



## Starting the KVM Console

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## KVM Console

The KVM console is an interface accessible from the Cisco UCS Manager GUI or the KVM Launch Manager that emulates a direct KVM connection. Unlike the KVM dongle, which requires you to be physically connected to the server, the KVM console allows you to connect to the server from a remote location across the network.

You must ensure that either the server or the service profile associated with the server is configured with a CIMC IP address if you want to use the KVM console to access the server. The KVM console uses the CIMC IP address assigned to a server or a service profile to identify and connect with the correct server in a Cisco UCS domain.

Instead of using CD/DVD or floppy drives directly connected to the server, the KVM console uses virtual media, which are actual disk drives or disk image files that are mapped to virtual CD/DVD or floppy drives. You can map any of the following to virtual drives:

- CD/DVD or floppy drives on your computer
- Disk image files on your computer
- CD/DVD or floppy drives on the network
- Disk image files on the network

**Note**

When you launch the KVM console from the physical server, the system checks if the server is associated to a service profile. If the server is associated to a service profile with an associated management IP address, launches the KVM console using that management IP address. If no management IP address is associated in the service profile, then the system launches the KVM console using the physical server.

**Recommendations for Using the KVM Console to Install a Server OS**

To install an OS from a virtual CD/DVD or floppy drive, you must ensure that the virtual CD/DVD or floppy drive is set as the first boot device in the service profile.

Installing an OS using the KVM console may be slower than using the KVM dongle because the installation files must be downloaded across the network to the server. If you map a disk drive or disk image file from a network share to a virtual drive, the installation may be even slower because the installation files must be downloaded from the network to the KVM console (your computer) and then from the KVM console to the server. When using this installation method, we recommend that you have the installation media as close as possible to the system with the KVM console.

## Virtual KVM Console

The KVM console is an interface accessible from CIMC that emulates a direct keyboard, video, and mouse (KVM) connection to the server. It allows you to connect to and control the server from a remote location and to map physical locations to virtual drives that can be accessed by the server during this KVM session.

**Important**

The KVM console requires Java Runtime Environment (JRE) version 1.5.0 or higher.

**KVM Console Tab**

This tab provides command line access to the server. The menu options available in this tab are described below.

**File Menu**

| Menu Item                               | Description   |
|---|---|
| <b>Capture to File</b> button           | Opens the <b>Save</b> dialog box that allows you to save the current screen as a JPG image. |
| <b>Paste Text From Clipboard</b> button | Allows you to copy text from a clipboard to the server using the KVM console.               |
| <b>Paste Text From File</b> button      | Allows you to copy text from a remote file to the server using the KVM console.             |
| <b>Exit</b> button                      | Closes the KVM console.   |

**View Menu**

| <b>Menu Item</b>            | <b>Description</b>  |
|-----------------------------|---|
| <b>Refresh</b> button       | Updates the console display with the server's current video output.   |
| <b>Fit</b> button           | Resizes the console window to the minimum size needed to display the video image from the server.<br>This option is only available if the console is in <b>Windowed</b> mode. |
| <b>Video Scaling</b> button | Sizes the video image so that the complete image fits within the console window.  |
| <b>Full Screen</b> button   | Expands the KVM console so that it fills the entire screen.   |
| <b>Mini Mode</b> button     | Displays a thumbnail view of the host server display and provides no input for the keyboard or mouse.   |

**Macros Menu**

Choose the keyboard shortcut you want to execute on the remote system.

| <b>Menu Item</b>                | <b>Description</b>  |
|---------------------------------|---|
| <b>Server Macros</b> menu       | Displays the server side macros downloaded from the Cisco IMC, if any. If no server side macros have been downloaded, then the menu item is disabled. |
| <b>Static Macros</b> menu       | Displays a predefined set of macros.  |
| <b>User Defined Macros</b> menu | Displays the user-defined macros that have been created.  |
| <b>Manage</b> button            | Opens the <b>Configure User Defined Macros</b> dialog box, which allows you to create and manage macros.<br>System-defined macros cannot be deleted.  |

**Tools Menu**

| <b>Menu Item</b>                                  | <b>Description</b>  |
|---|---|
| <b>Session Options</b> button, <b>General</b> tab | <b>General</b> tab in the <b>Session Options</b> dialog box allows you to specify whether all keystrokes are passed to the target system when the console is in Windowed mode. The default is no. |

| Menu Item   | Description  |
|---|--|
| <b>Session Options</b> button, <b>Mouse</b> tab       | <p>The <b>Mouse</b> tab in the <b>Session Options</b> dialog box allows you to specify the following:</p> <ul style="list-style-type: none"> <li>• <b>Termination Key</b>—The key to use that will terminate single cursor mode. The default is <b>F12</b>.</li> <li>• <b>Mouse Acceleration</b>—Allows you to change the positioning of a USB mouse. The default is <b>Absolute Positioning</b>.</li> </ul> <p><b>Note</b> If you are experiencing mouse tracking issues between your system and the remote system, try changing the mouse acceleration mode.</p> <p>If none of the modes solve the problem, you can use the <b>Single Cursor</b> tool to ignore the remote mouse in favor of the local mouse.</p> <p>If that does not work, set this option to <b>No Acceleration</b> and then go into the operating system on the remote server and set mouse acceleration to <b>None</b> in the system settings.</p> |
| <b>Session Options</b> button, <b>Security</b> tab    | <p>The <b>Security</b> tab in the <b>Session Options</b> dialog box allows you to specify the type of unsecured connections which will be accepted without user concurrence, and allows you to clear previously accepted connections.</p>  |
| <b>Session Options</b> button, <b>Scaling</b> tab     | <p>The <b>Scaling</b> tab in the <b>Session Options</b> dialog box allows you to specify whether the aspect ratio maintenance will be in effect when the console is in windowed mode or in full screen mode. The default is <b>Windowed Mode</b>.</p>  |
| <b>Session Options</b> button, <b>Mini-Mode</b> tab   | <p>The <b>Mini-Mode</b> tab in the <b>Session Options</b> dialog box allows you to specify the size of the KVM/vMedia client when in Mini-Mode.</p>  |
| <b>Session Options</b> button, <b>Certificate</b> tab | <p>The <b>Certificate</b> tab in the <b>Session Options</b> dialog box displays the details of the certificate being used in the current session and allows you to set the name and path of the exported certificate file.</p>   |
| <b>Single Cursor</b> button                           | <p>Turns on the single cursor feature, which offsets mouse alignment issues encountered on some remote operating systems. When you turn this feature on, the mouse pointer is trapped within the viewer window.</p> <p>To turn the feature off, press the termination key specified in the <b>Session Options</b> dialog box. The default is <b>F12</b>.</p>   |

| Menu Item                       | Description  |
|---------------------------------|--|
| <b>Stats</b> button             | <p>Opens the <b>Stats</b> dialog box, which displays the following:</p> <ul style="list-style-type: none"> <li>• The statistics of the KVM session</li> <li>• Frame rate measured in the number of frames per second</li> <li>• Bandwidth measured in the number of KBs per second</li> <li>• Compression measured in the percentage of compression being used</li> <li>• Packet rate measured in number of packets per second</li> </ul> <p>When vMedia is activated, the <b>Stats</b> dialog box displays the following:</p> <ul style="list-style-type: none"> <li>• Transfer rate of vMedia measured in data transported per second.</li> <li>• The type of local device or image file to which the host server device is mapped.</li> <li>• The elapsed time of the device to map.</li> <li>• The number of bytes sent or received by the server.</li> <li>• The <b>USB Reset</b> button to reset all the USB devices connected to the server.</li> </ul> |
| <b>Session User List</b> button | <p>Opens the <b>Session User List</b> dialog box that shows all the user IDs that have an active KVM session.</p>  |
| <b>Chat</b> button              | <p>Communicates with other Virtual Console users through a chatting interface available within the Virtual Console viewer. Chat is not supported for all Cisco UCS servers.</p> <p><b>Note</b> The chat window cannot be minimized and the chat history is not stored once the window is closed. You can chat even if the server is powered off.</p>   |

### Virtual Media Menu

| Name                | Description   |
|---------------------|---|
| <b>Create Image</b> | <p>Opens the <b>Create Image from Folder</b> dialog box that allows you to create an image of the folder you want to map on the server to the local folder that you want to map on the server.</p> <p>After the system has created the image, it saves the IMG file on your system.</p> |

| Name                            | Description  |
|---------------------------------|--|
| <b>Activate Virtual Devices</b> | <p>Activates a vMedia session that allows you to attach a drive or image file from your local computer or network.</p> <p><b>Note</b> If you have not allowed unsecured connections, you will be prompted to accept the session. If you reject the session, the virtual media session is terminated.</p> |
| <b>Map CD/DVD</b>               | <p>Choose the CD/DVD that you want to access, and click the <b>Map Device</b> button to map it to the host server device.</p> <p><b>Note</b> If the <b>Read Only</b> checkbox is checked, the server cannot write to the vMedia device even if the device has write capability.</p>                      |
| <b>Map Removable Disk</b>       | <p>Choose the removable disk that you want to access, and click the <b>Map Device</b> button to map it to the host server device.</p> <p><b>Note</b> If the <b>Read Only</b> checkbox is checked, the server cannot write to the vMedia device even if the device has write capability.</p>              |
| <b>Map Floppy</b>               | <p>Choose the floppy that you want to access, and click the <b>Map Device</b> button to map it to the host server device.</p> <p><b>Note</b> If the <b>Read Only</b> checkbox is checked, the server cannot write to the vMedia device even if the device has write capability.</p>                      |

## KVM Direct Access

KVM direct access allows the administrators that manage the blade and rack servers in your Cisco UCS Manager domain access the KVM for their servers directly using a web browser. This feature allows you to restrict access to the IP addresses of the fabric interconnects, while still allowing your administrators to access the KVM console for the servers they manage.



**Note** Only out-of-band IPv4 management interface addresses are supported for KVM direct access.

KVM direct access also supports custom applications from which users can navigate to a server management IP address without using the Cisco UCS Manager GUI interface or the KVM Launch Manager.

KVM direct access is supported by providing a management IP address assigned directly to the server or associated to the server with a service profile, to the server's administrator. The server administrator enters the IP address in a browser, and navigates to the Cisco UCS KVM Direct log in page. In the log in page, the user enters their user name and password, and chooses an authentication domain. When they launch Cisco

UCS KVM Direct, the console for the server is displayed, the same way it would if they had accessed the server from the Cisco UCS Manager GUI.

KVM direct access employs self-signed certificates for authentication. When users access a server management IP address or service profile IP address for the first time, a dialog box will be displayed to alert them that they need to add a certificate exception to their browser's cache.

The default communications service that supports Cisco UCS KVM direct access is HTTPS. This cannot be disabled. When a user enters a management IP in a browser using HTTP as part of the address, they will be automatically redirected to the HTTPS service.

To accommodate KVM direct access, be sure that the CIMC Web Service communication service in Cisco UCS Manager is enabled.

**Note**

The CIMC Web Service is enabled by default in Cisco UCS Manager.

## Starting the KVM Console from a Server

You can start multiple KVM Console sessions using the addresses assigned to the server.

### Procedure

- Step 1** In the **Navigation** pane, click **Equipment**.
- Step 2** Expand **Equipment** > **Chassis** > *Chassis Number* > **Servers**.
- Step 3** Choose the server that you want to access through the **KVM Console**.
- Step 4** In the **Work** pane, click the **General** tab.
- Step 5** In the **Actions** area, click the >> button to the right of **KVM Console**.  
The **KVM Console** opens in a separate window and displays a list of available out-of-band and inband addresses associated with the server.  
**Note** If you click **KVM Console** and not the >> button, your session will be started using server addresses in the preferential order of inband IPv6 first, inband IPv4 second, and out-of-band IPv4 third.
- Step 6** Choose an address from the **Select IP Address** list.  
Addresses displayed as **(Inband)** access the server via the uplink ports and those displayed as **(Outband)** access the server via the management interface port.
- Step 7** Click **OK**.  
The KVM Console is launched using the address you selected.  
**Tip** If the Caps Lock key on your keyboard is on when you open a KVM session, and you subsequently turn off your Caps Lock key, the **KVM Console** may continue to act as if Caps Lock is turned on. To synchronize the KVM Console and your keyboard, press Caps Lock once without the **KVM Console** in focus and then press Caps Lock again with the **KVM Console** in focus.
- Step 8** To start another KVM session for the same server, repeat steps 5 through 7.  
Another KVM session is started. You can start up to six sessions for a server, depending on the number of addresses that have been configured for it.

# Starting the KVM Console from a Service Profile

## Procedure

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- Step 1** In the **Navigation** pane, click **Servers**.
- Step 2** Expand **Servers > Service Profiles**.
- Step 3** Expand the node for the organization which contains the service profile for which you want to launch the KVM console.  
If the system does not include multitenancy, expand the **root** node.
- Step 4** Choose the service profile for which you need KVM access to the associated server.
- Step 5** In the **Work** pane, click the **General** tab.
- Step 6** In the **Actions** area, click the >> button to the right of **KVM Console**.  
The **KVM Console** opens in a separate window and displays a list of available out-of-band and inband addresses associated with the server.
- Note** If you click **KVM Console** and not the >> button, your session will be started using server addresses in the preferential order of inband IPv6 first, inband IPv4 second, and out-of-band IPv4 third.
- Step 7** Choose an address from the **Select IP Address** list.  
Addresses displayed as **(Inband)** access the server via the uplink ports and those displayed as **(Outband)** access the server via the management interface port.
- Step 8** Click **OK**.  
The KVM Console is launched using the address you selected.
- Tip** If the Caps Lock key on your keyboard is on when you open a KVM session, and you subsequently turn off your Caps Lock key, the **KVM Console** may continue to act as if Caps Lock is turned on. To synchronize the KVM Console and your keyboard, press Caps Lock once without the **KVM Console** in focus and then press Caps Lock again with the **KVM Console** in focus.
- Step 9** To start another session for the same server, repeat steps 6 through 8.  
Another KVM session is started. You can start up to six sessions for a server, depending on the number of addresses that have been configured for it.
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# Starting the KVM Console from the KVM Launch Manager

The KVM Launch Manager enables you to access a server through the KVM console without logging in to Cisco UCS Manager.

## Before You Begin

To access the KVM console for a server through the KVM Launch Manager, you need the following:

- Cisco UCS username and password.
- Name of the service profile associated with the server for which you want KVM access.

## Procedure

**Step 1** In your web browser, type or select the web link for Cisco UCS Manager GUI.

**Example:**

The default web link for HTTP access is `http://UCSManager_IP` for an IPv4 address, or `http://UCSManager_IP6` for an IPv6 address. The default web link for HTTPS access is `https://UCSManager_IP` for an IPv4 address, or `https://UCSManager_IP6` for an IPv6 address. In a standalone configuration, `UCSManager_IP` or `UCSManager_IP6` are the IPv4 or IPv6 addresses, respectively, for the management port on the fabric interconnect. In a cluster configuration, `UCSManager_IP` or `UCSManager_IP6` are the IPv4 or IPv6 addresses, respectively, assigned to Cisco UCS Manager.

**Step 2** On the Cisco UCS Manager launch page, click **Launch KVM Manager**.

**Step 3** If a **Security Alert** dialog box appears, click **Yes** to accept the security certificate and continue.

**Step 4** On the **UCS - KVM Launch Manager Login** page, do the following:

- a) Enter your Cisco UCS username and password.
- b) (Optional) If your Cisco UCS implementation includes multiple domains, select the appropriate domain from the **Domain** drop-down list.
- c) Click **OK**.

**Step 5** In the **Service Profiles** table of the KVM Launch Manager, do the following:

- a) Locate the row containing the service profile and associated server for which you need KVM access.
- b) In the **Launch KVM** column for that server, click **Launch**.  
The KVM console opens in a separate window.

**Tip** If the Caps Lock key on your keyboard is on when you open a KVM session, and you subsequently turn off your Caps Lock key, the **KVM Console** may continue to act as if Caps Lock is turned on. To synchronize the KVM Console and your keyboard, press Caps Lock once without the **KVM Console** in focus and then press Caps Lock again with the **KVM Console** in focus.

# Starting the KVM Console from the Cisco UCS KVM Direct Web Page

The Cisco UCS KVM Direct login page enables you to access a server directly from a web browser without logging in to Cisco UCS Manager.

## Before You Begin

To access the KVM console for a server using the Cisco UCS KVM Direct login page, you need the following:

- A Cisco UCS username and password.
- The server CIMC or service profile IPv4 management address for the server you want to access.

## Procedure

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- Step 1** In your web browser, type or select the web link for the management IP address of the server you want to access.
- Step 2** If a **Security Alert** dialog box appears, click **Yes** to create a security exception.  
The security exception is permanently stored in your browser's cache.
- Step 3** In the Cisco UCSKVM **Direct** dialog box, specify the name, password, and domain.
- Step 4** Click **Lauch KVM**.  
The KVM console is launched.
-