

# CA Performance Center

## Release Notes

Release 2.2.00



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- 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

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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

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Welcome to CA Performance Center. Review these *Release Notes* before installing the CA Performance Center software.

This document contains important information and installation notes, including the following topics:

- Product documentation availability
- Operating system support
- System requirements
- Version compatibility

This section contains the following topics:

[New Features and Enhancements](#) (see page 7)

[Product Documentation](#) (see page 12)

[Third-Party Software License Agreements](#) (see page 12)

## New Features and Enhancements

The following features have been added in CA Infrastructure Management Release 2.2.00:

### Technology Certifications and Reporting

#### Custom View to Report on Individual QoS Class Maps

The Top CBQoS Customized Class Map Discards view offers advanced filtering to report on the performance of a single selected class map. A filtering feature lets you specify a keyword in the class map name to populate the view with data for that traffic class. The view is easily copied to let you quickly build a dashboard that compares the performance of each class map for a selected interface.

### **New Certifications and Broader Monitoring Support**

Enhancements to the existing vendor certification for Microsoft Exchange and Active Directory servers. Additional metric families are available for mailbox, database instance, and other metrics.

A new certification for a hypervisor technology, Citrix Xen Server. Citrix Xen Server metric families are available for the Citrix Xen Server host, resource pool, virtual machines, storage, physical and virtual interfaces.

The following SNMP device certifications have also been added:

- Juniper Netscreen devices
- Check Point Firewalls
- F5 devices (including an overview dashboard and context pages)

### **Enhanced VMware Reporting Features**

CA Infrastructure Management Data Aggregator has enhanced features for discovering virtual machines. VMs are associated with their host servers for improved reporting. Devices and their associated metrics are reconciled across multiple data sources. Interface and device aliases are used to identify items in reports. Out-of-the-box views for VMware ESX hosts and virtual machines are included.

### **New CA Mediation Manager Device Packs**

Optional device packs to monitor devices from the following vendors are now available with CA Mediation Manager for CA Infrastructure Management:

- Acme Packet (SR/SBC)
- Tekalec (DSR Meal)
- Huawei (U2000)
- Nokia Siemens (NSN LBS)
- Alcatel Lucent (DSR SDM)
- NetApp (Ontap Filer; support includes a new Storage dashboard and context pages)



### Monitoring Citrix VDI Technology

A new vendor certification for monitoring Citrix VDI. Citrix VDI metric families are available for desktop controllers, desktops, catalogs, groups, and more.

The following dashboards have been created to monitor Citrix Virtual Desktop Infrastructure (VDI):

- VDI Overview dashboard

**Note:** This dashboard also provides a NetApp Storage summary.

- VDI Desktop Servers dashboard
- VDI Desktop dashboard

Server context pages now include a VDI tab when VDI servers are detected. Citrix Virtual Desktop Infrastructure (VDI) is the market leading technology for providing virtualized desktops. This certification provides performance information of the VDI Management Servers and Desktops. This information, when combined with other supported technologies such as VMware and NetApp, can provide a holistic view of a VDI delivery infrastructure.

### Self-Certification Improvements

#### Advanced Self-Certification with Web Services

A powerful set of self-certification web services let Power Users create more advanced device certifications than is possible using the Vendor Certification wizard.

Advanced device certification is based on published web services, which provide the following new features:

- Multiple MIB table support, which enables collection for the same metric family from two or more tables.
- Component reconciliation, which uses a customizable set of rules to determine whether to update an existing component or create a new one.
- Change detection, which polls a single attribute to detect changes on the target device.
- Pre-discovery filtering support in the vendor certification based on an MVEL expression.
- The ability to export and import a vendor certification, metric family, or a component using a REST client.
- The ability to update a vendor certification, metric family, or component using a REST client, which lets you:
  - Enable or disable metric family attribute properties, such as minimum/maximum, baselines, and percentiles.
  - Add or remove metrics and edit vendor certification expressions while the certification is in use.

- Extensive validation of vendor certification and metric family .xml files on import. Validation offers the following advantages:
  - Shortens the time to create and troubleshoot certification files.
  - Reduces mistakes before you load a certification file by providing detailed error messages, including the line location.
  - Runs more than 60 rules, which detect XML structural mistakes, invalid tags, duplicate or missing table or display names, and other errors.

You can take advantage of the advanced self-certification features using either a REST client tool, or an HTTP tool that can send requests and get responses.

### Administration and User Interface Improvements

#### Ability to Add, Edit, and Rearrange Context Tabs

Users with the Administrator or Designer role can create new tabbed pages in device context dashboards. They can now edit context pages to remove views or add views, and they can change the order of context tabs.

#### Suppression of Empty Views

When the 'Suppress Views' option is enabled, data views that lack a registered data source are hidden until that data source is registered. When the data source that populates a view is registered, that view is no longer hidden. Dashboards and menus that lack a registered data source for at least one view are also hidden.

#### New 'Browser' View Type

A new user interface feature lets you add web page views to a custom dashboard. You can use a URL from an intranet site or a page on the World Wide Web to create a view that displays information from external sources on CA Performance Center dashboards.

#### Built-in Component Health Monitoring

Monitoring profiles let you select the statistics that are discovered and polled during Data Aggregator and Data Collector self-monitoring. These statistics are collected automatically after product installation.

#### More Statistical Analysis Enabled by Default

Statistical analysis is performed automatically in the background for an extended range of metrics.

#### Streamlined Event Rule Administration

Administration of rules for event handling has been simplified. Event rules are no longer managed in two separate places; they are created and modified solely as part of a Monitoring Profile. The separate Event Profile administration pages have been deprecated, along with the Event Profile web services. Existing Event Profiles are handled smoothly on upgrade.

### **Product Documentation Additions**

The steps for moving or replacing a Data Collector have been tested and documented. Four new scenarios about using web services are available.

### **CA Mediation Manager Device Packs Decoupled from Data Aggregator**

Most dependencies of CA Mediation Manager device packs on CA Infrastructure Management Data Aggregator releases have been removed. Device packs can now be provided independently from CA Infrastructure Management releases.

## **Scalability and Performance Improvements**

### **Reduced Bandwidth Usage**

Performance optimizations have resulted in decreased bandwidth usage between the CA Infrastructure Management Data Aggregator and Data Collector components. More efficient polling and aggregation of data are now available for remote Data Collectors at sites with limited bandwidth. The same Data Collector can now handle a longer link outage to the Data Aggregator without a loss of collected data.

### **Faster Dashboard Loading**

Distributed database queries across all available Data Repository cluster nodes let pages load and refresh more rapidly.

### **Support for Multiple Instances of Selected Data Sources**

You can now register up to 10 instances of CA Application Delivery Analysis and view correlated data from all monitors. You can also register up to four instances of CA Unified Communications Monitor and view correlated data from all collectors.

## **Platform Updates**

### **Java Upgrade**

The CA Infrastructure Management solution has been upgraded to Java version 1.7.0\_09. The change extends to the Data Aggregator, Data Collector, Data Repository, and CA Performance Center.

### **Database Upgrade**

The Data Repository instance that is used for the CA Infrastructure Management Data Aggregator data source has been upgraded to Vertica version 6.0.1.

### **Support for Traditional Chinese**

The user interface and product documentation are now available in Traditional Chinese.

## Product Documentation

CA provides a full set of technical documentation for all products. The guides available for CA Performance Center are as follows:

- Administrator Guide
- Operator Guide
- Installation Guide
- Managed Service Provider Guide
- Release Notes
- Single Sign-On User Guide
- Report Information Base (RIB) API Guide
- Use Cases

A Readme file contains the most recent list of known issues and workarounds. We recommend downloading the latest version of the Readme file and Release Notes from [CA Support Online](#).

You can open these guides in PDF and HTML format from the Documentation Bookshelf. Access the bookshelf from the Help menu in the CA Performance Center user interface.

Context-sensitive online Help is available for pages and views when you click a Help (?) button or select Help for This Page from the Help menu.

Use the online Help system when you need more information about configuration tasks, navigating the user interface, and performance data.

## Third-Party Software License Agreements

Third-party software was used in the creation of CA Performance Center. All third-party software has been used in accordance with the terms and conditions for use, reproduction, and distribution as defined by the applicable license agreements.

Information about third-party license agreements is provided in the following document, installed automatically with the CA Performance Center software:

[Installation  
Directory]\PerformanceCenter\ThirdPartyContent\caim\_thirdpartycontent.html

# Chapter 2: Deployment Requirements and System Requirements

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This section contains the following topics:

[Deployment Options](#) (see page 13)

[System Requirements](#) (see page 14)

[Version Compatibility](#) (see page 19)

[Language Support](#) (see page 21)

[Platform Support](#) (see page 21)

## Deployment Options

Any CA Performance Center deployment requires additional servers to host data sources. Data source system requirements vary widely. Consult the data source Release Notes for deployment guidelines and system requirements.

CA has performed comprehensive testing of three different deployment scenarios with different numbers of managed items. The number of managed items translates to a rate of metric data that is processed:

- 10,000 metrics per second; 100,000 managed items (smaller deployment)
- 50,000 metrics per second; 500,000 managed items (medium-size deployment)
- 100,000 metrics per second; 1,000,000 managed items (large deployment)

The system requirements in this document reflect the differing requirements of these three environments.

## System Requirements

Prepare a dedicated server for the CA Performance Center installation. Be sure that the server meets the requirements for your deployment size.

### For All Deployments

The software can be installed in any filesystem to which the root user has write access. Typically, it is installed in /opt.

By default, the MySQL database is installed to /var, but you can select another location. Make sure you have enough disk space allocated to the selected filesystem to support a database.

The minimum supported screen resolution is 1024 x 768.

A web browser is required. The following browser applications are supported:

- Microsoft Internet Explorer version 8
- Mozilla Firefox, version 8
- Google Chrome (current version)

**Note:** Running Internet Explorer 8 in compatibility view mode is not supported. If you have Internet Explorer 8 Developer Tools installed, press F12 on your keyboard to determine whether compatibility mode is used. If the main menu reads 'Browser Mode: IE 8 Compatibility View', click this menu item and select Internet Explorer 8. This change affects only the current browser session. Be aware that a group policy may force the Internet Explorer 8 browser to operate in compatibility mode to support selected websites. In these cases, we recommend using Firefox or Chrome.

### 10,000 Metrics per Second (Smaller Deployment)

Setting or Component	Description
Operating system	Red Hat Enterprise Linux version 5.5 and higher, but not 6.0 (64-bit).

Setting or Component	Description
Disk space	<p>60 GB, which comprises the following requirements:</p> <ul style="list-style-type: none"> <li>- 40 GB -- Minimum requirement for the database.</li> <li>- 20 GB -- Minimum requirement for event data.</li> </ul> <p>The event data guidance depends on the number of items generating events, multiplied by the number of days that you intend to retain event data. The 20 GB guidance is based on the following example:</p> <ul style="list-style-type: none"> <li>■ 100,000 items</li> <li>■ 10% of items sending events at one time</li> <li>■ Events every four hours (average event size is 10 KB)</li> <li>■ Data retention of 30 days</li> </ul> <p>1 GB is the minimum requirement for the /tmp directory.</p> <p>If you do not have enough available space in the /tmp directory and cannot configure it, export the IATEMPDIR environment variable (for the Install Anywhere temporary directory) to set a new location of the temporary directory, selecting a directory with more space.</p>
Memory	<p>12 GB of memory, which is allocated evenly across the following services:</p> <ul style="list-style-type: none"> <li>■ Performance Center (Console) service: 2 GB</li> <li>■ Device Manager service: 2 GB</li> <li>■ Event Manager Service: 2 GB</li> </ul> <p>Allocate 5 GB for the operating system.</p> <p>Leave the Single Sign-On Service and MySQL Service at their default memory settings.</p>
CPU	4 dedicated CPUs.
Web browser	A recent version of a supported Web browser.

#### 50,000 metrics per Second (Medium-Size Deployment)

Setting or Component	Description
Operating system	Red Hat Enterprise Linux version 5.5 and higher, but not 6.0 (64-bit).

Setting or Component	Description
Disk space	<p>140 GB, which comprises the following requirements:</p> <ul style="list-style-type: none"><li>- 40 GB -- Minimum requirement for the database.</li><li>- 100 GB -- Minimum requirement for event data.</li></ul> <p>The event data guidance depends on the number of items generating events, multiplied by the number of days that you intend to retain event data. The 100 GB guidance is based on the following example:</p> <ul style="list-style-type: none"><li>■ 500,000 items</li><li>■ 10% of items sending events at one time</li><li>■ Events every four hours (average event size is 10 KB)</li><li>■ Data retention of 30 days</li></ul> <p>1 GB is the minimum requirement for the /tmp directory.</p> <p>If you do not have enough available space in the /tmp directory and cannot configure it, export the IATEMPDIR environment variable (for the Install Anywhere temporary directory) to set a new location of the temporary directory, selecting a directory with more space.</p>
Memory	<p>16 GB of memory, which is allocated across the following services:</p> <ul style="list-style-type: none"><li>■ Performance Center (Console) service: 3 GB</li><li>■ Device Manager service: 3 GB</li><li>■ Event Manager Service: 3 GB</li></ul> <p>Allocate 5 GB for the operating system.</p> <p>Leave the Single Sign-On Service and MySQL Service at their default memory settings.</p>
CPU	4x6 core CPU with 24 total cores.
Web browser	A recent version of a supported Web browser.

**100,000 Metrics per Second (Large Deployment)**

Setting or Component	Description
Operating system	Red Hat Enterprise Linux version 5.5 and higher, but not 6.0 (64-bit)



Setting or Component	Description
Disk space	<p>240 GB, which comprises the following requirements:</p> <ul style="list-style-type: none"> <li>- 40 GB -- Minimum requirement for the database.</li> <li>- 200 GB -- Minimum requirement for event data.</li> </ul> <p>The event data guidance depends on the number of items generating events, multiplied by the number of days that you intend to retain event data. The 200 GB guidance is based on the following example:</p> <ul style="list-style-type: none"> <li>■ 1,000,000 items</li> <li>■ 10% of items sending events at one time</li> <li>■ Events every four hours (average event size is 10 KB)</li> <li>■ Data retention of 30 days</li> </ul> <p>1 GB is the minimum requirement for the /tmp directory.</p> <p>If you do not have enough available space in the /tmp directory and cannot configure it, export the IATEMPDIR environment variable (for the Install Anywhere temporary directory) to set a new location of the temporary directory, selecting a directory with more space.</p>
Memory	<p>24 GB of memory, which is allocated across the following services:</p> <ul style="list-style-type: none"> <li>■ Performance Center (Console) service: 4 GB</li> <li>■ Device Manager service: 4 GB</li> <li>■ Event Manager Service: 4 GB</li> </ul> <p>Allocate 10 GB for the operating system.</p> <p>Leave the Single Sign-On Service and MySQL Service at their default memory settings.</p>
CPU	4x6 core CPU with 24 total cores.
Web browser	A recent version of a supported Web browser.

## Configure UTF-8 Support

Configure the Data Aggregator installer to support UTF-8 encoding. If UTF-8 encoding is not enabled, characters may not display properly during the installation.

The appropriate language packs are also required to support localized deployments.

**Follow these steps:**

1. Do one of the following steps:

- a. Type the following command from a Korn shell:

```
export LANG=LANG_value ; export LC_ALL=$LANG
```

***LANG\_value***

Indicates the value of the language you want the product to support. The following variables are supported:

**English:** en\_US.utf8

**French:** fr\_FR.utf8

**Japanese:** ja\_JP.utf8

**Simplified Chinese:** zh\_CN.utf8

**Traditional Chinese:** zh\_TW.utf8

For example:

```
export LANG=zh_TW.utf8 ; export LC_ALL=$LANG
```

- b. Type the following command from a Bourne shell:

```
LANG=LANG_value ; export LANG
```

```
LC_ALL=LANG_value ; export LC_ALL
```

For example:

```
LANG=zh_CN ; export LANG
```

```
LC_ALL=zh_CN ; export LC_ALL
```

The language variable is set.

## Version Compatibility

CA Performance Center Release 2.2.00 uses code and user interface design features derived from CA NetQoS Performance Center version 6.1. However, the two products are distinct in multiple ways, and they do not support the same data sources.

CA Performance Center is fully compatible with the following CA Technologies products:

- CA Infrastructure Management Data Aggregator Release 2.2.00
- CA Network Flow Analysis version 9.1 with Service Pack 1
- CA Application Delivery Analysis version 9.2
- CA Unified Communications Monitor version 3.3 and later
- CA Spectrum release 9.2.2 and later
- CA Application Performance Management version 9.1a
- CA eHealth version 6.3.05 and later

The CA Event Manager data source that is installed automatically with the CA Performance Center software is the only version that is compatible with CA Performance Center Release 2.2.00.

Some CA products do not yet offer support for CA Performance Center Release 2.2.00. Compatibility with NetQoS Performance Center does not ensure support for CA Performance Center.

For the following product versions, **CA NetQoS Performance Center version 6.1** (or version 6.1 with service packs) is required:

- Transaction Insight Manager (TIM) on the CA Multi-Port Collector (CA APM and CA Multi-Port Collector convergence)

If you plan to deploy TIM on the Multi-Port Collector, NetQoS Performance Center 6.1 is *required*. Later versions are not supported.

- CA SuperAgent versions 8.3, 9.0
- CA NetVoyant versions 6.1, 7.0, 7.1
- CA ReporterAnalyzer versions 8.3, 9.0

- CA Unified Communications Monitor versions 3.0, 3.1
- CA Anomaly Detector versions 2.1, 2.2
- CA Event Manager version 2.1
- CA Spectrum version 9.2.1 H06
- CA Spectrum Infrastructure Manager r2.5 (with Version 1 of the CA Catalyst Connector for NetQoS Performance Center)
- CA eHealth versions 6.2.2 and 6.3

For upgrade instructions, see the [CA Support Online web site](#). You should plan to upgrade your CA Technologies products in a specific order if you are installing multiple products on the same server. The upgrade instructions provide details for multiple possible configurations.

## Maximum Data Source Instances Supported

CA Performance Center is capable of managing multiple instances of selected data sources. The following limits apply to the number of data sources that you can register of each type:

- 10 CA Application Delivery Analysis data sources
- 1 CA Network Flow Analysis data source
- 4 CA Unified Communications Monitor data sources
- 1 Anomaly Detector data source
- 1 NetVoyant data source
- 1 Event Manager data source
- 1 CA Spectrum data source
- 1 CA eHealth data source

**Important!** Additional data sources can add significant load to the system. As you add multiple instances of a data source, keep track of the estimated number of managed items that they monitor. Keep the total system load at or below 1,000,000 managed items from all data sources.

## Language Support

The present version of CA Performance Center supports the following locales:

- English (US)
- Chinese (Simplified)
- Chinese (Traditional)
- Japanese
- French (France)

Additional languages might be supported in the future. A few known issues relate to language support. For example, some data sources have not been translated into all supported languages. For more information, see the Localization Status Readme file, which is available on the product page on the [CA Support website](#).

## Platform Support

This version of CA Performance Center supports Red Hat Enterprise Linux 5.5 and higher, but not 6.0. A 64-bit processor is required.

The full set of server prerequisites is available in the *CA Performance Center Installation Guide*.

A dedicated server or virtual machine is required for the software installation.