

## Getting Started with System Controller

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This product includes software developed by the Apache Software Foundation (<http://www.apache.org>)

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# Overview

This Getting Started booklet contains complete instructions for installing Velocity™ System Controller 1.2 and the Velocity datastore.

Instructions for using System Controller to manage your content distribution and delivery network are contained in the product documentation. For more information, see “[Accessing the Product Documentation](#)” on page 27.

For technical support for this and other Volera™ products, go to the [Volera support Web site \(http://www.volera.com/support\)](http://www.volera.com/support).

## About the System Controller Product Package

Your System Controller package should contain the following:

- ◆ This Getting Started booklet
- ◆ A System Controller license diskette
- ◆ The *Velocity CDN System Controller 1.2* CD, which contains product installation software and product documentation

For installation instructions, see “[Installing System Controller 1.2](#)” on page 7.

To view and print the documentation, see “[Accessing the Product Documentation](#)” on page 27.

If your product package is missing any of the above items, contact [Volera support \(http://www.volera.com/support\)](http://www.volera.com/support).

## About the Velocity Management Suite

Volera's Velocity management suite is a comprehensive content delivery and distribution management solution that runs on a RedHat Linux 7.2 server.

The management suite lets you manage and optimize content caching and system configuration on multiple cache devices using three specialized management components:

**System Controller:** Lets you manage and monitor cache devices. Using System Controller's browser-based interface, you can apply global configurations and schedule events for single or multiple caches. You can also monitor the health and performance of the cache devices in your content network.

**Content Controller:** Lets you manage, prioritize, and automate the distribution, delivery, and availability of content across your content network.

**Content Accountant:** Let you track, collect, and export content usage statistics for you content network's cache devices. You can use the exported data with third-party reporting and billing applications.

# System Requirements

IMPORTANT: Before you install System Controller with the *Velocity CDN System Controller 1.2 CD*, make sure that your server environment meets the requirements outlined in this section.

## Meeting Hardware Requirements

The Velocity™ management suite requires a dedicated Linux server with the following minimum hardware resources:

- ◆ Pentium\* III 900 MHz or higher
- ◆ 1 GB RAM
- ◆ 30 GB Hard Drive

## Installing RedHat 7.2

Velocity System Controller requires that you prepare the following software environment on the Linux server:

1. Install Red Hat\* Linux version 7.2.

NOTE: We recommend using the Standard Workstation install in most cases. However, this is not an absolute requirement. Experienced Linux administrators can choose the Server installation option if they want to customize their RedHat 7.2 installation.

The only caveat is that, if X Windows is not installed, management suite products must be installed from the command line rather than with the GUI wizard.

2. Set the swap partition to at least 512 MB.
3. Assign a static IP address for cache devices to use for communicating with this management server.
4. When specifying the RedHat firewall configuration, consider the management suite port requirements summarized in **Table 1**.

**Table 1 Management Suite Firewall Port Requirements**

<b>Allow Incoming</b>	<b>Standard Ports</b>	<b>Required for Management Suite?</b>
WWW (HTTP)	TCP 80	Yes
DNS	TCP/UDP 53	Yes
SLP	TCP/UDP 427	Yes
SSL	TCP 443	Yes
NTP	UDP 123	Yes
SSH	TCP 22	Optional. Strongly recommended.

<b>Allow Incoming</b>	<b>Standard Ports</b>	<b>Required for Management Suite?</b>
Datastore Replication	TCP 389, TCP/ UDP 524	Required if two or more System Controllers must synchronize their copies of the datastore through the firewall.
DHCP	UDP 67 (server), UDP 68 (client)	No
Telnet	TCP 23	No
Mail (SMTP)	TCP 25	No
FTP	TCP 20 and 21	No

## Setting Server Time

The VCDN datastore requires that all system times are synchronized.

It is, therefore, critical that you configure all Velocity management servers for network time protocol (NTP) support prior to installing System Controller.

You can set up NTP support using the standard RedHat 7.2 date and time management mechanisms.

For help enabling and configuring NTP support, see the instructions on the RedHat Web site (<http://www.redhat.com/docs/manuals/linux/RHL-7.2-Manual/custom-guide/dateconfig.html>).

# Installing System Controller 1.2

You install System Controller and the Velocity datastore using the *Velocity CDN System Controller 1.2 CD*.

**IMPORTANT:** Review the Release Notes (located on the product CD) for updated installation information prior to installing System Controller.

## Information Checklist

We recommend you use the Configuration Worksheet provided with the product documentation to plan, organize, and record the required configuration settings for your system prior to installing System Controller. For help accessing the online documentation, see [“Accessing the Product Documentation” on page 27](#)

As you run the installation program, be prepared to provide the following information:

- ◆ The location of the System Controller and the datastore license files contained on the license diskette you received
- ◆ An IP address for the server on which you are installing System Controller
- ◆ A name for the datastore that contains your content network’s configuration information
- ◆ A password for the datastore administrator

- ◆ (Optional) The IP address of the Layer 4 switch

This applies only if you are using a Layer 4 switch for load balancing between multiple System Controller servers.

## Choosing an Install Method

You can install System Controller using either of two methods:

- ◆ **GUI Wizard Install:** For step-by-step instructions, see “[Installing with the GUI Wizard](#)” on page 8.
- ◆ **Command Line Install:** For general instructions, see “[Installing at the Command Line](#)” on page 14.

## Installing with the GUI Wizard

To install the datastore and System Controller software with the graphical installation wizard, complete the instructions in the following sections:

NOTE: The graphical installation wizard requires that you have X Windows running on your RedHat 7.2 server.

### Starting the Wizard

- 1 Log in as root.
- 2 Insert the *Velocity CDN System Controller 1.2* CD into the server’s CD-ROM drive.

- 3 At the Linux command line, enter the following commands:

```
cd /mnt/cdrom
```

```
./setup
```

- 4 At the Welcome screen, click Next.

## **Entering the License Information**

- 1 At the Volera™ License Agreement screen, read the Software License Agreement > select “I accept the terms...” > click Next.
- 2 At the License File screen, type the path or browse to the directory or floppy disk containing the license files.

NOTE: All Velocity license files have the filename extension *lic*.

Datastore license files have the filename extensions *nlf* and *nfk*.

- 3 Click Next.

## Configuring the Datastore

At the Datastore screen, complete the following steps:

1 Select either:

- ◆ Create a new datastore

Or

- ◆ Install into an existing datastore

This option creates a replica of an existing Velocity 1.2 datastore for fail-over protection and other content network management purposes.

2 Click Next.

3 If you are creating a *new* datastore, type the following information. Otherwise, skip to **Step 5**.

- ◆ **Datastore name:** A unique name for the datastore where your content network's configuration information will be stored. Choose a name that represents the CDN or CDNs which the datastore will support.
- ◆ **Datastore administrator password:** A password for the datastore administrator. You can choose any password between 5 and 32 characters.
- ◆ **Confirm password:** Re-type the same password.

- 4 Click Next > continue with “Configuring the Management Server Settings” on page 11.
- 5 If you are installing into an existing datastore, type the following information:
  - ◆ **Datastore name:** The name of the datastore that you want this datastore to replicate.
  - ◆ **IP address:** The IP address of the management server on which you created the first Velocity 1.2 datastore with this name.
  - ◆ **Datastore administrator password:** The password for the existing datastore’s administrator.
- 6 Click Next.

## Configuring the Management Server Settings

- 1 At the Server Configuration screen, type the following information:
  - ◆ **IP address:** The IP address of the Linux server where you are installing System Controller.
  - ◆ **Server ID:** A unique name identifying this management server in the datastore. You can choose any name.
  - ◆ **Super Administrator ID:** Type a name for the Super Administrator. The Super Administrator has access to all Velocity management features, including all caches and groups in the datastore. The Super

Administrator can also create other administrative users and grant them access to caches and groups.

- ◆ **Super Administrator password:** Type a password for the Super Administrator. The Super Administrator uses this password to log in to the Velocity management tool. Choose any password.
- ◆ **Confirm password:** Re-type the same password.

2 Click Next.

3 If you are using an L4 switch for load balancing between management servers, type the switch's IP address in the Layer 4 Switch Address field. Otherwise, leave the IP address unchanged.

4 In the Region Name field, type a name representing the geographical area or site where this management server is installed.

This name is used for distributed scheduling in a multi-server environment.

5 Click Next.

## Reviewing the Configuration and Installing System Controller

1 At the Disk Space Requirements screen, verify that your server has enough disk space for the installation > click Next.

2 When the next screen indicates that the product will be installed in /opt/volera/roma, click Next

The installation might take several minutes.

- 3 When the installation is complete, click Finish to close the installation program.
- 4 If you are installing more than one Velocity management server, complete the steps in **“Installing Velocity License Files”** on page 23.

## Installing at the Command Line

To install the datastore and System Controller software from the command line, complete the following steps:

- 1 Insert the *Velocity CDN System Controller 1.2* CD into the server's CD-ROM drive.
- 2 At the command line, enter the following commands in order:

```
cd /mnt/cdrom
```

```
./setup -console
```

- 3 At the Welcome prompt, type Enter.

Installation program flow from this point on matches the GUI installation. If you need assistance understanding what to enter at any of the prompts, refer to the descriptions in **“Installing with the GUI Wizard” on page 8.**

If you need to terminate the installation, type Enter at the Summary prompt.

- 4 If you are installing more than one Velocity management server, complete the steps in **“Installing Velocity License Files” on page 23.**



# Upgrading System Controller 1.0

You can upgrade an existing System Controller 1.0 installation using the *Velocity CDN System Controller 1.2* CD.

**WARNING:** Once you have upgraded a server's operating system to RedHat Linux 7.2, you cannot run or un-install any Velocity CDN 1.0 products that are installed on the server. You can only upgrade these products to version 1.2.

Also, once the system is upgraded to RedHat Linux 7.2, you will have to upgrade all of the Velocity CDN 1.0 products installed on the management server to version 1.2 before any of them will run.

Therefore, prior to upgrading a management server to RedHat Linux 7.2, you must decide whether you are upgrading all of the Velocity CDN 1.0 products installed on the server. If you don't plan to upgrade one or more of these products, you must un-install them before upgrading to RedHat Linux 7.2.

## Upgrading to RedHat 7.2

This booklet doesn't contain instructions for upgrading to RedHat 7.2. You should, however, complete the following tasks as you upgrade the system.

1. Prior to upgrading, reboot the server to ensure that any process currently running will not interfere with the upgrade process.
2. At the Installation Type screen, select Upgrade Existing Installation.

3. At the Migrate File Systems screen, choose to migrate each existing partition.

**IMPORTANT:** After upgrading, System Controller doesn't run until any other Velocity CDN 1.0 products installed on the same server have been upgraded to version 1.2.

## Upgrading with the GUI Wizard

**IMPORTANT:** The upgrade process takes longer than a new installation because of the datastore migration.

After upgrading to RedHat 7.2, you can upgrade to System Controller 1.2 using the GUI wizard by completing the following steps:

- 1 Insert the *Velocity CDN System Controller 1.2* CD into the server's CD ROM drive.
- 2 At the Linux command line, enter the following commands:  

```
cd /mnt/cdrom  
./setup
```
- 3 At the Welcome screen, click Next.
- 4 Accept the Volera License Agreement > click Next.
- 5 Make sure you have enough system space > click Next.

- 6 Type the datastore administrator password specified for System Controller 1.0.
- 7 Type the Super Administrator User ID specified for System Controller 1.0.
- 8 Type the Super Administrator password specified for System Controller 1.0.
- 9 Click Next.
- 10 When InstallShield senses that System Controller 1.0 is running on the server, it displays a warning that it is shutting down the process. Click Next.
- 11 Accept the install path by clicking Next.
- 12 Choose to overwrite the JVM by clicking Yes.
- 13 Click Next.
- 14 Wait for the installation to complete before using the management server.

**WARNING:** Do not interrupt the installation program while the progress bar is displayed. Interrupting or killing the installation process before it completes will corrupt your 1.0 datastore.

- 15 When the installation wizard completes, click Finish to close the wizard.

System Controller immediately begins synchronizing its datastore settings with the settings on all managed cache devices. For this initial synchronization process, settings on devices override settings in the datastore. The length of the synchronization process depends on the number of devices being managed and the network connection with these devices.

If you attempt to change the settings of a device that has not yet been synchronized, System Controller will prompt you to synchronize the settings before letting you make changes.

For more information on the synchronization feature, see [Synchronizing Devices and Datastores](#) in [System Controller Deployment Guide](#) in the online documentation.

- 16 If you are installing more than one Velocity management server, complete the steps in [“Installing Velocity License Files”](#) on page 23.

## Upgrading at the Command Line

**IMPORTANT:** The upgrade process takes longer than a new installation because of the datastore migration.

After upgrading to RedHat 7.2, you can upgrade to System Controller 1.2 at the command line by completing the following steps:

- 1 Insert the *Velocity CDN System Controller 1.2* CD into the server's CD ROM drive.

- 2 At the Linux command line, enter the following commands:

```
cd /mnt/cdrom
./setup -console
```

- 3 At the Welcome prompt, type Enter.
- 4 Enter the information required at each prompt, referring to the information in **“Upgrading with the GUI Wizard” on page 18** when necessary.
- 5 Wait for the installation to complete before using the server.

WARNING: Do not interrupt the installation program while the progress bar is displayed. Interrupting or killing the installation process before it completes will corrupt your 1.0 datastore.

- 6 If you are installing more than one Velocity management server, complete the steps in **“Installing Velocity License Files” on page 23**.



# Starting to Use the Velocity Management Suite

The following sections contain tips for starting to use the Velocity management suite. For more information on using the suite to manage your content distribution and delivery network, see the online documentation.

## Upgrading all Components Is Required

If you are upgrading from Velocity CDN 1.0, you must upgrade all the 1.0 components (System Controller, Content Controller, and Content Accountant) that are installed on a management server before any of the upgraded components will run.

For example, after upgrading to System Controller 1.2, if Content Controller 1.0 was also installed on the server and was not removed prior to the upgrade, System Controller will not run until Content Controller has also been upgraded to version 1.2.

## Installing Velocity License Files

You must ensure that all of the Velocity license files for each of the products you have purchased are copied to each management server on your network.

Complete the following steps:

- 1 Using any preferred method, copy all of your Velocity license files to the /opt/volera/roma/licenses directory on each management server.
- 2 Restart each server after copying the license files.

For more information on how Velocity licensing works and why this is required, see [Installing Velocity License Files in System Controller Deployment Guide](#) in the online documentation.

## Accessing the Browser-Based Management Tool

The Velocity™ management server includes a browser-based management interface you can use to:

- ◆ Manage your network of Excelerator™ 2.1 and later cache devices
- ◆ Globally configure content caching, distribution, and delivery services on your network
- ◆ Monitor content network performance and health status
- ◆ Schedule events for individual and grouped cache devices
- ◆ Control access to individual and grouped cache devices

To start using the browser-based tool, complete the following steps:

- 1 On your remote workstation, start an Internet Explorer 5.5 or later browser.

NOTE: Volera has validated the Velocity management interface against Internet Explorer 5.5 and later.

If you experience problems using another browser, we recommend you use Internet Explorer 5.5 or later.

- 2 Point the browser to the management server's IP address.

For example, type the following in the browser's Address field:

**`http://iii.iii.iii.iii`**

where *i* represents digits in the management server's IP address.

- 3 At the Login page, enter the Super Administrator name and password you defined during System Controller installation > select your Start Page from the drop-down list > click Login.
- 4 You can now begin configuring, managing, and monitoring your content distribution and delivery network.

Complete instructions for configuring and managing your network through the browser-based management tool are contained in the Velocity management suite documentation. For more information, see [“Accessing the Product Documentation” on page 27](#).



# Accessing the Product Documentation

The *Velocity CDN System Controller 1.2* CD will autolaunch the HTML documentation on most Windows\* workstations.

If the documentation does not autolaunch, you can open it in a browser. To manually access the documentation, do the following:

- 1 Insert the *Velocity CDN System Controller 1.2* CD in your workstation.
- 2 Start a Web browser > click File > click Open > click Browse.
- 3 Browse to the /DOC directory on the CD > open the INDEX.HTM file.
- 4 Click the links for the documents you want to view.

NOTE: The same documentation is also installed on the Velocity management server. You can access the online documentation in the browser-based management tool by clicking Help on any configuration page, or by clicking User Guides at the top of the page.

## Printing the Documentation

All the Velocity administration guides and the Configuration Worksheet are available in PDF format. You can view and print them using the Adobe Acrobat\* Reader.



## Where to Go from Here

The following table describes tasks you can perform after installing Velocity™ System Controller:

To	See
Install Content Controller 1.2, which lets you manage content on your network.	The Content Controller product package and the Getting Started with Content Controller booklet.
Install Content Accountant 1.2, which lets you track content usage and export statistics for reports	The Content Accountant product package and the Getting Started with Content Accountant booklet.
Configure and Manage your content network with the Velocity management interface.	<b>“Starting to Use the Velocity Management Suite” on page 23</b> in this booklet.
View the documentation	<b>“Accessing the Product Documentation” on page 27</b> in this booklet.

