Hardware Information

Installing Linux

ESCALA POWER5

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Table of Contents

Installing Linux

A Linux distribution is one of the operating systems that can be installed on your server or logical partition.

The following information includes instructions for preparing and installing the Linux operating system on your system, how to find documentation for Linux distributions, how to install software to enable dynamic logical partitioning and other capabilities of your system, a detailed installation scenario, and links to other related information.

- **Printable PDF**
  Use this to view and print a PDF of this information.
- **Preparing to install the Linux operating system**
  Before you install a Linux distribution on your system, complete these planning steps.
- **Installation Toolkit for Linux on POWER**
  The Installation Toolkit for Linux on POWER simplifies installing and managing Linux on your POWER-based system.
- **Linux operating system distribution installation documentation**
  To install Linux, use the installation documentation provided by Linux distributors for the POWER architecture.
- **Installing required additional software for the Linux operating system**
  This topic provides information about software that is required for models hardware and will enhance your experience on servers hardware.
- **Troubleshooting for Installing Linux**
  Here you can find information for troubleshooting Installing Linux.
- **Related information for Installing Linux**
  Here you can find a list of additional resources that you can access for further technical and how-to information.

Printable PDF

Use this to view and print a PDF of this information.

To view or download the PDF version of this document, select Installing Linux (about 400 KB).

You can view or download these related topics:

- Partitioning for Linux with an HMC (about 926 KB) contains the following topics:
  - What's new for Partitioning for Linux with an HMC
  - General concepts for partitioning the server
  - Scenarios for Linux logical partitions
  - Supported virtual devices for Linux logical partitions
  - Configuring Linux logical partitions
  - Managing Linux logical partitions
  - Using Linux installed on a logical partition
  - Troubleshooting Linux logical partitions
  - Related information for Linux logical partitions
- Initial server setup (about 1450 KB) contains predefined initial server setup checklists.

Other information

You can also view or print any of the following PDFs:

- IBM Redbooks:
  - Partitioning Implementations for server Servers (about 3 MB)
  - Linux Handbook: A Guide Linux Solutions and Resources (about 7 MB)

Saving PDF files

To save a PDF on your workstation for viewing or printing:

1. Right-click the PDF link in your browser.
2. Click the option that saves the PDF locally.
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Downloading Adobe Reader

You need Adobe Reader installed on your system to view or print these PDFs. You can download a free copy from the Adobe Web site (www.adobe.com/products/acrobat/readstep2.html).

Parent topic: Installing Linux

Preparing to install the Linux operating system

Before you install a Linux distribution on your system, complete these planning steps.

The following topics provide information about the planning and preparation required before you install a Linux distribution. For examples of installing Linux, see Scenario: Configuring a model ESCALA PL 250R-L with the Linux operating system on a full system partition and Scenario: Configuring the model 710 server with Linux on two logical partitions using virtual I/O.

Initial Server Setup
    This topic collection provides an end-to-end setup checklist for you to use throughout the entire initial setup of your server. The checklist is intended to ensure that the system is capable of starting and that it is functional before you perform more complex and custom configurations.
Migrating or upgrading your server
    Find information about migrating your data or upgrading your hardware from older ESCALA PL Series hardware, servers.
Planning for Linux
    Use this checklist to prepare a plan for installing the Linux operating system on servers.
Planning for logical partitions
    Use this checklist to plan for creating or changing logical partitions on your system.
Partitioning for Linux with an HMC
    This topic provides the configuration, management, and troubleshooting information for Linux logical partitions.
Linux on IBM Web site at http://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/info/LinuxAlerts.html.
    Use this information access the latest installation information for Linux on your POWER system. This link provides the latest information, fixes, and procedures that might help you avoid problems during the installation of Linux on systems.

Parent topic: Installing Linux

Installation Toolkit for Linux on POWER

The Installation Toolkit for Linux on POWER simplifies installing and managing Linux on your POWER-based system.

The Installation Toolkit for Linux on POWER is a bootable CD that provides access to the additional packages that you need to install to access more capabilities of your server and also allows you to set up an installation server to make your customized operating system installation files available for other server installations.

Download the Installation Toolkit for Linux on POWER from
http://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/installtools/home.html.

Use the Installation Toolkit for Linux on POWER to:

- Facilitate the launch of the Linux distribution installation and help reduce errors during installation.
- Install RPM packages including software to enable dynamic logical partitioning, software that allows you to add, remove, or move resources between logical partitions without restarting a logical partition or system, and tools that can help you diagnose problems on your system. For information about these RPMs that are required for models hardware and will enhance your experience on servers hardware, see Installing required additional software for the Linux operating system.
- Run system configuration tools such as diagela, lsvpd, rpa-dlpar, rpa-pci-hotplug, sysdiag, and others.
- Browse and search Linux on POWER documentation such as Setting up a Virtual I/O Server, Setting up virtual partitions, Reference code documentation, Managing a server with an HMC, a Maintenance guide, an overview of Linux RAS tools, Initial server setup, Clustering solutions, and other topics.
- View the Installation Toolkit for Linux on POWER users' manual and developers' manual on the CD.

Parent topic: Installing Linux

Linux operating system distribution installation documentation

To install Linux, use the installation documentation provided by Linux distributors for the POWER architecture.

Linux distributors provide custom components that ease the installation and maintenance of Linux systems. You can find installation information for both Red Hat Enterprise Linux version 4 and for SUSE Linux Enterprise Server 9 in the documentation provided on the Linux installation CDs.

- For current information about Linux distributions, refer to the Linux at IBM Web site.
- For detailed information about installing Red Hat Enterprise Linux version 4, see Red Hat Enterprise Linux 4 Installation Guide for the POWER Architecture Web site at http://www.redhat.com/docs/manuals/enterprise/RHEL-4-Manual/ppc-multi-install-guide/.
- For detailed information about installing SUSE Linux Enterprise Server 9, see the installation information at SUSE LINUX Enterprise Server Web site at http://www.novell.com/documentation/sles9/index.html.
- After you have installed Linux, use the additional software described in the Installing additional software for Linux topic to enhance your Linux on POWER solutions.

Parent topic: Installing Linux

Installing required additional software for the Linux operating system

This topic provides information about software that is required for models hardware and will enhance your experience on servers hardware.

First, install your Linux distribution using the instructions available at Linux operating system distribution installation documentation. Then, install the additional software to access more capabilities, including software to enable dynamic logical partitioning, software that allows you to add, remove, or move resources between logical partitions without restarting a logical partition or system, and tools that can help you diagnose problems on your system.

This software is available at the Service and productivity tools Web site at
https://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/home.html.

Parent topic: Installing Linux

Troubleshooting for Installing Linux

Here you can find information for troubleshooting Installing Linux.

Troubleshooting

> If you have problems with a partitioned system, use the Troubleshooting topic to determine if the problem is specific to logical partitions or if it is a system problem. If your problem is specific to logical partitions, reference codes might resolve the error. However, specific recovery actions and tasks might require the assistance of service support.

Linux on IBM Web site at http://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/info/LinuxAlerts.html

> Use this information access the latest installation information for Linux on your POWER system. This link provides the latest information, fixes, and procedures that might help you avoid problems during the installation of Linux on systems.

Parent topic: Installing Linux

Related information for Installing Linux

Here you can find a list of additional resources that you can access for further technical and how-to information.

Listed below are the IBM Redbooks (in PDF format), Web sites, and ESCALA Power5 Hardware Information topics that relate to the Installing the Linux operating system topic. You can view or print any of the PDFs.

IBM Redbooks

Partitioning Implementations for ESCALA PL Series Servers (3.8 MB)

Web sites

- For the latest information, fixes, and procedures that might help you avoid problems during the installation of Linux on systems, see the Linux on IBM Web site at http://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/info/LinuxAlerts.html.
- For software that allows you to access more capabilities of your server, including software to enable dynamic logical partitioning, software that allows you to add, remove, or move resources between logical partitions without restarting a logical partition or system, and tools that can help you diagnose problems on your system, see the Service and productivity tools Web site at https://www14.software.ibm.com/webapp/set2/sas/f/lopdiags/home.html.
- For detailed information about installing Red Hat Enterprise Linux version 4 on POWER hardware, see the Red Hat Enterprise Linux 4 Installation Guide for the POWER Architecture Web site at http://www.redhat.com/docs/manuals/enterprise/RHEL-4-Manual/ppc-multi-install-guide/.
- For detailed information about installing SUSE Linux Enterprise Server 9, see the installation information at SUSE LINUX Enterprise Server Web site at http://www.novell.com/documentation/sles9/index.html.
- For Virtual I/O Server documentation, see the Virtual I/O Server Web site at http://techsupport.services.ibm.com/server/vios
- For information about performance considerations when using the Virtual I/O Server, see *Virtual I/O Server performance/sizing/QOS considerations* at http://techsupport.services.ibm.com/server/virtualization/vios/documentation/perf.html

Parent topic: Installing Linux

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