CA Workload Automation AE

Release Notes

r11.3

CA Technologies Product References

This document references the following CA Technologies products:

- CA Access Control
- CA AutoSys Workload Automation Connect Option (CA AutoSys WA Connect Option)
- CA Embedded Entitlements Manager (CA EEM)
- CA Job Management Option
- CA Jobtrac™ Job Management (CA Jobtrac JM)
- CA Network and Systems Management (CA NSM)
- CA NSM Event Management
- CA NSM Management Command Center (CA NSM MCC)
- CA Scheduler® Job Management (CA Scheduler JM)
- CA Service Desk
- CA Spectrum Automation Manager (formerly named CA DCA Manager)
- CA Universal Job Management Agent (CA UJMA)
- CA Workload Automation AE (formerly named CA AutoSys Workload Automation)
- CA Workload Automation Agent for UNIX (CA WA Agent for UNIX)
- CA Workload Automation Agent for Linux (CA WA Agent for Linux)
- CA Workload Automation Agent for Windows (CA WA Agent for Windows)
- CA Workload Automation Agent for i5/OS (CA WA Agent for i5/OS)
- CA Workload Automation Agent for Application Services (CA WA Agent for Application Services)
- CA Workload Automation Agent for Web Services (CA WA Agent for Web Services)
- CA Workload Automation Agent for Databases (CA WA Agent for Databases)
- CA Workload Automation Agent for SAP (CA WA Agent for SAP)
- CA Workload Automation Agent for PeopleSoft (CA WA Agent for PeopleSoft)
- CA Workload Automation Agent for Oracle E-Business Suite (CA WA Agent for Oracle E-Business Suite)
- CA Workload Automation Agent for z/OS (CA WA Agent for z/OS)
- CA Workload Automation EE (formerly named CA ESP Workload Automation)
- CA Workload Automation SE (formerly named CA 7 Workload Automation)

- CA Workload Control Center (CA WCC)
- CA Desktop and Server Management (CA DSM)

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information you need for your Home Office, Small Business, and Enterprise CA Technologies products. At http://ca.com/support, you can access the following:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Provide Feedback

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

If you would like to provide feedback about CA Technologies product documentation, complete our short customer survey, which is available on the CA Support website at http://ca.com/docs.

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Chapter 1: Welcome

Welcome to CA Workload Automation AE Release 11.3. This document describes product installation considerations, operating system support, new features, changes to existing features, and information about contacting CA Technical Support.

Notes:

- The UNIX instructions in this document also apply to Linux systems unless otherwise noted.
- The term *Windows* refers to any Microsoft Windows operating system supported by CA Workload Automation AE unless otherwise noted.

Chapter 2: Operating System Support

CA supports the subsequent operating systems for the duration of their lifecycle (as determined by the operating system's manufacturer or until CA announces that we are dropping support). The supported operating systems are subject to change. For more information about compatibility and to see the latest operating systems supported, visit http://ca.com/support.

This section contains the following topics:

Supported UNIX Versions

CA Workload Automation AE r11.3 supports the following UNIX versions:

Note: These platforms have been certified at the time of General Availability (GA). Additional platforms may be certified post GA. For current information regarding platform support, check the CA Workload Automation Support web page at http://ca.com/support.

Platform	Supported Versions	Architecture	Notes
AIX	5.3 Technology Level 6 or higher	32/64-bit 64-bit	The AIX C++ Runtime Environment must be at level 11.1.0.0 or higher. To see what level your system is at, run: lslpp -l xlC.aix50.rte
AIX	6.1	32/64-bit 64-bit	The AIX C++ Runtime Environment must be at level 11.1.0.0 or higher. To see what level your system is at, run: lslpp -l xlC.aix50.rte
HP-UX	11i v2 (11.23)	IA 64-bit (Itanium) PA-RISC 32/64-bit	You must install the latest HP-UX 11i v2 patches, including the Required Patch Bundle and Support Pack. For more information about the patches, see the HP website.
HP-UX	11i v3 (11.31)	IA 64-bit (Itanium) PA-RISC 32/64-bit	

Platform	Supported Versions	Architecture	Notes
Solaris	8	SPARC 32/64-bit	This operating system applies to the CA Workload Automation AE client and agent only. Before installing CA Workload Automation AE r11.3, you must install Solaris patch 115831-01. You can download the patch from http://www.sunsolve.sun.com/show.do?target=patchpage
Solaris	9	SPARC 32/64-bit	Before installing CA Workload Automation AE r11.3, you must install Solaris patch 114129-02. You can download the patch from http://www.sunsolve.sun.com/show.do?target=patchpage
Solaris	10	SPARC 32/64-bit	You must install the following patch: 119963-04 SunOS 5.10: Shared library patch for C++ Nov/30/2005

Supported Linux Versions

CA Workload Automation AE r11.3 supports the following Linux versions:

Note: These platforms have been certified at the time of General Availability (GA). Additional platforms may be certified post GA. For current information regarding platform support, check the CA Workload Automation Support web page at http://ca.com/support.

Platform	Supported Versions	Architecture	Notes
Red Hat Enterprise Linux	4	x86 32/64-bit	compat-libstdc++-296 or higher is required
Red Hat Enterprise Linux	5	x86 32/64-bit	compat-libstdc++-33 or higher is required
SuSE Linux Enterprise Server	9	x86 32/64-bit	compat is required
SuSE Linux Enterprise Server	10	x86 32/64-bit	compat is required

Note: ncurses (32-bit) version 5 or higher is required on the 64-bit version of Linux.

Supported Windows Versions

CA Workload Automation AE r11.3 supports the following Windows versions:

Note: These platforms have been certified at the time of General Availability (GA). Additional platforms may be certified post GA. For current information regarding platform support, check the CA Workload Automation Support web page at http://ca.com/support.

Version	Architecture	Notes
Microsoft Windows 2003 R2 Server	x86 32/64-bit	Windows patch 979306 is required.
Microsoft Windows 2008	x86 32/64-bit	Windows patch 979306 is required.
Microsoft Windows XP SP2 Professional	x86 32/64-bit	This operating system applies to the CA Workload Automation AE client and agent only. Windows patch 979306 is required.
Microsoft Windows Vista	x86 32/64-bit	This operating system applies to the CA Workload Automation AE client only. Windows patch 979306 is required.
Microsoft Windows 7	x86 32/64-bit	This operating system applies to the CA Workload Automation AE client only. Windows patch 979306 is required.

Patch 979306—Time Zone Update for Windows

For CA Workload Automation AE to work correctly with daylight saving time (DST), you must install patch 979306 on the CA Workload Automation AE client computers.

You can download the patch from http://support.microsoft.com/kb/955839.

For more information about configuring DST for Windows, see http://support.microsoft.com/kb/914387.

Note: The patch number is 979306 at the time of General Availability (GA). This patch may be superseded post GA. Ensure that you install the latest patch. For current information about time zone patches, check the Microsoft Support web site.

Chapter 3: Database Support

Database Support

CA Workload Automation AE r11.3 supports the following databases:

Platform	Supported Versions	Architecture	Notes
Microsoft SQL Server	2005	32-bit	
Microsoft SQL Server	2005 SP2	32/64-bit	
Microsoft SQL Server	2008 SP1	32/64-bit	
Oracle	10g	32/64-bit RAC	Oracle 10g patches are required to address SGA memory leaks and Oracle connectivity problems. For more information, see Oracle 10g Patches (see page 16).
Oracle	11g	32/64-bit RAC	If you are using Oracle 11.1, you must install Oracle patch 11.1.0.7.0 or higher.
Sybase ASE	15.0.2	32/64-bit	The minimum page size must be at least 4 KB. Up to 137 free Sybase user connections are required, depending on which CA Workload Automation AE components you install.

Important! To use the 64-bit version of an Oracle or Sybase database, you must install the 32-bit client if it is not already installed, and modify the path or library path environment variable. Complete these procedures before installing CA Workload Automation AE.

For HP-UX Itanium (IA-64) support, you must install the 32-bit HP-UX PA-RISC Oracle or Sybase client.

For instructions on configuring the environment to use a 64-bit database, see the *UNIX Implementation Guide* and *Windows Implementation Guide*.

Note: For more information about database configuration tasks and database migrations, see the *UNIX Implementation Guide* and *Windows Implementation Guide*.

Oracle 10g Patches

If you are installing CA Workload Automation AE r11.3 to work with Oracle 10g, you must install the appropriate Oracle patch to address the following issues:

SGA Memory Leaks in Oracle 10g Release 1

If you choose Oracle 10g Release 1 as the database for installing CA Workload Automation AE r11.3, you must apply Oracle 10g Release 1, Patch Set 5 (10.1.0.5) or higher to avoid SGA memory leaks while running CA Workload Automation AE r11.3 for extended periods.

If you do not apply this patch, you might get "ORA-04031 errors" and "CAUAJM_E_00051 Unable to create thread!" messages in the scheduler or application server log files.

Oracle Connectivity Problem When %AUTOSYS% Contains Special Characters on Windows

If the CA Workload Automation AE installation path (for example, %AUTOSYS%) contains special characters (for example, parentheses or quotation marks), you will get connectivity problems with the Oracle database. This is an Oracle problem. See Oracle BUG #3807408.

- This problem will be fixed in the Oracle 9.2.0.8 patch set for Oracle 9i. As of this publication, this patch set has not been released. Contact Oracle support for further assistance.
- If you are using an Oracle version not mentioned in this document, contact Oracle support to obtain the necessary patches for your environment. See below for release/patch information.

  Description of Oracle BUG #3807408:

  Externally authenticated usernames containing a '(',')' or '=' can not be authenticated, additionally if a program name / path contains these characters, it may not be possible to connect (ORA-12154).

Download the following patches, depending on your operating environment:

- If you are using Oracle client 9.2.0.7, apply Oracle patch 4928723 (Windows 32-bit) or 4928724 (Windows 64-bit) based on your Oracle installation on the CA Workload Automation AE computer.
- If you are using Windows 32-bit Oracle client 9.2.0.x (where x is less than 7), apply Oracle patches 4163445 (for 32-bit) and 4928723.
- If you are using Windows 64-bit Oracle client 9.2.0.x (where x is less than 7), apply Oracle patches 4163445 (for 64-bit) and 4928724.

- For Oracle 10g on Windows, apply the following patches, as appropriate:
  - 10.2.0.2:

    32-bit patch 5383042

    64-bit (Itanium) patch 5388866

    64-bit (x64) patch 5388871
  - 10.2.0.1:

    32-bit patch 4923768

    64-bit (Itanium) patch 4923780

    64-bit (x64) patch 4923787

Chapter 4: System Requirements

The following sections specify the minimum system requirements for CA Workload Automation AE r11.3.

This section contains the following topics:

System Requirements for UNIX and Linux

To install and run CA Workload Automation AE in a UNIX or Linux environment, the following requirements must be met or exceeded:

- 1 GHz processor
- Physical memory: 1 GB
- Swap space: 2 GB
- fsize: The file size ulimit must be set to unlimited. To determine the current setting, issue the following command:

  ```
  ulimit -f
  ```

  If the value is not unlimited, change this ulimit value by issuing the following command:

  ```
  ulimit -f unlimited
  ```

- Disk space for CA Workload Automation AE:
  - Full product: 640 MB
  - Application Server, Client, Command Sponsor: 480 MB
  - Scheduler, Client, Agent: 400 MB
  - Application Server only: 270 MB
  - Agent only: 390 MB
  - Client only: 270 MB
  - SDK only: 230 MB
  - Documentation only: 230 MB

  Notes:

  - The system temporary directory (/tmp or $TMPDIR) requires a minimum of 300 MB disk space for the installation.
  - The installer creates a directory to store control files. By default, the /opt/CA/installer directory is created. The file system that the installer directory belongs to requires a minimum of 10 MB disk space. For more information about the /opt/CA/installer directory, see the *CA Workload Automation AE UNIX Implementation Guide*.
- SDK runtime environment: 45 MB
- Disk space for the database (to support default installation values):
  - Oracle: Data—800 MB, Index—80 MB
  - Sybase: Data—800 MB, Log—100 MB, tempdb—500 MB, tempdb log—50 MB
- Java Runtime Environment (JRE):
  - On AIX, you must install the following:
    - JRE 1.6 or higher (32-bit) before installing CA Workload Automation AE.
    - Java 6 or higher to use the Datamover utility to migrate the database during an upgrade.
  - On HP-UX, Solaris, and Linux, JRE 1.5.0_11 is automatically installed with CA Workload Automation AE.

System Requirements for Windows

To install and run CA Workload Automation AE in a Windows environment, the following requirements must be met or exceeded:

- 1 GHz processor
- Physical memory:
  - Microsoft SQL Server: 1 GB
  - Oracle: 1 GB
  - Sybase: 1 GB
- Swap file:
  - Microsoft SQL Server: 2 GB
  - Oracle: 2 GB
  - Sybase: 2 GB
- Disk space for CA Workload Automation AE:
  - Full product: 440 MB
  - Application Server, Client, Command Sponsor: 300 MB
  - Scheduler, Client, Agent: 290 MB
  - Application Server only: 180 MB
  - Agent only: 270 MB
  - Client only: 180 MB
  - SDK only: 50 MB
  - Documentation only: 40 MB
- SDK runtime environment: 45 MB
- Disk space for the database:
  - Microsoft SQL Server: 40 MB plus 1 MB for log file

    Note: SQL Server adjusts the sizes incrementally over time based on usage.
  - Oracle: Data—400 MB, Index—100 MB
  - Sybase: 200 MB, tempdb—500 MB, tempdb log—50 MB
- Java Runtime Environment (JRE) 1.5.0_11 is automatically installed with CA Workload Automation AE.

TCP/IP Port Usage

CA Workload Automation AE uses the Secure Socket Adapter (SSA) for communication, which uses IANA assigned port 7163. SSA is automatically installed with CA Workload Automation AE r11.3.

By default, the CA Workload Automation AE communication with the agent is set up to use plain socket communication. The agent's default port number is 7520.

su Command on UNIX

On UNIX, the CA Workload Automation AE installer must be allowed to run the following command with no user response or interaction:

```
su – root –c "command"
```

The installer embeds other installation packages that are executed by running the su command.

Graphical Mode Requirements for UNIX and Linux

Before you install CA Workload Automation AE on UNIX or Linux, verify the following requirements are met so that installation dialogs can appear in graphical mode:

- Java 1.3 or higher is installed, the PATH environment variable is set to include the Java executable, and the JAVA_HOME environment variable is set.
- The monitor is graphics-enabled.

Base Application Development Math Library Package for AIX

Before you install CA Workload Automation AE on AIX, verify the system has the Base Application Development Math Library package (bos.adt.libm). The CA Workload Automation AE application server and the scheduler installations require this package.

User Resource Limits for AIX 64-bit

To install and run CA Workload Automation AE on AIX, verify the following variable=value pairs exist in /etc/security/limits for a 64-bit installation:

```
default:
fsize = -1
core = 2097151
cpu = -1
data = -1
rss = -1
stack = 262144
nofiles = 4096
```

You must restart the computer for the changes to take effect and before starting the installation.

HP-UX Itanium Processor

To install CA Workload Automation AE in an HP-UX Itanium environment, the kernel tunable parameter pa_maxssiz_32bit must be set to 268435456 or greater.

To view the current value of the pa_maxssiz_32bit parameter, enter the following command at the operating system prompt:

```
/usr/sbin/kctune | grep pa_maxssiz_32bit
```

To change the value of the pa_maxssiz_32bit parameter, do the following:

1. Enter the following command at the operating system prompt:

   ```
   /usr/sbin/kctune pa_maxssiz_32bit=268435456
   ```

2. Restart the computer.

   The pa_maxssiz_32bit parameter is set to the minimum required value.

Perl

On UNIX or Linux installations, Perl, version 5.8 or greater must be installed. Perl must also be included in the PATH environment variable to run the CA Workload Automation AE installation.

Chapter 5: Support for Other CA Products

The following sections describe other CA products supported by CA Workload Automation AE r11.3.

This section contains the following topics:

Location of CA License Files

The CA Workload Automation AE installer for Windows creates the following directory to store license files:

system_drive:\Program Files\CA\SharedComponents\CA_LIC

system_drive

Specifies the Windows operating system drive of the CA Workload Automation AE scheduler. This value is assigned automatically. You cannot change this drive or path even if other CA components are installed on a different drive. The CA licensing program shared by CA software does not support the customization of this path.

Note: On UNIX systems, the location of the license files depends on the value set by the CASHCOMP environment variable.

CA EEM Support

CA Workload Automation AE r11.3 supports CA EEM (CA Embedded Entitlements Manager) r8.4 SP4 CR05. CA EEM includes the following features:

- Scalability
- Event Management and Persistence
- Reliable Event Delivery
- Authentication

You can install CA EEM using the CA Common Components DVD.

Notes:

- For more information about installing CA EEM, see the CA Common Components documentation.
- For more information about configuring CA Workload Automation AE to work with CA EEM, see the *Security Guide*.
- For more information about CA EEM features, see the CA EEM documentation.

CA Secure Socket Adapter Support

CA Workload Automation AE r11.3 supports CA Secure Socket Adapter (SSA). SSA is an application that lets CA components use a single multiplexed communication port to ease firewall administration and minimize conflicts with other applications. SSA is installed automatically during the CA Workload Automation AE installation.

Notes: For more information about configuring port numbers and settings, see the *CA Workload Automation AE UNIX Implementation Guide* or *Windows Implementation Guide*.

CA Spectrum Automation Manager Support

CA Workload Automation AE works with CA Spectrum Automation Manager for load balancing and scheduling based on real-time resource utilization. To integrate with CA Workload Automation AE, CA Spectrum Automation Manager r12 SP1 or higher and its SDK client are required.

Note: For more information about configuring CA Workload Automation AE to work with CA Spectrum Automation Manager, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

Notification Services Support

Valid on Windows only

You can integrate CA Workload Automation AE r11.3 with the Notification Services component of CA NSM. Notification Services lets you send wired and wireless messages, using protocols and devices, to operators or administrators who resolve problems or attend to emergencies.

To integrate CA Workload Automation AE r11.3 with Notification Services, you must install Notification Services from CA NSM r11.2 or higher.

Important! Do not install Notification Services from the Unicenter NSM r11 media. This configuration is not supported because the Unicenter NSM r11 media also installs a previous version of CA Secured Socket Adapter (SSA). CA Workload Automation AE cannot work properly with the previous version of SSA installed.

Note: For more information about configuring CA Workload Automation AE to work with Notification Services, see the *Windows Implementation Guide*.

CA Service Desk Support

CA Workload Automation AE r11.3 supports CA Service Desk r11 or r11.2. CA Workload Automation AE lets you open a service desk ticket (request or incident) when a job fails.

Note: For more information about configuring CA Workload Automation AE to work with CA Service Desk, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

CA NSM Event Management Support

CA Workload Automation AE r11.3 supports CA NSM Event Management r11.2 SP2. CA NSM Event Management lets you automate manual problem resolution tasks, filter and consolidate multiple events, monitor for unusual conditions, and take proper corrective action.

You can install the Event Agent on the CA Workload Automation AE server using the CA Common Components DVD.

Notes:

- For more information about installing the Event Agent, see the CA Common Components documentation.
- For more information about configuring CA Workload Automation AE to work with CA NSM Event Management, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

CAICCI Support

CA Workload Automation AE r11.3 supports CAICCI (CA, Inc. Common Communications Interface) r11.2 SP2. CAICCI is the communication layer that lets the CA Workload Automation AE scheduler, which handles cross-platform events, to communicate with legacy agents on the distributed, midrange, and mainframe platforms.

You install CAICCI using the CA Common Components DVD.

Notes:

- For more information about installing CAICCI, see the CA Common Components documentation.
- For more information about configuring CA Workload Automation AE to work with CAICCI, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

CA NSM and CA UJMA Support

CA Workload Automation AE r11.3 supports CA Network and Systems Management Job Management Option (CA NSM JMO) and CA Universal Job Management Agent (CA UJMA). CA UJMA lets CA Workload Automation AE schedule jobs to and receive job submissions from CA NSM JMO. CA Workload Automation AE can also submit jobs to CA NSM JMO. CA Workload Automation AE can also forward all workload-generated events to the CA NSM Event Management console.

Important! When you install CA Workload Automation AE r11.3 components on a server that has any component of CA NSM r3.1 installed, you must follow these rules:

- If you do not want to perform cross-platform scheduling using CA Workload Automation AE, you can install CA Workload Automation AE r11.3 on a server that has CA NSM r3.1 installed.
- After you install CA Workload Automation AE on a server, you can no longer install any CA NSM r3.1 components on that server. The CA NSM r3.1 components must be installed first.
- The CA Workload Automation AE r11.3 scheduler (excluding the client and agent) only supports CA NSM r11.2 components, including the Job Management Option and Event Management. The r11.2 components are supported because CAICCI r11.x is required to perform cross-platform scheduling.

Note: For more information about configuring cross-platform scheduling, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

Chapter 6: New Features

This section describes new features added to CA Workload Automation AE r11.3.

This section contains the following topics:

New Product Name

In previous releases, the product name was Unicenter AutoSys Job Management. Starting in r11.3, the product name is CA Workload Automation AE.

Note: AE represents AutoSys Edition.

New Agents

CA Workload Automation AE r11.3 supports new agents and agent plug-ins that let you automate, monitor, and manage workload on all major platforms, applications, and databases. To run workload on a particular system, you must install an agent on that system and add a machine definition to CA Workload Automation AE. You can install multiple agents on the same machine. Each agent on that machine must have a unique name and port number

The following agents are supported:

- CA Workload Automation Agent for i5/OS
- CA Workload Automation Agent for Linux
- CA Workload Automation Agent for UNIX
- CA Workload Automation Agent for Windows
- CA Workload Automation Agent for z/OS

Note: Starting in r11.3, CA Workload Automation Agent for UNIX, Linux, or Windows replaces the legacy remote agent that was available for r4.5 and r11. However, CA Workload Automation AE r11.3 provides backward compatibility with the legacy remote agent.

You can extend the functionality of the agent by installing one or more agent plug-ins into the agent installation directory. If you have a relational database such as Oracle, for example, you can install a database agent plug-in to query and monitor the database. The following agent plug-ins are supported:

- CA Workload Automation Agent for Application Services
- CA Workload Automation Agent for Databases
- CA Workload Automation Agent for PeopleSoft
- CA Workload Automation Agent for Oracle E-Business Suite
- CA Workload Automation Agent for SAP
- CA Workload Automation Agent for Web Services

Notes:

- The agent plug-ins are only available for UNIX, Linux, and Windows operating environments.
- For more information about configuring CA Workload Automation AE to work with agents, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

Location of the Agent Installation Files

The installers for the following agents are provided with CA Workload Automation AE r11.3:

- CA Workload Automation Agent for Linux
- CA Workload Automation Agent for UNIX
- CA Workload Automation Agent for Windows

Note: For more information about installing these agents, see the *CA Workload Automation AE r11.3 UNIX Implementation Guide* or *Windows Implementation Guide*.

The installation files for the following agents and agent plug-ins are located on the CA Workload Automation Agent r11.3 DVD:

- CA Workload Automation Agent for Application Services
- CA Workload Automation Agent for i5/OS
- CA Workload Automation Agent for Linux (zLinux)
- CA Workload Automation Agent for Databases
- CA Workload Automation Agent for PeopleSoft
- CA Workload Automation Agent for Oracle E-Business Suite
- CA Workload Automation Agent for SAP
- CA Workload Automation Agent for UNIX (Solaris-x86)
- CA Workload Automation Agent for Web Services

The installation file for CA Workload Automation Agent for z/OS is available on the CA Workload Automation EE media.

Note: For more information about installing these agents, see the *Implementation Guide* for the agent or agent plug-in that you want to install. The agent documentation is also located on the CA Workload Automation Agent r11.3 DVD.

Agent Local Security

CA Workload Automation Agent for UNIX, Linux, or Windows provides a local security feature that controls which users are allowed to submit jobs on behalf of other users. The *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide* describes how to specify these permissions using the following security rule:

`x a | d` *`manager_userID agent_userID path`*

However, the previous rule does *not* apply to CA Workload Automation AE.

On CA Workload Automation AE, jobs are always submitted to run under the user specified in the owner attribute. If local security is enabled on the agent, the agent checks the permissions of the job owner only. The agent does *not* check the CA Workload Automation AE user who submits the job. Therefore, if local security is enabled on the agent, you can define security rules as follows:

`x a | d` *`job_owner agent_userID path`*

The agent local security feature also supports the following rule, but this rule does *not* apply to CA Workload Automation AE:

`c a | d` *`manager_userID`* `CONTROL` *`command`*

This rule specifies which scheduling manager user IDs can issue control commands and send messages to an agent. Do not use this rule with CA Workload Automation AE.

Note: For more information about configuring CA Workload Automation AE to work with agents, see the *UNIX Implementation Guide* or *Windows Implementation Guide*.

New Job Types

The new agents and agent plug-ins let you define and run the following new job types:

Agent Name	Supported Job Types
CA Workload Automation Agent for UNIX or Linux	Command (CMD) CPU Monitoring (OMCPU) Disk Monitoring (OMD) File Trigger (FT) File Transfer Protocol (FTP) IP Monitoring (OMIP) Process Monitoring (OMP) Secure Copy (SCP) Text File Reading and Monitoring (OMTF)
CA Workload Automation Agent for Windows	Command (CMD) CPU Monitoring (OMCPU) Disk Monitoring (OMD) File Trigger (FT) File Transfer Protocol (FTP) IP Monitoring (OMIP) Process Monitoring (OMP) Secure Copy (SCP) Text File Reading and Monitoring (OMTF) Windows Event Log Monitoring Jobs (OMEL) Windows Service Monitoring (OMS)
CA Workload Automation Agent for Databases	Database Monitor (DBMON) Database Stored Procedure (DBPROC) Database Trigger (DBTRIG) Structured Query Language (SQL)
CA Workload Automation Agent for i5/OS	i5/OS (I5) All UNIX-based job types if they run in the PASE environment (see the job types listed for CA Workload Automation Agent for UNIX or Linux)
CA Workload Automation Agent for Oracle E-Business Suite	Oracle E-Business Suite Copy Single Request (OACOPY) Oracle E-Business Suite Request Set (OASET) Oracle E-Business Suite Single Request (OASG)

Agent Name	Supported Job Types
CA Workload Automation Agent for PeopleSoft	PeopleSoft (PS)
CA Workload Automation Agent for SAP	SAP Batch Input Session (SAPBDC) SAP BW InfoPackage (SAPBWIP) SAP BW Process Chain (SAPBWPC) SAP Data Archiving (SAPDA) SAP Event Monitor (SAPEVT) SAP Job Copy (SAPJC) SAP Process Monitor (SAPPM) SAP R/3 (SAP)
CA Workload Automation Agent for Application Services	Entity Bean (ENTYBEAN) Hypertext Transfer Protocol (HTTP) Java Remote Method Invocation (JAVARMI) JMS Publish (JMSPUB) JMS Subscribe (JMSSUB) JMX-MBean Attribute Get (JMXMAG) JMX-MBean Attribute Set (JMXMAS) JMX-MBean Create Instance (JMXMC) JMX-MBean Operation (JMXMOP) JMX-MBean Remove Instance (JMXMREM) JMX-MBean Subscribe (JMXSUB) Plain Old Java Object (POJO) Session Bean (SESSBEAN)
CA Workload Automation Agent for Web Services	Plain Old Java Object (POJO) Web Service (WBSVC)
CA Workload Automation Agent for z/OS	z/OS Data Set Trigger (ZOSDST) z/OS Manual (ZOSM) z/OS Regular (ZOS)

Notes:

- The Command, Box, File Watcher, and User-defined job types are still supported in CA Workload Automation AE r11.3.
- For more information about how these job types work, see the *User Guide*. For detailed information about the JIL syntax used to define these jobs, see the *Reference Guide*.
- You can also use CA WCC to define jobs. For more information about using CA WCC to define the job, see the CA WCC documentation.

Job Types That Will Be Supported After r11.3

The following job types are referenced in the CA Workload Automation AE and agent guides but are not supported at the time of the r11.3 release:

- Micro Focus (MICROFOCUS)
- SNMP Value Get (SNMPGET)
- SNMP Value Set (SNMPSET)
- Wake on LAN (WOL)

These job types will be supported in a service pack or a later release of CA Workload Automation AE.

Support for Virtual Resources

You can now define virtual resources to CA Workload Automation AE and specify those resources as job dependencies. Virtual resources (depletable, renewable, and threshold) are representations that cannot be physically measured and are not directly tied to a physical system. You can manage shared resources to control concurrent access typically needed to enforce integrity and balance performance. For example, you can prevent jobs from running simultaneously and help ensure that a job is submitted only when the minimum number of resources is available.

If the scheduler is unable to run a job because virtual resources are not available, it will place the job in a new state: RESWAIT. The scheduler returns virtual resources when a job completes execution or when a job start failure occurs after a job acquires resources. You can send the new RELEASE_RESOURCE event to instruct the scheduler to return virtual resources held by a job. When an attempt to return resources fails, the RETURN_RESOURCE_FAIL alarm is issued. After virtual resources are returned, the scheduler evaluates jobs that are in the RESWAIT state and submits qualifying jobs for execution.

For more information about how resources and resource job dependencies work, see the *User Guide*. For detailed information about the JIL syntax used to define resources and resource job dependencies or about the sendevent command used to send the RELEASE_RESOURCE event, see the *Reference Guide*.

New Machine Type

By default, all new machine definitions are set to type-a. Type-a machines represent the new agent and require new machine attributes representing the agent name, type of data encryption, encryption key, and so on. To use operating system-specific features of CA Workload Automation AE, type-a machines also require the setting of the opsys attribute. The opsys attribute represents the operating system of the computer where the agent is installed.

For more information about the opsys attribute and other machine attributes, see the *Reference Guide*.

Cross-Instance Job Dependencies with CA Workload Automation EE

You can define and monitor cross-instance (external) job dependencies between CA Workload Automation AE and CA Workload Automation EE. These job dependencies let you create job flows between distributed and mainframe systems.

For more information about how external job dependencies work, see the *User Guide*. For detailed information about the commands and JIL syntax used to define external job dependencies, see the *Reference Guide*.

Must Start Times and Must Complete Times

You can use the new must_start_times job attribute to define the time or a list of times that a job must start by. The must_start_times attribute generates the CHK_START event to instruct the scheduler to check whether a job has started by the specified time. If the job does not start by the specified time, the MUST_START_ALARM alarm is issued.

Similarly, you can use the new must_complete_times attribute to define the time or a list of times that a job must complete by. The must_complete_times attribute generates the CHK_COMPLETE event to instruct the scheduler to check whether a job has completed by the specified time. If the job does not complete by the specified time, the MUST_COMPLETE_ALARM alarm is issued.

Defining must start times and must complete times is helpful when you want to be notified when a job has not started or completed on time.

For more information about the must_start_times and must_complete_times attributes, see the *Reference Guide*.

Manual Intervention for i5/OS Job Types and the New REPLY_RESPONSE Event

You can define an i5/OS job to schedule workload to run on an i5/OS system. The job can run a program or an i5/OS command. You can run i5/OS jobs in the root file system, open systems file system (QOpenSys), and library file system (QSYS).

A program run on an i5/OS system may require additional feedback from the end user before it can continue execution. The CA WA Agent for i5/OS notifies the scheduler when a manual response is required. In this case, the scheduler raises a WAIT_REPLY_ALARM and places the job in a new state: WAIT_REPLY. The text of the WAIT_REPLY_ALARM contains the query of the i5/OS program and may show the expected responses. You must send a REPLY_RESPONSE event with a valid response in order for the job to proceed. When the scheduler experiences a problem communicating with the CA WA Agent for i5/OS to send the REPLY_RESPONSE event, the REPLY_RESPONSE_FAIL alarm is raised. The CA WA Agent for i5/OS resumes sending job status updates to the scheduler upon receipt of an accepted response.

For more information about i5/OS jobs, see the *User Guide*. For detailed information about the REPLY_RESPONSE event, see the *Reference Guide*.

New as_test Command

The as_test command is a utility that can run for a specified amount of time, write a message to stdout and/or stderr, and exit with a specific exit code. When the scheduler is running in test mode to agents, Command job commands are automatically replaced with the execution of this command. You can use as_test to test job dependencies and error handling.

For more information about the as_test command, see the *Reference Guide*. For information about test mode, see the *Administration Guide*.

New forecast Command

You can report future job flows by using the new forecast command. The reported job flow displays a list of future jobs based on the dates you specify. Forecast reports can help you predict what occurs when a set of conditions is predefined. You can see what happens when values are changed for each forecast period and use this information to plan your workflow.

For more information about the forecast command, see the *Reference Guide*.

New archive_jobs Command

You can remove obsolete job versions from the database by using the new archive_jobs command. The archive_jobs command can help prevent the database from being overloaded with obsolete job versions. We recommend that you issue the archive_events command before issuing the archive_jobs command.

For more information about the archive_jobs command, see the *Reference Guide*.

New autoprofm Command

Valid on Windows only

To upgrade to CA Workload Automation AE r11.3, your profiles must be converted to a file format that works with the new CA Workload Automation Agent. The profiles are automatically converted during the upgrade process. However, you can also manually convert profiles by using the new autoprofm utility.

For more information about the autoprofm utility, see the *Reference Guide*.

New Scheduler Startup Settings on UNIX

You can configure the following startup settings for the scheduler on UNIX:

Global Auto Hold mode

You can specify whether to start the scheduler in Global Auto Hold mode. Starting the scheduler in Global Auto Hold mode prevents the system from being flooded with jobs that were scheduled to run during a down time. When the scheduler starts after a down time, it puts all jobs that are eligible to run in an ON_HOLD status. You can then selectively start jobs by sending a FORCE_STARTJOB event.

Chase on Startup mode

You can specify whether the chase command runs when the scheduler starts. The chase command verifies whether jobs and agents are running. You can track network problems if you run the chase command at regular intervals.

For more information about configuring these settings on UNIX, see the *Administration Guide*.

These settings were already supported on Windows. For more information about configuring these settings on Windows, see the *Online Help* for CA Workload Automation AE Administrator (autosysadmin).

Monitoring a Condition Continuously and the New ALERT Event

You can define the following job types to monitor a condition continuously:

- CPU Monitoring (OMCPU)
- Database Monitor (DBMON)
- Database Trigger (DBTRIG)
- Disk Monitoring (OMD)
- File Trigger (FT)
- Text File Reading and Monitoring (OMTF)
- Windows Event Log Monitoring (OMEL)
- Windows Services Monitoring (OMS)

Each time the specified condition occurs, an ALERT event is written to the scheduler log file (event_demon.$AUTOSERV on UNIX and event_demon.%AUTOSERV% on Windows). These events are also displayed when you create a report using the autorep -J -d command. The report includes the events that are generated during the most recent job runs.

To stop a continuous monitor, you must complete the job manually by issuing the sendevent –E KILLJOB command.

For more information about how these job types monitor conditions continuously, see the *User Guide*. For detailed information about the JIL syntax used to monitor a condition continuously, see the *Reference Guide*.

Logging a Job's State Changes and the New STATE_CHANGE Event

Some of the new job types go through different state changes when they run. For example, a z/OS Regular job can go through state changes for each step that runs. The scheduler log file (event_demon.$AUTOSERV on UNIX and event_demon.%AUTOSERV% on Windows) records the job's state changes using the new STATE_CHANGE event. These events are also displayed when you create a report using the autorep -J -d command. The report includes the events that are generated during the most recent job runs.

Improved Log Maintenance

You can specify when the scheduler or the application server log rolls over. When the log rolls over, the data is saved in a backup file with a date and time stamp. The log can roll over at a specified time or when the log file size is equal to a specified size.

On UNIX, you can configure this setting using the new LOGROLLOVER parameter in the configuration file. For more information about this parameter, see the *Administration Guide*.

On Windows, you can configure this setting by modifying the LOGROLLOVER environment variable in the System window of CA Workload Automation AE Administrator (autosysadmin). For more information about this setting, see the *Online Help* for CA Workload Automation AE Administrator.

Specifying the localhost

In r11.3, the localhost machine name is a reserved name. You can no longer define a machine for localhost by creating an **insert_machine: localhost** definition. By default, the localhost value is resolved to the name of the machine where the CA Workload Automation AE scheduler was started. You can override the reserved localhost value to the name of another real machine by using the new local machine definition setting.

On UNIX, you can configure this setting using the LocalMachineDefinition parameter in the configuration file. For more information about this parameter, see the *Administration Guide*.

On Windows, you can configure this setting using the Local Machine Definition field in the Scheduler window of CA Workload Automation AE Administrator (autosysadmin). For more information about this field, see the *Online Help* for CA Workload Automation AE Administrator.

For more information about how the localhost value is resolved when a job runs, see the *User Guide*.

Appending Event Message Text in Scheduler Log File

You can append the text associated with an event to the corresponding event message in the scheduler log file. Appending the text can help when you want to write event policies with Event Management. Alternatively, you can print the text as a standalone message in the scheduler log file.

On UNIX, you can configure this setting using the new AppendEventMessageText parameter in the configuration file. For more information about this parameter, see the *Administration Guide*.

On Windows, you can configure this setting using the new Append Event Message Text field in the Scheduler window of CA Workload Automation AE Administrator (autosysadmin). For more information about this field, see the *Online Help* for CA Workload Automation AE Administrator.

Specifying an Instance-Wide Encryption Key

You can specify the instance-wide encryption key for all communication between the CA Workload Automation AE components of the same instance.

On UNIX, you can configure this setting using the new UseEncryption parameter in the configuration file. For more information about this parameter, see the *Administration Guide*.

On Windows, you can configure this setting using the new Use Instance Wide AES 128-bit Data Encryption check box in the Instance window of CA Workload Automation AE Administrator (autosysadmin). For more information about this setting, see the *Online Help* for CA Workload Automation AE Administrator.

Polling for Resource Availability

You can specify how frequently the scheduler polls for resource availability when jobs are waiting on resources.

On UNIX, you can configure this setting using the new ResourceWaitPollInterval parameter in the configuration file. For more information about this parameter, see the *Administration Guide*.

On Windows, you can configure this setting using the new Res Wait Poll Interval field in the Instance window of CA Workload Automation AE Administrator (autosysadmin). For more information about this field, see the *Online Help* for CA Workload Automation AE Administrator.

New reindex.pl Script for Rebuilding Database Table Indexes

The new reindex.pl script rebuilds the table indexes of a specified CA Workload Automation AE database. This script is located in the $AUTOSYS/dbobj directory (UNIX) or %AUTOSYS%\dbobj directory (Windows).

For more information about the reindex.pl script, see the *Administration Guide*.

Chapter 7: Changes to Existing Features

This section describes the changes made to existing features and includes a list of any features removed from the product for CA Workload Automation AE r11.3.

This section contains the following topics:

Legacy Agent Replaced by CA Workload Automation Agent

The new CA Workload Automation Agent for UNIX, Linux, or Windows replaces the Remote Agent (auto_remote) that was provided with Unicenter AutoSys JM r4.5 and r11. The r11.3 documentation refers to auto_remote as the *legacy agent*.

The new agent provides additional job types, including monitoring and FTP jobs. The agent is automatically installed on the computer where CA Workload Automation AE is installed. You can also install the agent on remote computers to run jobs on those computers.

Differences Between the Legacy Agent and the New Agent

In addition to the new job types supported by the new agents and agent plug-ins, other agent features and behaviors were changed for this release. This section describes the differences between the legacy agent and the new agent.

Note: The CA Workload Automation AE Administrator utility is the name of the autosysadmin executable.

Location of Log Files

In r4.5 and r11, the legacy agent's log files were written to the following locations:

- UNIX—The directory specified in the AutoRemoteDir parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The directory specified in the Enterprise Wide Logging Directory field in the Administrator utility

  Note: In r11.3, the name of this field was changed to Legacy Enterprise Wide Logging Directory.

In r11.3, those logging directories are only used when running jobs on the legacy agents.

The new agent in r11.3 writes all log files to the following directories:

- *installation_directory*/SystemAgent/*agent_name*/log
- *installation_directory*/SystemAgent/*agent_name*/spool (for job spool files)

Note: In r4.5 and r11, you had to override the default log file directory on operating systems that do not support the locking of files in the /tmp directory. This is because the agent used the locks to check whether a job was running. You no longer have to change the default log file directory because the new agent stores the job spool files in the *installation_directory*/SystemAgent/*agent_name*/spool directory by default. However, you must change the default log file directory if you run jobs on legacy agents and the operating system on any of the legacy agent computers does not support the locking of files in the /tmp directory.

CA Workload Automation AE Configuration on the Agent

To communicate with the new agent, your CA Workload Automation AE instance must be specified in the agent's agentparm.txt configuration file. Certain parameters defined on CA Workload Automation AE and the agent must match.

Note: For more information about configuring CA Workload Automation AE to work with the agent, see the *UNIX Implementation Guide* or the *Windows Implementation Guide*.

Communication Port

The configuration required to communicate with the new agent is different from the configuration for the legacy agent.

In r4.5 and r11, the scheduler used the following port setting to communicate with the legacy agent:

- UNIX—The AutoRemPort parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The Remote Agent Port field in the Administrator utility

  Note: In r11.3, the name of this field was changed to Legacy Remote Agent Port.

In r11.3, you can use those port values to communicate with the legacy agent. Those port values do not apply to the new agent.

Note: For more information about configuring CA Workload Automation AE to work with the new agent, see the *UNIX Implementation Guide* or the *Windows Implementation Guide*.

Environment Variables

In r4.5 and r11, the legacy agent's environment was set by sourcing the environment variables specified in the /etc/auto.profile file. The variables are preceded by #AUTOENV#.

In r11.3, the environment variables are specified in the following locations:

- Agent-wide environment variables in the agent's agentparm.txt file
- Manager-specific environment variables in the agent's agentparm.txt file
- The profile JIL attribute in a job definition
- The envvars JIL attribute in a job definition

Note: For more information about the parameters in the agentparm.txt file, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*. For more information about setting profiles and environment variables in a job definition, see the *User Guide*.

Log File Maintenance

In r4.5 and r11, the following settings specified whether the legacy agent's temporary log files were automatically removed:

- UNIX—The CleanTmpFiles parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The Clean Temporary Files field in the Administrator utility

  Note: In r11.3, the name of this field was changed to Legacy Clean Temp Files.

In r11.3, those settings are only used for legacy agent log files.

The new agent has parameters in the agentparm.txt file that control how log files and job spool files are maintained.

Note: For more information about maintaining agent log files and clearing job spool files, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

Minimum Disk Space Used for Logging

In r4.5 and r11, the following settings specified the minimum amount of disk space that must be available to write to the scheduler log:

- UNIX—The FileSystemThreshold parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The FileSystem Threshold KB field in the Administrator utility

In r11.3, those settings are only used when running jobs on the legacy agents.

The new agent has parameters in the agentparm.txt file that control the log file settings.

Note: For more information about the log file settings, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

Remote Profile Files

In r4.5 and r11, the following settings specified whether the scheduler redirects all standard error and standard output information to the auto.rem* log file:

- UNIX—The RemoteProFiles parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The Remote Profile Logging check box in the Administrator utility

  Note: In r11.3, the name of this field was changed to Legacy Remote Profile Logging.

The output information is generated when the /etc/auto.profile file is sourced.

In r11.3, those settings are only used when running jobs on the legacy agents.

The new agent does not use these settings or writes any output generated by the /etc/auto.profile file.

Note: For more information about the remote profile files settings, see the *Administration Guide* (UNIX) or the *Online Help* for the Administrator utility (Windows).

Debugging Logs

In r4.5 and r11, the ISDBGACTIV setting controlled the display of trace messages for debugging.

In r11.3, the administrator for the new agent can set the log.level parameter in the agent's agentparm.txt file. This parameter controls the type of debugging logs that are generated.

Note: For more information about log.level parameter, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

Signals for a KILLJOB Event

In r4.5 and r11, you can specify a comma-separated list of signals to send to a job whenever the KILLJOB event is sent. The following settings specified the signals:

- UNIX—The KillSignals parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The Kill Signals field in the Administrator utility

  Note: In r11.3, the name of this field was changed to Legacy Kill Signals.

In r11.3, those settings are only used when running jobs on the legacy agents.

Calculating Machine Load

In r4.5 and r11, you can define the method used to determine the percentage of CPU cycles available on a real machine that belongs to a virtual machine. The following settings specified the method:

- UNIX—The MachineMethod parameter in the $AUTOUSER/config.$AUTOSERV configuration file
- Windows—The Machine Method field in the Administrator utility

In r11.3, the agent does not use the UNIX vmstat utility or Windows performance counters to determine the percentage of available CPU. Instead, the new agent runs a CPU Monitor job to determine the current load on the machine.

The rstatd method continues to be supported by the UNIX scheduler. However, for this method to be used, the value of the opsys attribute for a type-a machine definition must be set to an operating system that supports rstatd (‘aix’, ’hpux’, ’ linux’, ‘openvms’, or ‘solaris.’). If the value of the opsys attribute is not set or is set to an operating system that does not support rstatd, the UNIX scheduler will use a CPU Monitor job to calculate the available machine load.

Running Windows Commands

You can define Command jobs to run Windows operating system commands, such as dir and echo. In r4.5 and r11, you specified only the command and arguments in the command attribute (for example, command: "dir c:\temp\"). The legacy agent prefixed "*path*\cmd.exe /c" to the command before running the process.

In r11.3, the new agent does not automatically prefix the command with the path to the command interpreter. To automatically prefix the command, you must set the following parameters in the agent's agentparm.txt file to true:

```
oscomponent.lookupcommand=true
oscomponent.cmdprefix.force=true
```

If these agent parameters are not set, you must explicitly invoke the command interpreter in the command attribute, as shown in the following example:

```
command: "c:\winnt\system32\cmd.exe /c dir c:\temp\"
```

Note: For more information about the command attribute, see the *Reference Guide* and *User Guide*. For more information about the agent parameters, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

Polling Interval for File Watcher Jobs

In r11.3, you can define a File Watcher (FW) job to run on a machine that has the legacy agent or the new agent installed. The behavior of the new agent for the polling interval is different from the legacy agent.

The legacy agent uses a default polling interval of 60 seconds for a FW job. You can override this value by specifying the watch_interval attribute in a job definition.

The r11.3 agent uses two polling intervals for a FW job: a global default of 30 seconds set on the agent and the watch_interval attribute value specified in the job definition. If the condition the FW job is monitoring is not satisfied, the agent sleeps for 30 seconds based on its global polling interval. After 30 seconds, the agent checks the condition of the file again. If the condition is satisfied, the agent waits for the second polling interval specified by the watch_interval attribute to ensure the file remains steady. If the file has not changed after the second polling interval elapses, the agent returns the status. If the file does change, the agent goes back to sleep for the duration of the second polling interval until the file eventually stabilizes.

Evaluation of Job's Termination Time

If a job runs on a machine that has the new agent installed, the scheduler evaluates the term_run_time attribute and automatically generates a CHK_TERM_RUNTIME event to instruct the scheduler to check whether a job has ended by the specified time. If the job does not end by the specified time, the scheduler sends the agent a request to kill the job. If a job runs on a machine that has the legacy agent installed, the legacy agent evaluates the term_run_time attribute and no CHK_TERM_RUNTIME event is generated. If the job does not end by the specified time, the legacy agent terminates the job. If the job does not end by the specified time, the legacy agent terminates the job.

Encryption and FIPS 140-2 Compliance

In r11, CA Workload Automation AE used SSL encryption. In the current release, CA Workload Automation AE uses Advanced Encryption Standard (AES) encryption to comply with the U.S. Government encryption standard FIPS 140-2. This standard requires a FIPS-certified library and FIPS-certified cipher algorithm, such as AES.

CA Workload Automation AE uses the AES cipher algorithm to encrypt and decrypt data shared between the command line utilities, agent, scheduler, and the application server. Encryption requires eTrust Public Key Infrastructure (ETPKI), which is automatically installed with the server, agent, or client.

AES also requires an encryption key. You can modify the key for the following components:

- Application server and client utilities—The key is stored in the $AUTOUSER/cryptkey.txt file.
- Application server and agent—The key is specified in the machine definition for the agent. This key must match the key in the agent's cryptkey.txt file. The cryptkey.txt file is located in the *installation_directory*/SystemAgent/*agent_name* directory.
- Scheduler and agent—The key is specified in the machine definition for the agent. This key must match the key in the agent's cryptkey.txt file. The cryptkey.txt file is located in the *installation_directory*/SystemAgent/*agent_name* directory.

Note: For r11.3, CA Workload Automation AE supports AES encryption only. While the product still supports running SSL encryption over SSA, the preferred data encryption method is AES (SSL encryption under SSA is disabled by default when SSA is installed). For more information about configuring encryption, see the *Security Guide*.

Pound Sign (#) Allowed in Object Names

The pound sign or hash character (#) is now allowed in all object names (for example, job and calendar names).

Command Substitutions Not Allowed in the watch_file Attribute

In 4.0 and r4.5, you could use back ticks or the grave accent (`) to specify command substitutions in the watch_file attribute.

In r11 and r11.3, you cannot use back ticks when you specify the path in the watch_file attribute. For example, the watch_file attribute cannot resolve the date if you specify the path as follows:

```
watch_file: \tmp\`date`
```

Removed Commands

The following commands have been removed from CA Workload Automation AE r11.3:

- autodwp
- autosys_report—This application is now part of CA Workload Automation AE Administrator (Windows only).
- autosys_wv
- job_delete—This command has been replaced by the archive_jobs command.
- job_profiles—This application is now part of CA Workload Automation AE Administrator (Windows only).
- ntgetdate
- xql
- zql

Scheduler Startup Options Removed from the eventor Command

In the previous release, the eventor command let you specify whether the scheduler starts in Global AutoHold mode (eventor -G option) and whether to run the chase command at startup (eventor -n option). These two options have been removed from the eventor command.

Instead, you can now control the startup behavior of the scheduler by using the new GlobalAutoHold and ChaseOnStartup options in the configuration file (config.$AUTOSERV file).

Note: For more information about configuring these startup settings on UNIX, see the *Administration Guide*. For more information about configuring these startup settings on Windows, see the *Online Help* for CA Workload Automation AE Administrator (autosysadmin).

Job Profiles Manager and autosysreport.exe Integrated with the Administrator Utility

Valid on Windows

The following tools are now part of the Administrator utility:

- Job Profiles Manager
- Feedback or Report Tool (autosysreport.exe)

Changes to Cross-Instance Job Dependencies

Cross-instance job dependencies have changed as follows:

- To improve efficiency, external events are now stored in a new database table named ujo_ext_event.
- To define cross-instance job dependencies between r11.3 and 4.5, a new lightweight application server that supports 4.5 is installed on the r11.3 instance.
- You can now define cross-instance job dependencies between CA Workload Automation AE instances that have different encryption settings. You specify the external instance's encryption key using the xcrypt_key attribute when you define the instance to CA Workload Automation AE.

Note: For more information about configuring your instance, see the *UNIX Implementation Guide* or *Windows Implementation Guide*. For more information about defining cross-instance job dependencies, see the *User Guide*.

Updated autoping Command

The -S option has been added to the autoping command to test the connectivity between the application server and the new CA Workload Automation Agent.

Note: If you issue autoping -M [*machine*] -S against the legacy agent, the command reverts to its previous behavior and tests the database connectivity between CA Workload Automation AE and the agent.

Updated clean_files Command

The clean_files command now applies to legacy agent log files only. For more information about maintaining the log files and spool files for the new agent, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

IPv6 Support

CA Workload Automation AE r11.3 supports Internet Protocol version 6 (IPv6) between CA Workload Automation AE r11.3, CA 7, CA Workload Automation EE, and agents.

The Job Information Language (JIL) utility now accepts IPv6 addresses in addition to hostnames and IPv4 addresses. For example, when you use the jil command to define a new machine, you can specify an IPv6 address in the machine attribute.

Change in as_owner Policy Validation

In R11.3, CA Workload Automation AE validates the as_owner policy using either the owner specified by the owner attribute in the job definition or the default owner of the job.

KILLJOB and SEND_SIGNAL Behavior

The following new alarms are generated when the scheduler experiences a problem communicating with the agent while killing a job or sending a signal:

- KILLJOBFAIL – generated when the attempt to kill a job fails
- SENDSIGFAIL– generated when the attempt to send a signal fails

Although Windows agents do not support sending signals to jobs, you can signal a named Windows semaphore. To signal a named Windows semaphore, set the value of the opsys attribute for a type-a machine to the Windows operating system (‘windows’).

Chapter 8: Internationalization

An *internationalized* product is an English product that runs correctly on local language versions of the required operating system and required third-party products, and supports local language data for input and output. Internationalized products also support the ability to specify local language conventions for date, time, currency, and number formats.

A *translated* product (sometimes referred to as a localized product) is an internationalized product that includes local language support for the product's user interface, online help and other documentation, as well as local language default settings for date, time, currency, and number formats.

In addition to the English release of this product, CA supports only those languages listed in the following table:

Language	Internationalized	Translated
Brazilian-Portuguese	No	No
Chinese (Simplified)	No	No
Chinese (Traditional)	No	No
French	Planned	Planned
German	Planned	Planned
Italian	No	No
Japanese	No	No
Korean	No	No
Spanish	No	No

Note: If you run the product in a language environment not listed in the table, you may experience problems.

Chapter 9: Documentation

This section describes the documents provided with CA Workload Automation AE r11.3 and how to access them.

This section contains the following topics:

CA Workload Automation AE Documentation

CA Workload Automation AE r11.3 includes the following documentation:

- CA Workload Automation AE r11.3 Administration Guide
- CA Workload Automation AE r11.3 Administrator Online Help
- CA Workload Automation AE r11.3 API Reference Guide
- CA Workload Automation AE r11.3 Message Reference Guide
- CA Workload Automation AE r11.3 Overview Guide
- CA Workload Automation AE r11.3 Readme
- CA Workload Automation AE r11.3 Reference Guide
- CA Workload Automation AE r11.3 Release Notes
- CA Workload Automation AE r11.3 UNIX Implementation Guide
- CA Workload Automation AE r11.3 User Guide
- CA Workload Automation AE r11.3 Windows Implementation Guide
- CA Workload Automation r11.3 Security Guide
- CA Workload Automation Agent for UNIX, Linux, or Windows r11.3 Implementation Guide
- CA Workload Automation Agent for UNIX, Linux, or Windows r11.3 Release Notes

CA Common Components Documentation

The CA Common Components r11.3 DVD includes the following documentation:

- CA Common Components Implementation Guide
- CA Common Components Readme
- CA Common Components Release Notes
- CA EEM Readme
- CA EEM Release Notes
- CA EEM Programming Guide
- Unicenter Network and Systems Management Inside Event Management and Alert Management Guide

Agent Documentation

The *Implementation Guides*, *Readmes*, and *Release Notes* for all the agents and agent plug-ins are located on the CA Workload Automation Agent r11.3 DVD.

CA WCC Documentation

CA WCC (CA Workload Control Center) is a web-based user interface that lets you graphically manage, schedule, and monitor CA Workload Automation AE jobs. For more information about configuring and using CA WCC to manage your workload, see the documentation available on the CA WCC r11.3 DVD.

Access the Documentation

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