



Managing Remote Presence

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Configuring Serial Over LAN

Serial over LAN enables the input and output of the serial port of a managed system to be redirected over IP. Configure and use serial over LAN on your server when you want to reach the host console with Cisco IMC.



Important

You cannot use native serial redirection and serial over LAN simultaneously.

Before you begin

You must log in as a user with admin privileges to configure serial over LAN.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
- Step 2** In the **Compute** menu, select a server.
- Step 3** In the work pane, click the **Remote Management** tab.
- Step 4** In the **Remote Presence** pane, click the **Serial over LAN** tab.
- Step 5** In the **Serial over LAN Properties** area, update the following properties:

| Name | Description |
|---------------------------------|---|
| Enabled check box | If checked, Serial over LAN (SoL) is enabled on this server. |
| Baud Rate drop-down list | <p>The baud rate the system uses for SoL communication. This can be one of the following:</p> <ul style="list-style-type: none"> • 9600 bps • 19.2 kbps • 38.4 kbps • 57.6 kbps • 115.2 kbps |
| Com Port drop-down list | <p>The serial port through which the system routes SoL communication.</p> <p>Note This field is only available on some C-Series servers. If it is not available, the server always uses COM port 0 for SoL communication.</p> <p>You can select one of the following:</p> <ul style="list-style-type: none"> • com0—SoL communication is routed through COM port 0, an externally accessible serial port that supports either a physical RJ45 connection to an external device or a virtual SoL connection to a network device. <p>If you select this option, the system enables SoL and disables the RJ45 connection, which means that the server can no longer support an external serial device.</p> <ul style="list-style-type: none"> • com1—SoL communication is routed through COM port 1, an internal port accessible only through SoL. <p>If you select this option, you can use SoL on COM port 1 and the physical RJ45 connection on COM port 0.</p> <p>Note Changing the Com Port setting disconnects any existing SoL sessions.</p> <p>Note This option is available only on some C-Series servers.</p> |
| SSH Port field | <p>The port through which you can access Serial over LAN directly. The port enables you to by-pass the Cisco IMC shell to provide direct access to SoL.</p> <p>The valid range is 1024 to 65535. The default value is 2400.</p> <p>Note Changing the SSH Port setting disconnects any existing SSH sessions.</p> |

Step 6 Click **Save Changes**.

Configuring Virtual Media

Before you begin

You must log in as a user with admin privileges to configure virtual media.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** tab.
- Step 2** In the **Compute** tab, click the **Remote Management** tab.
- Step 3** In the **Remote Management** tab, click the **Virtual Media** tab.
- Step 4** In the **Virtual Media Properties** area, update the following properties:

| Name | Description |
|--|--|
| Enabled check box | If checked, virtual media is enabled. Note If you clear this check box, all virtual media devices are automatically detached from the host. |
| Active Sessions field | The number of virtual media sessions that are currently running. |
| Enable Virtual Media Encryption check box | If checked, all virtual media communications are encrypted. |
| Low Power USB enabled check box | If checked, low power USB is enabled. If the low power USB is enabled, after mapping the ISO and rebooting the host, the virtual drives appear on the boot selection menu. But, while mapping an ISO to a server that has a UCS VIC P81E card and the NIC is in Cisco Card mode, this option must be disabled for the virtual drives to appear on the boot selection menu. |

Step 5 Click **Save Changes**.

Creating a Cisco IMC Mapped vMedia Volume

Before you begin

You must log in with admin privileges to perform this task.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
- Step 2** In the **Compute** menu, select a server.
- Step 3** In the work pane, click the **Remote Management** tab.
- Step 4** In the **Remote Management** tab, click the **Virtual Media** tab
- Step 5** In the Current Mappings area, click **Add New Mapping**.
- Step 6** In the **Add New Mapping** dialog box, update the following fields:

| Name | Description |
|---------------------------|---|
| Volume field | The identity of the image mounted for mapping. |
| Mount Type drop-down list | <p>The type of mapping. This can be one of the following:</p> <p>Note Ensure that the communication port of the mount type that you choose is enabled on the switch. For example, when you are using CIFS as your mount type, ensure port 445 (which is its communication port) is enabled on the switch. Similarly, enable ports 80 for HTTP, 443 for HTTPS and 2049 for NFS when you use them.</p> <ul style="list-style-type: none"> • NFS—Network File System. • CIFS—Common Internet File System. • WWW(HTTP/HTTPS)—HTTP-based or HTTPS-based system. <p>Note Before mounting the virtual media, Cisco IMC tries to verify reachability to the end server by pinging the server.</p> |
| Remote Share field | <p>The URL of the image to be mapped. The format depends on the selected Mount Type:</p> <ul style="list-style-type: none"> • NFS—Use serverip:/share. • CIFS—Use //serverip/share. • WWW(HTTP/HTTPS)—Use http[s]://serverip/share. |
| Remote File field | The name and location of the .iso or .img file in the remote share. |

| Name | Description |
|---------------------|-------------|
| Mount Options field | |

| Name | Description |
|------|--|
| | <p>Industry-standard mount options entered in a comma separated list. The options vary depending on the selected Mount Type.</p> <p>If you are using NFS, leave the field blank or enter one or more of the following:</p> <ul style="list-style-type: none"> • ro • rw <p>Note The folder, which is shared, should have write permissions to use read-write option. Read-write option is available only for .img files.</p> <ul style="list-style-type: none"> • nolock • noexec • soft • port=VALUE • timeo=VALUE • retry=VALUE <p>If you are using CIFS, leave the field blank or enter one or more of the following:</p> <ul style="list-style-type: none"> • soft • nounix • noserverino • guest • username=VALUE—ignored if guest is entered. • password=VALUE—ignored if guest is entered. • sec=VALUE <p>The protocol to use for authentication when communicating with the remote server. Depending on the configuration of CIFS share, VALUE could be one of the following:</p> <ul style="list-style-type: none"> • None—No authentication is used • Ntlm—NT LAN Manager (NTLM) security protocol. Use this option only with Windows 2008 R2 and Windows 2012 R2. • Ntlmi—NTLMI security protocol. Use this option only when you enable Digital Signing in the CIFS Windows server. • Ntlmssp—NT LAN Manager Security Support Provider (NTLMSSP) protocol. Use this option only with Windows |

| Name | Description |
|------------------------|--|
| | <p>2008 R2 and Windows 2012 R2.</p> <ul style="list-style-type: none"> • Ntlmsspi—NTLMSSPi protocol. Use this option only when you enable Digital Signing in the CIFS Windows server. • Ntlmv2—NTLMv2 security protocol. Use this option only with Samba Linux. • Ntlmv2i—NTLMv2i security protocol. Use this option only with Samba Linux. <p>If you are using WWW(HTTP/HTTPS), leave the field blank or enter the following:</p> <ul style="list-style-type: none"> • noauto <p>Note Before mounting the virtual media, Cisco IMC tries to verify reachability to the end server by pinging the server.</p> <ul style="list-style-type: none"> • username=VALUE • password=VALUE |
| User Name field | The username for the specified Mount Type , if required. |
| Password field | The password for the selected username, if required. |

Step 7 Click **Save**.

Viewing Cisco IMC-Mapped vMedia Volume Properties

Before you begin

You must log in with admin privileges to perform this task.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
- Step 2** In the **Compute** menu, select a server.
- Step 3** In the work pane, click the **Remote Management** tab.
- Step 4** In the **Remote Management** tab, click the **Virtual Media** tab
- Step 5** Select a row from the **Current Mappings** table.
- Step 6** Click **Properties** and review the following information:

| Name | Description |
|----------------------------------|--|
| Add New Mapping button | Opens a dialog box that allows you to add a new image. |
| Properties button | Opens a dialog box that allows you to view or change the properties for the selected image. |
| Unmap button | Unmaps the mounted vMedia. |
| Last Mapping Status | The status of the last mapping attempted. |
| Volume column | The identity of the image. |
| Mount Type drop-down list | The type of mapping. |
| Remote Share field | The URL of the image. |
| Remote File field | The exact file location of the image. |
| Status field | The current status of the map. This can be one of the following: <ul style="list-style-type: none"> • OK—The mapping is successful. • In Progress—The mapping is in progress. • Stale—Cisco IMC displays a text string with the reason why the mapping is stale. • Error—Cisco IMC displays a text string with the reason for the error. |

Removing a Cisco IMC-Mapped vMedia Volume

Before you begin

You must log in with admin privileges to perform this task.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
- Step 2** In the **Compute** menu, select a server.
- Step 3** In the work pane, click the **Remote Management** tab.
- Step 4** In the **Remote Management** tab, click the **Virtual Media** tab.
- Step 5** Select a row from the **Current Mappings** table.
- Step 6** Click **Unmap**.

Remapping an Existing Cisco IMC vMedia Image

Before you begin

You must log in with admin privileges to perform this task.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
 - Step 2** In the **Compute** menu, select a server.
 - Step 3** In the work pane, click the **Remote Management** tab.
 - Step 4** In the **Remote Management** tab, click the **Virtual Media** tab
 - Step 5** Select a row from the **Current Mappings** table.
 - Step 6** Click **Remap**.
-

Deleting a Cisco IMC vMedia Image

Before you begin

You must log in with admin privileges to perform this task.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
 - Step 2** In the **Compute** menu, select a server.
 - Step 3** In the work pane, click the **Remote Management** tab.
 - Step 4** In the **Remote Management** tab, click the **Virtual Media** tab
 - Step 5** Select a row from the **Current Mappings** table.
 - Step 6** Click **Delete**.
-

KVM Console

The KVM console is an interface accessible from Cisco IMC that emulates a direct keyboard, video, and mouse (KVM) connection to the server. The KVM console allows you to connect to the server from a remote location.

Instead of using CD/DVD or floppy drives physically 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 a virtual drive:

- CD/DVD or floppy drive on your computer

- Disk image files (ISO or IMG files) on your computer
- USB flash drive on your computer
- CD/DVD or floppy drive on the network
- Disk image files (ISO or IMG files) on the network
- USB flash drive on the network

You can use the KVM console to install an OS on the server.



Note When launching the KVM Console from Internet Explorer 6 SP1 on Windows Server 2003, the browser will report that it cannot download a required file. If this occurs, click the browser Tools menu and select Internet Options. Click the Advanced tab and, in the Security section, uncheck the checkbox for "Do not save encrypted pages to disk." Launch the KVM Console again.

Launching KVM Console

You can launch the KVM console from either the Home page or from the Remote Management area.

Procedure

- Step 1** To launch the console from Home page, in the **Navigation** pane, click the **Chassis** menu.
- Step 2** In the **Chassis** menu, click **Summary**.
- Step 3** From the tool bar, click **Launch KVM** and select **Java based KVM** or **HTML based KVM**.
- Step 4** Alternatively, in the **Navigation** pane, click the **Compute** menu.
- Step 5** In the **Compute** menu, select a server.
- Step 6** In the work pane, click the **Remote Management** tab.
- Step 7** In the **Remote Management** pane, click the **Virtual KVM** tab.
- Step 8** In the **Virtual KVM** tab, click **Launch HTML based KVM console** or **Launch Java based KVM console**.
- Step 9** Required: Click the URL link displayed in the pop-up window (HTML based KVM console only) to load the client application. You need to click the link every time you launch the KVM console.

Virtual KVM Console (Java Based)

The KVM console is an interface accessible from Cisco IMC 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 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 |
|---|---|
| Open | Opens the Open dialog box that allows you to select a file and play the video of the screen recording stored in that file. |
| Capture to File button | Opens the Save dialog box that allows you to save the current screen as a JPG image. |
| Paste Text From Clipboard button | Allows you to copy text from a clipboard to the server using the KVM console. |
| Paste Text From File button | Allows you to copy text from a remote file to the server using the KVM console. |
| Exit button | Closes the KVM console. |

View Menu

Macros Menu

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

Power Menu

| Menu Item | Description |
|--|---|
| Power On System button | Powers on the system. This option is disabled when the system is powered on and it is enabled when the system is not powered. |
| Power Off System button | Powers off the system from the virtual console session. This option is enabled when the system is powered on and disabled when the system is not powered on. |
| Reset System (warm boot) button | Reboots the system without powering it off. This option is enabled when the system is powered on and disabled when the system is not powered on. |

| Menu Item | Description |
|--|--|
| Power Cycle System (cold boot) button | Turns off system and then back on. This option is enabled when the system is powered on and disabled when the system is not powered on. |

Boot Device Menu

| Name | Description |
|-------------------------|--|
| No Override | Clicking this option enables the host to boot to the first device configured. |
| Boot Device list | A list of boot devices that the server uses to boot from only for the next server boot, without disrupting the currently configured boot order. Once the server boots from the one time boot device, all its future reboots occur from the previously configured boot order. A maximum of 15 devices are displayed on the KVM console. |

Virtual KVM Console

The KVM console is an interface accessible from Cisco IMC 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.

File Menu

| Menu Item | Description |
|----------------------------------|---|
| Paste Text From Clipboard | Opens the Paste Text From Clipboard dialog box that allows you to paste content. |
| Capture to File | Opens the Save dialog box that allows you to save the current screen as a JPG image. |
| Exit | Closes the KVM console. |

View Menu

| Menu Item | Description |
|--------------------|---|
| Keyboard | Displays the virtual keyboard for the KVM console, which you can use to input data. |
| Refresh | Updates the console display with the server's current video output. |
| Full Screen | Expands the KVM console so that it fills the entire screen. |

Macros Menu

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

| Menu Item | Description |
|---------------------------------|--|
| Server Macros 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. |
| Static Macros menu | Displays a predefined set of macros. |
| User Defined Macros menu | Displays the user-defined macros that have been created. |
| Manage | Opens the Configure User Defined Macros dialog box, which allows you to create and manage macros. System-defined macros cannot be deleted. |

Tools Menu

| Menu Item | Description |
|--------------------------|---|
| Session Options | Opens the Session Options dialog box that lets you specify: <ul style="list-style-type: none"> • Scaling—Specify whether or not you want to maintain the aspect ratio of the screen. Check or uncheck the Maintain Aspect Ratio checkbox (checked by default). • The mouse acceleration to use on the target system. The default is Absolute positioning (Windows, Newer Linux & MAC OS X). Other options are: <ul style="list-style-type: none"> • Relative Positioning, no acceleration • Relative Positioning (RHEL, Older Linux) |
| Session User List | Opens the Session User List dialog box that shows all the user IDs that have an active KVM session. |
| Chat | Opens the Chat box to communicate with other users. |
| Play Controls | Opens Cisco KVM Playback window that allows you to choose a .dvc file. |

Power Menu

| Menu Item | Description |
|------------------------|--|
| Power On System | Powers on the system. This option is disabled when the system is powered on and it is enabled when the system is not powered. |

| Menu Item | Description |
|---------------------------------------|--|
| Power Off System | <p>Powers off the system from the virtual console session.</p> <p>This option is enabled when the system is powered on and disabled when the system is not powered on.</p> |
| Reset System (warm boot) | <p>Reboots the system without powering it off.</p> <p>This option is enabled when the system is powered on and disabled when the system is not powered on.</p> |
| Power Cycle System (cold boot) | <p>Turns off system and then back on.</p> <p>This option is enabled when the system is powered on and disabled when the system is not powered on.</p> |

Boot Device Menu

| Name | Description |
|-------------------------|--|
| No Override | Clicking this option enables the host to boot to the first device configured. |
| Boot Device list | A list of boot devices that the server uses to boot from only for the next server boot, without disrupting the currently configured boot order. Once the server boots from the one time boot device, all its future reboots occur from the previously configured boot order. A maximum of 15 devices are displayed on the KVM console. |

Virtual Media Menu

| Name | Description |
|--|--|
| Activate Virtual Devices | Activates a vMedia session that allows you to attach a drive or image file from your local computer or network. |
| Create Image Note This option is available only if you use the Google Chrome web browser. | Allows you to create an ISO image. Drag and drop files or folders in the Create Image dialog box; these files or folders are converted to an ISO image. You can use the Download ISO Image button to save the ISO image to your local machine. |
| Map CD/DVD | <p>You can map a CD or a DVD image from your local machine and map the drive to the image.</p> <p>Note This option is available when you click Activate Virtual Devices.</p> |

| Name | Description |
|---------------------------|---|
| Map Removable Disk | You can map a removable disk image from your local machine and map the drive to the image. Note This option is available when you click Activate Virtual Devices . |
| Map Floppy Disk | You can map a floppy disk image from your local machine and map the drive to the image. Note This option is available when you click Activate Virtual Devices . |

Help Menu

| Name | Description |
|-------------------------|--|
| Help Topics | Clicking this option brings you back to this window. |
| About KVM Viewer | Displays the version number of the KVM viewer. |

Settings

The **Settings** icon is located on the top right hand corner of the HTML KVM viewer window.

| Name | Description |
|----------------------|--|
| Logged in as: | Displays your user role name. |
| Host Name | Displays the host name. |
| Log Out | Allows you to log out of the KVM viewer. |

Comparison Between Java Based KVM and HTML5 Based KVM

The following table lists the differences between Java based KVM and HTML5 based KVM.

| Menu Option | Action | Available in Java Based KVM | Available in HTML5 Based KVM |
|-------------|---------------------------|-----------------------------|------------------------------|
| File | Open | Yes | Yes |
| | Capture to file | Yes | Yes |
| | Paste Text from Clipboard | Yes | No |
| | Paste Text from File | Yes | No |
| | Exit | Yes | Yes |
| View | Refresh | Yes | Yes |

| Menu Option | Action | Available in Java Based KVM | Available in HTML5 Based KVM |
|----------------------|----------------------------|------------------------------------|-------------------------------------|
| | Fit | Yes | No |
| | Video-Scaling | Yes | No |
| | Full-Screen | Yes | Yes |
| | Mini-Mod | Yes | No |
| | | | |
| Macros | Server Macros | Yes | Yes |
| | Static Macros | Yes | Yes |
| | User Defined Macros | Yes | Yes |
| | Manage | Yes | Yes |
| | | | |
| Tool | Session Option | Yes | Yes |
| | Single Cursor | Yes | No |
| | Stats | Yes | No |
| | Session User List | Yes | Yes |
| | Chat | Yes | Yes |
| | Recorder/Playback Controls | Yes | No |
| | Export Video | Yes | No |
| | | | |
| Power | Power On | Yes | Yes |
| | Power OFF | Yes | Yes |
| | Reset System | Yes | Yes |
| | Power Cycle system | Yes | Yes |
| | Mini-Mod | Yes | Yes |
| | | | |
| Virtual Media | Create Image | Yes | No |
| | Activate Virtual Devices | Yes | Yes |
| | Physical Device Mapping | Yes | No |

Configuring the Virtual KVM

Before you begin

You must log in as a user with admin privileges to configure the virtual KVM.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
- Step 2** In the **Compute** menu, select a server.
- Step 3** In the work pane, click the **Remote Management** tab.
- Step 4** In the **Remote Management** pane, click the **Virtual KVM** tab.
- Step 5** On the **Virtual KVM** tab, complete the following fields:

| Name | Description |
|--|--|
| Enabled check box | If checked, the virtual KVM is enabled. Note The virtual media viewer is accessed through the KVM. If you disable the KVM console, Cisco IMC also disables access to all virtual media devices attached to the host. |
| Max Sessions drop-down list | The maximum number of concurrent KVM sessions allowed. You can select any number between 1 and 4. |
| Active Sessions field | The number of KVM sessions running on the server. |
| Remote Port field | The port used for KVM communication. |
| Enable Video Encryption check box | If checked, the server encrypts all video information sent through the KVM. |
| Enable Local Server Video check box | If checked, the KVM session is also displayed on any monitor attached to the server. |

- Step 6** Click **Save Changes**.

Enabling the Virtual KVM

Before you begin

You must log in as a user with admin privileges to enable the virtual KVM.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
 - Step 2** In the **Compute** menu, select a server.
 - Step 3** In the work pane, click the **Remote Management** tab.
 - Step 4** In the **Remote Management** pane, click the **Virtual KVM** tab.
 - Step 5** On the **Virtual KVM** tab, check the **Enabled** check box.
 - Step 6** Click **Save Changes**.
-

Disabling the Virtual KVM

Before you begin

You must log in as a user with admin privileges to disable the virtual KVM.

Procedure

- Step 1** In the **Navigation** pane, click the **Compute** menu.
 - Step 2** In the **Compute** menu, select a server.
 - Step 3** In the work pane, click the **Remote Management** tab.
 - Step 4** In the **Remote Management** pane, click the **Virtual KVM** tab.
 - Step 5** On the **Virtual KVM** tab, uncheck the **Enabled** check box.
 - Step 6** Click **Save Changes**.
-