

# CD10xx-Series, CD20xx-Series Cloud Desktop Quick Start Guide

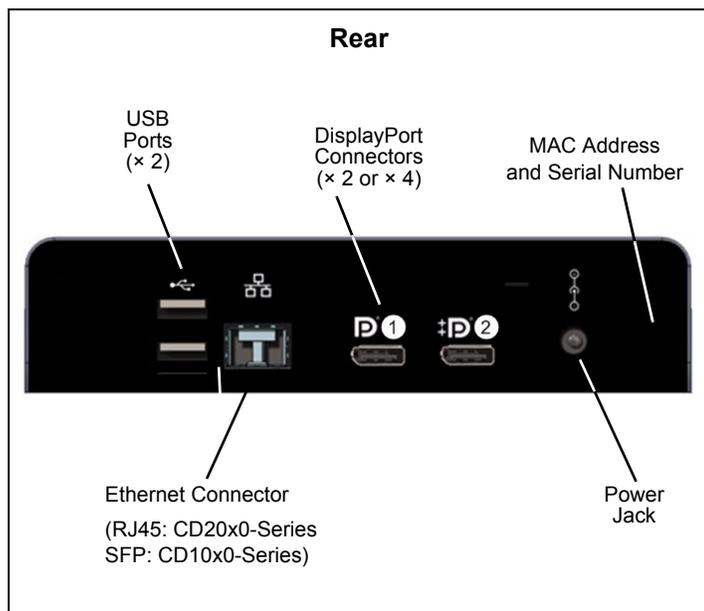
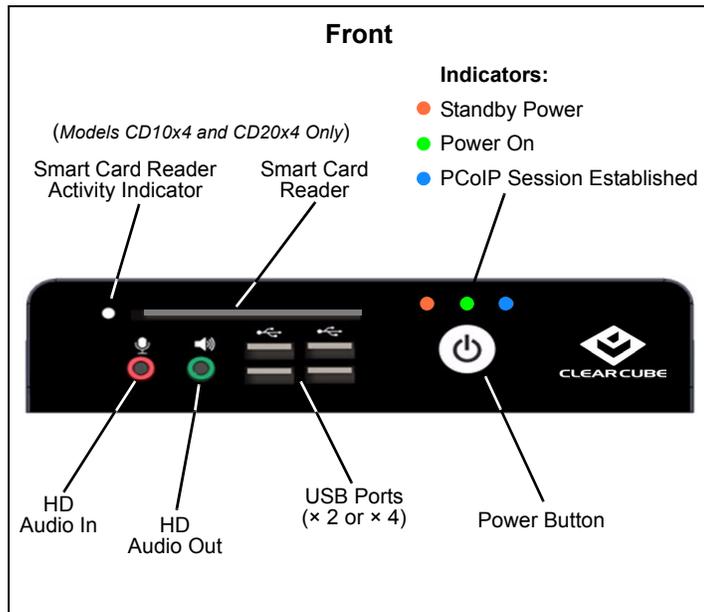


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## Package Contents

- CD10xx- or CD20xx-series Cloud Desktop
- Power adapter and cable
- This *Quick Start Guide*

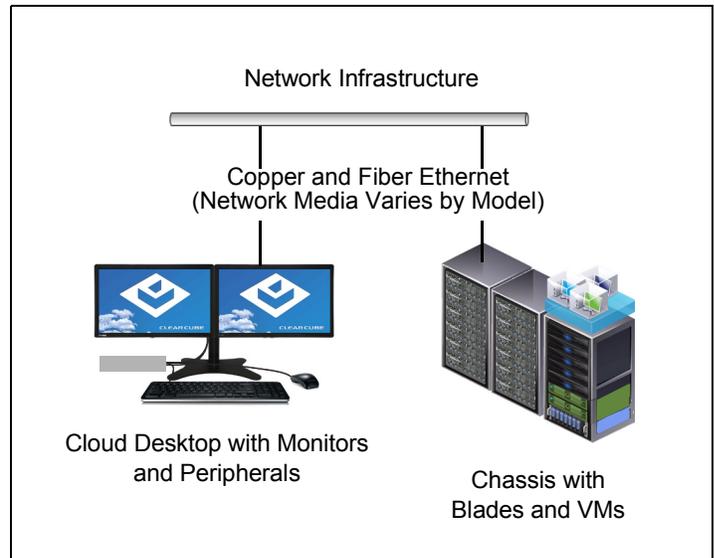
**NOTE:** *product features may differ from examples below.*



## CD10xx-series, CD20xx-series Cloud Desktop Overview

(NOTE: the terms *Cloud Desktop* and *zero client* are used interchangeably in this document.)

A *Cloud Desktop*, or zero client, is a remote computing device that connects a user's monitors, keyboard, mouse, speakers, and other peripherals to remote ClearCube Blade PCs (computers) and to virtual desktops (VMs). As shown below, computing resources are typically located in remote data centers. Cloud Desktops enable users to work on a blade or VM as if it is a local PC. The connection between the zero client and the remote device is over PCoIP<sup>®</sup> protocol. Inside the remote device, a host card manages the PCoIP session.



*Cloud Desktop connected to blade or to VM*

## Cloud Desktop Features

ClearCube<sup>®</sup> CD10xx-series and CD20xx-series zero clients connect to supported ClearCube Blade PCs containing Tera1 or Tera2 host cards and to virtual machines to provide:

- Up to six USB ports (depending on model)
- Support for fiber Ethernet media (model CD10xx) or copper Ethernet media (model CD20xx)



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- Support for independently-configurable monitors:
  - 102x-series and 202x-series**
    - 1 monitor at 2560 × 1600 (using a single cable)
    - 2 monitors at 1920 × 1200 (using two cables)
  - 104x-series and 204x-series**
    - 2 monitors at 2560 × 1600 (using a two cables)
    - 4 monitors at 1920 × 1200 (using four cables)
- DP++ (Dual-mode) connector (Port 2 on dual-monitor clients and all ports on quad-monitor clients) supports DVI using a passive DisplayPort-to-DVI cable (not provided)
- Tera2 processors, delivering PC video, audio, and USB over an IP network
- Integrated smart card reader (CD10x4 and CD20x4 only)
- HD audio in and out

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### Client and Host Firmware Compatibility

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Always use compatible Teradici<sup>®</sup> firmware versions on connected PCoIP devices.

- CD10xx-Series and CD20xx-Series zero clients include Tera2 processors, requiring Teradici firmware 4.0.3 and higher.
- Be sure that any Tera1 devices (zero client models lower than CD9600-series and CD7600-series and any host card models lower than V5400-series) in a deployment use the device's Tera1-specific firmware.

See *PCoIP Firmware Support and Compatibility Guide* on the ClearCube Support site for instructions about identifying and updating PCoIP device firmware.

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### Buttons and Indicators

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The list below shows indicators and front panel button operations (see figure on previous page for locations):

- **Power Button Operations**
  - **To power on:** when the standby indicator is *orange*, press the button briefly to power on the zero client. The power indicator turns *green*.
  - **To power off:** When the power indicator is *green*, press and hold for 3 seconds. The standby indicator turns *orange*.
  - When the PCoIP session indicator is illuminated (*blue*):
    - If connected to a PCoIP host card, press to display the Zero Client Control Panel (on monitor) with options to disconnect or power down the remote host device. Press the power button repeatedly to scroll through the options or to cancel.
    - If connected to a VM, press to disconnect.
- **Power Indicator**
  - **Green (solid):** device is powered on.
  - **Green (blinking):** PCoIP session is sleeping. Press any key on the keyboard to wake the session.
- **Standby Indicator:** device is in low-power state and wake-on-LAN (WoL) or wake-on-USB (WoUSB) is enabled. ClearCube Sentral<sup>®</sup> or third-party utilities can provide WoL and WoUSB features.
- **PCoIP Session Indicator**—shows when a connection, or session, is established between the zero client and a host. The link indicator displays one of the following:
  - **Blue**—a session is established between the client and a host.
  - **Off**—there is no session between the client and a host.
- **Smart Card Reader (on supporting models only)**
  - **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.



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### USB Ports and Power

CD1020- and CD2020-Series zero clients provide six USB ports (three dual-stack pairs). CD1040- and CD2040-Series zero clients provide four USB ports. For full power USB (1 Amp), connect a device to one of the ports in a pair, and leave the other port in the paired stack empty. Use this feature to support USB peripherals requiring higher power, or to charge USB devices faster.

**NOTE:** As shown in the figure below, models **CD1044** and **CD2044** (quad display with CAC reader) do not support USB input or output from the top-most USB port on the front of the zero client.



### Mandatory Setup and Cooling Requirements

- Ensure at least 4 inches of space around zero client edges and at least 2 inches of space above the zero client.
- Ambient operating temperature: 0° to 35° C (32° to 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.
- Do not place the zero client in enclosed environments such as on a shelf or inside a drawer.
- Ensure that all connected cables are supported.

### Default Settings and Fallback IP Address

- DHCP enabled
- SLP discovery enabled
- Session type: direct to host + SLP discovery

- Fallback IP addresses:
  - **Zero client:** 192.168.1.100
  - **Host card:** 192.168.1.101

By default, zero clients and host cards are configured to receive an IP address from a DHCP server. If a DHCP server does not assign an address within a designated timeout period (120 seconds), the zero client uses a default, fallback IP address. Fallback addresses enable devices to always have a known IP address. See *PC-over-IP System User's Guide* for more information.

**NOTE:** If you use the fallback 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 *PC-over-IP System User's Guide* at [www.clearcube.com/support](http://www.clearcube.com/support) for more information.

### Smart Card Reader Setup (on Supporting Models)



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 users handle smart cards. ESD damage can potentially cause unsupported card reader behavior including failure. Always perform ESD prevention steps before using the card reader.

CD10x4 and CD20x4 zero clients include a PKI-approved CAC/SIPRnet smart card reader that supports 5V, 3V, and 1.8V smart cards.

To use the 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 blade's Drivers section of ClearCube Support site. The download file contains drivers for all supported operating systems and installation instructions.



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### Setting up a Cloud Desktop

Perform the following steps to connect peripherals, a network cable, and a power supply to the zero client. These steps assume that the Cloud Desktop, host card, and DHCP server are on the same network.

**NOTE:** When connecting to physical devices using a single monitor or any number of monitors at 2560 × 1600 resolution, install Teradici PCoIP Host Software on the physical device. (This requirement does not apply to VMs.) Teradici PCoIP Host Software is available from Teradici Support. (Note that ClearCube factory images include Teradici PCoIP Host Software by default).

Ensure that the host driver function on the peer host card is enabled (it is enabled by default). See *Tech Bulletin TB00274: Configuring Dual-Monitor Systems for Single-Monitor Use* on ClearCube Support for information.

1. Power on the remote Blade PC containing the host card to which you are going to connect.
2. Connect one or more monitors to the zero client (clients do not currently support daisy-chaining displays).
3. Connect a network cable to the connector located on the rear of the zero client (fiber or copper, depending on model), and then connect the other end of the cable to the appropriate network infrastructure device (such as a network switch, fiber transceiver, or router).
4. Connect a USB keyboard and a mouse to the USB ports on the front or on the rear of the zero client.
5. Connect the AC power adapter to the power cable (included with the zero client).
6. Connect the power adapter to the rear of the client, and then plug the power cable into a power outlet. Ensure that the zero client and the host card are on the same network. See “Buttons and Indicators” for information about powering the zero client on and off.

You can now click **Connect** and select the host card to connect to from the list displayed on the OSD.

### Configuration Steps and Additional Information

See *PC-over-IP System User’s Guide* and *PCoIP Firmware Support and Compatibility Guide* at [www.clearcube.com](http://www.clearcube.com) 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](http://www.clearcube.com/support)

Email: [support@clearcube.com](mailto:support@clearcube.com)

Toll-free: (866) 652-3400

Phone: (512) 652-3400

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### 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).

