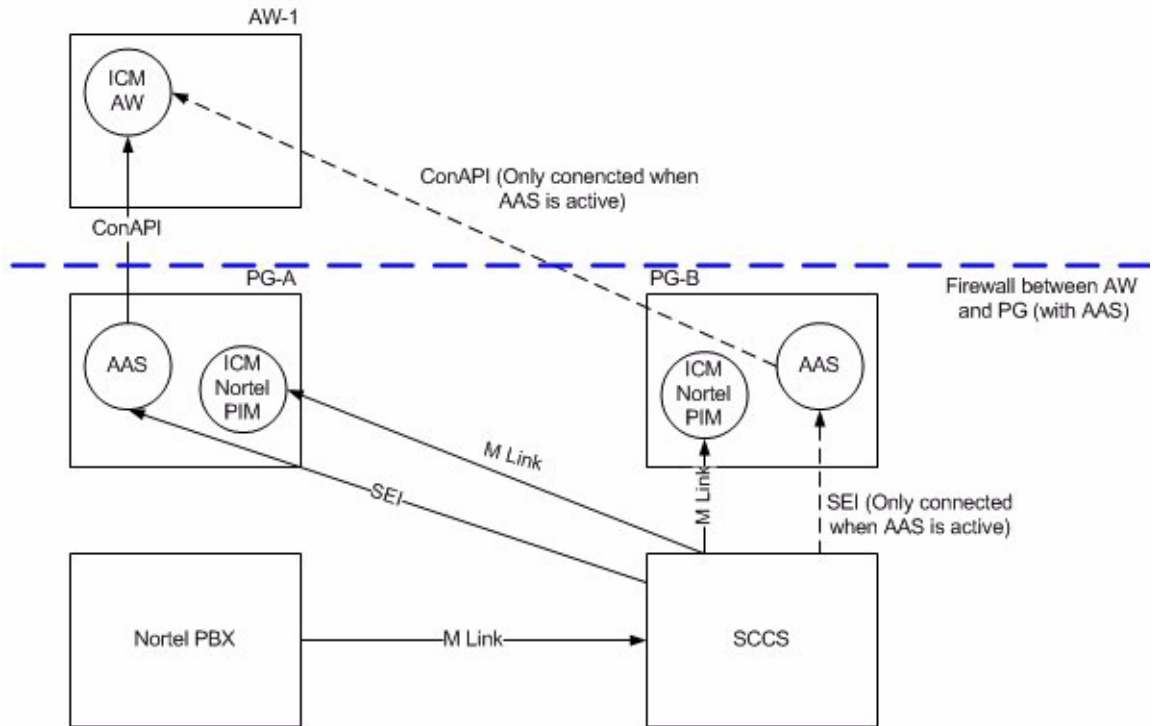
Figure 2-4 Fully Redundant Configuration with Firewall



## Partially Redundant

Figure 2-5 shows the partially redundant configuration with firewall.

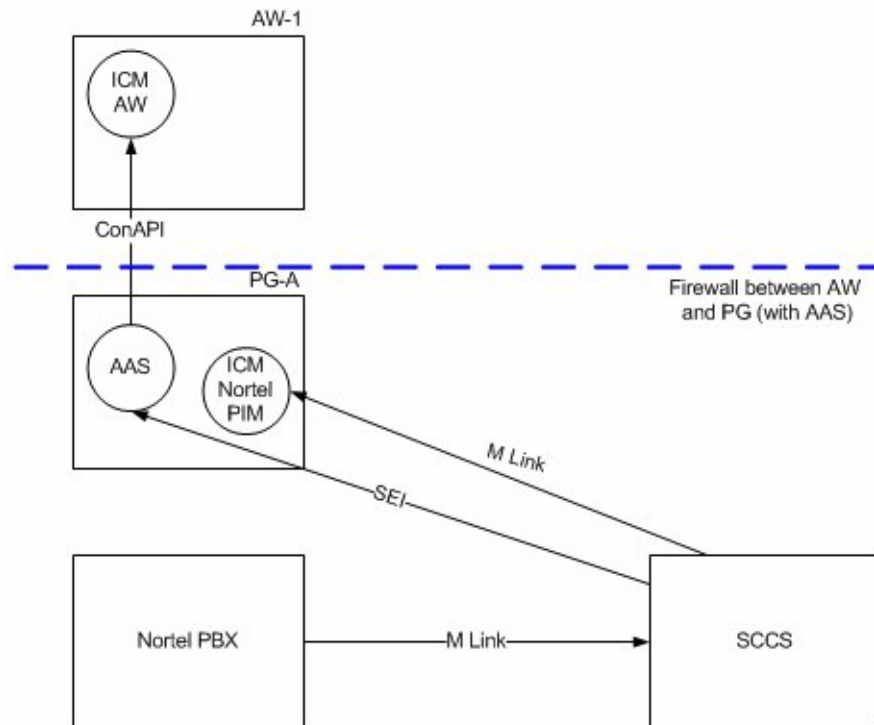
Figure 2-5 Partially Redundant Configuration with Firewall



## No Redundancy

Figure 2-6 shows the non-redundant configuration with firewall.

Figure 2-6 Non-redundant Configuration with Firewall



## Firewall Usage and Configuration

This section has information on firewall usage and configuration between AAS and AW. This section is applicable if you are using a firewall between AAS and AW. If you are not using firewall between AAS and AW, you can ignore this section.

### Firewall between AAS and AW

If you are using firewall between AAS and AW, you will need to open the ports used between AAS and AW in the firewall. This ensures that these ports are not blocked by firewall and facilitates proper communication between AAS and AW.

The following ports are used for firewall configuration between AAS and AW:

1. AAS uses a configurable static port on AAS for RMI connection from AW.
2. AAS uses two dynamic ports on AAS for communication with AW.

**AAS Registry values:**

To configure the firewall between AAS and AW, define the following registry values:

1. The below registry value should be set to "true"

```
HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems,
Inc./ICM/<ICMinstance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config/AASConAPI
DisableAutoConnect
```

2. The below registry value is used as the local RMI port by AAS. Open this port in the firewall.

```
HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems,
Inc./ICM/<ICMinstance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config/AASConAPI
LocalRegistryPort
```

For ex: 1099

3. The following registry value is used as the local communication port by AAS. Open this port in the firewall.

```
HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems,
Inc./ICM/<ICMinstance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config/AASConAPI
LocalPort
```

**Example Port Usage****Ports used between AAS and AW with the above registry values:**

For example, 5555 is the AASConAPILocalPort

Ports usage between AAS and AW with the above registry settings:

1. Port 1099 is used on AAS for RMI connection from AW.
2. Port 5555 is used on AAS for communication with AW.

**Guidelines for Firewall configuration between AAS and AW**

Refer the above example for this section.

1. If firewall is installed in the network that AAS is part of:  
Open ports 1099 and 5555 in the firewall for incoming connections from AW towards AAS.
2. If firewall is installed in the network that AW is part of:  
Open ports 1099 and 5555 in the firewall for outgoing connections from AW towards AAS.

**Note**


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Firewall between AAS and SCCS is not supported because the Nortel SCCS port is dynamic.

---

## Prerequisites for Installing AAS

This section gives information on the hardware and software supported, information needed, and guidelines for installing AAS.

You must install ICM PG on the system before AAS installation. Before installation, ensure the following registry is set to 50:

```
HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM
instance>/PG<XX>/SymposiumVersion
```



## Minimum System Requirements

Table 2-2 lists the minimum system requirements for installing AAS.

**Table 2-2 Minimum System Requirements**

Product	Required Version
Symposium Call Center Server (SCCS)	5.0 SU03 with Designer Patch NN_SCCS_5.0_DP_03_S or 5.0 SU06 or NCCM 6.0
Symposium Event Interface	No separate versioning required
ICM	ICM Releases 5.0(0) SR10 and later, 6.0(0) SR3 and later, and 7.0 (0) SR2 and later (with any appropriate patches)

## ICM Requirements

The ICM AW must be installed to support use of the ConAPI interface. (See “[Configuring the ICM ConAPI Connection](#)” for more information.) The ICM AW can either be installed as co-resident with the PG or installed on a separate machine.

Refer to the ICM documentation set for detailed information about installing and configuring ICM and to the *Hardware and System Software Specification (Bill of Materials)* for information about ICM hardware and software requirements. Refer to the *Cisco ICM Software ACD Supplement for Nortel Symposium* for detailed information about the SEI Lite interface with Nortel Symposium. (All documentation is located on the [Cisco web site](#).)



Note

The minimum bandwidth required between AAS and AW is 128 Kbps.

## Supported ICM Versions

Refer [Appendix 1, “About Automated Administrator for Symposium”](#) for supported ICM versions.

## Pre-installation Checklist

Ensure that you have the following information before installation:

- ICM instance name, PG instance name, and AAS name
- RMI port number
- The IP address of the ICM AW machine
- The IP address/host and port number of the AAS machine

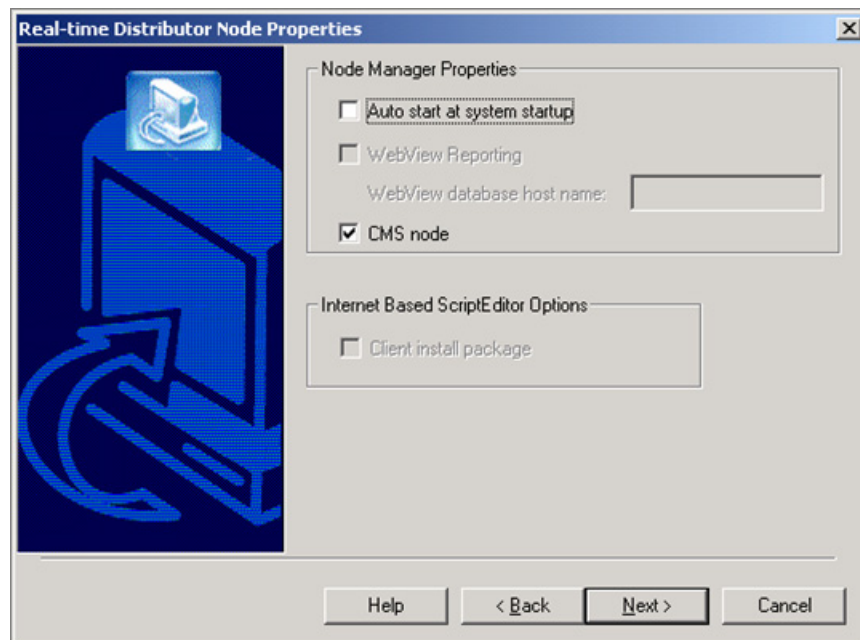
- IP address and port number of the machine where the SCCS Event Server (SEI CORBA) is installed
- Symposium site name (this name is found in the Start\Programs\Symposium Call Center Server\System Information - Site Name directory)
- SEI user name and password
- ICM peripheral ID for the Symposium PG

## Enabling the CMS Node Check box

Before installing AAS, the **CMS Node** check box in the Real-time Distributor Node Properties window must be enabled on the ICM AW component. You need to run the ICM Local Setup for this.

Figure 2-7 figure shows the Real-time Distributor Node Properties dialog box with the CMS node check box enabled.

Figure 2-7 CMS Node Check box



Refer to the *ICM Configuration Guide for Cisco ICM Enterprise Edition* for more details.

## Installation Guidelines

Follow these guidelines *before* installing AAS:

- Follow the guidelines as documented in the Symposium PG installation component matrix. AAS is an optional additional component of the Symposium PG.
- The ICM ConAPI connection must be configured *before* installing the AAS software. (See [“Configuring the ICM ConAPI Connection”](#) for detailed instructions.)
- If you configure primary and secondary PGs, AAS can be installed on both the Side A and Side B PGs.
- You can install only one AAS instance for one PG.

- Remove all skill groups from ICM before installing and running AAS. This has to be done to avoid any conflicts between the ICM PeripheralNumber and the Symposium skillset ID. When deleting skill groups, persons, or agents in ICM, delete them permanently.

**Note**

For more information, refer the ICM Software Setup and Configuration section in the *Cisco ICM Software ACD Supplement for Nortel Symposium*.

- Set the default sub skill group mask for the Symposium Peripheral to **None** by unchecking all skill groups on the Skill Group Mask tab for the peripheral.
- Make sure the PG name in ICM and the skill group name in Symposium are kept short; otherwise, AAS will not be able to generate a unique Enterprise name for the skill group in ICM. The total length of the PG name and the skill group name *combined* cannot be more than 28 characters.
- The Symposium skillset name cannot be longer than 29 characters; otherwise, AAS will not be able to generate a unique peripheral name for the skill group in ICM.
- If you are using the SU05 version of SCCS, perform the following steps on the Symposium system before installing AAS:
  - Change the HKLM/SOFTWARE/ACE/TAO/TaoNamingServiceOptions registry key to the value: -m 1 -OrbEndPoint iiop://<hostname>:4422 -o tao\_name\_service.ior (where <hostname> indicates the machine's hostname).
  - Stop the following services: RSM, ES, TFA, and TAO\_Naming\_Service.
  - When the above services are stopped, delete the “tao\_naming\_service.ior” and “tao\_naming\_service.dat” files located in the 'system32' folder. After these files are deleted, restart the services starting with the TAO\_Naming\_Service.

**Caution**

You must install the AAS and PG on the same computer. *Do not* install the Symposium software on the same computer as ICM since this may cause performance issues.

## Order of Installation/Configuration

You must install/configure AAS in the following order:

1. Configure Application Instance in ICM Configuration Manager. Refer [Appendix 3, “How to configure an application instance”](#) for detailed instructions.
2. Establish administration connection using CMS Control Application. Refer [Appendix 3, “How to establish an administration connection”](#) for detailed instructions.
3. Configure the application details. Refer [Appendix 3, “About Establishing Administration Connections”](#) for further information.
4. Permanently delete all agents and skill groups from ICM before installing AAS, using ICM Agent Explorer and ICM Skill Group Explorer. Then use ICM Deleted Object tool to delete them permanently from ICM DB.
5. Install and configure AAS.

# Installing AAS

This section describes how to install AAS.



---

**Caution**

You must stop the PG *before* installing or reinstalling AAS software, and restart it once AAS has been installed. Otherwise, AAS will remain in an undefined state or will require a system reboot. If you need to uninstall AAS, you must uninstall AAS before uninstalling the PG or AAS will have problems uninstalling.

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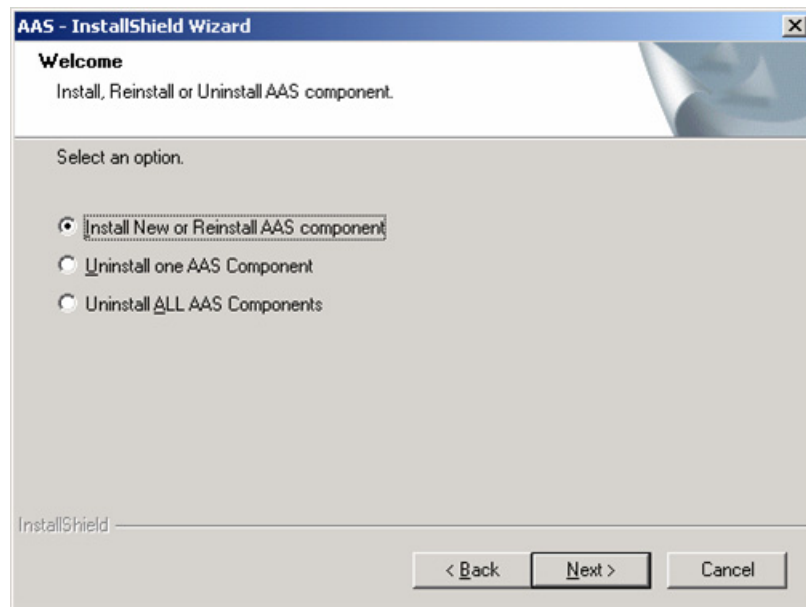
## How to Install AAS on ICM Releases Earlier Than ICM 7.1(3) (Standalone Installer)

Before installing AAS, observe the following guidelines:

- For a simplex system (one PG/AAS), enter the local IP address and other required information.
- For a duplex system (two PGs/AASs), enter the IP for each host on ICM AW Sides A and B.

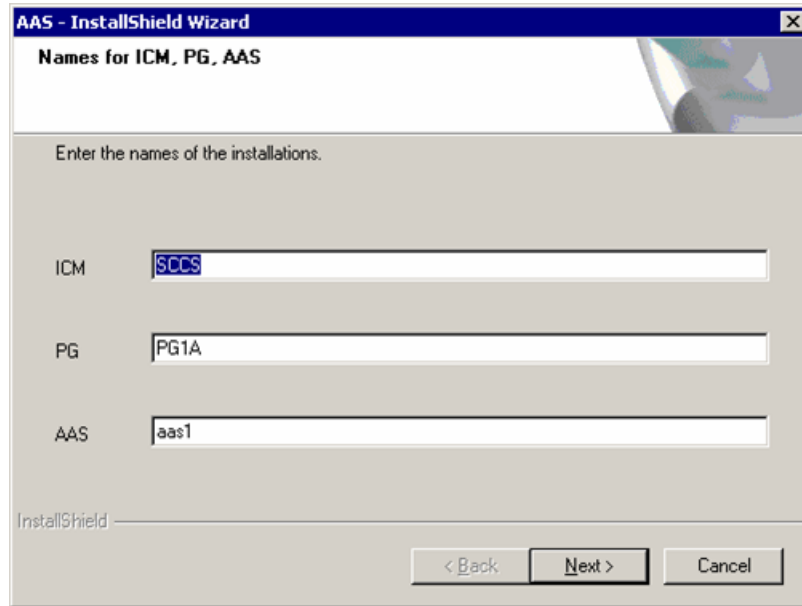
**Step 1** Run the `aas_setup.exe` file on the CD. The AAS InstallShield Wizard displays.

**Figure 2-8** AAS InstallShield Wizard - Welcome Screen



- Step 2** Enter the name of the ICM instance, the PG name, and the AAS name; then click **Next**. For the AAS name, use the format “aas” and the number; for example, aas1, aas2, etc. (all entries are case-sensitive).

*Figure 2-9 AAS InstallShield Wizard - Names of ICM, PG, AAS*



AAS - InstallShield Wizard

Names for ICM, PG, AAS

Enter the names of the installations.

ICM

PG

AAS

InstallShield

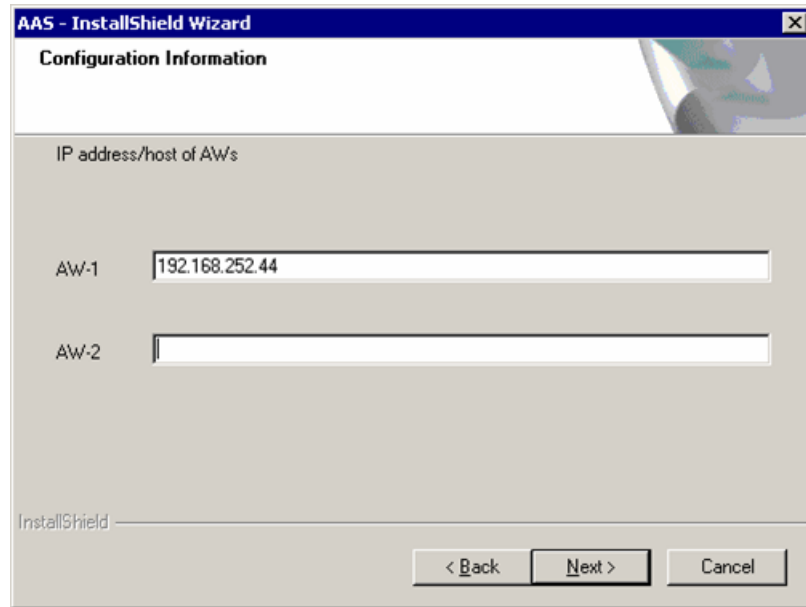
< Back Next > Cancel



**Note** The PG name and the AAS name are each combinations of the node and the side.

- Step 3** In the Configuration Information window for the IP address/host of ICM Distributor AWs, enter the AW machine IP address for ICM Primary Distributor AW and for ICM Secondary Distributor AW (if you are using a secondary distributor); then click **Next**.

*Figure 2-10 .AAS InstallShield Wizard - Configuration Information*



The screenshot shows a window titled "AAS - InstallShield Wizard" with a sub-header "Configuration Information". Below the header, the text "IP address/host of AWs" is displayed. There are two input fields: the first is labeled "AW-1" and contains the IP address "192.168.252.44"; the second is labeled "AW-2" and is currently empty. At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the window.

- Step 4** In the Configuration Information window for the ICM Distributor AW connection, enter the ICM Distributor AW Link 1 name, the ICM Distributor AW Link 2 name (if using a secondary distributor), and the ICM Distributor AW RMI registry port number using the same values used in [Step 4](#) in “[How to establish an administration connection](#)” section on [page 3-3](#); then click **Next**.

**Figure 2-11** AAS InstallShield Wizard - Configuration Information

The screenshot shows a dialog box titled "AAS - InstallShield Wizard" with a subtitle "Configuration Information". Below the subtitle is a section labeled "ICM Distributor AW connection details". This section contains three text input fields: "Link 1" with the value "AASServer1", "Link 2" which is empty, and "RMI port" with the value "2099". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".



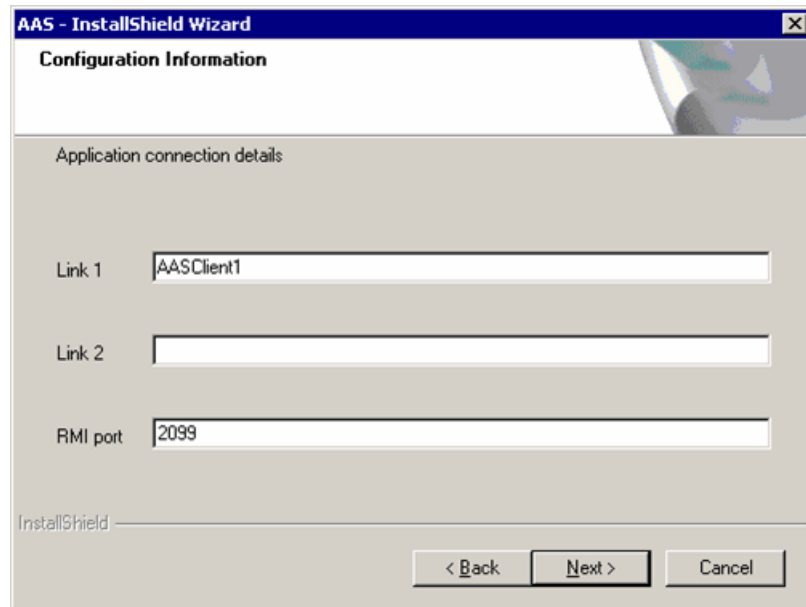
**Caution**

If you are using a secondary distributor, the names of the AAS servers *must* be different; for example, “AASServer1” cannot be the name of the ICM Distributor AW link on both computers. If you have multiple AAS servers on your network, each one must have unique entries due to RMI requirements.



- Step 5** In the Configuration Information window for the application connection details, enter the Application Link 1 name, the Application Link 2 name (if using a secondary distributor), and the Application RMI registry port number; then click **Next**.

**Figure 2-12** AAS InstallShield Wizard - Configuration Information



The screenshot shows a dialog box titled "AAS - InstallShield Wizard" with a subtitle "Configuration Information". The main area is labeled "Application connection details" and contains three text input fields. The first field, labeled "Link 1", contains the text "AASClient1". The second field, labeled "Link 2", is empty. The third field, labeled "RMI port", contains the text "2099". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".

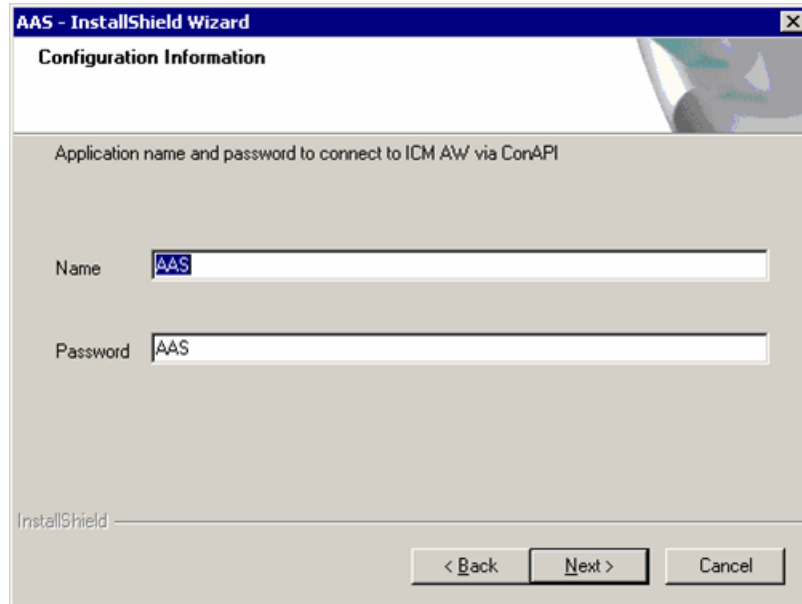


**Caution**

If you are using a secondary distributor, the names of the AAS clients *must* be different; for example, "AASClient1" cannot be the name of the Application link on both computers. If you have multiple AAS servers on your network, each one must have unique entries due to RMI requirements.

- Step 6** Enter the application instance name and password/application key (if applicable) to connect to the ICM Distributor AW; then click **Next**.

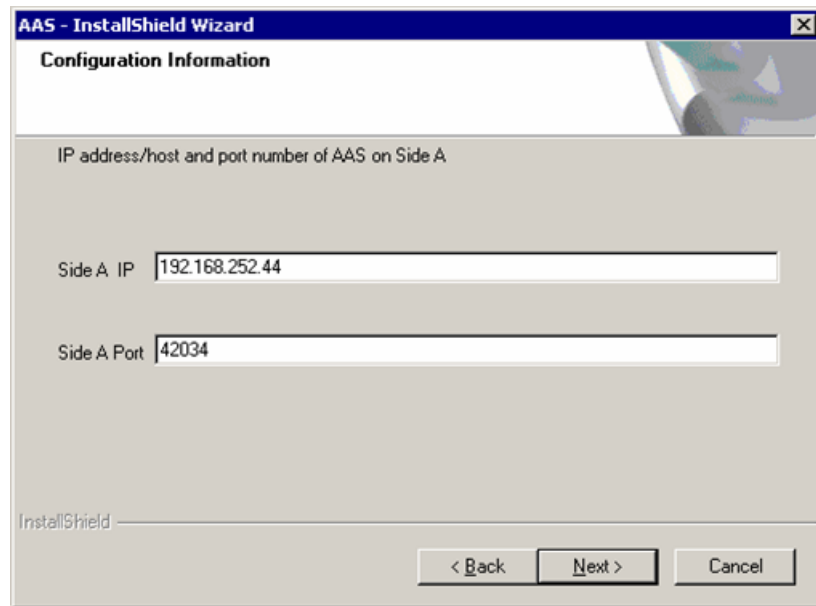
*Figure 2-13 AAS InstallShield Wizard - Configuration Information*



The screenshot shows a dialog box titled "AAS - InstallShield Wizard" with a "Configuration Information" header. Below the header, there is a text label: "Application name and password to connect to ICM AW via ConAPI". There are two input fields: "Name" with the value "AAS" and "Password" with the value "AAS". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the dialog area.

**Step 7** Enter the AAS machine IP address/host and port number (default displays) for Side A; then click **Next**.

**Figure 2-14** AAS InstallShield Wizard - Configuration Information



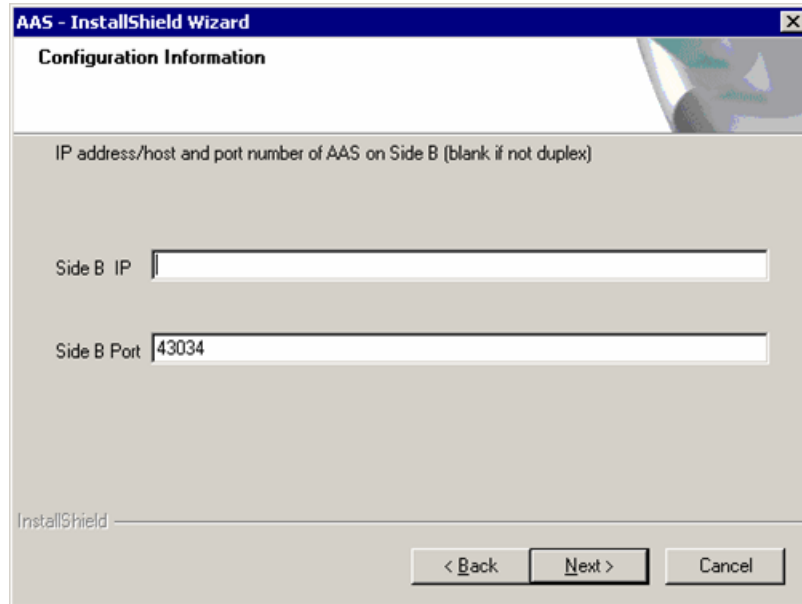
The screenshot shows a dialog box titled "AAS - InstallShield Wizard" with a "Configuration Information" header. Below the header, the text "IP address/host and port number of AAS on Side A" is displayed. There are two input fields: "Side A IP" with the value "192.168.252.44" and "Side A Port" with the value "42034". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the dialog area.



**Note** Do not use the loopback IP address (127.0.0.1). Instead, use the *machine's* actual IP address.

- Step 8** Enter the AAS machine IP address/host and port number (default displays) for Side B (if using a duplex system); then click **Next**.

**Figure 2-15** AAS InstallShield Wizard - Configuration Information



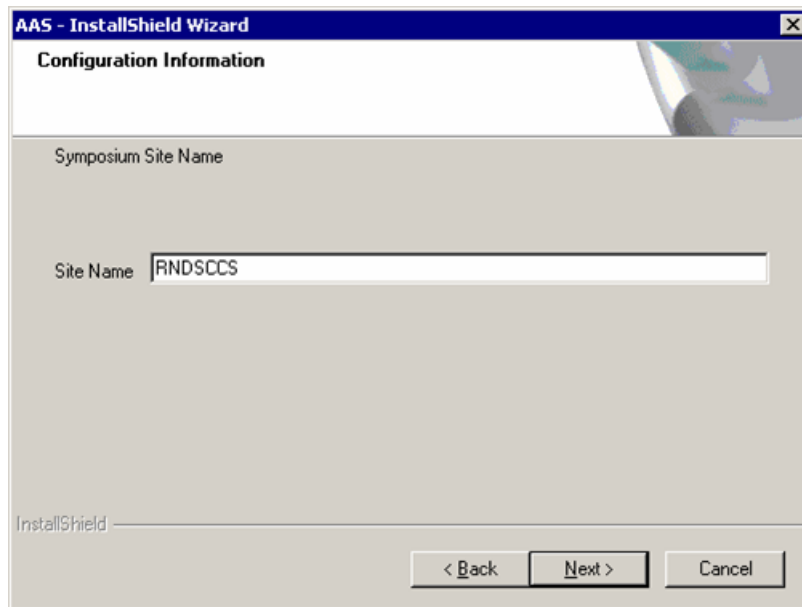
The screenshot shows a dialog box titled "AAS - InstallShield Wizard" with a "Configuration Information" header. Below the header, there is a text label: "IP address/host and port number of AAS on Side B (blank if not duplex)". There are two input fields: "Side B IP" which is currently empty, and "Side B Port" which contains the value "43034". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel". The "InstallShield" logo is visible in the bottom left corner of the dialog area.



**Note** Do not use the loopback IP address (127.0.0.1). Instead, use the *machine's* actual IP address.

- Step 9** Enter the Symposium Site name; then click **Next**. (This name is found in the Start\Programs\Symposium Call Center Server\System Information - Site Name directory.)

**Figure 2-16** AAS InstallShield Wizard - Configuration Information



AAS - InstallShield Wizard

Configuration Information

Symposium Site Name

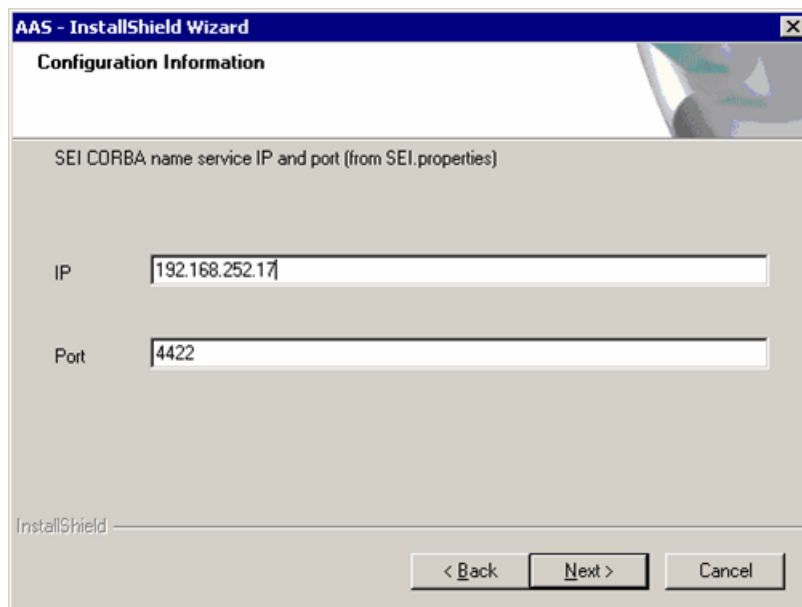
Site Name RNDSCCS

InstallShield

< Back Next > Cancel

- Step 10** Enter the IP address and port number of the Symposium Call Center Server machine (“SEI CORBA” refers to the Symposium Call Center Server); then click **Next**.

**Figure 2-17** AAS InstallShield Wizard - Configuration Information



AAS - InstallShield Wizard

Configuration Information

SEI CORBA name service IP and port (from SEI.properties)

IP 192.168.252.17

Port 4422

InstallShield

< Back Next > Cancel



**Note** SEI CORBA software is the CORBA naming service used by SEI. This information can be found in the SEI.properties file on the SCCS computer.

**Step 11** Enter the SEI user name and password; then click **Next**.

**Figure 2-18** AAS InstallShield Wizard - Configuration Information

AAS - InstallShield Wizard

Configuration Information

SEI user name and password

Name: nortel

Password: nortel

InstallShield

< Back Next > Cancel

**Step 12** Enter the ICM Peripheral ID for Symposium; then click **Next**.

**Figure 2-19** AAS InstallShield Wizard - Configuration Information

AAS - InstallShield Wizard

Configuration Information

ICM Peripheral ID for Symposium (e.g. 5000)

ID: 5000

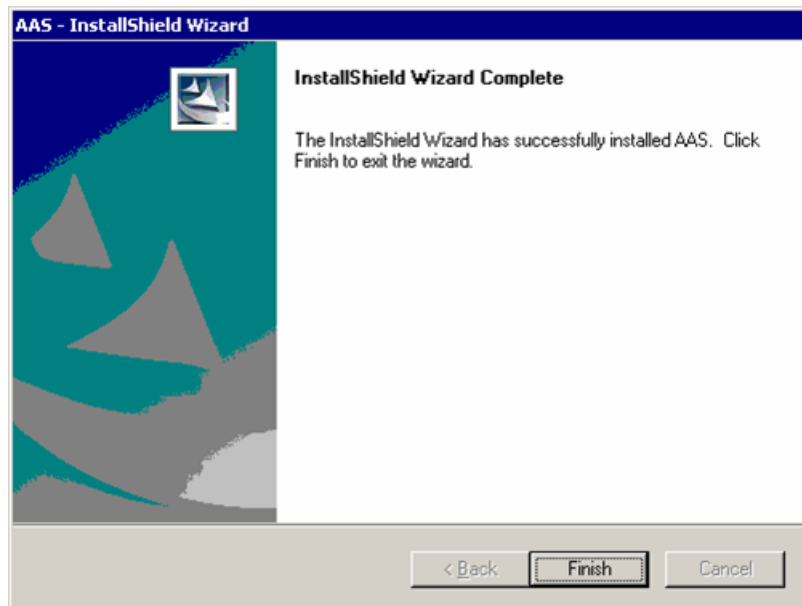
InstallShield

< Back Next > Cancel

**Step 13** The install program runs. When finished, the InstallShield Wizard Complete window displays stating that AAS has been successfully installed.

Step 14 Click **Finish**.

Figure 2-20 InstallShield Wizard Complete



Step 15 If you are using ICM Release 5.0(0) SR10 or Release 6.0(0) SR3, you need to change the value of the following registry variable:

HKEY\_LOCAL\_MACHINE/System/CurrentControlSet/Services/EventLog/Application/Cisco Systems, Inc./ICM/CategoryCount

from **0x52** to **0x53**, if you want the Windows Event Log **Category** field to contain a symbolic name rather than a number for AAS messages.



Caution

If you do not make this change, the **Category** field for AAS messages will contain the number 83.



Note

You do not need to perform step 15 if you are running an SR beyond 5.0 SR10 and 6.0 SR3.

## How to reinstall AAS on ICM Releases Earlier Than ICM 7.1(3)

- Step 1 Double-click the **aas\_setup.exe** file on the CD. The AAS InstallShield Wizard displays.
- Step 2 Select the **Install New or Reinstall AAS component** option; then click **Next**.
- Step 3 Enter the name of the ICM instance, the PG name, and the AAS name that was entered for the original install; then click **Next**. By specifying the same information used for the original install, the process reinstalls over the top of the existing installation.
- Step 4 Click **Yes** in the Question dialog box that asks for confirmation to reinstall.
- Step 5 The next set of windows that display are the same as those shown for a new install. (See [“How to Install AAS on ICM Releases Earlier Than ICM 7.1\(3\) \(Standalone Installer\)”](#) section on page 2-13 for more information.)



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**Note** Only the prompted information is overwritten during the reinstallation. Non-prompted settings (including tuning) in the registry are preserved.

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## How to uninstall AAS on ICM Releases Earlier Than ICM 7.1(3)

- Step 1** Double-click the **aas\_setup.exe** file on the CD. The AAS InstallShield Wizard displays.
  - Step 2** To uninstall one AAS instance, select the **Uninstall one AAS component** option; then click **Next**.
  - Step 3** Enter the name of the ICM instance, the PG name, and the AAS name that was entered for the original install; then click **Next**. (The process uninstalls this AAS instance even if there are multiple AAS instances installed.)
  - Step 4** To uninstall all AAS instances on the computer, select the **Uninstall ALL AAS components** option; then click **Next**. (The process does not prompt for the instance names.)
- 

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## How to Install or Reinstall AAS on ICM 7.1(3) (Integrated Installer)

- Step 1** From the ICM Installer, run the PG setup.
- Step 2** At the PG setup screen:
  - a. Select the Symposium Version **5.0**.
  - b. Check **Install AAS**.
  - c. Select **Yes** at the prompt to confirm the installation.
  - d. Click **OK** to open the AAS Configuration screen.



Figure 2-21 Symposium Configuration

- Step 3** At the AAS Configuration screen (Figure 3-7 shows the AAS Configuration screen):
- Enter the Symposium Site Name. (You will find this name in the Start\Programs\Symposium Call Center Server\System Information - Site Name directory.)
  - Enter the details of the AW machine of primary distributor under **AW-1 Information**:
    - Host Name:** The AW machine IP address for ICM Primary Distributor AW.
    - AW Link1:** The ICM Distributor AW Link 1 name for the Primary Distributor. (The ICM Distributor AW Link 1 name should be the same as used in Step 4 in “How to establish an administration connection” section on page 3-3.)
    - Application Link1:** The Application Link 1 name for the Primary Distributor.
  - Enter the details of the AW machine of secondary distributor (if used) under **AW-2 Information**:
    - Host Name:** The AW machine IP address for ICM Secondary Distributor AW.
    - AW Link2:** The ICM Distributor AW Link 2 name for the Secondary Distributor. (The ICM Distributor AW Link 2 name should be the same as used in Step 4 in the “How to establish an administration connection” section on page 3-3.)

**Caution**

If you are using a secondary distributor, the names of the AAS servers must be different; for example, "AASServer1" cannot be the name of the ICM Distributor AW link on both computers. If you have multiple AAS servers on your network, each one must have unique entries due to RMI requirements.

- Application Link2:** The Application Link 2 name for the Secondary Distributor.

**Caution**

If you are using a secondary distributor, the names of the AAS servers must be different; for example, "AASClient1" cannot be the name of the Application link on both computers. If you have multiple AAS servers on your network, each one must have unique entries due to RMI requirements.

d. Enter the details of the AAS host under **AAS Host Information:**

- **Application Username:** The Application Instance name
- **Application Password:** The Application password

**Note**

For the application instance name, use the same name entered in [Step 3a.](#) in “[How to configure an application instance](#)” section on [page 3-2](#). The password/application key is the same number used in [Step 3b.](#)

- **SideA Host Name:** The AAS machine IP address/host for Side A

**Note**

**SideB Host Name:** The AAS machine IP address/host for Side B. *Do not* use the loopback IP address (127.0.0.1). Instead, use the *machine's* actual IP address.

- **Local RMI Port:** The local RMI registry port number
- **Remote RMI Port:** The remote RMI registry port number

**Note**

The RMI port should be the same as used in [Step 4](#) in the “[How to establish an administration connection](#)” section on [page 3-3.](#))

- **SideA Port:** The AAS machine's Port for Side A
- **SideB Port:** The AAS machine's Port for Side B

e. Enter the details of the SEI CORBA host under **SEI CORBA Information:**

- **SEI CORBA Hostname:** The IP address of the Symposium Call Center Server machine (“SEI CORBA” refers to the Symposium Call Center Server.)
- **SEI CORBA Port:** The Port of the Symposium Call Center Server machine (“SEI CORBA” refers to the Symposium Call Center Server.)

**Note**

SEI CORBA software is the CORBA naming service used by SEI. This information can be found in the SEI.properties file on the SCCS computer.

f. Enter the details of the SEI User under **SEI User Information:**

- **Name:** The SEI User Name
- **Password:** The SEI Password

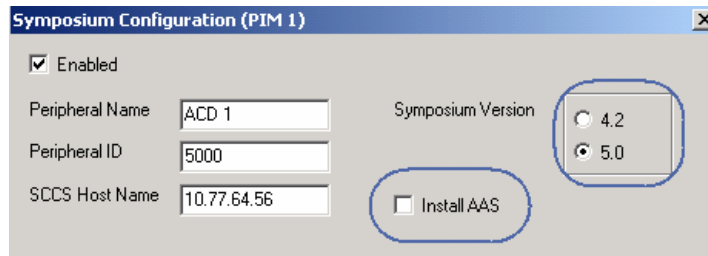
**Step 4** Click **OK**.

**Step 5** Click **Next** to finish the PG setup.

## How to uninstall AAS for ICM 7.1(3)

- 
- Step 1** From the ICM Installer, run the PG setup.
- Step 2** At the PG setup screen:
- Select the Symposium Version **5.0**.
  - Uncheck **Install AAS**.

**Figure 2-22** Symposium Configuration



**Note** If you are using Symposium versions higher than 5.0, select **5.0**.

- Step 3** Click **OK**.
- Step 4** Click **Next** to finish PG Setup.
-





## CHAPTER 3

# Configuring the ICM ConAPI Connection

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This chapter includes the following sections:

- [About ICM Application Instances, page 3-1](#)
- [About Configuring Application Instances, page 3-1](#)
- [About Establishing Administration Connections, page 3-2](#)

## About ICM Application Instances

ICM application instances allow identification and access to the ICM Configuration Management System (CMS). The application instance basically provides the authentication for that connection.

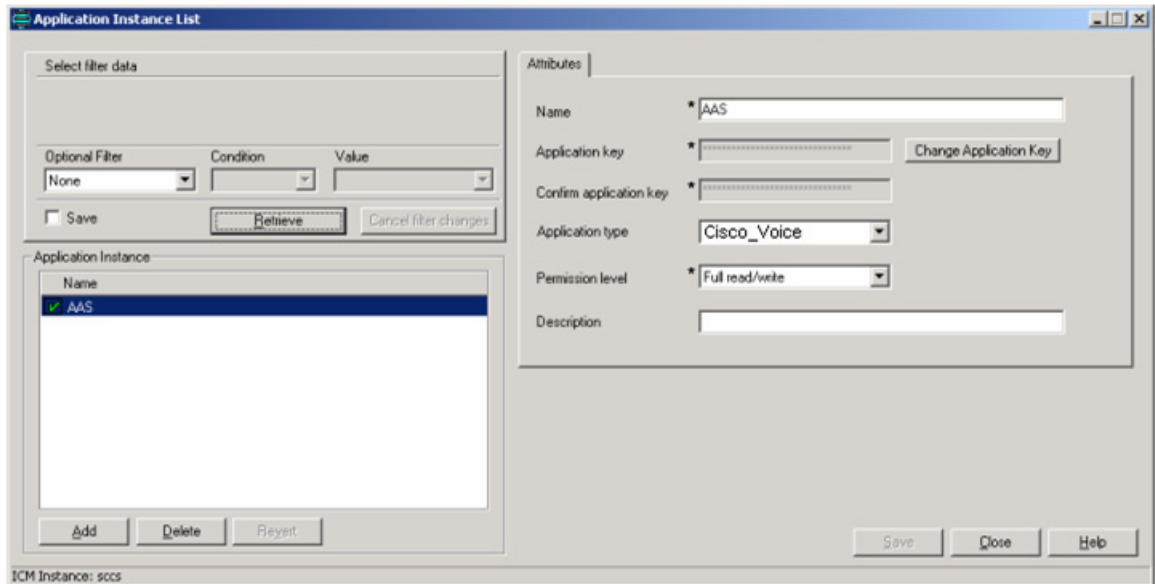
## About Configuring Application Instances

You must configure a single application instance to support one or more AAS servers. One application connection is required for each AAS Server.

## How to configure an application instance

- Step 1** From the ICM Configuration Manager, select **Tools > List Tools > Application Instance List**. The Application Instance List window displays.

**Figure 3-1** Application Instance List



- Step 2** Click **Retrieve** and then **Add** to display the Attributes tab.
- Step 3** Enter the following information:
- Name.** The enterprise name for the application instance. (This is the same name you entered to connect to the ICM Distributor AW while installing AAS.)
  - Application key.** This is the password that the integrated application will use to be identified by ICM.
  - Application type.** Select **Cisco\_Voice**.
  - Permission level.** Select the **Full read/write** level from the drop-down list. This level must be selected; otherwise, AAS will not be able to save configuration changes.
- Step 4** After entering the required fields, save the configuration and close the window.

## About Establishing Administration Connections

You must configure a communications path between ICM and the AAS application using the CMS Control application.



### Note

**Important!** The **CMS Node** check box in the Real-time Distributor Node Properties window must be enabled on the Distributor AW component in ICM Setup to successfully configure a communications path. Refer to the *ICM Configuration Guide for Cisco ICM Enterprise Edition* for more details.

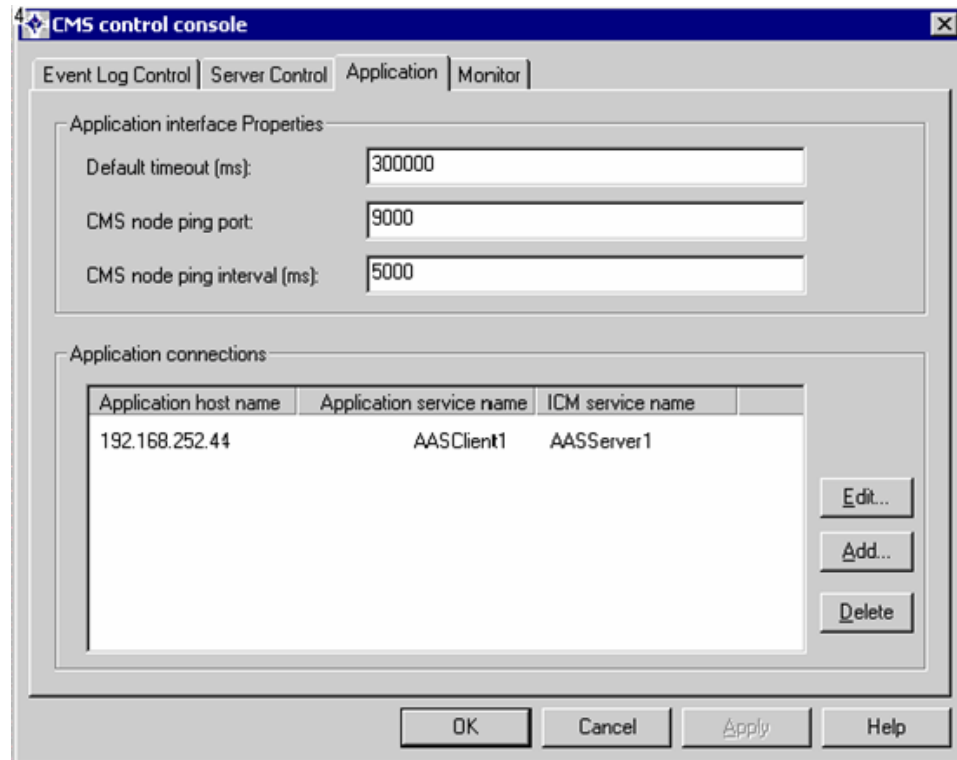
## How to establish an administration connection

Perform the following steps for each AAS application you are setting up.

**Step 1** Select **Start > Programs > ICM Admin Workstation > CMS Control**.

**Step 2** Select the **Application** tab.

**Figure 3-2** CMS control console



**Step 3** Click **Add**. The Application Connection Details dialog box displays.

**Step 4** Enter the application connection properties. Complete this window as follows:

- a. **ICM Distributor AW link**. Enter the link name on ICM; for example, enter “AASServer” followed by a unique identifier such as “AASServer1” or “AASServer2”.
- b. **ICM Distributor AW RMI registry port**. Enter the RMI registry port for ICM.



**Note** The **ICM Distributor AW RMI registry port** number and the **Application RMI registry port** number must be the same.

- c. **Application link**. Enter the link name for the application; for example, use “AASClient” followed by a unique identifier such as “AASClient1”.
- d. **Application RMI registry port**. Enter the RMI registry port for the application.
- e. **Application host name**. Enter the host name or IP address of the application. (This is the host name/IP address of the computer where AAS is running.)

**Step 5** Click **OK** twice. This restarts the Cms\_Jserver on the Admin Workstation.

[Figure 3-3](#) and [Figure 3-4](#) illustrate the windows in the ICM Admin Workstation where you must enter the RMI connection details.

**Figure 3-3** ICM Application Connection Details Window for Side A

Field	Value
ICM Distributor AW link:	AASServer1
ICM Distributor AW RMI registry port:	1099
Application link:	AASClient1
Application RMI registry port:	1099
Application host name:	10.77.56.28

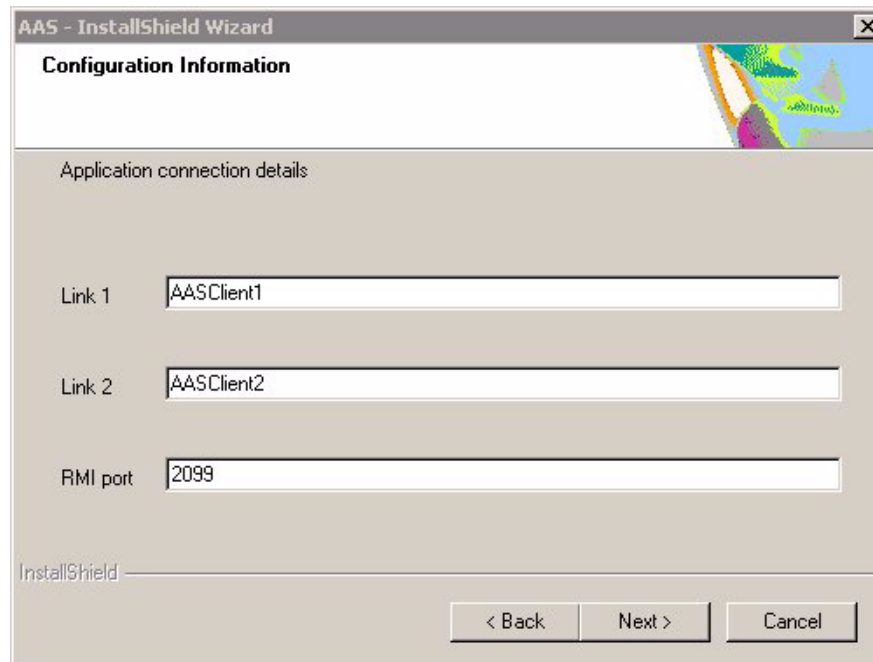
**Figure 3-4** ICM Application Connection Details Window for Side B

Field	Value
ICM Distributor AW link:	AASServer2
ICM Distributor AW RMI registry port:	1099
Application link:	AASClient2
Application RMI registry port:	1099
Application host name:	10.77.56.28

[Figure 3-5](#) illustrates the window in the AAS installation program where you must enter the ICM Distributor AW connection details. (See [Installing AAS, page 2-12](#) for more details about the AAS installation program.)



**Figure 3-5** AAS Application Connection Details Window for ICM Distributor AW (Standalone Installer)



AAS - InstallShield Wizard

Configuration Information

Application connection details

Link 1: AASClient1

Link 2: AASClient2

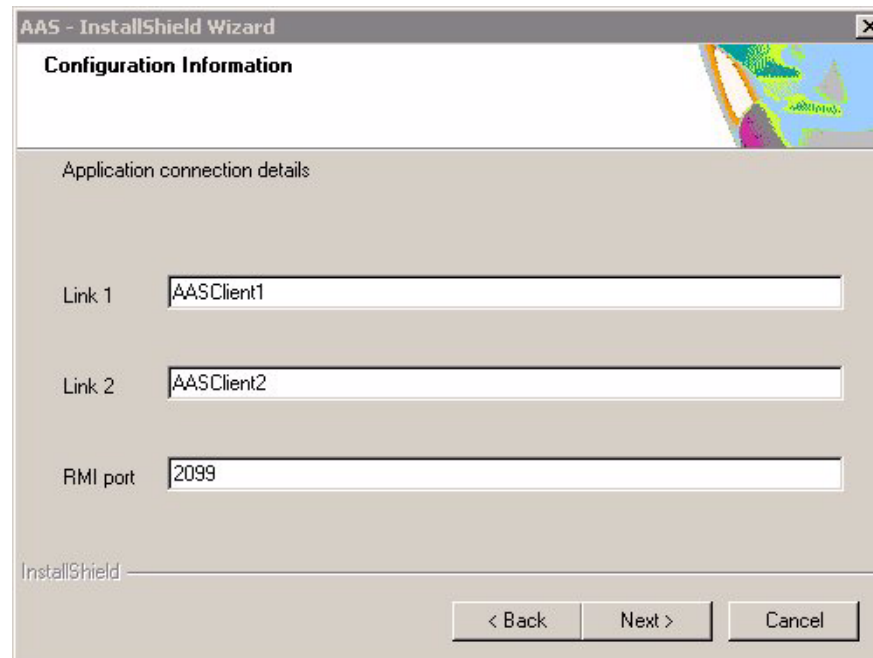
RMI port: 2099

InstallShield

< Back Next > Cancel

Figure 3-6 illustrates the window in the AAS installation program where you must enter the application connection details. (See [Installing AAS, page 2-12](#) for more details about the AAS installation program.)

**Figure 3-6** AAS Application Connection Details Window (Standalone Installer)



AAS - InstallShield Wizard

Configuration Information

Application connection details

Link 1: AASClient1

Link 2: AASClient2

RMI port: 2099

InstallShield

< Back Next > Cancel

**Note**

**Important!** You must ensure that the values entered on the AAS application match those entered on the ICM Distributor AW because ICM must be configured before AAS is installed.

**Figure 3-7** AAS Configuration and Application Connection Details (Integrated Installer)

**AAS Configuration**

AAS Name: aas1

Symposium Sitename:

**AW-1 Information**

Host Name:

AW Link1: AASServer1

Application Link1: AASClient1

**AW-2 Information**

Host Name:

AW Link2: AASServer2

Application Link2: AASClient2

**AAS Host Information**

Application Username: AAS

Application Password: AAS

Local RMI Port: 2099

Remote RMI Port: 2099

SideA Host Name:

SideA Port: 42034

SideB Host Name:

SideB Port: 43034

**SEI CORBA Information**

SEI CORBA Hostname:

SEI CORBA Port: 4422

**SEI User Information**

SEI Username: nortel

SEI Password: nortel

OK Cancel Help



## CHAPTER 4

# Troubleshooting Automated Administrator for Symposium

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This chapter includes the following sections:

- [Troubleshooting AAS Installation Problems, page 4-1](#)
- [Debugging, page 4-5](#)
- [Symptoms and Troubleshooting Actions, page 4-6](#)

## Troubleshooting AAS Installation Problems

[Table 4-1](#) describes AAS installation error messages and corresponding recommended actions. This section is applicable only if you are using the standalone AAS installer.

Table 4-1 AAS Installation Error Messages

**Note**

If you installed AAS with incomplete or incorrect information, you can correct this problem by running the AAS installation program again without uninstalling the AAS software.

Error Message	Description	Recommended Steps
ICM version must be 5.0, 6.0, or 7.0. Setup will exit.	Setup.exe searches for ICM Releases 5.0(0), 6.0(0), or 7.0(0) installed on the machine by searching the Windows registry for “HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/5.0” or “...6.0.” None of these versions were found.	Install ICM 5.0, 6.0, or 7.0 and then install AAS.  Installation of ICM will ensure the creation of all the registries for ICM version required for the AAS setup.
ICM installation name cannot be found in the registry.	ICM instance name is not found or incorrect in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>.	Specify the correct ICM instance name during ICM installation. The AAS set up searches for the ICM instance name, which can be found in the following path only after correct ICM installation:  HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>
PG installation name cannot be found in the registry.	PG name is not found or incorrect in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>.	Specify the correct PG instance name during ICM installation. AAS set up searches for the PG instance name which can be found in the following path only after correct ICM installation:  HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>
Error: AAS name must be “aas” + number, e.g. aas1, aas2, aas3	Name of the AAS installation is incorrectly formatted.	Specify the AAS instance name in the following format:  aas” + number, For example, aas1, aas2, aas3.

Error Message	Description	Recommended Steps
Symposium version cannot be found in the registry.	Symposium PG version is not found in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/SymposiumVersion.	AAS can be installed only if the Symposium version is 5.0. Specify the symposium version in the following registry: HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/SymposiumVersion
Symposium version must be 5x. Setup will exit.	Symposium PG version is not 5x in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/SymposiumVersion.	AAS can be installed only if the Symposium version is 5.0. Specify the Symposium version in the following registry: HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/SymposiumVersion
Installation directory cannot be found.	ICM installation directory key is not found or its values are incorrect in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/ActiveInstance/ICRRoot.	Specify the correct value in the Windows registry for HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/ActiveInstance/ICRRoot.
Error: AASPGHostA cannot be blank.	AAS Side A IP is blank.	Specify the AAS Side A IP in the below registry: –Base: HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config/AASPGHostA

Error Message	Description	Recommended Steps
Error: AASPGHostA and AASPGHostB cannot be the same.	AAS Side A and AAS Side B IPs are the same.	Specify two different IPs for AAS Side A and AAS Side B.
Error installing Java Runtime Library. Install it manually.	Setup.exe automatically installs the Java Runtime Library, if it is not already installed on your machine. If this error message displays, then the JRE cannot be installed by Installshield.	If this error message displays, then the JRE cannot be installed by Installshield. Install the JRE manually by running <code>C:\icm\bin\aes\jre\j2re-1_4_2_03-windows-i586-p.exe</code> , where “C:\icm” might be a different drive depending on where ICM was installed.

## AAS Throttling Guidelines

The AAS throttling mechanism depends on the following parameters:

- Number of records being updated in a single transaction
- Throttling delay in processing events from Nortel Symposium ACD

The above mentioned parameters are controlled by the registry. Tuning the registry keys for these parameters will help you resolve the following errors:

1. Changes in the Symposium Contact Center Manager are taking too long to propagate to ICM. This problem can be the result of an overtaxed machine or:
  - a. It could be that the queuing delay is set too high in the registry. To fix the latter, look at the registry value `HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic/AASSEIThrottleSeiEventQueueDelay`. Reduce the value in increments of 25 (down to a minimum of 0) until throughput increases to the desired rate.



**Note** This value can be changed without restarting AAS.

- b. Check `HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic/AASConAPIThrottLeMaxModificationsPerTrans` to see if it is too low. Changing this value primarily affects resynchronizations, shift changes, and imports. Try increasing this value in increments of 50 until the desired performance is achieved. This setting requires the value mentioned in Option c. below to be set to “true.” The maximum value supported under ICM Release 5.0(0) is 100. Using a value higher than 100 will most likely break the bulk processing AAS does during a resync. In ICM Release 6.0(0), do not use a value greater than 200.



**Note** This value can be changed without restarting AAS.

- c. Check HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config/AASSEIUseBulkProcessing. This allows AAS to process bulk database transactions on ICM, which is significantly quicker than processing them one-by-one. Make sure this value is set to “true.” You must restart AAS if you change this setting.




---

**Note** If none of these solutions resolve the problem, there may be other applications drawing too much attention from the CPU or network traffic might be too slow.

---

2. AAS is using too much CPU. You can tune this by increasing the AASSEIThrottlingSeiEventQueueDelay value in the registry (found at HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic/). Increase the value in increments of 25 until the CPU usage drops to an acceptable level.




---

**Note** This value can be changed without restarting AAS.

---

## Debugging

For troubleshooting AAS, you may need to increase the AAS log level. While troubleshooting the CMS Node and CMS JServer logs may also need to be captured. The maximum trace level that can be set for AAS, CMS Node, and CMS Jserver is 0xffffffff (Hex).

The following section gives more information on the debug trace levels for AAS.

### Debug Trace Levels for AAS

AAS uses EMS for logging. EMS outputs to Event Viewer, log file, screen, and SNMP. You can use Cisco’s Dumplog application to view the AAS logs.

The following debug trace levels are defined for AAS. You can turn on these debug trace levels to provide more tracing details in AAS logs, which can be useful for troubleshooting:

- EMS\_TRACE\_GENERAL = 0x1
- EMS\_TRACE\_CONAPI = 0x2
- EMS\_TRACE\_SEI = 0x4
- EMS\_TRACE\_AASDRIVER = 0x8
- EMS\_TRACE\_MSL = 0x10

You can use these trace levels by adding them together to trace multiples or use 0xF to trace all debug statements.

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/EMS/CurrentVersion/Library/Processes/aas<X>




---

**Note** PG<XX> represents the PG name. aas<X> represents the AAS name.

---

- Values: EMSTraceMask




---

**Note** Only use debugging when troubleshooting is an issue.

---

## Symptoms and Troubleshooting Actions

This section contains information to you troubleshoot AAS installation and configuration issues.

**Symptom** AAS does not start.

**Possible Cause** Check the logs for specific diagnostics. The possible causes are:

- AAS software was installed while PG was still running. As a result, the PG does not know that it has to start AAS.
- AAS installation did not complete successfully.
- Invalid IP address/hostname specified for AAS Side A when AAS Side B has a value.

**Recommended Action** Perform these actions:

- Stop and restart the PG.
- Find out why the install failed, fix it, and reinstall the AAS software.
- Reinstall the AAS software. Specify the correct IP address/hostname for AAS Side A.

**Symptom** AAS gets stuck or times out trying to login to the ICM AW.

**Possible Cause** The ICM distributor link (see [Figure 3-1 on page 3-2](#)) name is not unique.

**Recommended Action** The ICM distributor link names must be unique. If another AAS is running with the same link name, the ICM AW login eventually times out. Using regedit, ensure that the key:

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config
- Value: AASConAPIRemoteServiceName1 and AASConAPIRemoteServiceName2 are unique and properly configured in the ICM AW. Also, ensure that other AAS installations are similarly configured and do not use duplicate names.



**Symptom** AAS service has errors in the logs

**Error Message** You see error messages similar to these:

```
Could not connect to ICM AW using: RemoteHost: <ICMPROTOAW1>, Remote Registry
Port:<10
```

```
Cisco.ics.cms.config.CmsNetworkException: unable to establish connections
within last 30 seconds
```

- at Cisco.ics.cms.config.Cms\_Conapi\_Remote.initProxies (Unknown Source)
- at Cisco.ics.cms.config.Cms\_Conapi\_Remote.<Init>(Unknown Source)
- at Cisco.ics.cms.con

**Possible Cause** Check the logs for specific diagnostics.

- AAS unable to connect to CONAPI and Symposium.
- There is a firewall between the PG and Symposium which could be causing connection issues.
- Port between PG and SCCS is incorrect.

**Recommended Action** Perform these actions:

- Ensure that the PG is active and running.
- Telnet the port being used to see if it is not blocked.
- If the naming service (Registry AASSEINamingServicePort) is using any other port, then the associated SEI CORBA naming service settings for AAS also need to be changed to that port.
- The port to which the connections are being made should be static.
- If AAS is not connecting to Symposium, the port and the host for Symposium can be set by changing the value for the following registry.

**Registry:** HKLM - SOFTWARE - Cisco Systems, Inc.\ICM\<icm instance>\PGxx\PG\CurrentVersion\AASS\aaS1\AASData\ Config\JavaRuntimeOptions

Current Value = Blank

New Value = -Dcom.sun.CORBA.POA.ORBPersistentServerPort=59012

-Dcom.sun.CORBA.ORBServerHost=170.14.5.50

Replace 59012 with the client port and 170.14.5.50 to the IP of the Symposium.

Stop PG

Stop AW

Start AW

Start PG

When AAS starts, following traces can be seen in the AAS window:

```
22:06:47 Trace: -Dcom.sun.CORBA.POA.ORBPersistentServerPort=59012
```

```
22:06:47 Trace: -Dcom.sun.CORBA.ORBServerHost=170.14.5.50
```

**Symptom** Agents are not assigned to skill groups even though skill groups and agents were created.

**Possible Cause** If you installed the SCCS version SU05 with Designer Patch NN\_SCCS\_5.0\_DP\_050301\_S, it might prevent AAS from performing correctly.

**Recommended Action** Do not install Designer Patch NN\_SCCS\_5.0\_DP\_050301\_S with SCCS SU05 when running AAS.

**Symptom** Agent-to-skill group assignments are not displaying in ICM.

**Possible Cause** This may be caused if the installation prerequisites were not followed correctly and there were some agents, skill groups, or persons in the database that were not deleted permanently.

**Recommended Action** Make sure there are no skill groups, agents, or persons marked as deleted in the database. AAS cannot properly determine the state of skill groups, agents, or persons if any of them are marked as deleted. If you need to delete any of these from ICM, you must be sure to permanently delete them from the database. Records marked as deleted are the easiest way to break AAS.

**Symptom** Both AAS servers become master.

**Possible Cause** One of the AAS IP addresses specified during the installation of AAS is 127.0.0.1 (loopback).

**Recommended Action** Do not use the loopback IP address. It confuses the Master Selection algorithm causing both AAS servers in a duplexed environment to become master. Use the actual IP address of the computer.



**Note**

---

*Do not use the local IP address (127.0.0.1) as an AAS IP address.*

---

**Symptom** Bulk processing is taking too long.

**Possible Cause** During resync processing, AAS ceases bulk processing and drops into single record processing. Additionally, the logs show that there are errors that begin with, “Enterprise name already exists...”

**Recommended Action** Make sure there are no skill groups, agents, or persons marked as deleted in the database. AAS cannot properly determine the state of skill groups, agents, or persons if any of them are marked as deleted. If you need to delete any of these from ICM, you must be sure to permanently delete them from the database. Records marked as deleted are the easiest way to break AAS.

**Symptom** Cannot connect to ICM AW.

**Possible Cause** If AAS is unresponsive while performing a transaction with the ICM AW, it might lock the connection and prevent a successful connection by an alternate AAS (even if the alternate is on a different machine). Other possible causes could be:

- Incorrect IP and/or port specified for ICM AW.
- Incorrect user name and/or password specified for ICM Application Instance.

- AAS Server not configured in CMS Control.

**Recommended Action** Perform the following:

- Restart the distributor\_JServer process on the ICM AW machine by pressing **Ctrl+C** in the process window, and then type **Exit**. This causes the process to terminate and automatically restarts the process.
- Ensure that AAS has been configured in ICM and that the IP address of AAS is correct. (Machines running AAS must be set with a static IP so that they do not *randomly* lose their ability to connect.)
- If you are running Windows XP SP2, check to see if the firewall is running and if it is blocking packets. (SP2 added a new built-in firewall feature.) Click **Start > Run**, and enter **firewall.cpl** to load the administration page for the windows firewall. If you do this and a warning displays that the service is not active, it might still be blocking packets.
- Try to ping the other machine from the AAS machine.
- Reinstall AAS and enter correct information.
- Check if a firewall is connected between the AW and AAS. If yes, then the ports need to be configured as static ports.
- Check if the AAS application is correctly configured in the CMS control in AW.
- If any changes are made in the CMS control, then AAS needs to be restarted.
- From the server.properties file on AW, check the remote hostname (RemoteHost). The remote hostname on the server.properties should be the system name on which AAS was running, not the AW distributor name. Run the CmsControl tool on the AW box to correct this if it is incorrect.

Another possible cause could be:

**Possible Cause** The ICM application connection information was changed, but the Jserver was not restarted.

**Recommended Action** Find the DOS window on the ICM machine labeled “Jserver.” Press **Ctrl+C**, type **exit** and press **Enter**. This causes the Jserver to recycle.

**Symptom** ConAPI fails to connect or connects after twenty or thirty seconds.

**Possible Cause** ICM AW link names are the same.

**Recommended Action** Reinstall AAS with different ICM AW link names.

**Symptom** Error reports that SEIEventService does not start.

**Possible Cause** Incorrect configuration.

**Recommended Action** Ensure that the user name and password for the Symposium installation in the Windows registry are correct. (Default is “nortel” and “nortel” for SEI.)

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config




---

**Note** PG<XX> represents the PG name. aas<X> represents the AAS name.

---

- Values: AASSEIUserName, AASSEIUserPassword

Also, verify that the Symposium server can be accessed through the IP and port in the Windows registry: Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config.




---

**Note** PG<XX> represents the PG name. aas<X> represents the AAS name.

---

You can accomplish this by:

- Pinging the IP address/host of the Symposium server.
- Telneting to the IP address/host and Symposium port to see if you can connect.
- Values: AASSEINamingServiceIP, AASSEINamingServicePort

If you are unable to telnet to the IP address/host and the Naming Service Port, on the Symposium server:

- Check if the TAO Naming Service is running on the Symposium
- Run NamingViewer in the folder: d:/Nortel/TAO13/bin
  - “Default” displays.
  - Click **Root > NortelNetworks > SymposiumCallCenterServer**.
  - A list displays, where two of the items are SEI and your Site Name for Symposium.
  - Click your Site Name to see another list that also includes SEI.

- Double-click **SEI** (under the Site Name) and some information displays that contains the CORBA IOR and the IP address and port of the SEI service.

If you do not see the IOR in the NamingViewer, make the following change, restart the Symposium Services, and try running the NamingViewer:

- On the Symposium server, add an entry to the hosts file for the Symposium host with the CLAN IP address before the entry for the Symposium host with the 127.0.0.1 IP address.

For example, here is the original file:

```
127.0.0.1      localhost      #
127.0.0.1      MYMACHINENAME # Map computer name to local host
```

Here is the file after adding an example CLAN IP address:

```
127.0.0.1      localhost      #
192.168.252.40 MYMACHINENAME # New Entry
127.0.0.1      MYMACHINENAME # Map computer name to local host
```

**Symptom** Error reports that Side A Master Selection will not start.

**Possible Cause** If the log file displays a connection exception, this means that a server at the IP location could not be found, or that a UDP socket could not be opened on that server.

**Recommended Action** Check the Windows registry and verify correct IP addresses and ports for:

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config




---

**Note** PG<XX> represents PG name. aas<X> represents AAS name.

---

- Values: AASPGHostA, AASPGPortA, AASPGHostB, AASPGPortB

**Symptom** Error reports that Side B Master Selection will not start.

**Possible Cause** Incorrect configuration.

**Recommended Action** Check the Windows registry and ensure that the following values are not blank, null, or 0:

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config




---

**Note** PG<XX> represents PG name. aas<X> represents AAS name.

---

- Values: AASPGHostB, AASPGPortB

**Symptom** Exception error reports that it does not have authority to modify the data in ICM AW.

**Possible Cause** Proper permissions were not established in the ICM AW database.

**Recommended Action** Follow the instructions in [“How to configure an application instance”](#) in [“Configuring the ICM ConAPI Connection”](#) for details on resolving this issue.

**Symptom** No SEI events are received by the AAS Service.

**Possible Cause** Network connection has failed.

**Recommended Action** Check the Symposium SEI logs. Ensure that the update frequency is not set to 0 or blank in the Windows registry:

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config




---

**Note** PG<XX> represents the PG name. aas<X> represents the AAS name.

---

- Values: AASSEIUpdateFrequency
- Try to ping the other machine from the AAS machine.
- Try to ping the AAS machine from the other machine.

**Symptom** The ICM Admin Workstation (AW) is running slowly or requests to the AW are timing out.

**Possible Cause** The AAS is overloading the AW with too many queries per transaction.

**Recommended Action** Using regedit, reduce the number of queries per transaction by adjusting the following key:

- Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic
- Value: AASConAPIThrottleMaxModificationsPerTrans

**Symptom** Unable to create agent in ICM after installing AAS and rolling back.

**Possible Cause** The agents and persons removed from ICM during the AAS installation were not deleted permanently.

**Recommended Action** Remove the agents and persons permanently.

**Symptom** AAS fails to connect to SEI server.

**Possible Cause** The possible causes are:

- Incorrect IP and/or port specified for SEI CORBA naming service.
- Incorrect user name and/or password specified for SEI.

- Incorrect or missing SCCS site name.

**Recommended Action** Reinstall AAS and enter correct information.

Additional recommended actions are:

- Specify the site name in the SCCS host file.
- Specify the port to connect to SEI in the sei.properties file in the server machine. This file can be found at Nortel\TAO14\properties\sei.ini
- If the AAS is not connecting to the Symposium, the port and the host for Symposium can be set by changing the value for the following registry.

Registry: HKLM - SOFTWARE - Cisco Systems, Inc.\ICM\

Current Value = Blank

New Value = -Dcom.sun.CORBA.POA.ORBPersistentServerPort=59012

-Dcom.sun.CORBA.ORBServerHost=170.14.5.50 Replace 59012 with the client port and 170.14.5.50 to the IP of the AAS.

- Do not use the local IP address (127.0.0.1) as an AAS IP address.
- Ping the IP address/host of the Symposium server.
- Telnet to the IP address/host and Symposium port to see if you can connect.

**Symptom** AAS cannot connect to SCCS.

**Recommended Action** The recommended actions are:

- Check for the site name in TAO Naming Viewer.

This service can be run from D:\Nortel\TAO14\bin. The site name mentioned should be same as specified in the AAS registry AASSEISiteName.

- Check for the nameserv.properties (used by naming service, located somewhere like D:\Nortel\vbrt51\properties or just search for that file). Check for the line naming service listening port.

The naming listener port should be same as in AAS registry AASSEINamingServicePort and SEI.properties file. SEI.properties file can be found at D:\Nortel\TAO14\properties.

- Specify the site name in host file.

**Symptom** CMS node crash. The following error will be seen in CMS logs if CMS node crashes.

**Error Message** dis-cms Trace: [2007/03/23 17:59:11] [ProcessID=2084, ThreadID=3476] DIAG-ERROR (42144) Failed to encode a REM for transporter CmsSvr\_ExtOut. REM not returned (ID: 4, REQ: 10.177.29.191:3d0108:1117ddacbb8:-8000, VMID:

**Possible Cause** CMS node crashes due to a limitation in CONAPI which can't return records more than 1024 X 1024 characters and AAS does an unfiltered query to CONAPI.

**Recommended Action** AAS has been modified to prevent CMS node from crashing. Defect number is CSCsi26344. As part of the fix, the following dynamic (hidden) registry is provided:

- "AASConAPIThrottleMaxResults" of type "dword" under HKEY\_LOCAL\_MACHINE\SOFTWARE\Cisco systems, Inc.\ICM\PG\CurrentVersion\AAAS\Dynamic. The default value is 1500. If needed, the value of this registry can be increased up to 3500.

**Symptom** Error bulk updating AW. The following error is displayed while performing bulk update of the ICM/AW.

**Error Message** 04:21:42 pg11A-aas1 Error performing bulk update of the ICM/AW.  
 04:21:42 pg11A-aas1 Trace: MDS: Entering MDSAllocBuffer 04:21:42 pg11A-aas1 Trace: Call to MDSAllocBuffer failed. Last API Error [-519815424]: Attempt to use MDS API function before calling MDSRegisterClient. 04:21:42 pg11A-aas1 Trace: Exception Type:CmsServerExceptionError Message: LoginName is already definedDate: Apr 25, 2007Logging ID: 0Facility code: 512Facility name: Cms data validationError class: 100Error code: -9976

**Possible Cause** This error would be seen if agents and skill groups were not deleted permanently from ICM before installing AAS.

**Recommended Action** Delete all the agents and skill groups permanently from ICM before AAS is started.

**Symptom** Error working with AW. You may get the following errors when working with AW:

- Error retrieving records from the ICM/AW.  
 05:19:11 pg11A-aas1 Error retrieving records from the ICM/AW.
- Lost connection to the ICM/AW.
- AAS disconnected from the ICM/AW

**Possible Cause** AAS has lost connection to AW.

**Recommended Action** Following are the recommended actions:

- Check the AAS connection with AW.
- Ensure that CMS has not crashed.
- Check the CMS logs for the lost connection.

**Symptom** Cannot make configuration changes when the preferred side of the Router is down.

Configuration changes in Nortel Symposium/SCCS are not reflected in ICM after the CC fails over from the preferred side (A) to the other side (B). The subsequent changes on the Symposium are reflected in ICM only after the preferred router resumes functioning.

**Possible Cause** In a duplexed CC deployment, Router of the CC fails over from the preferred side (A) to the other side (B).

**Recommended Action** Perform one of the following steps:



- Do not make the configuration in Nortel SCCS changes before the Router is active.
- Cycle the CMS Node service through the CMS Control Console window on the ICM AW component, and the AAS processes. To do so, end the AAS processes and cycle the PG node. After the restart of the CMS Node service and AAS processes, the configuration changes that were lost when the preferred CC side was down, will be updated and ICM will be synchronized with the Nortel Symposium.

## Troubleshooting Duplex AAS Configuration

Keep the following points in mind while troubleshooting AAS configurations in duplex mode:

- All guidelines for AAS configuration in simplex mode must be followed for each AAS in duplex mode.
- Both AAS instances should be configured in the CMS control in AW.
- Check if both the primary and secondary AAS are coming up individually to avoid any configuration issue.

## Troubleshooting Multiple PIM – Multiple AAS Configuration

When more than one PIM is configured with each having AAS enabled, follow these steps:

- All guidelines for AAS configuration in simplex mode must be followed for each AAS on each PIM.
- Check if AAS corresponding to each PIM is coming up individually. You can do this by disabling all the other AAS except the one being checked.



## CHAPTER 5

# Limitations of Automated Administrator for Symposium

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This chapter includes the following sections:

- [Limitations of AAS, page 5-1](#)
- [Nortel SCCS Limitations, page 5-2](#)
- [Limitations of Standalone Installer, page 5-2](#)
- [Limitations of Integrated Installer, page 5-2](#)
- [Real-time Monitoring Limitations, page 5-2](#)

## Limitations of AAS

The following are the known limitations of AAS:

- Remove all skill groups from ICM before installing and running AAS; otherwise, there could be a conflict between the ICM PeripheralNumber and the Symposium Skillset ID. When deleting skill groups, persons, or agents in ICM, delete them permanently.
- Make sure the PG name in ICM and the skill group name in Symposium are kept short; otherwise, AAS will not be able to generate a unique Enterprise name for the skill group in ICM. The total length of the PG name and the skill group name *combined* cannot be more than 28 characters.
- The Symposium Skillset name cannot be longer than 29 characters; otherwise, AAS will not be able to generate a unique peripheral name for the skill group in ICM.
- AAS does not support redundant connection to the Symposium SEI interface.
- Agents in standby mode on the SCCS will not be updated by AAS onto ICM.
- AAS does not have WebView supervision – the only way to determine the status of AAS is via the console window and logs.
- AAS does not filter any events for agents and skill groups from SCCS; hence, all events of Symposium related to non-monitored ICM agents are processed by AAS.
- While AAS is updating records in the steady state, opening and saving of scripts in the Script Editor may be impacted by the rate of the configuration changes.
- AAS supports up to 600 configuration changes/hour. If you are performing automated configuration changes on SCCS, ensure that the number of changes/hour do not exceed this limit. Exceeding this limit can make the Script Editor unusable.

- You cannot make the configuration changes when the preferred side of the Router is down. For additional details, refer to Symptom 22, [Symptoms and Troubleshooting Actions, page 4-6](#).
- AAS supports a maximum of two Network Interface Controllers (NICs) - One is for connection between the PG/AAS and the Nortel SCCS, and the second is for connection between the duplex (A/B) PG pair.

## Nortel SCCS Limitations

The following are the limitations in AAS caused due to Nortel SCCS limitations:

- Symposium does not expose the names of the agents in the SEI events. Therefore, AAS uses the agent ID to populate the First/Last Name in the Person table.
- AAS does not synchronize data from ICM to SCCS.
- Changes to agents skill sets made in ICM are not automatically reflected onto the SCCS.
- Deleting an agent or skill group from SCCS in the Nortel Symposium Administration does not unassign the agent from all the skill groups in ICM. The Symposium PG does not send any event to ICM on agent deletion. Due to this limitation, the agent will not get deleted in ICM and will remain assigned to the associated skill groups. This may lead to increase in the size of the database. To avoid this, agents and skillsets need to be deleted manually in ICM.
- Firewall between AAS and SCCS is not supported because the Nortel SCCS port is dynamic.

## Limitations of Standalone Installer

- After AAS installation, if the ICM PG setup is run again, all the AAS registry keys are deleted. In this case, AAS setup needs to be re-run after the PG setup.

## Limitations of Integrated Installer

- There can be only one AAS instance installed for each Symposium PIM.

## Real-time Monitoring Limitations

- Real-time supervision of AAS is not available. You can determine the state of AAS only by checking the console window and AAS logs.



## Working with Registry Settings

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This appendix includes the following topics:

- [Working with Registry Settings, page A-1](#)

### Working with Registry Settings

AAS saves all of its configuration information in the registry. The following sections describe the configuration registry settings and the dynamic registry settings.



**Caution**

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Make changes in the registry entries only if you are familiar with working with the registry, or with the guidance of technical support.

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## Configuration Registry Settings

The following tables describe the configuration registry entries located under the configuration tree. After changing these registry entries, you *must* restart the AAS server for changes to take effect.

**Table A-1** Configuration information used by AAS – Duplex AAS Systems

Registry Value	Type	Comments
AASPGHostA	String	IP address/Host of AAS Server A Default: <blank>
AASPGPortA	DWORD	MSL Port of AAS Server A Default: 42034
AASPGHostB	String	IP address/Host of AAS Server B Default: <blank>
AASPGPortB	DWORD	MSL Port of AAS Server B Default: 43034

Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config



**Note**

<ICM instance> and PG<XX> values are obtained from NodeManager.

**Table A-2** Configuration Information Used by AAS – ConAPI

Registry Value	Type	Comments
AASConAPILocalServiceName1	String	The local RMIDriver connection end-point identity. Value will be “AASClient” followed by AAS instance; for example, AASClient1. Default: AASClient1 The value is case-sensitive
AASConAPILocalServiceName2	String	The local RMIDriver connection end-point identity for the second remote host (if configured). Value will be “AASClient” followed by AAS instance; for example, AASClient2. This service name is only used when attaching to RemoteHost2. Default: AASClient2 The value is case-sensitive.
AASConAPILocalRegistryPort	DWORD	The local port for RMI register. Default: 2099

Table A-2 Configuration Information Used by AAS – ConAPI (continued)

Registry Value	Type	Comments
AASConAPIRemoteServiceName 1	String	The remote RMIDriver connection end point identity. Value will be “AASServer” followed by AAS instance; for example, AASServer1.  Default: AASServer1  The value is case-sensitive.
AASConAPIRemoteServiceName 2	String	The remote RMIDriver connection end point identity for the second remote host (if configured). Value will be “AASServer” followed by AAS instance; for example, AASServer2. This service name is only used when attaching to RemoteHost2.  Default: AASServer2  The value is case-sensitive.
AASConAPIRemoteRegistryPort	DWORD	The port for RMI register at the remote computer.  Default: 2099
AASConAPIDisableAutoConnect	DWORD	Default: false
AASConAPIRemoteHost1	String	Location of the AW-1.  Default: 127.0.0.1 (localhost)  The value is case-sensitive.
AASConAPIRemoteHost2	String	Location of the AW-2.  Default: <blank>  The value is case-sensitive.
AASConAPITransportType	String	The type of network layer implementation.  Default: RmiDriver  The value is case-sensitive.
AASConAPIConnectionAttempts	DWORD	The number of times the AAS application attempts to find the distributor.  Default: 1  Maximum: 10
AASConAPILocalPort	DWORD	The ICM Distributor AW RMI Registry Port (as shown on CMS Control).  Default: 0
AASConAPIType	String	The type of the ConAPI implementation.  Default: Remote  The value is case-sensitive.
AASConAPIDefaultTimeout	DWORD	The time in msec a thread will block waiting for a reply.  Default: 30000  Maximum: 300000

Table A-2 Configuration Information Used by AAS – ConAPI (continued)

Registry Value	Type	Comments
AASConAPINumRetryAttempts	DWORD	Number of times to retry a ConAPI operation. Default: 2 Maximum: 10
AASConAPIUserName	String	Application name to connect to ICM AW via ConAPI. Default: AAS The value is case-sensitive.
AASConAPIUserPassword	DWORD	Application password to connect to ICM AW via ConAPI. The password is NOT encrypted. Default: AAS The value is case-sensitive.
AASConAPIMaxConnTries	DWORD	Maximum number of tries to connect to an ICM AW before trying the other ICM AW. Default: 2 Maximum: 10
AASPeripheralID	DWORD	Peripheral ID for Symposium. Default: 0
AASConAPIRenameSubSkillGroups	String	Indicates whether AAS will manually rename sub skill groups when a base skill group is renamed. This corrects a problem in ICM releases prior to Release 7.0(0). Default (releases prior to ICM Release 7.0(0)): True, else False.
AASRetriesToRestart	DWORD	Number of attempts AAS tries to get all of its services working before terminating itself, so that it can be restarted by the PIM. Default: 3 Minimum: 1 Maximum: 0x7fffffff

Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Config

**Note**

<ICM instance> and PG<XX> values are obtained from NodeManager.



**Table A-3 Configuration Information Used by AAS – SEI**

Registry Value	Type	Comments
AASSEISiteName	String	SEI site name Default: <blank> The value is case-sensitive.
AASSEIUserName	String	SEI user name Default: nortel The value is case-sensitive.
AASSEIUserPassword	String	SEI password The password is NOT encrypted. Default: nortel The value is case-sensitive.
AASSEINamingServiceIP	String	SEI CORBA Naming Service IP This information is contained on the SEI server in the configuration file SEI.properties. Default: 127.0.0.1 (localhost)
AASSEINamingServicePort	DWORD	SEI CORBA Naming Service Port This information is contained on the SEI server in the configuration file SEI.properties. Default: 4422
AASSEIUpdateFrequency	DWORD	The interval of time (in msec) between pushed events Default: 2000 Maximum: 60000
AASSEIMaxConnTries	DWORD	Maximum # of tries to connect to a SEI server before failing over to other AAS. Default: 3 Maximum: 10
AASSEIMaxEventQueueSize	DWORD	Maximum event queue size. This value must be large enough to handle a full resync of SEI. If not, AAS will be unable to properly sync SEI with ICM. Each message queued by AAS requires approximately 1KB of space. Default: 3000
AASSEIUseBulkProcessing	String	Indicates whether AAS will process events passed to it during resync in bulk. Bulk processing is significantly faster than processing events one by one. Default: True

**Table A-3 Configuration Information Used by AAS – SEI (continued)**

Registry Value	Type	Comments
JavaRuntimeComponent	String	List of jar files to include in the classpath when running AAS. The base directory is /icm/bin.  Default: aas;aas\AAS.jar;aas\backport-util-concurrent.jar;aas\ccisCommon.jar;aas\conapi.jar;aas\icmJavaLib.jar;aas\log4j-1.2.9.jar;aas\nortelSei.jar;aas\SpkStd4J.jar
JavaRuntimeOptions	String	Java runtime options to pass to the jvm.  Default: <blank>

Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/Library/Processes/aas<X>

**Note**

<ICM instance> and PG<XX> values are obtained from NodeManager. These are standard ICM registry entries for AAS. aas<X> indicates the AAS name.

**Table A-4 Configuration Information Used by AAS – Ems**

Registry Value	Type	Comments
EMSAIILogFilesMax	DWORD	Default: 0x5b8d80 (6000000 dec)
EMSBreakOnExit	DWORD	Default: 0
EMSBreakOnInit	DWORD	Default: 0
EMSDebugBreak	DWORD	Default: 1
EMSDisplayToScreen	DWORD	Default: 1
EMSForwardLevel	DWORD	Default: 1
EMSLogFileCountMax	DWORD	Default: 0x3e8 (1000 dec)
EMSLogFileLocation	String	Default: logfiles
EMSLogFileMax	DWORD	Default: 0x000f4240 (1000000 dec)
EMSNTEventLogLevel	DWORD	Default: 2
EMSTraceMask	DWORD	Default: 0
EMSUserData	Binary	Default: 30 30 30 30 (bin)

**Table A-5 Configuration Information Used by AAS – NodeManager**

Registry Value	Type	Comments
CreateProcHighPriority	DWORD	Default: 0
CreateProcNonDetached	DWORD	Default: 0
DbgDieOnPing	DWORD	Default: 0
DbgDieOnShutdown	DWORD	Default: 0
DbgIgnoreDbgIfDirty	DWORD	Default: 0

Table A-5 Configuration Information Used by AAS – NodeManager (continued)

Registry Value	Type	Comments
DbgNackPing	DWORD	Default: 0
DbgNackShutdown	DWORD	Default: 0
DbgPingDelay	DWORD	Default: 0
DbgShutdownDelay	DWORD	Default: 0
DbgStartupDelay	DWORD	Default: 0
ImageArgs	String	Default: <blank> AAS install will populate with <ICM instance> PG<XX>; for example, sccs pg1a.
ImageName	String	Default: aas\aaS
ProcDelayRestartSecs1	DWORD	Default: 10
ProcDelayrestartSecs2	DWORD	Default: 0
ProcDisabled	DWORD	Default: 0
ProcMinUpSecs	DWORD	Default: 0
ProcPingInterval	DWORD	Default: 0
ProcPingTimeout	DWORD	Default: 0
ProcShutdownTimeout	DWORD	Default: 0
ProcStartupTimeout	DWORD	Default: 0
RebootOnFailOnce	DWORD	Default: 0
RebootOnFailTwice	DWORD	Default: 0
ShutdownDirty	DWORD	Default: 0

## Dynamic Registry Settings

The following table includes registry settings for throttling parameters and heartbeat intervals. Throttling parameters are used to control load on the ICM AW exerted by AAS. These settings also control the performance of AAS.

After changing these registry entries, you *do not* need to restart the AAS server in order for changes to take affect.

Base: HKEY\_LOCAL\_MACHINE/SOFTWARE/Cisco Systems, Inc./ICM/<ICM instance>/PG<XX>/PG/CurrentVersion/AASS/aas<X>/AASData/Dynamic



### Note

<ICM instance> and PG<XX> values are obtained from NodeManager.

Table A-6 Dynamic Registry Settings for AAS

Registry Value	Type	Comments
AASConAPIThrottleMaxModificationsPerTrans	DWORD	ICM Release 5.0(0): Default is 100. ICM Release 6.0(0): Default is 100.
AASMSIHeartbeatInterval	DWORD	Master Selection heartbeat interval in msec. Default: 5000
AASSEILostMessageResyncTimeThreshold	DWORD	Indicates the minimum wait value in msec before one “lost message” resync can follow another lost message resync. This is done to prevent infinite resynchronizations in the case where SEI is consistently reporting lost messages.  <b>Note</b> This value has no impact on resynchronizations triggered by AAS for other reasons.  Default: 60000
AASSEILostMessageThreshold	DWORD	Indicates how many “lost messages” SEI can tell AAS about before AAS starts a resync process. Default: 5
AASSEIThrottleSeiEventQueueDelay	DWORD	Throttles the speed in the form of a delay (in milliseconds) at which events are processed as they come in from Symposium.  <b>Note</b> <b>Important!</b> This setting has the most dramatic impact on CPU utilization by AAS.  Default: 30 Maximum: 1000
AASForceResync	DWORD	This setting allows the user to force AAS to do a resync with Symposium. Simply change this value to something other than what it currently is, and the resync will be requested.  <b>Note</b> If a resync occurred quite recently, this request might be ignored since AAS does not allow chain resynchronizations.
AASQueueSizeResyncThreshold	DWORD	Indicates the minimum queue size of backed-up events that will occur before the resync trigger can enable. Default: 20 Minimum: 10

Table A-6 Dynamic Registry Settings for AAS (continued)

Registry Value	Type	Comments
AASQueueArrivalRateTrailOff	DWORD	Indicates the maximum inflow of events that can occur in AASQueueArrivalRateDuration time before the resync trigger can enable. Default: 3
AASQueueArrivalRateDuration	DWORD	Indicates the maximum inflow of events that can occur in AASQueueArrivalRateTrailOff time before the resync trigger can enable. Default: 60 <b>Note</b> Value is in seconds.
AASIntelliSync	String	Indicates whether the IntelliSync feature is active. IntelliSync feature controls whether AASQueueSizeResyncThreshold, AASQueueArrivalRateTrailOff, and AASQueueArrivalRateDuration are used. Default: True <b>Note</b> IntelliSync is a feature that improves performance for large amounts of data synchronization after the startup resync has been performed. Post resync processing is usually processed one update at a time. However, when there is a series of these updates (for example, on a shift change), it is more efficient to process these in a bulk resynchronization. IntelliSync detects when there is a significant trail-off of events (for example, shift change processing completed) and looks at the size of the queue to determine if it is large enough to justify performing a resync. If not, the events will be processed one by one as usual. (This feature can be disabled.)





## I N D E X

---

### A

#### AAS [1-2](#)

- application connection details [3-4](#)
- components [1-2](#)
- installing [2-13](#)
- installing, configurations available [2-10](#)
- reinstalling [2-23](#)
- throttling guidelines [4-4, 4-6](#)
- uninstalling [2-24](#)

#### Actions [4-6](#)

#### Administration connection, configuring [3-3](#)

#### Application instance, configuring [3-2](#)

#### Architecture [1-2](#)

---

### C

#### CMS Control, configuring an administration connection [3-3](#)

#### CMS Node check box, enabling [2-10](#)

#### components [1-2](#)

#### Components, AAS [1-2](#)

#### ConAPI layer [1-2](#)

#### Configuration [2-25](#)

#### Configuration registry settings [A-2](#)

#### Configurations [2-2](#)

#### Configuring

- administration connection [3-3](#)
- application instance [3-2](#)

---

### D

#### Data Synchronizer [1-2](#)

#### Debugging [4-5](#)

#### Debug trace levels for AAS [4-5](#)

#### Dynamic Registry Settings [A-7](#)

#### Dynamic registry settings [A-7](#)

---

### E

#### Error Messages [4-2](#)

#### Establishing Administration Connections [3-2](#)

---

### F

#### Firewall [2-5](#)

#### Force Synchronization [1-6](#)

#### Fully Redundant [2-2](#)

---

### I

#### ICM Application Instances [3-1](#)

#### ICM Distributor AW connection details [3-4](#)

#### ICM peripheral ID [2-10](#)

#### ICM software requirements [2-9](#)

#### ICM Versions [2-9](#)

#### Installation [4-1](#)

#### Installing

- AAS [2-12](#)

- AAS, configurations available [2-10](#)

#### Integrated Installation [2-1](#)

#### IP address [2-9](#)

---

### L

#### limitations [5-1](#)

---

**M**

multiple AAS Configuration [4-16](#)  
 Multiple AAS connecting to single AW [1-4](#)

---

**N**

Nortel SCCS [5-2](#)  
 Not Redundant [2-4](#)

---

**P**

packaging and bundling [1-1](#)  
 Partially Redundant [2-3](#)  
 Performance and Scalability [1-3](#)  
 Port [2-8](#)  
 Pre-installation Checklist [2-9](#)  
 Prerequisites [2-8](#)

---

**R**

Real-time supervision [5-2](#)  
 Registry Settings [A-1](#)  
 Registry settings  
     configuration [A-2](#)  
     dynamic [A-7](#)  
 reinstall [2-23](#)  
 Reinstalling AAS [2-23](#)

---

**S**

SEI events [5-2](#)  
 SEI Lite [1-2](#)  
 skill groups [5-1](#)  
 Software requirements, ICM [2-9](#)  
 Standalone Installation [2-1](#)  
 support [5-1](#)  
 System Requirements [2-9](#)  
 System requirements, minimum [2-9](#)

---

**T**

Throttling guidelines [4-4, 4-6](#)  
 Trace Levels [4-5](#)  
 Troubleshooting [4-1](#)  
     cannot connect to ICM AW [4-8](#)  
     cannot modify data in ICM AW [4-12](#)  
     first MasterSelection will not start [4-11](#)  
     no SEI events are received by the AAS Service [4-12](#)  
     second MasterSelection will not start [4-11](#)  
     SEIEventService does not start [4-10](#)

---

**U**

uninstall [2-27](#)  
 Uninstalling AAS [2-24](#)

---

**W**

Webview supervision [5-1](#)