Hardware Information

Managing the system management services

ESCALA POWER5

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Hardware

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Use the menus within system management services (SMS) to view information about your system or partition and to perform tasks such as changing the boot list and setting the network parameters. These menus can be used for AIX or Linux partitions.

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Parent topic: Managing the system management services

Starting the system management services

You can start the system management services (SMS) from a partitioned or nonpartitioned server.

To start the SMS, complete the following steps:

1. Depending on whether your server is partitioned or not, reboot the server or logical partition.
   - If your server is partitioned, do one of the following tasks:

     Note: These tasks assume your logical partition is shut down.

       ◊ Use the Hardware Management Console (HMC) to activate a partition profile. (If a VTERM on the HMC is the firmware console for the partition that is being restarted, open the VTERM.)
       ◊ Use the Hardware Management Console (HMC) to change your partition profile properties.
         a. In the navigation area, open Server and Partition.
         b. Select Server Management.
         c. In the contents area, open the server on which the partition profile is located.
         d. Open Partitions.
         e. Open the logical partition for the partition profile.
         f. Right-click the partition profile and select Properties.
         g. Click the Settings tab and change the boot mode to System Management Services (SMS).
         h. Click OK.
         i. Activate a partition profile.

         Note: Your system will now reboot into the SMS menus. Steps 2 and 3 do not apply to you.

   - If your server is not partitioned, do one of the following tasks:
       ◊ If the system is in standby, press the power button on the control panel.
       ◊ Using the ASMI on a network-attached console, complete the following steps:
         a. On the ASMI Welcome pane, specify your user ID and password, and click Log In.
         b. In the navigation area, expand Power/Restart Control and select Power On/Off System.
         c. Select AIX/Linux Partition Mode Boot, and then select Boot to SMS Menu.
         d. Click Save settings and power on. All selected options are saved and the system turns on.
       ◊ Reboot the operating system.
2. Look for the POST indicators memory, keyboard, network, scsi, speaker, which display across the bottom of the firmware console.
3. Press the numeric 1 key after the word keyboard is displayed and before the word speaker is displayed.

Parent topic: Managing the system management services

Using the system management services

This topic shows examples of each system management services (SMS) menu and explains what each option on the menu helps you manage on your system.

Notes:

1. If the firmware console is a graphics terminal, you might be asked to enter the password for the service processor's admin user that was set using the Advanced System Management Interface

(ASMI).
2. On some of the SMS menus, you will see the term LPAR. LPAR is equivalent to the term logically partitioned server or partitioned server.
3. In a partitioned server, SMS menus display only those devices that are assigned to the partition that is being booted. In a partition that uses all the resources in a server, SMS menus display all devices in the system.
4. In some of the following example menus, U*n* is used in place of U*feature_code.model.serial number* for legibility.

If you have not performed the steps in Starting the system management services, go back and follow the correct procedure for your system before you continue.

The following table contains the titles of the menus or tasks that can be accessed in the SMS application. Use it to access and review the specific task that you want.

Table 1. SMS menus and descriptions

Menu or task	Description
Main Menu	Describes the opening menu when first starting SMS.
Select Language	Allows you to change the language used by the SMS menus.
Setup Remote IPL (Initial Program Load)	Allows you to enable and set up the remote startup capability of your server or partition.
Adapter Configuration	Allows you to set the network speed, enable or disable spanning tree, and set the protocol.
Speed, Duplex	Allows you to set the interface speed at which the card runs and select half or full duplex.
Spanning Tree Enabled	Allows you to enable or disable the spanning tree flag.
Protocol	Allows you to set the appropriate protocol for your network.
Ping Test	Allows you to test an adapter's network connection to a remote system.
Change SCSI Settings	Allows you to view and change the addresses of the SCSI controllers attached to your system.
Select Console	Allows you to select which console to use to display the SMS menus.
Select Boot Options	Allows you to view and set various options regarding the installation devices and boot devices. The Select boot options menu gives you the following options: Select Install or Boot Device, Select Boot Devices, Multiboot Startup
Normal Mode Boot or Service Mode Boot	Allows you to have your system perform a boot in the normal or service mode.
Hard Drive	Displays a menu identifying the different types of hard drives installed on your system. (for example, SCSI or SSA)
Set Boot Sequence	Allows you to set the location of the device in the boot list. It gives options to Display current settings, Restore default settings, Multiboot startup, and Exiting system management services

After the SMS starts, the following menu is displayed:

```
Main Menu

 1. Select Language
 2. Setup Remote IPL (Initial Program Load)
 3. Change SCSI Settings
 4. Select Console
 5. Select Boot Options


-------------------------------------------------------------------------
Navigation keys:
```

```
                                          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Notes:

1. The SMS can also be started using the service processor boot mode menu.
2. The main menu for the model ESCALA PL 245T/R ervers contains additional options. For a list of these options, see Model ESCALA PL 245T/R dditional main menu options.

On all menus except the main menu, there are several navigation keys:

M

Return to the main menu.

ESC

Return to the previous menu.

X

Exit the SMS and start the operating system.

If X is entered, you are asked to confirm your choice to exit the SMS menus and start the operating system.

When there is more than one page of information to display, there are two additional navigation keys:

N

Display the next page of the list.

P

Display the previous page of the list.

Note: The lowercase navigation key has the same effect as the uppercase key that is shown on the menu. For example, m or M returns you to the main menu.

On each menu, you are given the option of choosing a menu item and pressing Enter (if applicable), or selecting a navigation key.

Select Language

Note: If you are using a TTY (ASCII) terminal, it must support the ISO-8859 character set to properly display languages other than English.

This option allows you to change the language used by the SMS menus.

```
 SELECT LANGUAGE

  1. English
  2. Francais
  3. Deutsch
  4. Italiano
  5. Espanol




--------------------------------------------------------------------------------
Navigation keys:
```

```
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Setup Remote IPL (Initial Program Load)

This option allows you to enable and set up the remote startup capability of your server or partition. A list of network interface card (NIC) adapters in the server is displayed first. An example of this menu follows:

Attention: In a partitioned server, only those network adapters that have been assigned to the partition being booted are displayed in the NIC Adapters menu. In a full system partition, all network adapters in the system are listed in the adapter parameters menu.

```
NIC Adapters

                        Device                Slot                Hardware Address
 1. Port 1 - 2 PORT Gigabit Et      Un-P1-T9               00096bff616b
 2. Port 2 - 2 PORT Gigabit Et      Un-P1-T10              00096bff616a
 3. 10/100/1000 Base-TX PCI-X       Un-CB1-C03-T1          000295e3814f




--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

When an adapter is selected, the Network Parameters menu is displayed:

```
Network Parameters

Port 1 - 2 PORT Gigabit Et      Un-P1-T9      00096bff616b
 1. IP Parameters
 2. Adapter Parameters
 3. Ping Test


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Selecting the IP (Internet Protocol) parameters option displays the following menu:

```
IP Parameters

Port 1 - 2 PORT Gigabit Et      Un-P1-T9      00096bff616b
 1. Client IP Address     000.000.000.000
 2. Server IP Address     000.000.000.000
 3. Gateway IP Address    000.000.000.000
 4. Subnet Mask           255.255.255.000


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

To change IP parameters, type the number of the parameters for which you want to change the value. Entering IP parameters on this menu automatically updates the parameters on the ping test menu.

Attention: If the client system and the server are on the same subnet, set the gateway IP address to 0.0.0.0.

Selecting Adapter Configuration allows you to set the network speed, enable or disable spanning tree, and set the protocol as shown in the following menu:

```
Adapter Configuration

Port 1 – 2 PORT Gigabit Et    Un–P1–T9      00096bff616b
1.  Speed, Duplex
2.  Spanning Tree Enabled
3.  Protocol


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Selecting the Speed, Duplex option allows you to set the interface speed at which the card runs and select half or full duplex. The current setting is indicated by "<===".

```
Adapter Configuration

Port 1 – 2 PORT Gigabit Et    Un–P1–T9      00096bff616b

1.  auto, auto
2.  10,half
3.  10,full
4.  100,half
5.  100,full


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Selecting the Spanning Tree Enabled menu allows you to enable or disable the spanning tree flag. If this flag is enabled (because the network to which the system is being attached supports spanning trees), the firmware imposes a waiting period of 60 seconds before the adapter is allowed to communicate with the network. If this flag is disabled, the network adapter can access the network immediately after the system is connected.

The Protocol option allows you to set the appropriate protocol for your network as shown in the following.

```
Protocol

Port 1 – 2 PORT Gigabit Et    Un–P1–T9      00096bff616b

 1. Standard  <===
 2. IEEE802.3


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Select the Ping Test option from the network parameters menu to test an adapter's network connection to a remote system. After the ping test option is selected, the same series of menus takes you through setting up the IP parameters and the adapter configuration before attempting the ping test.

Notes:

1. After the ping test is initiated, it might take 60 seconds or longer to return a result.
2. When the ping test passes or fails, the firmware stops and waits for a key to be pressed before continuing.

Change SCSI Settings

This option allows you to view and change the addresses of the SCSI controllers attached to your system.

```
SCSI Utilities

  1. Hardware Spin Up Delay
  2. Change SCSI Id



-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
-------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Select Console

The Select Console utility allows the user to select which console to use to display the SMS menus. This selection is only for the SMS menus and does not affect the console used by the operating system.

Follow the instructions that are displayed on the menu. The firmware automatically returns to the menu on which the POST indicators (memory, keyboard, network, SCSI, speaker) display across the bottom of the menu. Press the numeric 1 key after the word keyboard is displayed and before the word speaker is displayed to return to the SMS main menu.

Attention: If you do not change the console to another device before removing the current console, you must reattach the current console to change your console selection.

Select Boot Options

Use this menu to view and set various options regarding the installation devices and boot devices.

```
  1. Select Install or Boot a Device
  2. Select Boot Devices
  3. Multiboot Startup


-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
-------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Select Install or Boot Device
    Allows you to select a device from which to boot or install the operating system. This option is for the
    current boot only.
Select Boot Devices
    Allows you to set the boot list.
Multiboot Startup
    Toggles the multiboot startup flag, which controls whether the multiboot menu is invoked
    automatically on startup.

If Select Install or Boot Device is selected, the following menu is displayed:

```
  Select Device Type

 1.  Diskette
 2.  Tape
 3.  CD/DVD
 4.  IDE
 5.  Hard Drive
 6.  Network
 7.  None
```

```
 8.   List All Devices


-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
-------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

If a device is selected that is not in the system, the following message is displayed:

```
        .-----------------------------------------------------.
        | THE SELECTED DEVICES WERE NOT DETECTED IN THE SYSTEM ! |
        | Press any key to continue.                          |
        `-----------------------------------------------------'
```

If Hard Drive is selected, a menu similar to the following is displayed:

```
  Select Hard Drive Type

 1.   SCSI
 2.   SSA
 3.   SAN
 4.   None
 5.   List All Devices


-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
-------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

If SCSI is selected, for example, all of the SCSI adapters that are in the system, or assigned to the partition, are displayed on the next menu. Depending on the devices that are installed in your system, a menu similar to the following is displayed:

```
Version SF220_014
SMS 1.5 (c)  Copyright IBM Corp. 2000, 2003 All rights reserved.
-------------------------------------------------------------------------------

Select Media Adapter

1.  Un-P1-T14 /pci@80000002000000d/pci@2/pci1069,b166@1/scsi@0
2.  Un-P1-T12 /pci@80000002000000f/pci@2,2/pci1069,b166@1/scsi@0
3.  Un-P1-T13 /pci@80000002000000f/pci@2,2/pci1069,b166@1/scsi@1
4.  List all devices


-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
-------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

When an adapter is selected, the next menu displays the devices of the requested type that are attached to that adapter. In the following example, all of the SCSI hard files that are attached to the first adapter are listed:

```
Version SF220_014
SMS 1.5 (c)  Copyright IBM Corp. 2000, 2003 All rights reserved.
-------------------------------------------------------------------------------
Select     Device
Device     Current     Device
Number     Position    Name

1          1           SCSI 73407 MB Harddisk Un-P1-T14 /pci@80000002000000d/pci@2/
                       pci1069,b166@1/scsi@0


-------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
```

```
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

The appropriate device can then be selected for this installation or boot.

If you have a 1*xx*/*xx* server, system firmware released in 01SF235 or later supports a dual-boot option, which allows you to have two bootable operating systems on one hard drive. If the system firmware detects two bootable operating system images on a device, the previous menu will instead look like the following example:

```
Select      Device
Device      Current       Device
Number      Position      Name
  1.           1          SCSI 36401 MB Harddisk, part=2 (AIX 5.3.0)
                          (loc=U7879.001.0397700-P1-T12-L3-L0)
  2.           2          SCSI 36401 MB Harddisk, part=4 (AIX 5.3.0)
                          (loc=U7879.001.0397700-P1-T12-L3-L0)
  3.          None
```

In this menu, part= indicates the partition that owns this instance of the operating system. If the operating system supports a boot-info partition, the boot-info partition value is displayed after the partition number. In this example, the value of boot-info partition is AIX 5.3.0. Linux does not support a boot-info partition, so the field between the two parentheses after the partition number is empty. If a device does not support more than one instance of an operating system, the partition number and description field in the boot-info partition are displayed if available.

When a device is selected for installing the operating system, or to boot from, the Select Task menu allows you to get more information about the device, or to boot from that device in normal mode or service mode. The following is an example of this menu.

```
Select Task

SCSI 73407 MB Harddisk Un-P1-T14 /pci@80000002000000d/pci@2/pci1069,b166@1/scsi@0

1.  Information
2.  Normal Mode Boot
3.  Service Mode Boot



--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

If either Normal Mode Boot or **Service Mode Boot** is selected, the next menu asks, `Are you sure`? If you answer yes, the device is booted in the appropriate mode. If you answer no, the firmware returns to the Select Task menu.

Select Boot Devices

Attention: In a partitioned system, the Select Boot Devices menu lists only those devices from which an operating system can be booted and that are assigned to the partition that is being booted. In a full system partition, all devices from which an operating system can be booted are listed on the Select Boot Devices menu.

Note: To minimize the search time for bootable devices, these menus follow this hierarchy:

```
device type -> bus type -> adapter -> devices attached to the adapter
```

To view all of the potentially bootable devices at one time rather than traversing down the hierarchy with the submenus, go to the Select Device Type menu or the Select Media Type menu and select the last option, List All Devices.

The List All Devices function can take a long time on a large system with many I/O adapters and devices, such as large disk arrays.

Select Select Boot Devices to view and change the customized boot list, which is the sequence of devices read at startup.

```
 Configure Boot Device Order

 1.   Select 1st Boot Device
 2.   Select 2nd Boot Device
 3.   Select 3rd Boot Device
 4.   Select 4th Boot Device
 5.   Select 5th Boot Device
 6.   Display Current Setting
 7.   Restore Default Setting



 --------------------------------------------------------------------------------
 Navigation keys:
 M = return to main menu
 ESC key = return to previous screen          X = eXit System Management Services
 --------------------------------------------------------------------------------
 Type the number of the menu item and press Enter or Select a Navigation key: _
```

When any of the options 1-5 are selected, the Select Device Type menu is displayed.

```
 Select Device Type

 1.   Diskette
 2.   Tape
 3.   CD/DVD
 4.   IDE
 5.   Hard Drive
 6.   Network
 7.   None
 8.   List All Devices



 --------------------------------------------------------------------------------
 Navigation keys:
 M = return to main menu
 ESC key = return to previous screen          X = eXit System Management Services
 --------------------------------------------------------------------------------
 Type the number of the menu item and press Enter or Select a Navigation key: _
```

When a device type is selected, such as item 5, a Select Media Type menu is displayed. The following is an example of that menu.

```
 Select Media Type

 1.   SCSI
 2.   SSA
 3.   SAN
 4.   IDE
 5.   ISA
 7.   None
 8.   List All Devices



 --------------------------------------------------------------------------------
 Navigation keys:
 M = return to main menu
 ESC key = return to previous screen          X = eXit System Management Services
 --------------------------------------------------------------------------------
 Type the number of the menu item and press Enter or Select a Navigation key: _
```

When the media type is selected, all adapters of that type are displayed on the Select Media Adapter menu. The following is an example of that menu for a SCSI media type.

```
Version SF220_014
SMS 1.5 (c)  Copyright IBM Corp. 2000, 2003 All rights reserved.
--------------------------------------------------------------------------------

Select Media Adapter
```

```
1.  Un–P1–T14 /pci@80000002000000d/pci@2/pci1069,b166@1/scsi@0
2.  Un–P1–T12 /pci@80000002000000f/pci@2,2/pci1069,b166@1/scsi@0
3.  Un–P1–T13 /pci@80000002000000f/pci@2,2/pci1069,b166@1/scsi@1
4.  List all devices


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Then, you must select each adapter individually to see the devices that are attached to it. The following is an example of this menu for the first adapter in the previous example:

```
Version SF220_014
SMS 1.5 (c)  Copyright IBM Corp. 2000, 2003 All rights reserved.
--------------------------------------------------------------------------------
Select    Device
Device    Current    Device
Number    Position   Name

1         1          SCSI 73407 MB Harddisk Un–P1–T14 /pci@80000002000000d/pci@2/
                     pci1069,b166@1/scsi@0


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

If no devices of the type selected on the Select Device Type menu are attached to the adapter that you specified, a message similar to the following is displayed:

```
--------------------------------------------------------------------------------
|    THE SELECTED DEVICES WERE NOT DETECTED IN THE SYSTEM                       |
|    Press any key to continue.                                                 |
--------------------------------------------------------------------------------
```

When you select a device type, you can view detailed information about the device or set the device location in the boot list from the Select Task menu. The following is an example of the menu for a hard disk.

```
 Select Task

SCSI 73407 MB Harddisk Un–P1–T14 /pci@80000002000000d/pci@2/pci1069,b166@1/scsi@0
 1.  Information
 2.  Set Boot Sequence: Configure as 1st Boot Device


--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Selecting Information displays a menu similar to the following for a hard disk.

```
 Device Information
    /pci@8000000200000dd/pci@2/pci1069,b166@1/scsi@1/sd@5,0
                   : (Bootable)
DEVICE            : SCSI 73407 MB Harddisk Un–P1–T14 /pci@80000002000000d/pci@2/
                    pci1069,b166@1/scsi@0
NAME              : sd
DEVICE–TYPE       : block

Parent Information
IBM,FW–ADAPTER–NAME: Ultra-320
NAME              : scsi
DEVICE–TYPE       : scsi-2
```

```
--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

The Set Boot Sequence option allows you to set the location of the device in the boot list.

Display Current Settings

This option displays the current setting of the customized boot list. An example of this menu, with one device in the boot list, follows.

```
 Current Boot Sequence

1. SCSI 73407 MB Harddisk Un-P1-T14 /pci@80000002000000d/pci@2/pci1069,b166@1/scsi@0
2. None
3. None
4. None
5. None



--------------------------------------------------------------------------------
Navigation keys:
M = return to main menu
ESC key = return to previous screen          X = eXit System Management Services
--------------------------------------------------------------------------------
Type the number of the menu item and press Enter or Select a Navigation key: _
```

Restore Default Settings

This option restores the boot list to the default boot list. The default boot list varies depending on the devices that are installed in the system.

The default boot list is as follows:

1. Primary diskette drive (if installed)
2. Optical drive (if installed)
3. Tape drive (if installed)
4. Hard disk drive (if installed)
5. Network adapter

Multiboot Startup

Multiboot Startup toggles the multiboot startup flag, which controls whether the multiboot menu is invoked automatically on startup.

Exiting system management services

After you have finished using the SMS menus, type x (for exit) to boot your system or partition.

Parent topic: Managing the system management services

Model ESCALA PL 245T/R dditional main menu options

The main menu contains additional options (options 6-8) for the model ESCALA PL 245T/R ervers.

```
Main Menu
```

```
1   Select Language
2   Setup Remote IPL (Initial Program Load)
3   Change SCSI Settings
4   Select Console
5   Select Boot Options
6   Power/Restart Control
7   System Service Aids
8   Select Keyboard


-------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
-------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

Table 1. Model ESCALA PL 245T/R dditional main menu options

Task	Description
Power/Restart Control	Allows you to power off or reboot the server.
System Service Aids	Provides information that can help you in diagnosing problems with the system.
Select Keyboard	Allows you to select the type of keyboard attached to the system.

Power/Restart Control

This option allows you to power off or reboot the server. It also allows you to enable Auto Power Restart and Wake on LAN.

```
Power/Restart Control

 1. Firmware Boot Side Options
 2. Immediate Power Off
 3. System Reboot
 4. Auto Power Restart Disabled
 5. Wake on LAN Disabled


-------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
-------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Firmware Boot Side Options, the following menu allows you to choose which side of the firmware (permanent or temporary) to boot from. By default, the system boots from the temporary side.

```
Firmware Boot Side Options

Firmware Boot Side for next boot:  Temporary
 1. Permanent
 2. Temporary


-------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
-------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Immediate Power Off, the following menu allows you to power off your system immediately. If you select yes, the message System shutting down... is displayed.

```
Immediate Power Off

Are you sure you want to exit System Management Services?
 1. Yes
 2. No
```

```
--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select System Reboot, the following menu allows you to reboot the system and exit the SMS menus. The operating system is booted when the SMS menus are exited. If you select yes, the message `System rebooting...` is displayed.

```
System Reboot

Are you sure you want to exit System Management Services?
 1. Yes
 2. No



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

The Auto Power Restart and Wake on LAN options are disabled by default. You can enable either option by selecting it and pressing Enter.

System Service Aids

This option provides information, such as error logs and progress indicators, that can help you in diagnosing problems with your system.

```
System Service Aids

 1. Error/Event Logs
 2. Serial Port Setup
 3. Progress Indicator History
 4. System Information
 5. Service Indicators



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Error/Event Logs, the error/event log is displayed. The following menu is an example of this error log.

```
Error/Event Logs

 Error Log
          Date        Time        Error Code Location

 Entry 1: 2005-08-18 01:55:42 BA020013   U8842.4TX.23GLF7H-P1-T1-L1-L3
 Entry 2: 2005-08-18 01:55:44 BA020013   U8842.4TX.23GLF7H-P1-T1-L1-L3
 Entry 3: 2005-08-18 01:55:49 BA020013   U8842.4TX.23GLF7H-P1-T1-L1-L3
 Entry 4: 2005-08-18 01:55:51 BA020013   U8842.4TX.23GLF7H-P1-T1-L1-L3




 1.  Clear Error Log

--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Serial Port Setup, the following menu lists the available serial ports and allows you to set up each port separately. Setting up the serial port is necessary if you plan to attach an ASCII terminal or a modem to the serial port, for example.

```
Serial Port Setup

 1. Serial Port 1
 2. Serial Port 2



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

When you select a serial port to set up, the following menu is displayed and you make your changes.

```
Serial Port 1 : Setting for next boot

 1. Baud rate      : 19200
 2. Character size : 8
 3. Parity         : none
 4. Stop bits      : 1



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Baud rate, the following menu is displayed:

```
Set Baud Rate

 Current Selection : 19200
 1.    50
 2.    110
 3.    300
 4.    1200
 5.    2400
 6.    4800
 7.    9600
 8.    19200
 9.    38400
10.    57600
11.    115200


--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Character size, the following menu is displayed:

```
Set Character Size

 Current Selection : 8
 1.    5
 2.    6
 3.    7
 4.    8



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen       X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Parity, the following menu is displayed:

```
Set Parity

 Current Selection : none
 1.    None
 2.    Odd
 3.    Even



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Stop bits, the following menu is displayed:

```
Set Stop Bits

 Current Selection : 1
 1.    1
 2.    2



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Progress Indicator History, the following menu allows you to view various types of progress indicator histories.

```
View Progress Indicator History

 1.    Current Boot Progress Indicator
 2.    Previous Boot Progress Indicator
 3.    Previous Failover Permanent Side Boot



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Current Boot Progress Indicator, you can view the progress indicators from the boot in progress. If you select Previous Boot Progress Indicator, you can view the progress indicators from the previous boot. If you select Previous Failover Permanent Side Boot, you can view the boot indicators from the last boot during which a failover to the permanent side of the firmware occurred because the temporary side was corrupted.

If you select System Information from the System Service Aids menu, the following menu displays the machine type, model, and serial number of your system.

```
System Information

     Machine type-Model  : 8842-4TX
     System Serial Number : 23ABC12



--------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu       N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
--------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

If you select Service Indicators, the following menu is displayed. System Attention Indicator allows you to turn off or to set the system attention indicator. Enclosure Indicator allows you to turn off an enclosure indicator or set it to identify a rack-mounted system in a rack with multiple systems, or in a room with multiple racks of systems.

```
Service Indicators
```

```
 1.    System Attention Indicator
 2.    Enclosure Indicators




 -------------------------------------------------------------------------------
Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
 -------------------------------------------------------------------------------
Type menu item number and press Enter or select Navigation key
```

Select Keyboard

This option allows you to select the type of keyboard attached to the system. Select this option if a keyboard other than English (United States) is attached to the system.

```
Select Keyboard

 Current Selection :  English    (United States)        #103P

 1.    English    (United States)       #103P
 2.    English    (United Kingdom)      #166
 3.    French                           #189
 4.    French     (Belgium)             #120
 5.    French     (Canada)              #058
 6.    French     (Canada)              #445
 7.    French     (Switzerland)         #150F
 8.    German                           #129
 9.    German     (Switzerland)         #150G
10.    Italian                          #142
11.    Portuguese                       #163
 -------------------------------------------------------------------------------
 Navigation keys:
 M = return to Main Menu      N = Next page of list
 ESC key = return to previous screen        X = eXit System Management Services
 -------------------------------------------------------------------------------
 Type menu item number and press Enter or select Navigation key
```

Parent topic: Using the system management services

Power-on self-test (POST) keys

This topic describes how POST keys can start services or initiate service mode boots used for configuring the system and diagnosing problems.

After power is turned on and before the operating system is loaded, the system does a power-on self-test (POST). This test performs checks to ensure that the hardware is functioning correctly before the operating system is loaded. During the POST, a POST screen is displayed, and POST indicators appear on the firmware console (if one is connected).

The POST keys, if pressed after the keyboard POST indicator is displayed and before the last POST indicator speaker is displayed, cause the system to start services or to initiate service mode boots used for configuring the system and diagnosing problems.

Note: The program function keys (F1-F12) on a keyboard attached to the service processor are not used and are ignored. After the keyboard POST indicator is displayed, you must use the numeric number keys.

Numeric 1 key

The numeric 1 key, when pressed during POST, starts the system management services interface.

Numeric 5 key

The numeric 5 key, when pressed during POST, initiates a system boot in service mode using the default service mode boot list.

This mode attempts to boot from the first device of each type found in the list. It does not search for other bootable devices of that type if the first device is not bootable. Instead, it continues to the next device type in the list. The firmware supports up to five entries in the boot list.

Note: This is the preferred method of loading standalone AIX diagnostics from CD-ROM.

The default boot sequence is:

1. Diskette (if installed)
2. CD-ROM (if installed)
3. Hard file
4. Tape drive (if installed)
5. Network
    a. Token ring
    b. Ethernet

Numeric 6 key

The numeric 6 key works like the numeric 5 key, except that firmware uses the customized service mode boot list that was set up by AIX when AIX was first booted, or manually using the AIX service aids.

Note: This is the preferred method of loading online AIX diagnostics from the boot hard disk.

Parent topic: Managing the system management services

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Reference N° :	86 A1 27EW 00	Date:	July 2006

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