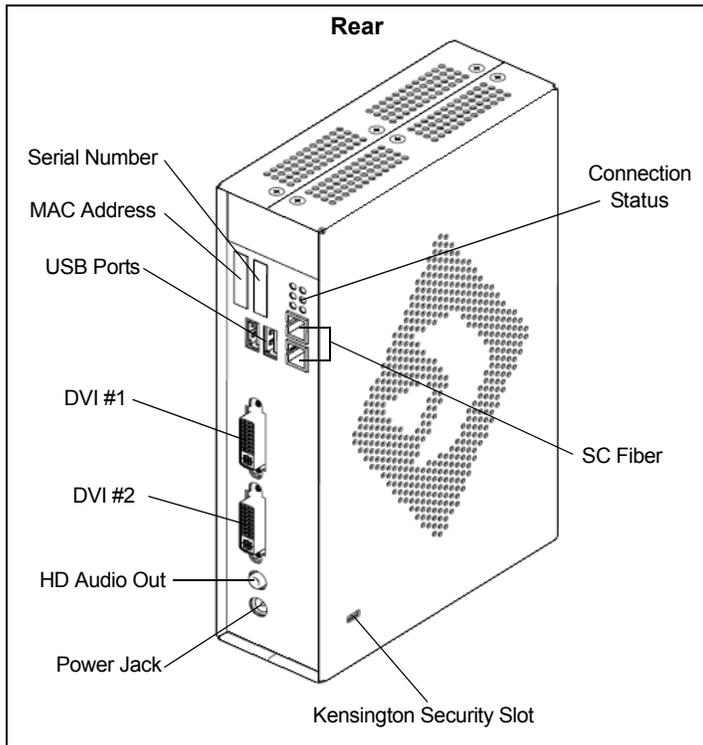
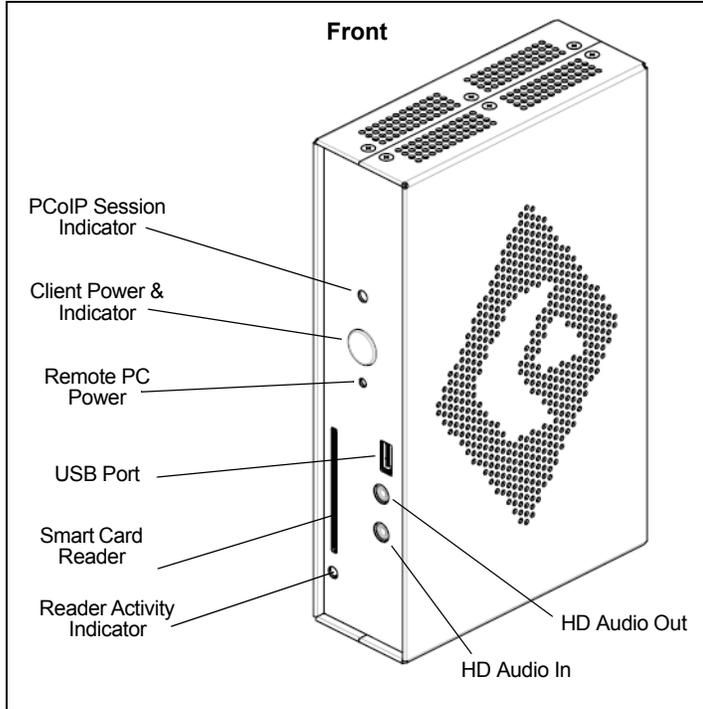


# Quick Start Guide C7424 Zero Client



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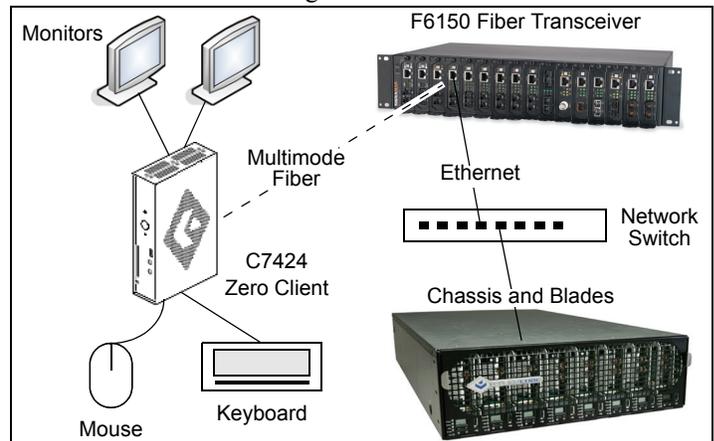


## Zero Client Overview

ClearCube® C7424 Zero Clients connect to supported ClearCube PC blades and virtual machines containing V5x20 Dual Host cards to provide the following:

- 10/100 Mbps SC fiber
- 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 C7424 Zero Client on their desk, which they use to connect to a remote blade 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 as if it was a local PC. The connection between the zero client and the blade is over PCoIP protocol. Inside the blade, a V5x20 Dual Host card manages the PCoIP session on the blade.



Client connected to blade with V5x20 card over fiber & Ethernet

**NOTE:** You can enable a zero client to receive an IP address from a DHCP server. If the 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](http://www.clearcube.com/support) for more information.

## 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

—Continued on Reverse—



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*PCoIP User's Guide* on the ClearCube Support site for instructions about identifying and updating PCoIP device firmware.

### Setting up the C7424 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.**

1. Connect a USB keyboard and a pointing device to the USB ports on the front or on the rear of the zero client.
2. Connect an SC fiber cable to the SC fiber jack on the rear of the zero client, and then connect the other end of the cable to the corresponding fiber transceiver. Ensure that the TX and RX jacks on the zero client are connected to the opposite jacks on the transceiver (that is, TX connects to RX at both ends).
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 "C7424 Zero Client Buttons and Indicators" for information about powering the zero client on and off.

Connect the fiber transceiver to a blade or to a supported infrastructure with virtual machines. See "Configuration Steps and Additional Information" for more information.

### Mandatory Setup & Cooling Requirements

Place the zero client on a flat surface:

- 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.

### C7424 Zero Client Buttons and Indicators

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

- **Power Button Colors**
  - **Green (solid):** C7424 is powered on.
  - **Green (blinking):** PCoIP session is sleeping. Press any key on the keyboard to wake the session.
  - **Orange:** C7424 is powered off.
- **Power Button Operations**
  - **Power on:** when *orange*, press briefly (button turns *green*)
  - **Disconnect session:** when *green*, briefly press (button *blinks green*)

#### 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](mailto:recycle@clearcube.com)

- **Power off:** press and hold for 3 seconds (button turns *orange*)
- **PCoIP Session Indicator**—shows when a connection, or session, is established between the C7424 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 C7424 is connected to a remote PC host, you can press the **Remote PC** button on the front of the C7424 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 (PWR) on
	Off	No power
LNK/ACT	Steady	Network connection (LINK) made
	Flashing	Transmitting or receiving data (ACTIVITY)
100	Steady	Link made at 100 Mbps
	Off	Link made at 10 Mbps
FDX/COL	Steady	Link in full-duplex (FDX) mode
	Flashing	Collision (COL) occurred
	Off	Connection in half-duplex mode

### 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.

To use the C7424 smart card reader, you must install a driver for the reader on the blade to which you connect and ensure that the card reader service is running on the blade. Download the driver to install on blades from the C7424 Drivers section of ClearCube Support site at [www.clearcube.com/support](http://www.clearcube.com/support). The download file contains drivers for all supported operating systems and installation instructions.

### Configuration Steps and Additional Information

See *PCoIP System User's Guide* at [www.clearcube.com/support](http://www.clearcube.com/support) for instructions about provisioning PCoIP processors on C7424-series zero clients and peer blades, and for information about specifying zero client peers. See *Central Administrator's Guide* for information about connection brokering.

Email: [support@clearcube.com](mailto:support@clearcube.com) Web site: [www.clearcube.com/support](http://www.clearcube.com/support)

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