ClientCube NET-4/ClientCube KM NET-4 Quick Start Guide

About ClientCube NET-4 and ClientCube KM NET-4

Package contents and documentation

The list below shows the contents of a ClientCube NET-4® package.

- **ClientCube NET-4**, preconfigured with

  - **Zero clients**

  - **Device cabling** including ClientCube NET-4 power cable and adapter, zero client power cables, video cables (with KVM switch only), and (depending on model) USB smart card cabling for KVM switch

  - **Belkin® Secure KVM switch** or **Belkin Secure KM Switch**

- This *Quick Start Guide*

- *Secure KVM Switch User Manual* or *Secure KM Switch User Manual*, and

- *Zero Client Quick Start Guide* for installed zero clients.

- **Dual-link DVI cable adapters (Y-cables)** for high-resolutions monitors (2560 × 1600). See *Zero Client Quick Start Guide* for information about using dual-link DVI cables.

For more information

The section above shows documentation included with the ClientCube NET-4 and ClientCube KM NET-4. For additional information about PCoIP® technology (including zero clients and PCoIP host cards), see the documents below at www.clearcube.com/support:

- *PC-over-IP System User's Guide*

- *PC-over-IP Device Firmware Support and Compatibility Guide*

![ClearCube logo]

ClientCube NET-4 front features

The picture below shows the front of a ClientCube NET-4/ClientCube KM NET-4 (depending on the model, product features might differ slightly).

	Description
1	Secure KVM switch *or* Secure KM switch
2	Port selectors
3	Zero client power button and session indicators
4	USB ports
5	Audio out
6	Audio in

Audio devices plugged into zero clients are not switched. Devices plugged into the Console connectors on the rear of the KVM or KM are switched.
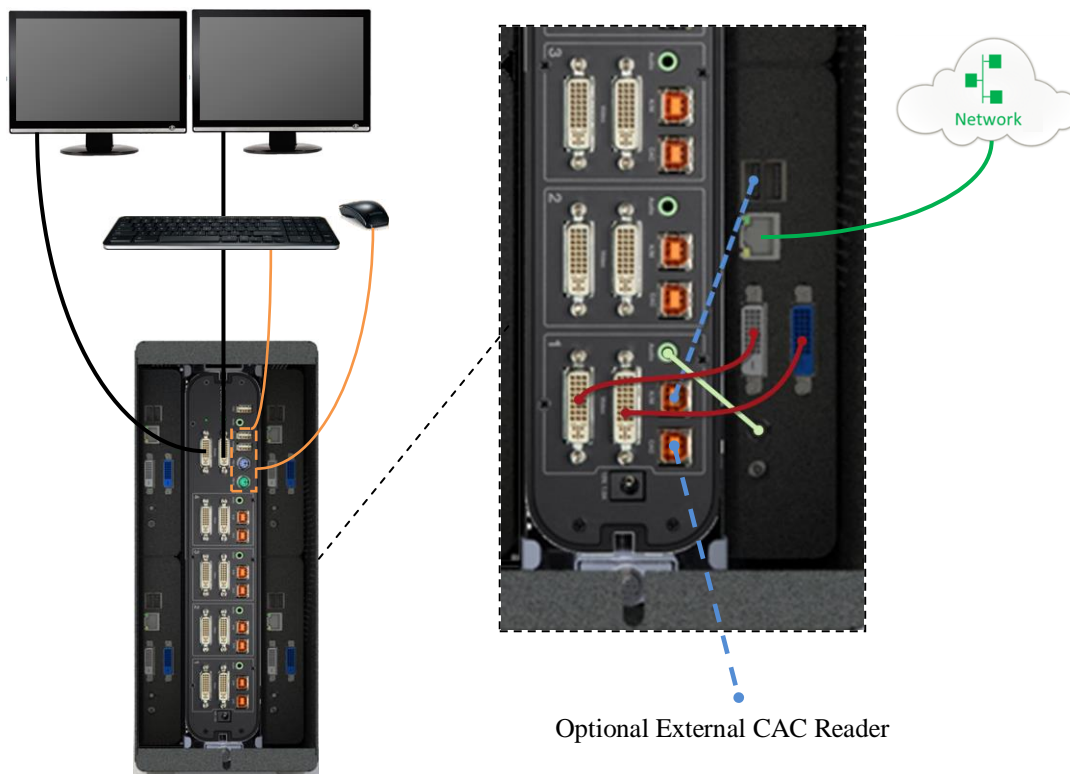

Figure 1.   ClientCube NET-4, front view

Cable Configuration

KVM cabling   The picture below shows the default cabling configuration for ClientCube NET-4 (see the section below for ClientCube KM NET-4). For simplicity, cabling is shown between the KVM and only one zero client. The same cabling configuration is used for the remaining zero clients.
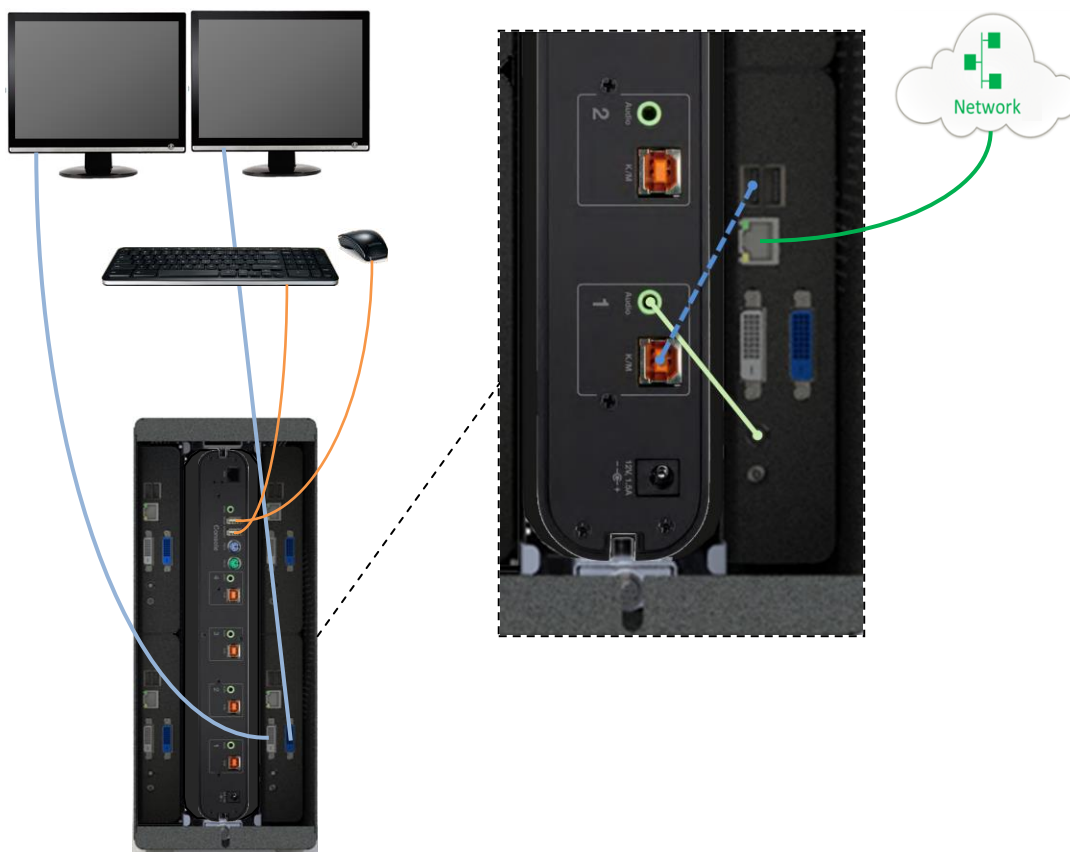

Optional External CAC Reader

KVM Switch in ClientCube NET-4

Figure 2.   ClientCube NET-4, rear view and default cabling configuration (for simplicity, cabling for only one zero client is shown)

ClientCube KM NET-4 cabling

The picture below shows the default cabling configuration for ClientCube KM NET-4. For simplicity, cabling is shown between the KM and only one zero client. The same cabling configuration is used for the remaining zero clients.

ClientCube KM NET-4

Figure 3.   ClientCube KM NET-4, rear view and default cabling configuration (for simplicity, cabling for only one zero client is shown)

Before You Begin

Personal and product safety

> **CAUTION:** Prevent ESD (electrostatic discharge) damage to ClientCube products and 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 a card reader.

Inspect packaging

If ClientCube packaging or hardware (including holographic seals on the Secure KVM or KM) shows any evidence of disruption, call ClearCube Support immediately at **(800) 652-3400**.

Not included in package

Before installing a ClientCube NET-4/ClientCube KM NET-4, be sure to have

- a network cable for each zero client
- optionally, a network switch, and
- **KM switch only:** monitor cables.

Before setup

The table below shows steps to take after unpacking a ClientCube NET-4 family product.

Step	Action
1	Ensure all required infrastructure is in place and is configured. Depending on your deployment, this can include • DHCP servers • a copper network (including switches, routers, and so on) • a fiber network (including media converters, switches, routers, and so on) • VMware® View infrastructure, and • CAC or smart card components and authentication/single-sign-on infrastructure
2	Record MAC addresses of zero clients and host cards for use during deployment and configuration. (A configuration label on each ClearCube device specifies a MAC address for the PCoIP device.)
3	If you are using physical computers with PCoIP host cards, download and install audio and GPU drivers appropriate for your host card. ClearCube host cards only support drivers available from ClearCube Support.

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Before setup
(continued)

Step	Action
4	Optionally, install a CAC driver on any computing devices requiring CAC support.
5	If you are using a ClientCube KM NET-4 to connect to computers with multi-head displays, install the Belkin Advanced Secure KM Switch Mouse Filter driver software (see www.clearcube.com/support). **CAUTION** Be sure to remove this driver from computers *before* using the computer without the Secure KM. Failure to remove the driver results in loss of mouse functionality when connected directly to a computer.

Setting up ClientCube NET-4

Set up the ClientCube NET-4

The table below shows how to set up ClientCube NET-4 (see "Setting up ClientCube KM NET-4" below for information about setting up a ClientCube KM NET-4).

NOTE Follow the steps in the order listed below—be sure to connect all video cables before connecting power to ClientCube NET-4 (note that connecting power automatically powers on ClientCube NET-4).

Step	Action
1	Connect Ethernet cables to ClientCube NET-4 zero clients.
2	Connect one or more displays to the Secure KVM Console Monitor Port(s).
3	Connect a keyboard and mouse to the Console portion of the Secure KVM.
4	Optionally, connect speakers and a CAC reader to the Console portion of the Secure KVM.
5	Connect the ClientCube NET-4 power cable to a power outlet, and then connect the power adapter to ClientCube NET-4. **Result:** Secure KVM and zero clients power on.

Setting up ClientCube NET-4, Continued

Configure devices and connect

The table below shows how to configure zero clients and remote hosts, and how to connect.

Step	Action
1	Configure zero clients using the zero client *on-screen display* (OSD). **NOTE** For more information about the OSD and configuration, see the appropriate zero client *Quick Start Guide* (included) and *PC-over-IP System User's Guide* (download from ClearCube Support).
2	If you are using physical devices with PCoIP host cards, use a Web browser to configure the host card as appropriate for your environment. For more information, see the documentation cited above.
3	From the zero client OSD, click **Connect**. **Result:** If you are using direct connection or reserved DHCP addresses, you are connected to the remote host specified during configuration. If you are using DHCP and device discovery, a list of available hosts is displayed. Select a host to connect to.

Additional steps

Optionally, install ClientCube NET-4 accessories including color chips to distinguish each port button, and name labels to identify each network. See the included *Secure DVI-I KVM User Manual* for more information.

Setting up ClientCube KM NET-4

Set up ClientCube KM NET-4

The table below shows how to set up ClientCube KM NET-4.

NOTE	Be sure that ALL components (monitors, remote computers, zero clients, and so on) are powered OFF before performing any of the steps below. Follow the steps in the order listed below (note that connecting power automatically powers on ClientCube KM NET-4).

Step	Action
1	Be sure that all components (including monitors) are powered off as noted above.
2	Connect Ethernet cables to the zero clients in the rear of the ClientCube KM NET-4, and connect the other end of the cables to the remote computers for each zero client (through a network switch or by direct connection).
3	Connect one or more displays to the zero clients in the rear of the ClientCube KM NET-4 (see step 5 in "Before setup" on page 6 about driver software for multi-head displays).
4	Connect a keyboard and mouse to the Console portion of the Secure KM.
5	Optionally, connect speakers to the Console portion of the Secure KM.
6	Power on all monitors (do not power on any other devices yet).
7	Connect the ClientCube KM NET-4 power cable to a power outlet, and then connect the power adapter to ClientCube KM NET-4. **Result:** Secure KM and zero clients power on.

See the section below for KM and monitor configuration information.

Configure KM and monitors

The KM switch comes with many pre-defined monitor configurations and arrangements. You can also create custom monitor arrangements. See the included *Advanced Secure Keyboard/Mouse (KM) Switch User Manual* for detailed information about Seamless Cursor Switching (SCS), configuring monitors, administrator mode, multi-head driver installation, and troubleshooting.

Additional steps

Optionally, install ClientCube KM NET-4 accessories including color chips to distinguish each port button. See *Secure KM Switch User Manual* for more information.

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Connecting to Physical Devices

Dependencies   If you are connecting to physical devices (such as Blade PCs) with PCoIP host cards, use a Web browser to configure the host card as appropriate for your environment. For more information about Host Card configuration, see the appropriate zero client *Quick Start Guide* (included) and *PC-over-IP System User's Guide* (download from ClearCube Support).

Configure zero clients and connect   The table below shows how to connect to physical devices (such as Blade PCs).

Step	Action
1	Use the mouse to configure the zero client.
	NOTE For information about the OSD and configuration options, see the documentation cited in "Package contents and documentation" and "For more information" on page 1.
2	From the zero client OSD, click **Connect**.
	If you are using direct connection or reserved DHCP addresses, you are connected to the remote host specified during configuration. If you are using DHCP and device discovery, a list of available hosts is displayed. Select a host to connect to. You are now connected to a remote host.

Configuring Zero Clients for VM Connections

Overview Interaction between a KM, zero clients, and VMware components requires setting options on the zero client to bridge the USB keyboard and mouse to VMs. Set bridging options from the zero client Web interface before connecting to VMs.

NOTE	Be sure that zero client TERA firmware is version 4.2 or higher when connecting to VMs. See *PC-over-IP System User's Guide* on Support site for information about identifying the zero client firmware version.

Find zero client IP address The table below shows how to find a zero client IP address. Use the zero client IP address to access the device's Web interface for additional configuration steps.

Step	Action
1	From the zero client OSD in the upper-left portion of the screen, click **Options > Configuration**. The Configuration screen shows the zero client's IP address. Record this IP address and click **Cancel** to close the screen.
2	Move the mouse to the next zero client's monitor(s).
3	Record the zero client's IP address. Repeat this process for all zero clients in the ClientCube NET-4/ClientCube KM NET-4.

Configure zero client The table below shows how to bridge the mouse and keyboard connected to the Secure KM.

Step	Action
1	From a Web browser, open a zero client's Web interface by entering one of the IP addresses you recorded in the previous procedure (you can safely dismiss any security-related prompts that browsers display).
2	Click **Log In** (by default, a password is not required).
3	From the main menu, click **Permissions > USB** to display the USB page.
4	From the Bridged Devices section, click **Add New**.
5	Enter **050D** in the Vendor ID text box and enter **104A** in the Product ID text box. Click **Add**. The bridged device IDs are now shown above the Add new button.
6	**For deployments with daisy-chained KM and KVMs only:** Clear the **Enable EHCI** option.

Configuring Zero Clients for VM Connections, Continued

Configure zero client
(continued)

Step	Action
7	Click the **Apply** button located at the bottom of the screen. A success message is displayed.
8	To restart the zero client, click **Diagnostics > PCoIP Processor** and then click **Reset**. A message is displayed. Click **OK**. This ends the PCoIP session with the zero client. Repeat this procedure for all zero clients in the ClientCube NET-4.

Connecting to VMs

Dependencies

If you are connecting to VMs, these instructions assume you are using VMware products and have your environment functioning and configured (including Domain users associated with VMs).

For more information about zero client configuration, see the appropriate zero client *Quick Start Guide* (included) and *PC-over-IP System User's Guide* (download from ClearCube Support).

Connect to VM

The table below shows how to connect to a VM from a zero client. These instructions assume you have completed the steps shown in "Configuring Zero Clients for VM Connections" .

Step	Action
1	From a zero client OSD, click **Connect**. When the Certificate Warning is displayed, click **Continue**.
2	Enter the user credentials and click **Login**.
3	Select a VM to connect to, and click **Connect**. The VM desktop is displayed.
4	Move the mouse to the next monitor to switch to the next zero client in the ClientCube NET-4. Click **Connect** to connect to another VM as shown in the previous steps.
5	KVM and KM Seamless Cursor Switching (SCS) is enabled and you can switch from zero client to zero client by moving the mouse (see the included *Secure KM Switch User Manual* for information about SCS). Repeat this process and connect to the remaining zero clients in the ClientCube NET-4/ClientCube KM NET-4.

Additional Information and Support

Documentation resources

See "Package contents and documentation" and "For more information" on page 1 for a list of documentation about ClientCube NET-4 components and concepts.

Contacting Support

Web	www.clearcube.com/support/.
Email	support@clearcube.com
Toll-free	(866) 652-3400
Direct	(512) 652-3400