
Chapter 6. Symptom-to-FRU index

This index supports the BladeCenter Type 8677.

Notes:

1. Check the configuration before you replace a FRU. Configuration problems can cause false errors and symptoms.
2. For IBM devices not supported by this index, refer to the manual for that device.
3. Blade modules (I/O, management, power) and blowers must be replaced during service within two minutes.

The symptom-to-FRU index lists symptoms, errors, and the possible causes. The most likely cause is listed first. Use this symptom-to-FRU index to help you decide which FRUs to have available when servicing the system.

The left-hand column of the tables in this index lists error codes or messages, and the right-hand column lists one or more suggested actions or FRUs to replace.

Note: In tables with more than two columns, multiple columns are required to describe the error symptoms. Take the action (or replace the FRU) suggested first in the list of the right-hand column, then try the server again to see if the problem has been corrected before taking further action.

Note: Try reseating a suspected component or reconnecting a cable before replacing the component.

Error symptoms

You can use the following information to find solutions to problems that have definite symptoms.

Attention: If diagnostic error messages appear that are not listed in the following tables, make sure that your BladeCenter unit has the latest level of firmware code installed.

If you have just added a new option and your system is not working, complete the following procedure before using the troubleshooting charts:

1. Remove the option that you just added.
2. Run the diagnostic tests to determine if your system is running correctly.
3. Reinstall the new device.

Table 2. Troubleshooting charts

Device	Suggested action
Blade server problem	
Blade servers turn off for no apparent reason.	All blade bays must have a blade server, expansion unit, or filler blade in them. Blade bays that do not have these items installed or have them installed improperly disturb airflow in the BladeCenter unit with an adverse effect on BladeCenter unit cooling. If the BladeCenter unit begins to overheat, blade server processors will begin to slow down and will eventually turn off the system.
Blade server does not turn off during Red Hat Linux 7.3 shutdown.	<p>Issuing any of the Linux shutdown commands shuts down the operating system, but does not turn off the blade server. The blade server shuts down to the point where a message is displayed on the management module saying that the blade server is off, but the blade server power-on LED remains lit.</p> <p>Complete the instructions provided for Red Hat Linux in the <i>User's Guide</i> or the <i>Command-Line Interface Reference Guide</i> for your management module type to enable Wake On LAN for both onboard Broadcom integrated Ethernet controllers. This will allow the blade server to restart using Wake on LAN even if the Linux shutdown is incomplete and the blade server does not turn off.</p> <p>Forcing a blade server to turn off</p> <p>Complete the following steps to turn off a blade server after an incomplete Linux shutdown:</p> <ol style="list-style-type: none"> 1. Manually press the power-control button on the front of the blade server (behind the control panel door) to turn off the blade server. Turning off the blade server in this way is considered an improper shutdown by the Wake on LAN feature, and the Wake on LAN feature will not restart the blade server. 2. Unlatch and slide the blade server partially out of the BladeCenter; then, reinstall it to reset the blade server power state and re-enable its previously programmed Wake on LAN capability.
Blade server does not turn off during SuSE Linux 8.0 shutdown.	<p>Issuing any of the Linux shutdown commands shuts down the operating system but does not turn off the blade server. The blade server shuts down to the point where a message is displayed on the management module saying that the blade server is off, but the blade server power-on LED remains lit.</p> <p>A blade server running SuSE Linux 8.0 will not turn off during shutdown if ACPI is not enabled. Complete the following steps to enable ACPI:</p> <ol style="list-style-type: none"> 1. Type the following command: <code>modprobe ospm_system</code> 2. Type the following command to save this setting upon subsequent reboots: <code>echo "/sbin/modprobe ospm_system" >> /etc/init.d/boot.local</code>
Blade server does not turn on, the amber system-error LED on the BladeCenter system-LED panel is lit, the amber blade error LED on the blade server LED panel is lit, and the system-error log contains the following message: "CRUs MisMatched".	<p>The problem occurs after installing the second microprocessor option or after replacing a failed microprocessor in a two-way Blade server.</p> <p>The processor with the lowest feature set and stepping level must be used as the Bootstrap Processor (BSP). This is Microprocessor 1 in location U66. Move the microprocessor in location U66 to location U70, and move the microprocessor in location U70 to location U66.</p>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>CD-ROM cannot be configured with a JS20 blade server but works with a HSxx blade server.</p>	<p>The customer interface card (FRU number 59P6629) is not compatible with the JS20 blade server and must be replaced with the latest level FRU. Note: The customer interface card installed in the BladeCenter is listed as the "media tray" instead of the "customer interface card" on the Hardware VPD view of the management-module web interface. The FRU number is also printed on the customer interface card. Replace the customer interface card with the latest level, see Chapter 7, "Parts listing, BladeCenter Type 8677," on page 77 for the correct FRU number.</p>
<p>Some components do not report environmental status (temperature, voltage).</p>	<p>The green status dot for a component is not automatically a link to environmental information (temperature and voltage) for the component. Only the management module and blade servers have environmental information, and only the green dot for those components contains a link to environmental information.</p>
<p>Switching KVM control between blade servers gives USB device error.</p>	<p>If a blade server is under heavy load, it can take several minutes before it enumerates the USB devices connected to it. If control of the KVM and media tray is switched away from the blade server before this enumeration is complete, a USB device installation error might be displayed. Do not switch KVM control between blade servers until the mouse and keyboard are both working on the blade server that has control of the KVM and media tray.</p>
<p>"Unsafe Removal of Device" error message appears on blade server running Microsoft Windows 2000.</p>	<p>Before switching ownership of the media tray to another blade server, safely stop the media tray devices on the blade server that currently owns the media tray, similar to the following:</p> <ol style="list-style-type: none"> 1. Double-click the Unplug or Eject Hardware icon in the Windows taskbar at the bottom right of the screen. 2. Select USB Floppy, and click Stop. 3. Select USB Mass Storage Device, and click Stop. 4. Click Close. <p>You can now safely switch ownership of the media tray to another blade server.</p>
<p>"Media not found" error message and other file system error occur on a blade server running Linux or DOS.</p>	<p>Attempting to access the mounted optical drive or diskette drive (media tray) after it has been switched to another blade server results in I/O errors, even if the media tray has been switched back. Note: Because the BladeCenter unit uses a USB bus to communicate with the media tray devices, switching ownership of the media tray to another blade server is the same as unplugging a USB device.</p> <ul style="list-style-type: none"> • If a blade server tries to access the optical drive after it has been switched to another blade server, a "Media not found" error occurs. • If a blade server is running a DOS environment, such as when updating firmware on the blade server, the firmware can be interrupted or corrupted when the media tray is switched away; you might need to call for service on the blade server. • If a file handle was left open by switching the media tray away, the system administrator will not be able to do a clean unmount (umount command) unless the unmount is forced by umount command parameters ("lazy unmount"). • If the system administrator is sharing out the optical drive for multiple users, that network share is broken. <p>Before switching ownership of the media tray to another blade server, ensure that the optical drive and diskette drive are not mounted for the current blade server owner (check for open file handles and sharing out). If a firmware update is taking place on the blade server, do not switch the media tray to another blade server.</p>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Linux does not install from the BladeCenter optical drive or will not start afterward.</p>	<p>Neither Red Hat Linux 7.3 nor SuSE Linux version 8.0 will install locally, although Red Hat Linux might appear to install.</p> <ul style="list-style-type: none"> • If you try to install Red Hat Linux to the blade server IDE drive, Linux does not install. • If you try to install Red Hat Linux to the SCSI drive on a blade server expansion unit, Linux appears to install but the operating system will not start properly. • If you try to install SuSE Linux, Linux does not install. <p>Download the latest operating system installation instructions for your operating system from the IBM Support Web page at http://www.ibm.com/systems/support/. The necessary workaround is described in the instructions for your operating system.</p>
<p>X does not start in Red Hat 7.3 when the blade server does not own the KVM.</p>	<p>The X Window does not start in a blade server if the blade server is not the current owner of the keyboard, video, and mouse (KVM). Because the blade server does not own the KVM, the X Window cannot find the mouse.</p> <p>Depending on the Red Hat Linux kernel version, do one of the following:</p> <ul style="list-style-type: none"> • Red Hat Linux 7.3, kernels prior to 2.4.18-17.7.x, and Red Hat Advanced Server kernels 2.1: Add the following line to the <code>/etc/modules.conf</code> file. <pre>alias char-major-13 mousedev</pre> • Red Hat Linux 7.3, kernel 2.4.18-17.7.x or later: Install the 2.4.18-17.7.x or later kernel errata, available from https://rhn.redhat.com/errata/rh73-errata.html.

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Remote control does not work with default SuSE Linux, version 8.0, display settings.</p>	<p>The remote console requires a display setting of 1024x768@60Hz in the blade server operating system. The default resolution in SuSE is 1024x768, but the default refresh rate falls somewhere between 50Hz and 60Hz. The remote console does not work for a blade server running SuSE with a display refresh rate other than exactly 60Hz. The message "eServer/No video available" displays.</p> <p>Other operating systems do not exhibit the problem.</p> <p>Set the refresh rate in the XF86Config file to exactly 60Hz.</p> <p>There are two methods.</p> <ul style="list-style-type: none"> • Method 1 (unattended network install, prevent the problem): Modify the AutoYaST control file to specify 1024x768@60Hz. <ol style="list-style-type: none"> 1. Run the graphical interface to the AutoYaST control file to set the VESA video mode to 1040x768@60Hz. The graphical interface creates the AutoYaST control file. 2. Edit the resulting AutoYaST control file to set the value for min_vsync to 60. <p>During an unattended network install, the YaST program uses the AutoYaST control file to modify the XF86Config file (/etc/X11/XF86Config); these changes will cause XF86Config to set the display resolution to 1040x768 with a refresh rate of 60Hz.</p> <p>-- OR --</p> • Method 2 (situation has already occurred): Modify the xF86Config file. <ol style="list-style-type: none"> 1. In the Monitor section of /etc/X11/XF86Config, change the value of VertRefresh to 60, as shown in these sample lines. <pre>Section "Monitor" Option "CalcAlgorithm" "IteratePrecisely" HorizSync 31-48 Identifier "Monitor[0]" ModelName "AutoDetected" Option "DPMS" VendorName "AutoDetected" VertRefresh 60 UseModes "Modes[0]" EndSection</pre> 2. Shut down X; then, restart it.
<p>Diskette drive problems</p>	

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Diskette drive is seen as /dev/sdx by Red Hat Linux 7.3 and SuSE version 8.0</p>	<p>Both Red Hat Linux and SuSE Linux see the diskette drive as /dev/sdx (where x is the last SCSI device in the line) instead of /dev/fd0. When you try to mount the drive as fd0, the Linux operating system does not recognize the device (“not a valid block device”).</p> <p>There are two options:</p> <ul style="list-style-type: none"> • (For SuSE Linux version 8.0) Modify the /etc/fstab file to include the following line: <code>/dev/sdx /media/floppy auto noauto,user,sync 0 0</code> <p>where x is the letter that was assigned to the diskette drive.</p> <ul style="list-style-type: none"> • (For Red Hat Linux 7.3) <ol style="list-style-type: none"> 1. Modify the /etc/fstab file to include the following line: <code>/dev/fdx /mnt/floppy auto noauto,user 0 0</code> <p>where x is the letter that was assigned to the diskette drive.</p> <ol style="list-style-type: none"> 2. Create a directory for the diskette drive under /mnt by running: <code>mkdir /mnt/floppy</code> 3. Mount the diskette drive by typing: <code>mount /mnt/floppy</code> <p>Note: When running Linux, you must unmount the diskette drive before changing ownership of the media tray.</p>
<p>Diskette drive problem.</p>	<ol style="list-style-type: none"> 1. Replace the diskette drive 2. Replace the diskette drive signal/power cable
<p>Optical drive problems</p>	
<p>Optical drive is seen as /dev/sr0 by SuSE.</p>	<p>If the SuSE Linux operating system is installed remotely onto a blade server that is not the current owner of the media tray (optical drive, diskette drive, and USB port), SuSE sees the optical drive as /dev/sr0 instead of /dev/cdrom, establish a link between /dev/sr0 and /dev/cdrom as follows:</p> <ol style="list-style-type: none"> 1. Enter the following command: <code>rm /dev/cdrom; ln -s /dev/sr0 /dev/cdrom</code> 2. Insert the following line in the /etc/fstab file: <code>/dev/cdrom /media/cdrom auto ro,noauto,user,exec 0 0</code>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Optical drive is not recognized after being switched back to blade server running on Windows 2000 Advanced Server with SP3 applied.</p>	<p>When the optical drive is owned by blade server x, is switched to another blade server, then is switched back to blade server x, the operating system in blade server x no longer recognizes the optical drive. This happens when you have not safely stopped the drives before switching ownership of the optical drive, diskette drive, and USB port (media tray).</p> <p>Note: Because the BladeCenter unit uses a USB bus to communicate with the media tray devices, switching ownership of the media tray to another blade server is the same as unplugging a USB device. Before switching ownership of the optical drive (media tray) to another blade server, safely stop the media tray devices on the blade server that currently owns the media tray, as follows:</p> <ol style="list-style-type: none"> 1. Double-click the Unplug or Eject Hardware icon in the Windows taskbar at the bottom right of the screen. 2. Select USB Floppy and click Stop. 3. Select USB Mass Storage Device and click Stop. 4. Click Close. <p>You can now safely switch ownership of the media tray to another blade server.</p>
<p>Optical drive problem.</p>	<ol style="list-style-type: none"> 1. Replace the optical drive 2. Replace the CD interposer card 3. Replace the optical drive signal cable 4. Replace the optical drive power cable
<p>Ethernet controller problems</p>	
<p>Operating systems number Ethernet controllers differently.</p>	<p>Enumeration of the Ethernet controllers in a blade server is operating-system dependent. In the blade server Configuration/Setup Utility program, the Ethernet port designated as Planar Ethernet 1 is routed to Ethernet switch module 2 and the Ethernet port designated as Planar Ethernet 2 is routed to Ethernet switch module 1.</p> <p>Verify the designations through your operating system settings or by testing:</p> <ol style="list-style-type: none"> 1. Install only one switch module, in I/O-module bay 1. 2. Enable only one of the Ethernet controllers on the blade server. Make note of the designation the blade server operating system has for the controller. 3. Ping an external computer on the network connected to the switch module. <p>If you can ping the external computer, the Ethernet controller you enabled is the upper controller in the blade server and is associated with Ethernet switch 1.</p>
<p>Ethernet switch module problems</p>	
<p>First ping from Ethernet switch module through Telnet reports failure.</p>	<p>When you use the Ethernet switch module Telnet interface to request the switch module to ping something, the first ping response reports a failure, although the other repetitions might report success. This occurs regardless of whether the switch module port the pinged object is connected to is internal or external, and applies to pinging blade servers but not to pinging the management module or objects connected to its external Ethernet port, such as the network management station. To get accurate results, always specify multiple repetitions (>1) in the ping request, and ignore the first ping response from that request. See the <i>IBM 4-Port Gb Ethernet Switch Module for BladeCenter Installation Guide</i> for instructions on how to ping through the Telnet interface.</p>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Ethernet switch-module firmware graphics shows a blank panel when the blade server is present but powered off.</p>	<p>If the Wake-on-LAN (WOL) feature is disabled on a blade server, and the blade server is turned off, the switch module internal port link to that blade is down. This is not an error, but the graphic of the BladeCenter unit might show a blank panel instead of a blade server in that bay.</p> <p>Note: You can enable or disable the WOL feature on a blade server through the management-module Web interface or through the IBM Director console. Do not rely on the BladeCenter graphic in the Ethernet switch-module firmware Web interface to determine the presence or absence of blade servers in the BladeCenter unit.</p>
<p>Ethernet switch-module log reports elapsed time, not time of day.</p>	<p>The timestamp on entries in the Ethernet switch module log uses elapsed time (since last switch restart). The timestamp on entries restarts from 0 each time the switch is restarted, although the entries do remain in order of occurrence.</p>
<p>Ethernet disconnect notice will not appear when running Windows 2000.</p>	<p>If an Ethernet cable is accidentally removed from the back of the BladeCenter unit, the small red X (disconnect notice) that normally would appear to indicate that the cable was disconnected will not appear in the bottom right of the screen. The disconnect notice does not appear because the blade server Ethernet controller connects to the Ethernet switch module through integrated circuitry inside the BladeCenter unit.</p> <p>When troubleshooting Ethernet-related problems, ensure that the Ethernet cables on the back of the BladeCenter unit are connected properly.</p>
<p>The default IP address set by the Ethernet switch module does not match the one assigned by the management module.</p>	<p>When troubleshooting Ethernet-related problems, ensure that the Ethernet cables on the back of the BladeCenter unit are connected properly.</p>
<p>Updating the Ethernet switch module configuration through the management module does not save the switch NVRAM.</p>	<p>When you use the management-module Web interface to update the Ethernet switch module configuration, the management module firmware writes its settings for the switch module only to the management module NVRAM; it does not write its settings for the switch module to the switch-module NVRAM.</p> <p>If the switch module restarts when the management module is not able to apply the IP address it has in NVRAM for the switch module, the switch module will use whatever IP address it has in its own NVRAM. If the two IP addresses are not the same, you might not be able to manage the Ethernet switch module any more.</p> <p>The management module cannot apply the switch IP address from its NVRAM if:</p> <ul style="list-style-type: none"> • The management module is restarting • The management module has failed • The management module has been removed from the unit. <p>When you use the management-module Web interface to update the Ethernet switch module configuration, the management module firmware writes its settings for the switch module only to the management module NVRAM; it does not write its settings for the switch module to the switch module NVRAM.</p> <p>If the switch module restarts when the management module is not able to apply the IP address it has in NVRAM for the switch module, the switch module will use whatever IP address it has in its own NVRAM. If the two IP addresses are not the same, you might not be able to manage the Ethernet switch module any more.</p> <p>The management module cannot apply the switch IP address from its NVRAM if:</p> <ul style="list-style-type: none"> • The management module is restarting • The management module has failed • The management module has been removed from the unit.
<p>Keyboard problems</p>	

Table 2. Troubleshooting charts (continued)

Device	Suggested action
The keyboard is very slow when using an operating system that does not have USB drivers.	<p>Although the keyboard attached to the BladeCenter unit is a PS/2-style keyboard, communication with it is through a USB bus. When you are running an operating system that does not have USB drivers, such as in the following instances, the keyboard responds very slowly.</p> <ul style="list-style-type: none"> • Run the blade server integrated diagnostics • Run a BIOS update diskette on a blade server • Update the diagnostics on a blade server • Run the Broadcom firmware CD for a blade server
The keyboard is very slow when using an operating system that does not have USB drivers.	Sometimes when switching ownership of the KVM to a blade server, the video for the blade server appears almost immediately, but it takes up to 10 or 20 seconds for the mouse and keyboard to be usable. No action required.
Pressing F1 brings up browser help instead of performing BladeCenter management functions.	<p>Connecting to the BladeCenter management module through the Web interface does not provide proper coverage for the F1 key. In particular, pressing F1 to access the Configuration/Setup Utility when a blade server is started brings up browser help instead of the Configuration/Setup Utility.</p> <p>This problem is peculiar to the Sun Java browser plug-in. Use the Microsoft virtual machine (VM) that is built in to the browser.</p>
Remote console has keyboard entry problems with Sun Java plug-	<p>When you are redirecting the server console (remote console function) of a blade server that is running Microsoft Windows 2000 or Windows XP and using the Sun Java plug-in (Java Virtual Machine), the remote console can have keyboard entry problems.</p> <p>Use the Microsoft Java Virtual Machine (JVM) or Java Runtime Environment (JRE) on the blade server instead of using the Sun Java Virtual Machine. The Microsoft JVM comes with the Windows XP Service Pack 1. You can obtain the Microsoft JVM for Windows 2000 from the Microsoft corporation. If you are using the Internet Explorer browser, version 6.0 or later, to log into the management module and use the remote control function, you must also adjust the browser settings:</p> <ol style="list-style-type: none"> 1. Click Tools → Internet Options → Advanced tab. 2. Under the Java (Sun) section, uncheck the checkbox next to 'Use Java 2 v1.4. for <applet> (requires restart)'
Management-module problems	
The management module password cannot be reset.	If you forget the management-module password, you will not be able to access the BladeCenter management module. The management-module password cannot be overridden, and the management module will need to be replaced.
Management module does not complete takeover to redundant module on hardware failure.	Replace the management module.
Media tray problems	
Media tray access is lost temporarily during management module restart.	<p>When the BladeCenter management module is restarted, use of the media tray (removable media drives) is lost temporarily. If you or a failure condition initiates a management module restart while I/O activity is taking place on the media tray, the disruption can interrupt reads to the optical drive or lose data being written to a diskette or USB device.</p> <p>Note: You can restart the management module through the Web interface to the management module or from a network management station such as the IBM Director console. Some failures on the BladeCenter unit can result in the management module restarting automatically.</p> <p>Make sure there is no I/O activity on the media tray before you restart the management module.</p>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
Monitor problems	
The monitor works when you start the BladeCenter unit, but goes blank when you start some application programs in the blade servers.	See the <i>IBM 4-Port Gb Ethernet Switch Module for BladeCenter Installation Guide</i> for instructions on how to ping through the Telnet interface.
The monitor displays video for blade server 14 during management module restart.	The monitor attached to the BladeCenter management module normally shows the video output from the blade server that is the current owner of the keyboard, video, and mouse (KVM). When there is no actively selected video from any blade server, the video from blade server 14 is routed to the management module. While the management module is restarting, there is temporarily no current KVM owner. The video from blade server 14 displays on the monitor briefly until the management module uses its NVRAM values to reestablish ownership of the KVM and media tray (optical drive, diskette drive, and USB port). After that, the video from the blade server that is the current KVM owner displays on the monitor.
The screen is blank.	Verify that: <ol style="list-style-type: none"> 1. The system power cord is plugged into the BladeCenter power module and a working 220-volt PDU or electrical outlet. 2. The monitor cables are connected properly. 3. The monitor is turned on and the brightness and contrast controls are adjusted correctly. 4. If you have verified these items and the screen remains blank, replace: <ol style="list-style-type: none"> a. Monitor b. Management module
Only the cursor appears.	See “Undetermined problems” on page 75.
The screen is wavy, unreadable, rolling, distorted, or has screen jitter.	If the monitor self-tests show the monitor is working properly, consider the location of the monitor. Magnetic fields around other devices (such as transformers, appliances, fluorescent lights, and other monitors) can cause screen jitter or wavy, unreadable, rolling, or distorted screen images. If this happens, turn off the monitor. (Moving a color monitor while it is turned on might cause screen discoloration.) Then move the device and the monitor at least 305 mm (12 in.) apart. Turn on the monitor. <p>Notes:</p> <ol style="list-style-type: none"> 1. To prevent diskette drive read/write errors, be sure the distance between monitors and diskette drives is at least 76 mm (3 in.). 2. Non-IBM monitor cables might cause unpredictable problems. 3. An enhanced monitor cable with additional shielding is available for the 9521 and 9527 monitors. For information about the enhanced monitor cable, contact your IBM reseller or IBM marketing representative. <p>If the problem remains, replace the monitor.</p>
Wrong characters appear on the screen.	If the wrong language is displayed, update the firmware in the management module with the correct language. If the problem remains, replace the management module.
Mouse problems	
Mouse function lost during Red Hat installation.	If, while installing Red Hat Linux 7.3 to a blade server, you or someone else selects a different blade server as owner of the keyboard, video, and monitor (KVM), you might lose mouse function for the installation process. <p>Do not switch KVM owners until the installation process begins to install the packages (after the 'About to Install' window).</p>

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Mouse is not detected during SuSE installation.</p>	<p>The installation of the SuSE Linux version 8.0 operating system does not detect the mouse.</p> <p>You will need to select the mouse manually. Download the latest operating system installation instructions for your operating system from the IBM Support Web page at http://www.ibm.com/systems/support/. The steps for selecting the mouse are described in the instructions for your operating system.</p>
<p>Mouse offset problems occur when using remote console and running X.</p>	<p>When you are using the remote console on a blade server that is running X Windows in Red Hat Linux 7.3 or SuSE Linux version 8.0, you see two cursor arrows on the screen, widely spaced, one white and one black.</p> <p>Configure Linux and X Windows for accurate mouse tracking. See the online help information in the management module configuration and management software for instructions (Blade Tasks → Remote Control, click the circled question mark next to Redirect Server Console, read the section titled Notes on mouse support under Linux).</p>
<p>Power problems</p>	
<p>The system does not power on.</p>	<p>Verify that:</p> <ol style="list-style-type: none"> 1. The power cables are properly connected to the power modules in the BladeCenter unit. 2. The 220-volt PDU functions properly. 3. The ac and dc power LEDs on the power module are on and the power module error LED (2320-watt power modules only) on the power module is off. 4. If you just installed an option, remove it, and restart the BladeCenter unit. If the BladeCenter unit now turns on, you might have installed more options than the power module supports. You might need to install a power module in power bay 3 or 4. <p>If the problem remains, go to “Undetermined problems” on page 75.</p>
<p>Option problems</p>	
<p>An IBM option that was just installed does not work.</p>	<p>Verify that:</p> <ul style="list-style-type: none"> • The option is designed for the BladeCenter unit. See the “Server Support” flowchart for information about obtaining ServerProven® compatibility information from the World Wide Web. • You followed the installation instructions that came with the option. • The option is installed correctly. • You have not loosened any other installed options or cables. <p>If the problem remains, replace the option.</p>
<p>An IBM option that used to work does not work now.</p>	<p>Verify that all of the option hardware and cable connections are secure. If the option comes with its own test instructions, use those instructions to test the option. If the problem remains, replace the option.</p>
<p>Service processor problems</p>	
<p>Service processor in the management module reports a general monitor failure.</p>	<p>Disconnect the BladeCenter unit from all electrical sources, wait for 30 seconds, reconnect the BladeCenter unit to the electrical sources, and restart the server. If a problem remains, replace the management module.</p>
<p>I/O-module problems</p>	

Table 2. Troubleshooting charts (continued)

Device	Suggested action
<p>Updating the I/O-module configuration through the I/O-module does not save the management-module NVRAM.</p>	<p>If you log in to the Ethernet switch module directly (through the Ethernet switch-module Web interface or Telnet interface instead of through the management module Web interface) and update the I/O module configuration, saving the new configuration saves only to the I/O-module NVRAM, not to the management-module NVRAM. The management module will not be able to communicate with the I/O module.</p> <p>See the <i>User's Guide</i> or <i>Command-Line Interface Reference Guide</i> for your management module type for information about how to change the New Static IP Configuration values to match the ones in Current IP Configuration, and apply the configuration.</p>