Installing Linux on Power Systems servers Version 1.0.1



Quick Start Guide for installing Linux on Power Systems servers

This guide helps you install Linux on a stand-alone Power Systems server.

Overview

Use this information to install Linux using a serial console on a Power Systems server. This installation assumes an unmanaged (stand-alone) system.

Step 1: Completing the prerequisites

Before installing Linux on your system, ensure that you have the following:

- Ethernet cable
- Serial to RJ-45 cable
- Laptop or PC
- Terminal emulator program such as minicom or kermit (Linux) or Putty (Windows). Set the communications to use a 19200 baud with data bits of 8, a parity of None, and stop bits of 1.
- Power cords and outlet for your system. Depending on your configuration, your system might require 220 V. For
 instructions, see the IBM Knowledge Center and search for your Power hardware model: IBM Knowledge Center.
- Distribution media



Step 2: Prepare to power on

Before powering on the system, follow these steps:

- If your system belongs in a rack, install your system into that rack. For instructions, see the IBM Knowledge Center and search for your Power hardware model: IBM Knowledge Center.
- Remove the shipping brackets from the power supplies. Ensure that the power supplies are fully seated in the system.
- Connect your laptop or PC to the serial connection port 1 on the server using the serial console.
- Connect an Ethernet cable to the top network port on the back of your system and to your network.
- Connect the power cords to the system and plug them into the outlets.

At this point, your firmware is booting. Wait for the green power LED on the control panel to start flashing, indicating that it is ready to use, and for the prompt 01 N V=N to appear on the display.

For information about accessing and using the control panel, see the Control panel topic at https://ibm.biz/BdYjwz.

3 Step 3: Power on the system

To set up your firmware and power on your system, follow these steps:

- **a.** Press Enter in your terminal emulator to get the login prompt. The first time you connect to the firmware, enter using the admin ID and password admin. After logging in, you will be forced to change the password. Be sure to record this password!
- b. On the firmware main menu, set the date and time for your hardware. From the main menu, select System Configuration->Time of Day. Verify or change to the correct date and time.
- **c.** Set or verify the power on parameters for your system. From the main menu, select Power/Restart Control. Power On/Off System. Set AIX/Linux partition mode boot to Boot to SMS menu.
- **d.** Power on the system by selecting the Power On from Power On/Off System menu. As the system powers up, you might notice the following:
 - System reference codes appear in the terminal emulator while the system is being started.
 - The power LED continues to flash and speeds up.
 - The system cooling fans are activated after approximately 30 seconds and begin to accelerate to operating speed.
 - The power LED on the control panel stops flashing and remains on, indicating that system power is on.

After your system has powered on, you are asked if you want to continue using the console. Enter 0 to continue using the console.

Step 4: Boot the installer kernel

- To set up your server to boot the Linux installer kernel, follow these steps:
- **a.** Insert distribution media into the disk drive.
- **b.** From the Select Language window, enter 2 to Continue to Booting.
- c. Enter 1 to accept the license agreement.
- **d.** At the Boot selection window, enter 1 to select the SMS Menu. Enter 1 before the firmware boot screen is completely shown on the display, because it will disappear when complete. If you miss the screen, reboot the system.
- e. Enter 2 to Continue to password entry on the Language selection menu. Enter the password that you specified earlier.
- f. Enter 5 to select the Select Boot Options option.
- g. Enter 7 to view all of the available boot devices.
- $\boldsymbol{h}.$ Enter the number corresponding to the device you want to use.
- i. Enter 2 to perform a Normal Mode Boot.
- j. Enter 1 to leave the SMS menu and to start the boot process.
- k. At the boot prompt from the installer, type linux vnc to install Red Hat Enterprise Linux or install vnc=1 vncpassword=abc12345 to install SUSE Linux Enterprise Server and press Enter. The kernel will begin loading.

Step 5: Start VNC session and install Linux

After the kernel has started to load, the installer needs some information from the system in order to set up a VNC session. You must be on the network in order to use VNC. Either use DHCP or manually define your networking information using directions provided by the Linux distribution.

- a. On the Network device window, select eth0 as your network device. Select OK and enter.
- **b.** Select to test your installation media or to skip.
- **c.** After the system has started the VNC server, you will see a message to connect your VNC client followed by an IP address. Take note of this IP address.
- d. Start your VNC client on your laptop or PC.
- e. Enter the IP address from the system as your VNC Server. Add :1 to the end of the IP address and click connect.
- f. Complete the installation by following the installer screens to install Linux.

Step 6: Install additional software

Additional software is available from the IBM Linux on Power Tools Repository. The IBM Tools Repository is also called the Yum Repository. For more information about using the IBM Linux on Power Tools Repository, see https://ibm/biz.BdYjwG.



Step 7: Troubleshooting

Check the control panel for any codes that might be displayed. For example, the code 11002613 indicates that there is a problem with the power. Ensure that the power supplies are seated correctly and that you are using the correct power cords.

You can look up any codes that are displayed in IBM Knowledge Center.

More information

For more information, see the following resources:

- Linux information for IBM systems at https://www.ibm.com/support/knowledgecenter/linuxonibm/liaaa/ic-homepage.htm
- IBM Knowledge Center: https://www.ibm.com/support/knowledgecenter/.
- The Linux on Power developer portal at https://developer.ibm.com/linuxonpower/.

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