Zenoss Core Planning Guide

Release 5.2.0

Zenoss, Inc.

Zenoss Core Planning Guide

Contents

About this guide

Zenoss Core Planning Guide provides information about planning to deploy Zenoss Core in a Control Center cluster.

Note	Zenoss strongly recommends reading the *Control Center Planning Guide* in parallel with this guide.

Related Zenoss Core publications

Title	Description
Zenoss Core Administration Guide	Provides an overview of Zenoss Core architecture and features, as well as procedures and examples to help use the system.
Zenoss Core Configuration Guide	Provides required and optional configuration procedures for Zenoss Core, to prepare your deployment for monitoring in your environment.
Zenoss Core Installation Guide	Provides detailed information and procedures for creating deployments of Control Center and Zenoss Core.
Zenoss Core Browser Interface Guide	Describes how to navigate and use the Zenoss Core browser interface.
Zenoss Core Planning Guide	Provides both general and specific information for preparing to deploy Zenoss Core.
Zenoss Core Release Notes	Describes known issues, fixed issues, and late-breaking information not already provided in the published documentation set.
Zenoss Core Upgrade Guide	Provides detailed information and procedures for upgrading deployments of Zenoss Core.

Additional information and comments

Zenoss welcomes your comments and suggestions regarding our documentation. To share your comments, please send an email to docs@zenoss.com. In the email, include the document title and part number. The part number appears at the end of the list of trademarks, at the front of this guide.

Change history

The following list associates document part numbers and the important changes to this guide since the previous release. Some of the changes involve features or content, but others do not. For information about new or changed features, refer to the *Zenoss Core Release Notes*.

1051.16.335

   Add this history section to this guide.

   Add a supported environments section to this guide.

   Remove Control Center planning and storage management information. The information is now in the *Control Center Planning Guide*.

Supported operating environments

Zenoss Core, Control Center, and operating systems

The following table identifies the supported combinations of Zenoss Core, Control Center, and operating system releases.

Zenoss Core Release	Control Center	
	Release	**Host OS**
5.2.0	1.2.0	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.9, 5.1.10	1.1.9, 1.2.0	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.8	1.1.5, 1.1.6, 1.1.7. 1.1.8, 1.1.9	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.7	1.1.5, 1.1.6, 1.1.7, 1.1.8	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.6 (internal release only)	(none)	(none)
5.1.4, 5.1.5	1.1.5, 1.1.6, 1.1.7	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.3	1.1.2, 1.1.3, 1.1.5	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.2	1.1.2, 1.1.3	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.1	1.1.1, 1.1.2	RHEL/CentOS 7.1 or 7.2 (64-bit)

Introduction to Zenoss Core

1

This chapter provides a brief overview of Zenoss Core and its relationship with Control Center.

Note   This guide supplements the *Control Center Planning Guide* and should be read in parallel with that guide.

Zenoss Core and Control Center

Starting with release 5.0, Zenoss Core is deployed into a distributed architecture using Control Center. That is, Zenoss Core is an application whose installation and deployment configuration is managed by Control Center.

Control Center is an open-source, platform-as-a-service framework developed by Zenoss. Control Center and Zenoss Core are independent and unaware of each other, although Control Center is designed for the unique requirements of Zenoss Core. In particular, Zenoss Core and Control Center have a different version numbering scheme and different release schedule. Some features of Zenoss Core rely on specific capabilities of Control Center, so this guide includes a table of the supported combinations, . A separate series of guides describes how to use Control Center, beginning with the *Control Center Planning Guide*.

In the Zenoss Core context, a resource is a device to monitor. Devices include compute, storage, network, converged infrastructure, applications, and unified communications systems. In the Control Center context, a resource is a physical or virtual host in a Control Center cluster.

Key concepts

master pool

A Control Center resource pool that contains only the Control Center master host. By isolating the master host in its own pool and configuring a ZooKeeper ensemble, Zenoss Core services are not affected when Control Center internal services are temporarily unavailable. The recommended name for this pool is `master`.

Zenoss Core pool

A Control Center resource pool that runs Zenoss Core infrastructure services and other key services. This resource pool must be on the same subnet as the master pool. A Zenoss Core pool includes a minimum of two Control Center hosts. The recommended name is `Zenoss Core`.

Deploying Zenoss Core

This chapter describes the deployment considerations for Zenoss Core in a Control Center cluster.

Recommended host configurations

Zenoss recommends that all production deployments include a minimum of three hosts, in two resource pools:

- One resource pool containing the Control Center master host.
- One resource pool containing two hosts, for Zenoss Core services.

The following table provides additional information about the resources required for hosts in the types of Control Center resource pools that a typical Zenoss Core deployment uses. For more information about pool types, see *Key concepts* on page 6. For more information about Control Center host requirements, refer to the *Control Center Planning Guide*.

Resource pool type	Host requirements		
	Count	Resources	Comments
Master pool	1	4 CPU cores 16GB main memory	The amount of storage required for application data varies greatly.
Zenoss Core pool	2+n	4 CPU cores 16GB main memory	More than two hosts is preferred, to support failover.

For a single-host deployment, Zenoss recommends a host with the following resources:

- 4 CPU cores
- 24GB main memory

Packaging and distribution

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This chapter describes how Control Center and Zenoss Core are packaged and distributed for on-premise installations.

Packaging for customized installations

Control Center packaging includes an RPM Package Manager (RPM) file and Docker Engine images.

■ The RPM file contains the Control Center binaries and lists its operating system dependencies. The file is available at the public Zenoss repository. The installation procedures include steps for configuring the Zenoss repository and installing Control Center software from it.
■ During the initial startup, Control Center invokes Docker Engine to retrieve the images it requires from a public Zenoss repository on *Docker Hub*.

Zenoss Core packaging also includes an RPM Package Manager (RPM) file and Docker Engine images. All Zenoss Core software is packaged in virtual containers.

■ The RPM file contains the Zenoss Core service definition template for Control Center. The installation procedures include steps for deploying the template in Control Center.
■ The tags of the Docker Engine images for Zenoss Core are in the template. During deployment, Control Center uses Docker Engine to pull the images from a public Zenoss repository on Docker Hub.

The Control Center and Zenoss Core packages require approximately 5GB of storage space.