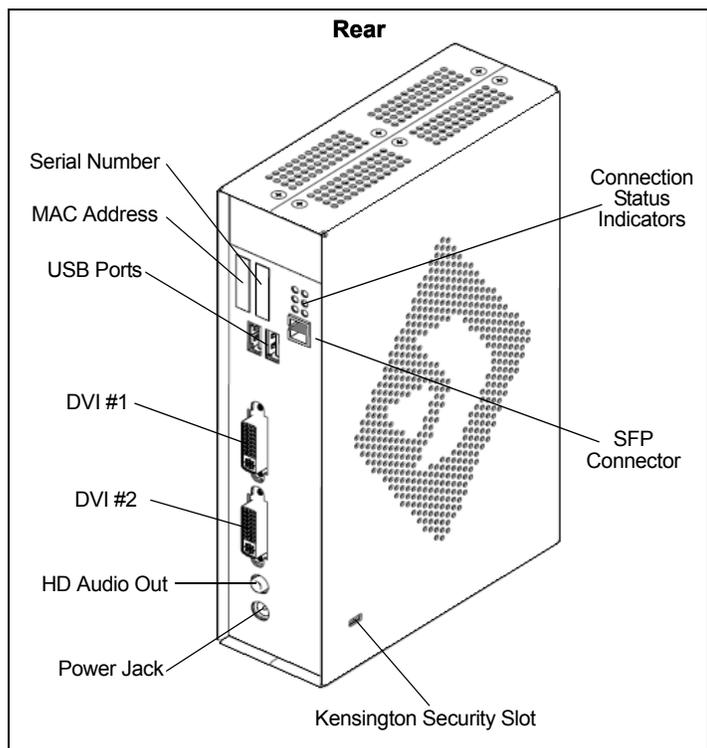
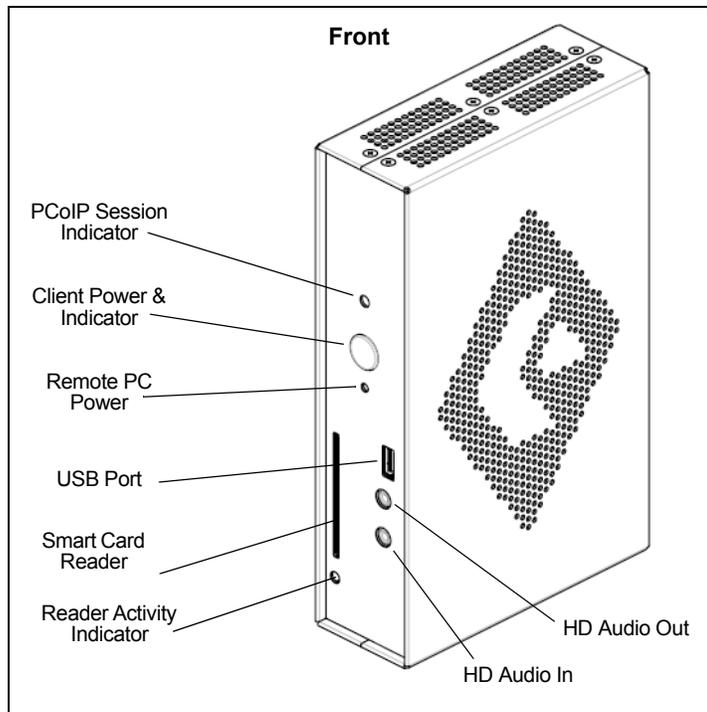


Quick Start Guide

CD7424SFPST Zero Client



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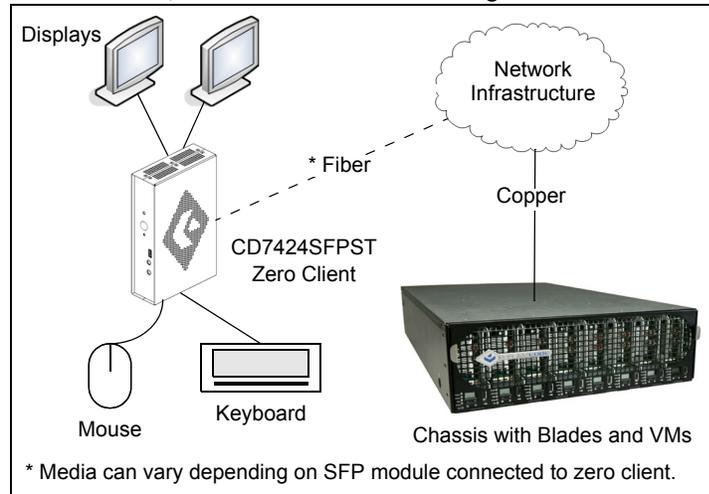


Zero Client Overview

ClearCube® CD7424SFPST Zero Clients connect to supported ClearCube PC blades and virtual machines containing V5x20 Dual Host cards to provide the following:

- Small form-factor pluggable (SFP) socket, accepting various Gigabit Ethernet modules
- Support for multi-mode, single-mode, and WDM single-mode fiber media and for copper media
- Integrated smart card reader
- Support for up to two independently-configurable monitors
- PC-over-IP™ (PCoIP™) processors, delivering PC video and audio over an IP network
- Three USB ports
- HD audio in (front) and HD 4.0 audio out

ClearCube PC blades are typically located in remote data centers. Each blade user has a CD7424SFPST Zero Client on their desk, which they use to connect to a remote blade or VM over an IP network (consisting of fiber and Ethernet segments). Users connect monitors, pointing devices, and other peripherals to their client, enabling them to work on the blade or VM as if it is a local PC. The connection between the zero client and the remote device is over PCoIP protocol. Inside the blade, a V5x20 Dual Host card manages the PCoIP session.



* Media can vary depending on SFP module connected to zero client.

Zero client connected to blade or VM with V5x20 host card

Ensuring Client & Host Firmware Compatibility

ClearCube PCoIP zero clients and host cards must use identical firmware versions. If you are upgrading portions of existing ClearCube deployments, ensure that all PCoIP devices use the same firmware version. Additionally, devices must use firmware version 3.0 or higher in a VMware® View environment. See *PCoIP User's Guide* and *PCoIP Firmware Support and Compatibility Guide* on the ClearCube Support site for instructions about identifying and updating PCoIP device firmware.

—Continued on Reverse—



Smart Card Reader Setup



Prevent ESD (electrostatic discharge) damage to smart card readers by always discharging your body and smart card before using a reader (for example, by touching a grounded, unpainted, metal object). ESD can vary depending on many environmental conditions,

including clothing that users wear and how they handle smart cards. ESD damage can potentially cause unsupported card reader behavior including failure. Always perform ESD prevention steps before using the card reader.

Driver Requirement

To use the smart card reader, install a reader driver on the remote device to which you connect and ensure that the card reader service is running on the remote device. Download the driver to install on devices from the CD7424SFPST Drivers section of ClearCube Support site at www.clearcube.com/support. The file contains drivers for all supported operating systems and installation instructions.

Pre-Session Authentication Firmware Requirement

TERA firmware revision 3.5.1 (or above) is required to support pre-session authentication in your environment.

Buttons and Indicators

The list below shows indicators on the front panel and button operations:

- **Power Button Colors**
 - **Green (solid):** CD7424SFPST is powered on.
 - **Green (blinking):** PCoIP session is sleeping. Press any key on the keyboard to wake the session.
 - **Orange:** CD7424SFPST is powered off.
- **Power Button Operations**
 - **Power on:** when *orange*, press briefly (button turns *green*)
 - **Disconnect session:** when *green*, briefly press (button *blinks green*)
 - **Power off:** press and hold for 3 seconds (button turns *orange*)
- **PCoIP Session Indicator**—shows when a connection, or session, is established between the CD7424SFPST and a blade. The link indicator displays one of the following:
 - **Green**—a session is established between the client and a blade.
 - **Off**—there is no session between the client and a blade.
- **Remote PC Power**—when an CD7424SFPST is connected to a remote PC host, you can press the **Remote PC** button on the

front of the CD7424SFPST to put the remote PC in a soft off (S5, hot) power state. Press the button again to wake the remote PC. Video resumes at the OS login screen. You can change the action performed when users press the Remote PC power button. See the *PCoIP User's Guide* for more information.

- **Smart Card Reader**

- **Yellow-Green**—smart card reader is powered on.
- **Red**—smart card has been reset. When red light is flashing, the IC Card is reading or writing.

- **Connection Status Indicators**

LED	State	Meaning
PWR	Steady	Power on
	Off	No power
LNKC	Steady	TX port: network connection made (copper)
	Off	No connection
LNKF	Steady	RX port: network connection made (fiber)
	Off	No connection
FDX/COL	Steady	Full duplex connection
	Off	No connection
RX	Steady	Receiving data
	Off	No reception
TX	Steady	Transmitting data
	Off	No transmission

Mandatory Setup & Cooling Requirements

- Ensure at least 4 inches of space around all zero client edges and at least 2 inches of space above the client.
- Ambient temperature around a client must not exceed 35° C (95° F).
- Do not stack any objects on top of the zero client.
- Do not block the zero client's side vents by leaning papers, folders, computer speakers, or any other objects against the sides of the client.
- Adjacent furniture (file drawers, desk supports, chairs) do not block or enclose any sides of the zero client.
- Ensure that the zero client is standing vertically.
- Do not place the zero client in enclosed environments such as on a shelf or inside a drawer.
- Ensure that cables connected to the zero client are supported.

Setting up the CD7424SFPST Zero Client

Perform the following steps to connect peripherals and a network cable to the zero client. **ENSURE YOU FOLLOW THE MOUNTING & COOLING REQUIREMENTS DETAILED BELOW. FAILURE TO DO SO CAN DAMAGE THE ZERO CLIENT.**

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1. Connect a USB keyboard and a mouse to the USB ports on the front or on the rear of the zero client.
2. Connect an appropriate network cable to the SFP module located on the rear of the zero client, and then connect the other end of the cable to the appropriate network infrastructure device (such as a fiber network switch or a fiber transceiver).

NOTE: The zero client is set to forced full-duplex mode with flow control (Link Fault Passthrough) disabled. These settings should be the same on any network switch to which the zero client connects. Check your switch settings and make any necessary changes (see “Network Settings” below for information about configuring Cisco switches).

3. Connect a monitor cable to each DVI-I port on the rear of the zero client. If you are using VGA monitors, attach DVI adapters to your monitor cables.
4. Connect the AC power adapter to the power cable (both are included with the zero client).
5. Connect the power adapter to the rear of the client, and then plug the power cable into a power outlet. See “Buttons and Indicators” for information about powering the zero client on and off.

NOTE: You can enable a zero client to receive an IP address from a DHCP server. If a DHCP server does not assign an address within a designated timeout period, the zero client uses a default, fallback IP address. If you use these default addresses and have DHCP enabled, you must wait 120 seconds before you can connect to a host. If you use the direct connect methodology in your environment, ClearCube recommends disabling the client's DHCP setting to eliminate the need to wait 120 seconds before connecting. See *PCoIP System User's Guide* at www.clearcube.com/support for more information.

See “Configuration Steps and Additional Information” for more information.

Network Settings

The CD7424SFPST zero client is set to:

- Forced, full-duplex mode, 1000 Mbps
- Flow control (Link Fault Passthrough) disabled

These settings should be the same on any network switch to which the zero client connects. Check your switch settings and make any necessary changes.

The following example shows how to configure negotiation and flow control settings on Cisco Catalyst® switches to connect with CD7424SFPST zero clients (note that these commands are not applicable to Cisco Nexus® switches).

```
router# configure terminal
router(config)# interface gigabitethernet 0/1
router(config-if)# no negotiation auto
router(config-if)# flowcontrol send off
router(config-if)# flowcontrol receive off
router(config-if)# end
router#
```

If you use different switches in your environment, perform equivalent commands to disable auto-negotiation and flow control.

Configuration Steps and Additional Information

See *PC-over-IP System User's Guide* and *PCoIP Firmware Support and Compatibility Guide* at www.clearcube.com/support for information about zero client deployment, configuration, and administration. If you are using ClearCube Sentral in your environment, see *Sentral Administrator's Guide* for information about connection brokering, device administration, and more.

Web site: www.clearcube.com/support

Email: support@clearcube.com

Toll-free: (866) 652-3400

Phone: (512) 652-3400

WEEE Disposal Guidelines

In the European Union, this electronic product is under European Directive (2002/96/EC) WEEE. When this product reaches the end of its useful life or is no longer used, do not discard it with conventional waste. Recycle this product at an approved, designated recycling or treatment facility. Check with local authorities for proper disposal instructions. For assistance, contact recycle@clearcube.com

