



# Managing Remote Presence

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## Managing the Virtual KVM

### KVM Console

The KVM console is an interface accessible from the CIMC that emulates a direct keyboard, video, and mouse 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

You can use the KVM console to install an operating system or hypervisor on the server and to do the following:

- Access the BIOS setup menu by pressing **F2** during bootup.
- Access the CIMC Configuration Utility by pressing **F8** during bootup.



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**Note** The CIMC Configuration Utility is not applicable to the EHWIC E-Series NCE and the NIM E-Series NCE.

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- On Cisco UCS M1 and M2 servers, access the WebBIOS to configure RAID, by pressing **Ctrl-H** during bootup.

On Cisco UCS M3 servers, access the MegaRAID controller to configure RAID, by pressing **Ctrl-R** during bootup.



**Note** RAID is not supported on EHWIC E-Series NCE and NIM E-Series NCE. The **Ctrl-H** and **Ctrl-R** will not work on these SKUs.

### Java Requirements to Launch the KVM Console

To launch the KVM console, you must have Java release 1.6 or later installed in your system.

If the KVM console fails to launch because the certificate is revoked by Java, you must change your Java settings. Do the following:

1. Access the Java control panel.
2. Click the **Advanced** tab
3. Under **Perform certificate revocation on**, choose the **Do not check (not recommended)** radio button. For more information, see [http://www.java.com/en/download/help/revocation\\_options.xml](http://www.java.com/en/download/help/revocation_options.xml).

## Configuring the Virtual KVM

### Before you begin

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

### SUMMARY STEPS

1. Server# **scope kvm**
2. Server /kvm # **set enabled {yes | no}**
3. Server /kvm # **set encrypted {yes | no}**
4. Server /kvm # **set kvm-port port**
5. Server /kvm # **set local-video {yes | no}**
6. Server /kvm # **set max-sessions sessions**
7. Server /kvm # **commit**
8. Server /kvm # **show [detail]**

### DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	Server# <b>scope kvm</b>	Enters KVM command mode.
<b>Step 2</b>	Server /kvm # <b>set enabled {yes   no}</b>	Enables or disables the virtual KVM.
<b>Step 3</b>	Server /kvm # <b>set encrypted {yes   no}</b>	If encryption is enabled, the server encrypts all video information sent through the KVM.
<b>Step 4</b>	Server /kvm # <b>set kvm-port port</b>	Specifies the port used for KVM communication.
<b>Step 5</b>	Server /kvm # <b>set local-video {yes   no}</b>	If local video is <b>yes</b> , the KVM session is also displayed on any monitor attached to the server.

	Command or Action	Purpose
<b>Step 6</b>	Server /kvm # <b>set max-sessions</b> <i>sessions</i>	Specifies the maximum number of concurrent KVM sessions allowed. The <i>sessions</i> argument is an integer between 1 and 4.
<b>Step 7</b>	Server /kvm # <b>commit</b>	Commits the transaction to the system configuration.
<b>Step 8</b>	Server /kvm # <b>show [detail]</b>	(Optional) Displays the virtual KVM configuration.

### Example

This example configures the virtual KVM and displays the configuration:

```
Server# scope kvm
Server /kvm # set enabled yes
Server /kvm *# set encrypted no
Server /kvm *# set kvm-port 2068
Server /kvm *# set max-sessions 4
Server /kvm *# set local-video yes
Server /kvm *# commit
Server /kvm # show detail
KVM Settings:
  Encryption Enabled: no
  Max Sessions: 4
  Local Video: yes
  Active Sessions: 0
  Enabled: yes
  KVM Port: 2068

Server /kvm #
```

### What to do next

Launch the virtual KVM from the GUI.

## Enabling the Virtual KVM

### Before you begin

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

### SUMMARY STEPS

1. Server# **scope kvm**
2. Server /kvm # **set enabled yes**
3. Server /kvm # **commit**
4. Server /kvm # **show [detail]**

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	Server# <code>scope kvm</code>	Enters KVM command mode.
<b>Step 2</b>	Server /kvm # <code>set enabled yes</code>	Enables the virtual KVM.
<b>Step 3</b>	Server /kvm # <code>commit</code>	Commits the transaction to the system configuration.
<b>Step 4</b>	Server /kvm # <code>show [detail]</code>	(Optional) Displays the virtual KVM configuration.

**Example**

This example enables the virtual KVM:

```
Server# scope kvm
Server /kvm # set enabled yes
Server /kvm *# commit
Server /kvm # show
Encryption Enabled Local Video      Active Sessions Enabled KVM Port
-----
no                                   yes                0                yes                2068

Server /kvm #
```

## Disabling the Virtual KVM

**Before you begin**

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

## SUMMARY STEPS

1. Server# `scope kvm`
2. Server /kvm # `set enabled no`
3. Server /kvm # `commit`
4. Server /kvm # `show [detail]`

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	Server# <code>scope kvm</code>	Enters KVM command mode.
<b>Step 2</b>	Server /kvm # <code>set enabled no</code>	Disables the virtual KVM.  <b>Note</b> Disabling the virtual KVM disables access to the virtual media feature, but does not detach the virtual media devices if virtual media is enabled.
<b>Step 3</b>	Server /kvm # <code>commit</code>	Commits the transaction to the system configuration.

	Command or Action	Purpose
Step 4	Server /kvm # <b>show [detail]</b>	(Optional) Displays the virtual KVM configuration.

**Example**

This example disables the virtual KVM:

```
Server# scope kvm
Server /kvm # set enabled no
Server /kvm *# commit
Server /kvm # show
Encryption Enabled Local Video      Active Sessions Enabled KVM Port
-----
no                                   yes          0              no          2068
Server /kvm #
```

# Managing Serial over LAN

## Serial over LAN

Serial over LAN (SoL) is a mechanism that enables the input and output of the serial port of a managed system to be redirected via an SSH session over IP. SoL provides a means of reaching the host console via the CIMC.

### Guidelines and Restrictions for Serial over LAN

For redirection to SoL, the server console must have the following configuration:

- Console redirection to serial port A
- No flow control
- Baud rate the same as configured for SoL
- VT-100 terminal type
- Legacy OS redirection disabled

The SoL session will display line-oriented information such as boot messages, and character-oriented screen menus such as BIOS setup menus. If the server boots an operating system or application with a bitmap-oriented display, such as Windows, the SoL session will no longer display. If the server boots a command-line-oriented operating system (OS), such as Linux, you may need to perform additional configuration of the OS in order to properly display in an SoL session.

In the SoL session, your keystrokes are transmitted to the console except for the function key F2. To send an F2 to the console, press the Escape key, then press 2.

# Configuring Serial Over LAN

## Before you begin

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

## SUMMARY STEPS

1. Server# **scope sol**
2. Server /sol # **set enabled {yes | no}**
3. Server /sol # **set baud-rate {9600 | 19200 | 38400 | 57600 | 115200}**
4. Server /sol # **commit**
5. Server /sol # **show [detail]**

## DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	Server# <b>scope sol</b>	Enters SoL command mode.
<b>Step 2</b>	Server /sol # <b>set enabled {yes   no}</b>	Enables or disables SoL on this server.
<b>Step 3</b>	Server /sol # <b>set baud-rate {9600   19200   38400   57600   115200}</b>	Sets the serial baud rate the system uses for SoL communication.  <b>Note</b> The baud rate must match the baud rate configured in the server serial console.
<b>Step 4</b>	Server /sol # <b>commit</b>	Commits the transaction to the system configuration.
<b>Step 5</b>	Server /sol # <b>show [detail]</b>	(Optional) Displays the SoL settings.

## Example

This example configures SoL:

```
Server# scope sol
Server /sol # set enabled yes
Server /sol *# set baud-rate 115200
Server /sol *# commit
Server /sol # show
Enabled Baud Rate(bps)
-----
yes      115200

Server /sol #
```

# Launching Serial over LAN

## SUMMARY STEPS

1. Server# **connect host**

**DETAILED STEPS**

	<b>Command or Action</b>	<b>Purpose</b>
<b>Step 1</b>	Server# <b>connect host</b>	Opens an SoL connection to the redirected server console port. You can enter this command in any command mode.

**What to do next**

Press **Ctrl** and **X** keys to disconnect from SoL and return to the CLI session.



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**Note** When you enable SoL, the output from the serial port is redirected; therefore, when you try to session into the host from Cisco IOS CLI, you will not see any output.

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