

Installation Guide for SUSE® Linux Enterprise Server 10 SP2

Novell® Identity Manager Resource Kit

1.2

August 17, 2009

www.novell.com



Legal Notices

Novell, Inc., makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc., makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the [Novell International Trade Services Web page \(http://www.novell.com/info/exports/\)](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2007-2009 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc., has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed on the [Novell Legal Patents Web page \(http://www.novell.com/company/legal/patents/\)](http://www.novell.com/company/legal/patents/) and one or more additional patents or pending patent applications in the U.S. and in other countries.

Novell, Inc.
404 Wyman Street, Suite 500
Waltham, MA 02451
U.S.A.
www.novell.com

Online Documentation: To access the latest online documentation for this and other Novell products, see the [Novell Documentation Web page \(http://www.novell.com/documentation\)](http://www.novell.com/documentation/).

Novell Trademarks

For Novell trademarks, see [the Novell Trademark and Service Mark list \(http://www.novell.com/company/legal/trademarks/tmlist.html\)](http://www.novell.com/company/legal/trademarks/tmlist.html).

Third-Party Materials

All third-party trademarks are the property of their respective owners.

About This Guide

This guide describes how to configure your SUSE[®] Linux Enterprise Server 10 SP2 environment for the Novell[®] Identity Manager Resource Kit.

The guide contains the following sections:

- ♦ [Chapter 1, “Installing SUSE Linux Enterprise Server 10 SP2,” on page 9](#)
- ♦ [Chapter 2, “Installing and Configuring the VMware Tools,” on page 15](#)

Audience

This guide is intended for Identity Manager administrators who are using the Novell Identity Manager Resource Kit.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Documentation Updates

For the most recent version of the *Identity Manager Resource Kit Installation Guide for SUSE Linux Enterprise Server 10 SP2*, visit the [Novell Compliance Management Platform Documentation Web site \(http://www.novell.com/documentation/ncmp10\)](http://www.novell.com/documentation/ncmp10).

Additional Documentation

For documentation on SUSE Linux Enterprise Server, see the [SUES Linux Enterprise Server Documentation Web site \(http://www.novell.com/documentation/sles10/index.html\)](http://www.novell.com/documentation/sles10/index.html).

For documentation on Identity Manager and drivers, see the [Identity Manager Documentation Web site \(http://www.novell.com/documentation/idm36/index.html\)](http://www.novell.com/documentation/idm36/index.html).

Documentation Conventions

In Novell documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

A trademark symbol ([®], [™], etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as Linux* or UNIX*, should use forward slashes as required by your software.

Contents

About This Guide	5
1 Installing SUSE Linux Enterprise Server 10 SP2	9
1.1 Downloading the SLES Software	9
1.2 Installing SLES 10 SP2	9
1.2.1 Installation Information	10
1.3 Configuring SLES 10 SP2	11
1.3.1 Configuring Network Options	11
1.3.2 Additional Configuration Options	12
2 Installing and Configuring the VMware Tools	15
2.1 Installing the VMware Tools	15
2.2 Configuring the VMware Tools	15
2.3 Fixing the Racing Clock Problem	16

Installing SUSE Linux Enterprise Server 10 SP2

1

This information is intended for use by professional network and system administrators during the installation of SUSE® Linux Enterprise (SLES) SP2. The instructions provided are specific to the setup of the Identity Manager Resource Kit. If you want more detailed information about SLES, see the [SUSE Linux Enterprise Server 10 SP2 documentation Web site \(http://www.novell.com/documentation/sles10/index.html\)](http://www.novell.com/documentation/sles10/index.html).

The installation of SLES consists of installing SLES, then configuring the server components.

- ♦ [Section 1.1, “Downloading the SLES Software,” on page 9](#)
- ♦ [Section 1.2, “Installing SLES 10 SP2,” on page 9](#)
- ♦ [Section 1.3, “Configuring SLES 10 SP2,” on page 11](#)

1.1 Downloading the SLES Software

If you have a copy of the SLES 10 SP2 software, proceed directly to [Section 1.2, “Installing SLES 10 SP2,” on page 9](#). If you do not have a copy of SLES 10 SP2, proceed with the following steps:

- 1 Go to the [Novell Downloads Web site \(http://download.novell.com\)](http://download.novell.com).
- 2 In the *Product or Technology* field, browse to and select *SUSE Linux Enterprise Server*, then click *Search*.
- 3 Select *SUSE Linux Enterprise Server 10 SP2 for x86, AMD64, Intel64, Itanium & IBM POWER eMedia Kit*, then click *proceed to download*.
- 4 Log in with your Novell Account, then click *Login*.
- 5 Click *accept* on the warning about the file size.
- 6 Browse through the list of ISO images and select the version that is correct for your hardware, then click *download*.
- 7 Save the ISO to disk, then either create a physical copy of the ISO file or configure your VMware* to mount the ISO image.
- 8 Continue with [Section 1.2, “Installing SLES 10 SP2,” on page 9](#).

1.2 Installing SLES 10 SP2

- 1 To start the installation, insert the media into your CD or DVD drive, then boot your VM from the SLES 10 SP2 CD or DVD.
or
From your VM, mount the ISO image.
- 2 At the boot screen, select *Installation*, then press Enter.



3 Continue with **Installation Information** to complete the installation.

1.2.1 Installation Information

The information in the following table is listed in the order of the installation flow. SLES information that is specific to the Resource Kit is marked with an asterisk (*) in the *Installation Information* column.

Table 1-1 *Installation Information*

Installation Information	Description
Language	Select the language you want the server to display when being used.
Installation Mode	The only option that is available is <i>New Installation</i> , because you are creating a new server.
Clock and Time Zone	<p>Time synchronization is important for eDirectory™ and Identity Manager. Verify that this information is correct for your environment.</p> <p>During installation, the Region and Time Zone are preselected according to the selected installation language.</p> <p>Region: Select your region.</p> <p>Time Zone: Select your time zone.</p> <p>Hardware Clock Set To: Set the hardware clock to UTC time or to the local time.</p> <p>The selection depends on how the BIOS hardware clock is set on your machine. If it is set to GMT, which corresponds to UTC, your system can rely on SUSE Linux Enterprise to automatically switch from standard time to daylight saving time and back.</p> <p>Time and Date: Set the correct time and date.</p>

Installation Information	Description
*Installation Settings	<p>The page allows you to change settings.</p> <p>Keyboard Layout: The keyboard layout setting is already set. The keyboard layout is determined by the language selection. If you want to change the setting, click the heading.</p> <p>*Partitioning: Allows you to partition the hard disk space for use with the SLES server. You should select <i>Base Partition Setup on This Proposal</i>, to allow you to change the file system type of the root (/) partition from Reiser to Ext3.</p> <p>*Software: Allows you install additional software to the server in order to add features. For the Resource Kit, there are two additional software options that are installed:</p> <ul style="list-style-type: none"> ◆ <i>C/C++ Compiler and Tools</i> is located under the <i>Development</i> heading. ◆ <i>kernel-source</i> is located under <i>Details</i>. Set the Filter to Search. <p>Language: Allows you to change the primary language.</p>

1.3 Configuring SLES 10 SP2

After the SLES installation completes, the server reboots and you are presented with configuration wizards. You need to configure the network and any other options that were selected during the installation.

- ◆ [Section 1.3.1, “Configuring Network Options,” on page 11](#)
- ◆ [Section 1.3.2, “Additional Configuration Options,” on page 12](#)

1.3.1 Configuring Network Options

Use the information in [Table 1-2](#) to configure the network options for the SLES server. The configuration information provided configures your server to be exactly like the Resource Kit VM. All of the information listed is specific to the Resource Kit.

Table 1-2 *Network Options Information*

Network Options Information	Description
Password for the System Administrator “root”	<p>Password: The password that is used in the Resource Kit VM is n0v3ll. You can use this password or create your own.</p> <p>Expert Options: Allows you change the password encryption type. The Resource Kit uses MD5.</p>

Network Options Information	Description
Hostname and Domain Name	<p>Hostname: The hostname for the Resource Kit is <code>metaserver1</code>.</p> <p>Domain Name: The domain name for the Resource Kit is <code>idm</code>.</p> <p>Change Hostname via DHCP: Identity Manager and all of its components use the server's hostname. Leave the option deselected, so that the hostname doesn't change.</p> <p>Write Hostname to <code>/etc/hosts</code>: The hostname of <code>metaserver1</code> is added to the <code>/etc/hosts</code> configuration file.</p>
Network Configuration	<p>Identity Manager requires a static IP address. Complete the following configuration to add the static IP address. The values used are the same values that are set in the VM for the Resource Kit.</p> <p>Only the options that require changes are listed. Leave the other options set to the default values.</p> <p>Network Mode: Enable NetworkManager by clicking the link.</p> <p>Firewall: Leave the firewall enabled, then select <i>blocked</i> from the SSH Port to enable SSH access to the VM.</p> <p>Network Interfaces: Select your network card, then add the following values:</p> <ul style="list-style-type: none"> ◆ IP Address: <code>172.17.2.117</code> ◆ Hostname and Name Server: Deselect <i>Update Name Servers and Search via DHCP</i>. Add a primary name server with an IP address of <code>172.17.2.2</code>, then add <code>idm</code> for the Domain Search. <ul style="list-style-type: none"> The name server that is specified must be a valid name server for your environment. ◆ Routing: Specify <code>172.17.2.2</code> as the default gateway, then select the <i>Enable IP forwarding</i> check box. <ul style="list-style-type: none"> If you are using NAT on the VMware host, verify that the gateway specified is a valid gateway for your environment. <p>When prompted to install additional packages for the Network Manage, click <i>Continue</i>.</p>
Test Internet Connection	<p>If you are connected to the Internet, test your connection. Otherwise, skip the test to continue with the configuration.</p>

1.3.2 Additional Configuration Options

After the network card has been configured, there are additional features that need to be configured. Use the information in [Table 1-3](#) to complete the configuration of the SLES installation. The network configuration is specific for the Resource Kit.

Table 1-3 *Additional Configuration Information*

Additional Configuration Information	Description
Installation Settings	<p>SLES comes with a certificate manager and an LDAP server. The Resource Kit does not use these SLES features. It uses the certificate manager and the LDAP server that come with eDirectory™. Make sure the following features are disabled.</p> <p>CA Management: Select <i>Do Not Create CA and Certificates</i>.</p> <p>OpenLDAP Server: Verify that this indicates <i>Start LDAP server NO</i>. If not, click the OpenLDAP Server link, then select <i>Disable Server</i>.</p>
User Authentication Method	<p>Use this setting to choose how users authenticate to SLES.</p> <p>Select <i>Local</i> to use the <code>/etc/passwd</code> configuration file for authentication to SLES.</p>
New Local User	<p>Create a new user with the following information:</p> <ul style="list-style-type: none">◆ User's Full Name: Resource Kit Administrator◆ Username: admin◆ Password: n0v3ll◆ Leave the two additional options deselected.
Release Notes	<p>Read through the release notes. This information is especially helpful if you are unfamiliar with SLES 10 SP2 or are curious about the latest updates. We recommend that you review the Release Notes.</p>
Hardware Configuration	<p>Adjust the Graphics Cards settings so they comply with your host hardware.</p>
Installation Complete	<p>A successful message is displayed after the installation completes.</p>

After the installation completes, log into SLES as the Resource Kit Administrator. Verify that you have Internet connectivity, then proceed to the [Chapter 2, “Installing and Configuring the VMware Tools,”](#) on page 15.

Installing and Configuring the VMware Tools

2

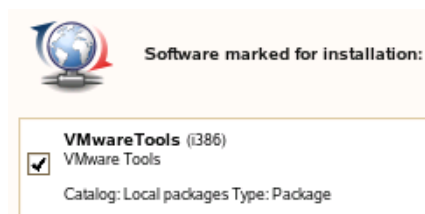
The following instructions provide information about setting up VMware tools for the Identity Manager Resource Kit. This needs to be completed before installing any Identity Manager components.

For complete details on installing the VMware tools, refer to the VMware documentation.

- ♦ [Section 2.1, “Installing the VMware Tools,” on page 15](#)
- ♦ [Section 2.2, “Configuring the VMware Tools,” on page 15](#)
- ♦ [Section 2.3, “Fixing the Racing Clock Problem,” on page 16](#)

2.1 Installing the VMware Tools

- 1 Log in to your Resource Kit server as admin.
- 2 From the VM menu, select *Install VMware Tools*.
This prompts your SLES server to detect and mount a new CD-ROM.
- 3 Click inside the VM Server window to return mouse control to the VM server (or you can change to full-screen mode by pressing Ctrl+Alt+Enter.)
- 4 Double-click `VMwareTools-X.Y.Z-NNNNN.i386.rpm` to launch the software installer.
- 5 Enter the `root` password, then click *Continue*.
- 6 Verify that the `VMwareTools` package is selected, then click *Install*.



- 7 Click *Close* in the installation success message, then close the file browse window.
- 8 Proceed to [Section 2.2, “Configuring the VMware Tools,” on page 15](#).

2.2 Configuring the VMware Tools

The main purpose of configuring the VMware tools is to allow you to change the resolution of the VMware image.

- 1 From the *Computer* menu, select *Gnome Terminal*.
- 2 Log in as `root` by entering `su`, then enter the `root` password.
- 3 Enter `vmware-config-tools.pl` to configure the VMware tools.
- 4 Enter the number of the desired display resolution for the VMware image.

- 5 Log into the SLES server as admin, because the resolution was changed.
- 6 Reboot your VMware image for the changes to take effect.

If you want to disable the power save option:

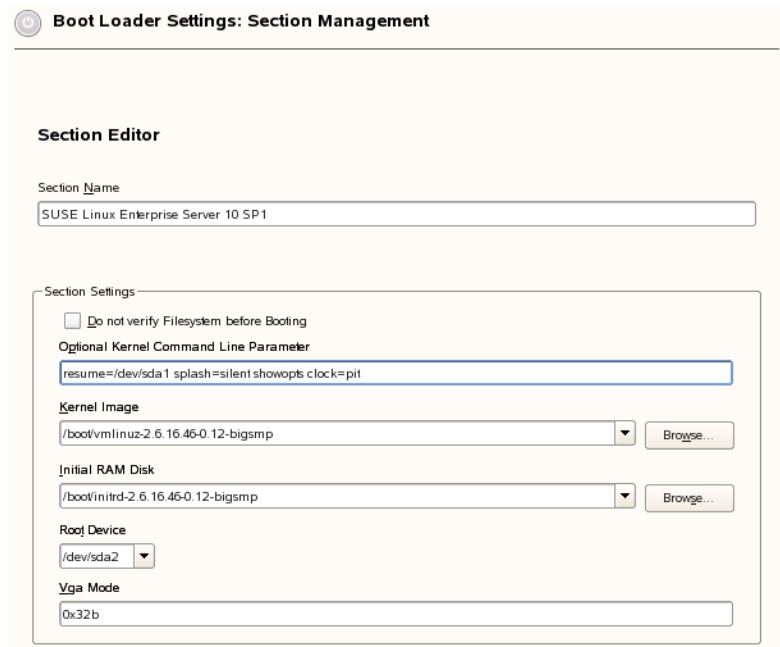
- 1 From the *Computer* menu, select *Gnome Terminal*.
- 2 Log in as `root` by entering `su`, then enter the `root` password.
- 3 Enter `/etc/init.d/powersaved stop` to stop the power save option.
- 4 To prevent the power save from auto-starting when the server is rebooted, enter `chkconfig powersaved off`.
- 5 Continue with [Section 2.3, “Fixing the Racing Clock Problem,”](#) on page 16.

2.3 Fixing the Racing Clock Problem

There is a known issue in Linux with system clocks running too quickly or slowly. The following workaround is provided by VMware. For complete details, refer to the [VMware Documentation Web site \(http://kb.vmware.com/selfservice/viewContent.do?externalId=1420\)](http://kb.vmware.com/selfservice/viewContent.do?externalId=1420).

- 1 From the *Computer* menu, select *YaST*.
- 2 Specify the `root` password.
- 3 Select *System > Boot Loader*.
- 4 Select *SUSE Linux Enterprise Server 10 SP2*, then click *Edit*.
- 5 Add `clock=pit` to the *Optional Kernel Command Line Parameters*, then click *OK* to return to the main boot loader page.

Each command is separated by a space.



The screenshot shows the 'Boot Loader Settings: Section Management' window. The 'Section Editor' section shows 'Section Name' as 'SUSE Linux Enterprise Server 10 SP1'. The 'Section Settings' section includes a checkbox for 'Do not verify Filesystem before Booting' (unchecked). The 'Optional Kernel Command Line Parameter' field contains the text 'resume=/dev/sda1 splash=silent showopts clock=pit'. Below this are fields for 'Kernel Image' (set to '/boot/vmlinuz-2.6.16.46-0.12-bigsmmp'), 'Initial RAM Disk' (set to '/boot/initrd-2.6.16.46-0.12-bigsmmp'), 'Root Device' (set to '/dev/sda2'), and 'Vga Mode' (set to '0x32b').

Depending upon the CPU of the VMware host machine, you might add the additional option of `acpi=off`.

- 6 Click *Finish* to save your changes and return to the main YaST menu.
- 7 Close YaST and reboot your VMware image for the changes to take effect.
- 8 Proceed to the *Identity Manager Resource Kit 1.2 Installation Guide for the Identity Manager Components*.

