



CHAPTER 5

Troubleshooting Cisco IPICS Installation Issues

The issues that are described in this section may occur during, or as a result of, installing the Cisco IPICS operating system or the Cisco IPICS server software. Refer to the following sections in the *Cisco IPICS Troubleshooting Guide, Release 2.1(1)* for information about the following components of Cisco IPICS:

- For information about troubleshooting the PMC application, refer to the “Troubleshooting Tips for the PMC Application” chapter in the *Cisco IPICS Troubleshooting Guide, Release 2.1(1)*.
- For information about troubleshooting license issues, refer to the “Troubleshooting License Issues” section of the “Troubleshooting the Cisco IPICS Server” chapter in the *Cisco IPICS Troubleshooting Guide, Release 2.1(1)*.

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Cisco IPICS Cannot Detect the NIC During Installation

Problem During the installation of the Cisco IPICS operating system on the Cisco MCS 7825-H2 server, the Kudzu hardware detection utility window timed out, or you chose **Ignore the device**. The Cisco IPICS operating system cannot detect any of the NICs in your server. You have no network connectivity.

Solution You have to rerun the Kudzu hardware detection utility so that the Cisco IPICS operating system can detect the NICs. Then, you need to configure the eth0 interface for IP connectivity.

Perform the following steps to configure the hardware by using the Kudzu hardware detection utility and configure the eth0 interface for IP connectivity:

Procedure

Step 1 Log in to the Cisco IPICS server with the root user ID.

You must be directly connected to the terminal by a console connection.

Step 2 To confirm that the Kudzu hardware detection utility did not configure the eth0 interface, enter the following command:

```
[root]# ifconfig -a
```

If the interface has not been configured, output that is similar to the following example displays:

```
[root]# ifconfig -a

lo          Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            UP LOOPBACK RUNNING  MTU:16436  Metric:1
            RX packets:316510 errors:0 dropped:0 overruns:0 frame:0
            TX packets:316510 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:0
            RX bytes:149449273 (142.5 Mb)  TX bytes:149449273 (142.5 Mb)
```

The preceding example shows that the Cisco IPICS operating system configured the loopback (lo) interface, and did not configure the eth0 interface.

Step 3 Enter the following command to start the Kudzu hardware detection utility:

```
[root]# service kudzu start
```

The system displays the Kudzu hardware detection utility window.

Step 4 To configure the system hardware, press any key before the Kudzu window times out.

Step 5 Perform the following steps, depending on the window that the system displays:

- If you see a window that indicates that the system added or removed a NIC, continue with [Step 6](#).



Note A window indicating that a NIC was added indicates that the Kudzu hardware detection utility detected the NIC for the eth0 interface, and you configure the NIC in [Step 6](#). A window indicating that a NIC was removed indicates that the utility removed an existing NIC configuration, and you reconfigure the NIC in [Step 6](#).

- If you see a window that indicates that the system detected the Intel SATA controller, proceed to [Step 11](#).

Step 6 Perform one of the following actions, depending on the window that the system displays:

- If a window displays to indicate that the system added a NIC, press **Enter** to choose the **Configure** option from the following choices.
 - **Configure**—Choose this option to configure the NIC. This option specifies the default.
 - **Ignore the device**—Choose this option if you do not have hardware that needs to be added to the system.
 - **Do nothing**—Choose this option if you do not want to configure the hardware. If you reboot the server, the hardware configuration utility will detect the hardware as being newly installed, and the system prompts you to configure it.

- If you already configured the eth0 interface, a window displays to indicate that the system removed a NIC. If this window displays, press the **Tab** key, select **Keep configuration**, and press **Enter** to select the **Keep configuration** option from the following choices:
 - **Remove configuration**—Choose this option to remove the configuration for the NIC.
 - **Keep configuration**—Choose this option to keep the configuration for the NIC.
 - **Do nothing**—Choose this option to do nothing to the NIC configuration.



Note Be careful not to remove the **Remove configuration** option, as this option removes all of the NIC configuration.

The Cisco IPICS operating system configuration program displays the interface configuration window.

Step 7 If you configured the NIC in [Step 6](#), press the space bar to choose **Use dynamic IP/configuration (BOOTP/DHCP)**.

An asterisk displays in the check box area to indicate that you have chosen to use the Dynamic Host Configuration Protocol (DHCP).



Note This step allows the Cisco IPICS operating system to detect the NIC that controls the interface on your server. Cisco IPICS does not use DHCP. You must use a static IP address to configure your Cisco IPICS server for network connectivity. You perform the IP configuration steps as described in [Step 12](#).

Step 8 Press **Tab** or use the left and right arrows to choose **OK**.

Step 9 To accept your choice, press **Enter**.

Step 10 If the operating system configuration program displays a second window that indicates that the Cisco IPICS operating system detected another NIC, perform the following actions to ignore the configuration for the eth1 interface:

- a. Press **Tab** to choose **Ignore**.
- b. Press **Enter** to confirm.



Note Make sure that you do not configure the eth1 interface. Cisco IPICS does not support the configuration of the eth1 interface.

The Cisco IPICS operating system configuration program continues without configuring the eth1 interface, and displays a window to indicate that it detected the Intel SATA Controller.

Step 11 Press **Enter** to accept the **Configure** option and configure the Intel SATA controller.

The system automatically configures the Intel SATA controller.

Step 12 To configure your network for use with Cisco IPICS, enter the following command:

```
[root] modify_ip
```

The system displays text that is similar to the following example:

```
Use this tool to facilitate changing the Cisco IPICS server network
settings,
such as IP address or host name.
```

```
To change the current settings, enter the new values below.
To accept the existing values without making any changes, press Enter.
```

```
ip address for interface eth0[10.1.1.1]:
```

Step 13 Enter the IP address for your server; then, press **Enter**.

The system displays the following text:

```
Subnet mask for interface eth0[]:
```

Step 14 Enter the subnet mask for your IP address; then, press **Enter**.

The system displays the following text:

```
default gateway[]:
```

Step 15 Enter the default gateway for your network and press **Enter**.

The system displays the other fields that you configure to ensure network connectivity.

Step 16 Enter the host name, domain name, primary DNS server and (optional) any secondary DNS servers when you are prompted. Press **Enter** after each entry.



Note Make sure that you also update your DNS servers if you want to access Cisco IPICS by using the host name.

Step 17 Press **Y**; then, press **Enter** to confirm the entries.

The system displays text that is similar to the following example:

```
The tool is now ready to modify your system configuration.  
After changing the configuration files, the tool will initiate a  
system shutdown and restart the server.
```

```
If you are using a network connection, your session will be  
interrupted and you will need to  
reconnect by using the new settings:
```

```
IP Address: 10.1.1.1      Hostname: myhostname
```

```
Enter Y to proceed with these values or N to cancel [N]:
```

Step 18 Press **Y**; then, press **Enter** to confirm your choices and reboot the server.

The server reboots and displays the Login screen.

No Network Connectivity After Connecting the Ethernet Cable to Interface 1 on the Server

Problem After you install the Cisco IPICS operating system software, you cannot connect your server to the network. The Ethernet cable is connected to Ethernet interface 1 on the server. The connection uses DHCP.

Solution If your interfaces are labeled 1 and 2, the server might map the eth0 port to interface 2. Connect the Ethernet cable to interface 2 on your server and try to reestablish connectivity, or consult your server documentation to determine the mapping scheme for the eth0 port.



Note If your interfaces are labeled NIC 1 and NIC 2, connect the Ethernet cable to the NIC 1 interface.

The Cisco IPICS Operating System Detects Unsupported Hardware

Problem When you install the Cisco IPICS operating system software, a message displays to inform you that the hardware platform is not supported.

Solution The installation program includes hardware detection logic that checks for supported parameters on the server. If any of the parameters do not match with the information that is contained in the installation program, an unsupported hardware message displays. For instance, if you install the Cisco IPICS operating system on a supported server model that does not have the required amount of memory installed, the installation program detects an unsupported parameter. In this case, the server model is actually supported, but because there is insufficient memory to support Cisco IPICS, the message displays.

Make sure that you check the *Cisco IPICS Compatibility Matrix* at the following URL for the most current versions of compatible hardware components, including memory requirements, and software versions for use with Cisco IPICS:

http://www.cisco.com/en/US/products/ps7026/tsd_products_support_series_home.html

The Server Cannot Allocate Partitions

Problem When you attempt to install the Cisco IPICS operating system software, the server displays the following error message:

```
Could not allocate requested partitions:  
Partitioning Failed: Could not allocate partitions  
Press OK to reboot system.
```

Solution You may encounter this error if the server does not have sufficient hard disk space. Make sure that no hard disks have been removed from your server; your server must have 160 GB of hard disk space to function properly with the Cisco IPICS operating system.

For more information, refer to the *Cisco IPICS Compatibility Matrix*.

Troubleshooting “Bad Interpreter: Permission Denied” Errors

Problem You attempt to install the Cisco IPICS server software by using the following command, and the installer displays a bad interpreter error that is similar to the following example:

```
[root]# ./ipics-installer.run
./ipics-installer.run
```

```
-bash: ./ipics-installer.run: /bin/bash: bad interpreter: Permission
denied
```

where:

ipics-installer.run represents the name of the Cisco IPICS installer file that you are attempting to run.

Solution The shell interpreter script for the Cisco IPICS operating system misinterprets the `./` command. To fix this problem, replace `./` with the **bash** command, as shown in the following example:

```
[root]# bash <name-of-installer-file>.run
```

where:

<name-of-installer-file>.run represents the name of the Cisco IPICS installer file that you are attempting to run.

Troubleshooting “Permission Denied” Errors

Problem When you start the Cisco IPICS server software installation, the installer displays a permission denied error message that is similar to the following example:

```
[root]# bash ipics-installer.run
-bash: bash ipics-installer.run: Permission denied
```

where:

ipics-installer.run represents the name of the Cisco IPICS installer file that you are attempting to run.

Solution The secure copy or FTP program saved the .run file as a read-only file and the system cannot run the file. Modify the file so that the system can run it, as shown in the following example:

```
[root] # chmod 550 <name-of-installer-file>.run
```

where:

<name-of-installer-file>.run is the name of the Cisco IPICS installer file.



Note

Entering this command allows the root user ID to read and run the installer file.

SSH Loses Connectivity While You Perform a Remote Server Software Installation

Problem When you perform a remote installation of the Cisco IPICS server software, the SSH program loses connectivity with the server and the installation does not complete.

Solution Reconnect to the server by using SSH; then, retry the remote server software installation by performing the procedure in the [“Performing a Remote Cisco IPICS Server Software Installation”](#) section on page 2-21.



Note

Make sure that the SSH program has uninterrupted connectivity to the server while the installation program runs; even a momentary loss of connectivity can terminate the program.

You Cannot Connect to the Server By Using Your Browser

Problem After you install Cisco IPICS, you enter the IP address or the host name for the Cisco IPICS server into a supported browser but you cannot contact the server.

Solution If you cannot connect to the Cisco IPICS server through a browser, one of the following situations may have occurred:

- You entered the incorrect IP address or DNS name for the Cisco IPICS server
- The tomcat service is not running
- The database server is not running
- A security setting on your computer has caused a required JavaScript add-on to become disabled

To diagnose the problem, perform the following procedure:

Procedure

- Step 1** Make sure that the URL that you entered is correct by performing the following actions:
- Ensure that you are using the secure HTTP URL, **https://** in the URL address field.
 - Check that you entered in to the browser the correct IP address for the Cisco IPICS server.
 - If you entered the DNS name for the server, ensure that the DNS name is correct and that your network is able to resolve the DNS name. If you conclude that your network is not resolving the server DNS name correctly, enter the IP address in the URL address field.
- Step 2** If you still cannot access the Administration Console, Log in to the Cisco IPICS server with the root user ID by performing one of the following actions:

- Use a terminal console to log in to the server by following these steps:
 - a. Connect to the server by using a terminal console.
 - a. Log in to the server by entering **root** for the user name.
 - b. When you are prompted, enter the root user password.
- Log in to the server remotely by following these steps:
 - a. Open a terminal window by using SSH Secure Shell Client software or similar software.
 - b. Log in to the server by entering the IP address or host name of the server.
 - c. Log in by using the root user ID by entering **root** for the user name.
 - d. When you are prompted, enter the root user password.



Note You might not be able to connect to the server remotely if your server is experiencing network connectivity problems; in this case, connect to the server by using a terminal console.

A terminal window displays.

Step 3 Ensure that the tomcat service is running by entering the following command:

```
[root]# service ipics_tomcat status
```

Step 4 Perform one of the following actions, depending on the output that you receive:

- If the tomcat service is running, you receive output that is similar to the following example:

```
[root]# service ipics_tomcat status  
Tomcat process (pid: 24025) is running on the system
```

If you receive output that indicates that the tomcat service is running, continue to [Step 8](#).

- If the tomcat service is not running, you receive output that is similar to the following example:

```
[root]# service ipics_tomcat status  
PID_SEARCH_RESULT=  
Tomcat is not running on the system.
```

If you receive output that indicates that the tomcat service is not running, restart the tomcat service and the policy engine by entering the following command:

```
[root]# service ipics restart
```



Note Be aware that Cisco IPICS cancels any active dial-in or dial-out calls when you enter the **service ipics restart** command.

Step 5 If the tomcat service does not run after you restart it manually, perform the following actions:

- a. Check whether Cisco IPICS already installed the crontab file by entering the following command:

```
[root]# crontab -l -u ipicsadmin
```



Note The crontab file runs a process that checks if the tomcat service and database are running, and starts them if they are not running.

- b. If the **crontab** command returns a message that is similar to the following message, the tomcatcron file already exists. Continue to [Step 8](#).

```
[root]# crontab -l -u ipicsadmin
#-----
#
# Module: ipicsadmin.cron - Cisco IPICS cron file for user
'ipicsadmin'
#
# Usage: crontab < ipicsadmin.cron
#
# Environment Variables:
#
#-----
SHELL=/bin/sh
MAILTO=root
HOME=/opt/cisco/ipics/tomcat

* * * * * /opt/cisco/ipics/bin/check_tomcat >>
/opt/cisco/ipics/tomcat/current/logs/ipicsadmin_cron.log 2>&1
```

- c. If the **crontab** command returned a message such as **no crontab for ipicsadmin**, install the crontab file by entering the following command:

```
[root]# crontab /opt/cisco/ipics/cron/ipicsadmin.cron
```

Cisco IPICS installs the crontab file.

Almost immediately, Cisco IPICS starts the tomcat service. You can then log in to the Administration Console by using your browser.

For information about starting and restarting the Cisco IPICS tomcat service, see the “Performing Tomcat Service Procedures” section in the “Troubleshooting Cisco IPICS Network Processes” chapter in the *Cisco IPICS Troubleshooting Guide, Release 2.1(1)*.

Step 6 To check the status of the database, enter the following command:

```
[root]# onstat -
```

If the database is online and running, the command returns output that is similar to the following example.

```
IBM Informix Dynamic Server Version 10.00.UC1      -- On-Line -- Up
00:16:14 -- 124036 Kbytes
```

If the database is not running, the command returns output that is similar to the following example.

```
shared memory not initialized for INFORMIXSERVER 'IPICSDbServer'
```

If the command output indicates that the database is not running, continue to [Step 7](#).

Step 7 If the database is not running, manually start the database server by entering the following command:

```
[root]# service ipics_db start
```

Step 8 To verify that the static IP address, subnet mask, and default gateway are properly configured, check your IP connectivity by entering the following command:

```
ping <default gateway IP address>
```

where:

<default gateway IP address> represents the default gateway address for your network.

Step 9 If the ping command is not successful, unplug the network cable from interface 1 on the server and connect it to interface 2.



Note Generally, for servers that label their Ethernet interfaces as NIC 1 and NIC 2, you connect the Ethernet cable to the NIC 1 interface; this interface is usually the eth0 interface. For servers that label their Ethernet interfaces as 1 and 2, it is possible that the eth0 interface is mapped to interface 2. Consult your server product documentation to confirm the interface mapping.

Step 10 Retry [Step 8](#) to verify server network connectivity.

Step 11 If the ping command is successful, log in to another server on the network and attempt to ping the Cisco IPICS server.

If the ping command is not successful, troubleshoot the network connectivity with your network administrator.

Step 12 Check the security settings for the computer from which you are attempting to access the Administration Console.



Note For enhanced security, Cisco recommends that you review and follow the recommendations that are included in the Windows XP Security Guide. To find this document, refer to the Microsoft support site at <http://support.microsoft.com/> and search for “Windows XP Security Guide.”

When you follow the recommendations that are included in the Windows XP Security Guide and deny all add-ons, except those that are specifically allowed in the add-on list, you may encounter a problem where you cannot access the Cisco IPICS server Administration Console. This issue occurs when you use Internet Explorer from a PC that runs Microsoft Windows XP SP2 and have not enabled the JavaScript GUID in the add-on list.

To resolve this issue and ensure proper operation from Internet Explorer, you must explicitly enable the following JavaScript GUID add-on on your PMC client machine:

GUID: {F414C260-6AC0-11CF-B6D1-00AA00BBBB58} - JavaScript

For detailed information about how to enable this add-on, refer to the Microsoft support site at <http://support.microsoft.com/> and search for Article ID 555235.

Step 13 Retry accessing the server by entering the following URL in the supported browser:

https://<ipaddress> | <dnsname>

where:

<ipaddress> or <dnsname> represents the IP address or DNS name of the server.

If you still cannot access the server, contact your Cisco technical support representative for assistance.

Cisco IPICS Displays an Authorization Error

Problem After installing Cisco IPICS, you log in to the Administration Console and receive an authorization error.

Solution An authorization error may occur in one of the following circumstances:

- You may have entered an incorrect user name or password
- The database server may not have started.

To resolve this problem, perform the following procedure:

Procedure

- Step 1** Before you check the status of the database server, verify that you entered the correct user name and password, and that the Caps Lock setting is not on.
- If you confirm that you entered the correct login information for the Cisco IPICS Administration Console and still receive an authorization error, you must check the status of the database. Continue to [Step 3](#).
- Step 2** Access the Cisco IPICS server by using a terminal console.
- Cisco IPICS displays the following text:
- Cisco IPICS**
- hostname* **login:**
- with *hostname* being the host name of the Cisco IPICS server.
- Step 3** Enter **root** in the *hostname* **login:** field and press **Enter**.
- Cisco IPICS prompts you for the password for the root user.

- Step 4** Enter the password for the root user and press **Enter**.
- Step 5** To check the status of the database, enter the following command:

```
[root] #onstat -
```

If the database is online and running, the command returns a response that is similar to the following example:

```
IBM Informix Dynamic Server Version 10.00.UC1      -- On-Line -- Up  
00:16:14 -- 124036 Kbytes
```

If the database is not running, the command returns a response that is similar to the following example:

```
shared memory not initialized for INFORMIXSERVER 'IPICSDbServer'
```

- Step 6** If the database is not running, manually start the database by entering the following command:

```
[root] #service ipics_db start
```
