



Cisco Content Engine 7320

Product Numbers: CE-7320, CE-7320-ICDN-K9, CE-7320-DC, CE-7320-DC-ICDN-K9

You have just purchased a Cisco Content Engine 7320 with one of the following software releases installed:

- Cisco Internet CDN Software Version 2.0 or a later release of Cisco Internet CDN Software
- Cisco Cache software Release 3.0 or a later release of Cisco Cache software
- Cisco Application and Content Networking Software (ACNS), Release 4.0.3 or a later release of ACNS software

ACNS software combines Cisco Cache software and Cisco Enterprise CDN software functionality.



Note

The CE-7320-DC model only works with Cisco Cache software Release 3.0.2 or a later release of Cisco Cache software.

Content Engine 7320 Overview

The Cisco Content Engine 7320 (CE-7320) is a high-end Internet content delivery device that is installed on the WAN edge between your large enterprise or service provider network and the Internet. It is designed to handle OC-3 traffic at 155 Mbps speed.

Depending on the model you purchased, your CE-7320 operates either as a component of a Content Delivery Network or as a content caching device.

Content Delivery Network Component

Cisco Content Engines with Cisco CDN software installed are the content delivery components of a larger Cisco Content Delivery Network (CDN) solution, which includes content routing, content switching, content distribution and management, and content services, as well as content delivery. Content Engines with Cisco CDN software are deployed in conjunction with Content Routers and Content Distribution Managers to create a complete Content Delivery Network system.



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The CDN solution offers accelerated content delivery, hosting, and other content-based services. The CDN solution addresses the need to distribute and receive high-bandwidth, media-rich content across the Internet or an intranet without performance losses or content delivery delays.

Content Caching Device

Cisco Content Engines with Cisco Cache software installed accelerate content delivery and optimize bandwidth usage by transparently caching frequently accessed content and fulfilling content requests locally rather than traversing the Internet or intranet to a distant server farm each time a request is made. The Content Engine works in tandem with a router to handle web traffic, including user requests to view pages and graphics (objects) on World Wide Web servers—whether internal or external to your network.

To deploy Cisco Content Engines with Cisco Cache software within your existing network, your network must support Cisco IOS software and the Web Cache Communication Protocol (WCCP). WCCP redirects Hypertext Transfer Protocol (HTTP) traffic to a Content Engine, and the Content Engine responds to those requests.

For example, when a user requests an object from a web server, the router first sends the request to a Content Engine. If the Content Engine has a copy of the requested object in storage, the Content Engine sends the user the object. Otherwise, the Content Engine simultaneously obtains the requested objects from the web server, stores a copy of the objects (caches them), and forwards the objects on to the user.

By caching web objects in this manner, the Content Engine can speed the satisfaction of user requests when more than one user wants to access the same objects. Caching in this manner also reduces the amount of traffic between your network and the Internet, potentially improving your overall network performance and optimizing your bandwidth usage.

Content Engine 7320 Description

The CE-7320 (and CE-7320-ICDN-K9) hardware is configured for AC-input power, whereas the CE-7320-DC (and CE-7320-DC-ICDN-K9) hardware is configured for –48 VDC-input power. The default factory configuration comes with three power supplies installed.



Note

For purposes of simplicity, all Content Engine 7320 models are hereafter referred to as the CE-7320, except where specific model differences are noted in the text.

The CE-7320 has ten internal 18-gigabyte (GB) Ultra2 SCSI hard drives. The CE-7320-ICDN-K9 and CE-7320-DC-ICDN-K9 have 36-GB internal drives. In addition, each CE-7320 comes with one external SCSI port for attaching one 12-drive Cisco Storage Array that increases the CE-7320 storage capacity by an additional 216 GB (12 x 18 GB), two 1000BASE-SX Gigabit Ethernet ports, and four 10BASE-T/100BASE-TX Ethernet/Fast Ethernet ports that support autodetect speed and full-duplex operation.

Hardware and Software Features

Table 1 lists the storage, memory, and CPU specifications for the CE-7320.

Table 1 *CE-7320 Storage, Memory, and CPU Specifications*

Specification	Description
Internal storage	10 18-GB or 36-GB Ultra2 LVD SCSI hard drives ¹
External Storage Array support (SA-12)	216 GB maximum
Memory	128-MB Flash memory 2-GB SDRAM
CPU	1-GHz Xeon
Ethernet controller	Intel 82557
Maximum number of concurrent TCP sessions	64,000
Maximum data transfer rate	155 Mbps

1. The CE-7320-ICDN-K9 and CE-7320-DC-ICDN-K9 have 36-GB internal drives.

The Content Engine 7320 has the following major hardware features:

- One 1-GHz Xeon microprocessor
- Front side bus (FSB) with an external bus speed of 133 MHz
- 2 GB of system memory SDRAM
- 128-MB Flash memory
- Ten 18-GB or 36-GB SCSI hard disk drives
- Three independent power supplies (the third power supply provides redundancy)
- Redundant, hot-pluggable fans that run independently

The CE-7320-ICDN-K9 and the CE-7320-DC-ICDN-K9 provide accelerated web performance in conjunction with a Content Delivery Network system, and the CE-7320 and the CE-7320-DC offer the most advanced transparent caching technologies, including the following:

- **Overload bypass:** Prevents a Content Engine from becoming a bottleneck when traffic loads exceed the capacity of a Content Engine
- **Dynamic client bypass:** Prevents source IP authentication problems by selectively allowing clients to connect directly to origin servers
- **Flow protection:** Prevents existing flows from being broken when the WCCP cluster load distribution changes because of the addition or subtraction of a Content Engine to or from a cluster

- WCCP slow start: Prevents cluster destabilization when a new Content Engine is added to a heavily loaded cluster
- Rules Template: Allows flexible establishment of caching rules and policies, such as refresh policies, “no-cache” policies, or upstream proxy selection rules

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