Siets

INSTALLATION GUIDE

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CONTACT INFORMATION

Email: support@siets.net

Website: www.siets.net

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PREFACE

This section contains the following topics:

- Audience
- Structure of This Guide
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- Typographic Conventions

Audience

This guide is intended for SIETS administrators, who install and upgrade SIETS servers and SIETS Enterprise Manager.

Structure of This Guide

This guide has the following structure:

Section	Description
Introduction	Describes the SIETS system from the installation perspective.
Installing SIETS	Describes SIETS setup steps for installing, updating, and uninstalling SIETS.
Installing SIETS Together with OS	Describes SIETS installation steps, if SIETS installed together with an operating system.

Related Information

The SIETS package includes the following guides:

Title	Description
SIETS Administration and Configuration Guide	Describes the SIETS administration and configuration concepts and contains step-by-step instructions for administering and configuring SIETS.
SIETS Developer's Guide	Describes SIETS from an application developer's perspective and provides reference material for building customized applications based on SIETS.

Typographic Conventions

The following styles and conventions are used in this guide:

Convention	Description
Verdana	Represents command, function, file and directory names, system messages, and command-line commands.
Hyperlink	Represents a hyperlink. Clicking on this field takes you to the identified place.

1. INTRODUCTION

This guide describes how to install SIETS.

This section contains the following topics:

- Product Overview
- Installation Overview
- Hardware Requirements

1.1.   Product Overview

SIETS is a system for information storage and retrieval. The SIETS system consists of the SIETS server and application programming interface (API), and SIETS Enterprise Manager.

The SIETS server is an operational unit that performs information storing and retrieval tasks by executing a predefined set of commands.

SIETS API libraries are used for building information storage and retrieval applications that are specific and customized according to your company.

SIETS Enterprise Manager is a tool for administering a single SIETS server or a cluster of SIETS servers.

The following figure describes, how SIETS servers and SIETS Enterprise Manager are related:
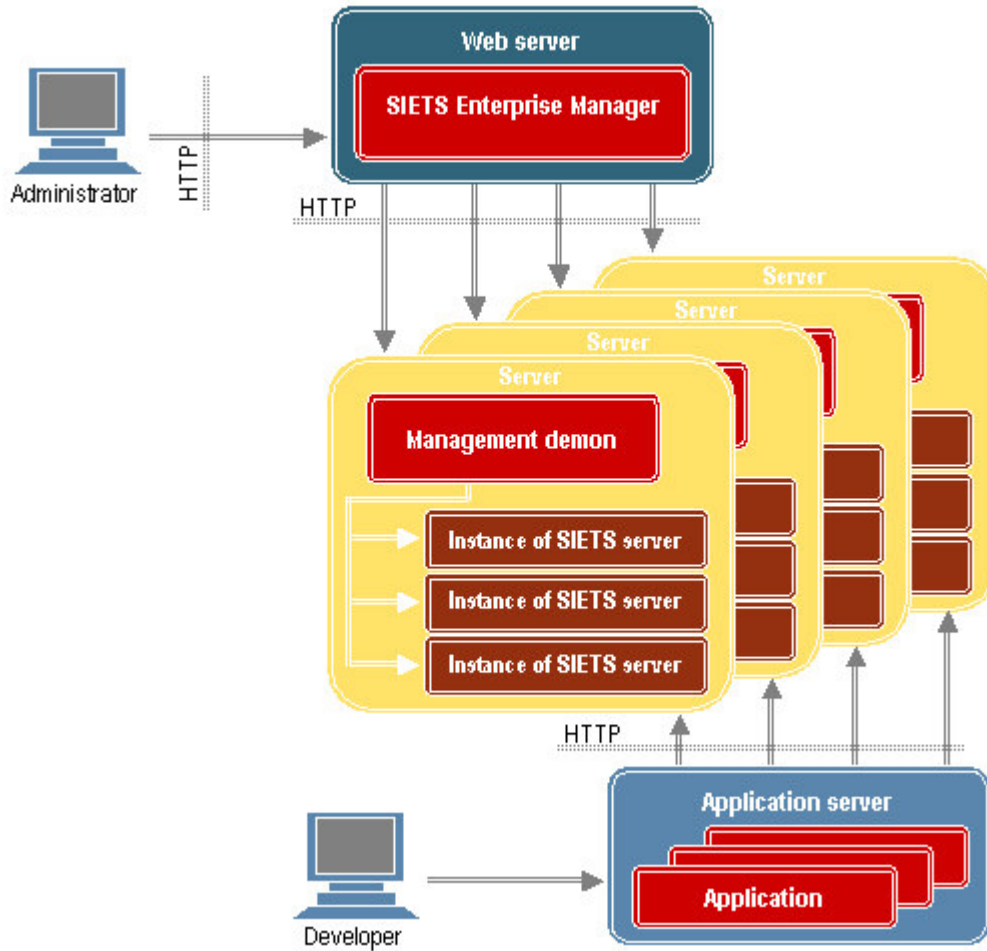
Figure 1: SIETS architecture from user roles perspective

SIETS Enterprise Manager is used to administer SIETS servers. SIETS Enterprise Manager is a CGI executable installed on a Web server.

A Web server is necessary for the following:

- running SIETS Enterprise Manager, which is necessary for performing administrative and configuration tasks.
- exchanging messages between applications and the SIETS server, which uses the HTTP as a transport protocol

1.2.   Installation Overview

Installing the SIETS system basically involves installing the SIETS server and installing SIETS Enterprise Manager.

The SIETS system is installed and run on an Unix-like operating system, including Linux, which can be obtained without a charge. Also prerequisite libraries, which are necessary for the SIETS system, can be used without a charge.

This section contains the following topics:

1.2.1. SIETS Servers and SIETS Enterprise Manager

Installations of the two are separated because you can install one SIETS server or several SIETS servers in a cluster, but in both cases only one administering tool: SIETS Enterprise Manager is necessary.

You can install SIETS Enterprise Manager on a separate Web server in your corporate network, or you can install it on a the same computer with the SIETS server, as described in the following figure:
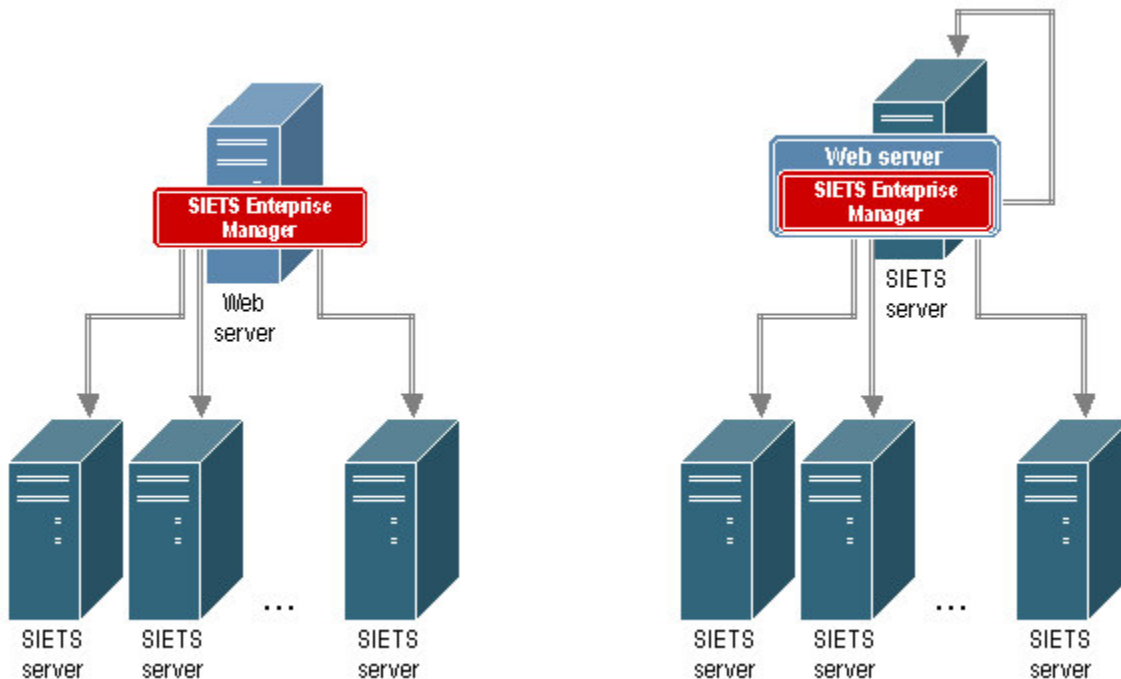

Figure 2: SIETS servers and SIETS Enterprise Manager

Thus, before installing the SIETS system, you should decide on which computer SIETS Enterprise Manager is to be installed.

Note: If installing SIETS together with the operating system, both, the SIETS server and SIETS Enterprise Manager are installed. In such case, if you have multiple SIETS servers, you can just use one SIETS Enterprise Manager to manage all of them.

Note that because of performance and problem tracking considerations, it is not recommended to use the Web server, which is installed on the same computer with the SIETS server, for other services than running SIETS Enterprise Manager.

1.2.2. Installation Options

The SIETS system is installed on an Unix-like operating system. Therefore, there are two possible installation options: one that installs only the SIETS system packages in case you already has an Unix-like operating system installed, and another that installs the SIETS

system together with the operating system in case you do not have it installed. The two options are described in the following figure:
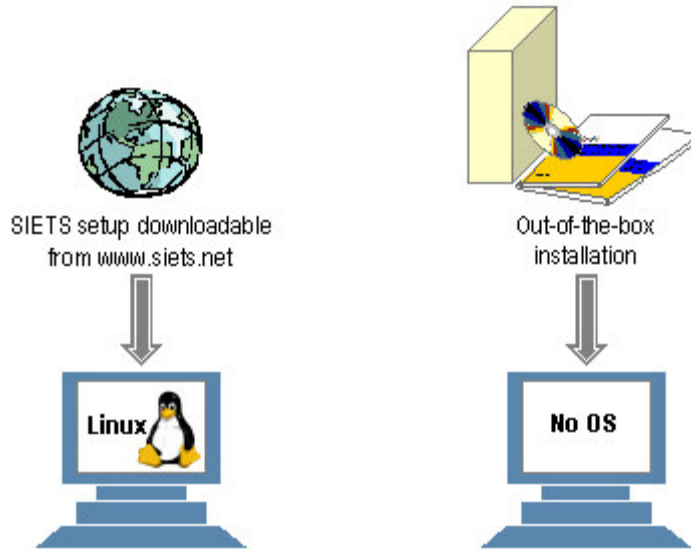

Figure 3: Installing SIETS

The following table describes the two installation options:

	SIETS setup	Out-of-the-box installation
Description	This is a quick installation, which installs the SIETS server and/or SIETS Enterprise Manager from a SIETS installation program on a computer that already has a Unix-like operating system and other prerequisites installed.	This is a compact and easy installation, which installs only and all necessary for SIETS from a CD, including a customized Red Hat Linux operating system for SIETS, the SIETS server, and SIETS Enterprise Manger. In the installation wizard all possible options are already selected. Basically, all you have to do is select OK as you go through the installation wizard steps and select whether or not to install SIETS Enterprise Manager.
Purpose	To be used, if you have a computer with an Unix-like operating system installed.	To be used, if you have a computer with no operating system installed and if only the SIETS server and/or SIETS Enterprise Manager is to be run on this computer.
Obtained	Downloaded from www.siets.net.	Delivered on CD.

	SIETS setup	Out-of-the-box installation
Prerequisite software	Unix-like operating system, for example, Red Hat Linux, with installed Web server and the following libraries for the SIETS server and SIETS Enterprise Manager (SIETS EM): | Library	SIETS server	SIETS EM
glibc	+	+
zlib	+	+
libunicode	+	+
libxml2	+	+
libxslt		+
glib	+	
CURL	+	
OpenSSL	+	
ncurses	+	| These prerequisite libraries are used without a charge. Versions of the libraries are not important. SIETS is tested with an Apache Web server and the setup automatically detects parameters of an Apache Web server, if it is installed. However, you can also use any other Web server that supports CGI.	None.
Prerequisite knowledge	User level knowledge about the Unix-like operating system you have installed on the computer.	Network configuration parameters, such as IP address, network address, default gateway address, primary nameserver, and hostname.
Installs	The SIETS server and/or SIETS Enterprise Manager.	Red Hat Linux 9 with necessary libraries, SIETS server and SIETS Enterprise Manager, if selected.

1.3.   Hardware Requirements

Requirement	Minimum at which tested	Recommended
Computer	Intel PC compatible hardware architecture	Pentium IV or Xeon
RAM	256 MB	512 MB
Disk space for the SIETS server software	Less 20 MB	Depends on amount of documents. For information on the default SIETS storage configuration parameters, see the *SIETS Administrator's Guide.*
Disk space for the SIETS server data storages	Approximately 4 X more than raw data	Depends on amount of documents. For information on the index construction, see the *SIETS Administrator's Guide.*

2. INSTALLING SIETS

This section describes how to install SIETS on a computer that already has an Unix-like operating system and other prerequisites installed.

For more information on prerequisites, see Installation Options.

Installing SIETS is performed using a SIETS installation program `SIETS-builddate.setup`, which is run from the command prompt and where `builddate` is the date, when the build was made.

Due to the fact that the installation program contains installation of the SIETS server and SIETS Enterprise Manager, which each can has a different version, the installation filename contains only a build date. For information on what versions correspond to build dates, see www.siets.net.

Description of installation steps do not include a separate description for pressing ENTER for submitting the entered command as it is considered as common sense when working with the command prompt.

The installation program contains actions for installing, updating, and uninstalling SIETS. Therefore, this section contains the following topics:

- Installing
- Updating
- Uninstalling

2.1.   Installing

To install SIETS, proceed as follows:

1. In the command prompt window, enter `SIETS-builddate.setup install.`

    As the install action is the default, you can enter just `SIETS-builddate.setup.`

    Setup checks archive integrity.

    The welcome message appears.

    The setup detects OS and Linux distribution.

2. If unsupported Linux distribution is detected, the setup warns that SIETS might not function properly and asks for continuation. To continue, select *Yes.*

    The setup asks whether to install Web modules SIETS API and SIETS Enterprise Manager.

    If the installation is to be used as a non-master node in a cluster of SIETS servers, then you do not need to install the Web modules.

    For more information on SIETS architecture, see SIETS Servers and SIETS Enterprise Manager.

3. To install the Web modules, select *Yes.*

4. If you selected *Yes* in the previous step, proceed to the following step. If you selected *No* in the previous step, then proceed to the step 6.

    The setup is detecting installed Apache Web servers and their parameters:

- Web server's document root
- `cgi-bin` directory

- user used by the Web server
- group used by a Web server

    which are all necessary for integrating SIETS with a Web server.

5. Perform one of the following options according to what Apache Web servers information the setup has detected:
    - If no Apache Web servers are detected, the default parameter values are not provided. If you want to use another Web server, enter the parameters manually or install Apache Web server.
    - If a single Apache Web server is detected, the default values from the Web server installation are provided. If necessary, change the parameters.
    - If multiple Apache Web servers are detected, the default parameter values are listed for all Apache Web servers. Select default parameters for one of the servers, or enter or change parameters, if necessary.

    The setup asks whether to install the SIETS server.

6. To install the SIETS server, select *Yes*.

7. If you selected *Yes* in the previous step, proceed to the following step. If you selected *No* in the previous step, then proceed to the step 11.

    The setup checks if the required shared libraries for the SIETS server are installed.

    If there are shared libraries that are not installed, the setup quits with a respective error message.

8. If the shared libraries are installed, but there are missing symbolic links to the required shared libraries, then the setup asks for installing the links. Confirm installing the links.

    The setup checks for existing configuration files necessary for the SIETS server.

9. If the configuration files are detected, the setup asks if they are to be kept or overwritten. Select whether the configuration files are to be kept or overwritten.

    The setup copies the files.

    The setup of the SIETS server is complete and the setup asks, if the SIETS server must be started.

10. To start the SIETS server, select *Yes*.

    If you selected *Yes* in the previous step, the SIETS server is started.

    If you selected to install the Web modules in the step 4, the setup asks if you want to install SIETS Enterprise Manager.

11. To install SIETS Enterprise Manager, select *Yes*.

12. If you selected *Yes* in the previous step, proceed with the following step. If you selected *No* in the previous step, the setup is complete.

    The setup checks if the required shared libraries for SIETS Enterprise Manager are installed.

    If there are shared libraries that are not installed, the setup quits with a respective error message.

13. If the shared libraries are installed, but there are missing symbolic links to the required shared libraries, then the setup asks for installing the links. Confirm installing the links.

The setup checks for existing configuration files necessary for SIETS Enterprise Manager.

14. If the configuration files are detected, the setup asks if they are to be kept or overwritten. Select whether the configuration files are to be kept or overwritten.

    The setup copies the files.

    The setup warns that the Web server must be started before running SIETS Enterprise Manager.

    The SIETS Enterprise Manager setup is complete.

2.2.   Updating

To update SIETS, proceed as follows:

1. In the command prompt window, enter `SIETS-builddate.setup update.`

    Setup checks archive integrity.

    The welcome message appears.

    The setup detects and checks the existing SIETS server installation.

    If the SIETS server installation is not detected, the setup warns that the update of SIETS server is not available. Proceed to the step 8.

    If the SIETS server installation is detected, the setup asks if you want to update the SIETS server.

2. To update the SIETS server, select *Yes*.

3. If you selected *Yes* in the previous step, proceed to the following step. If you selected *No* in the previous step, then proceed to the step 8.

    The setup checks if the SIETS server is running.

    If the SIETS server is running, the setup asks if it must be shut down.

4. To shut down the SIETS server, select *Yes*.

5. If you selected *Yes* in the previous step, proceed to the following step. If you selected *No* in the previous step, the setup terminates.

    The setup checks if the required shared libraries for the SIETS server are installed.

    If there are shared libraries that are not installed, the setup quits with a respective error message.

6. If the shared libraries are installed, but there are missing symbolic links to the required shared libraries, then the setup asks for installing the links. Confirm installing the links.

    The setup checks for existing configuration files necessary for the SIETS server.

7. If the configuration files are detected, the setup asks if they are to be kept or overwritten. Select whether the configuration files are to be kept or overwritten.

    The setup copies the files.

    The setup of the SIETS server is complete and the SIETS server is started automatically, if it was running when the update was started.

    The setup detects and checks the existing SIETS Enterprise Manager installation.

If the SIETS Enterprise Manager installation is not detected, the setup warns that the update of SIETS Enterprise Manager is not available, and the setup is complete.

If the SIETS Enterprise Manager installation is detected, the setup asks if you want to update SIETS Enterprise Manager.

8. To update SIETS Enterprise Manager, select *Yes*.

9. If you selected *Yes* in the previous step, proceed with the following step. If you selected *No* in the previous step, the setup is complete.

The setup checks if the required shared libraries for SIETS Enterprise Manager are installed.

If there are shared libraries that are not installed, the setup quits with a respective error message.

10. If the shared libraries are installed, but there are missing symbolic links to the required shared libraries, then the setup asks for installing the links. Confirm installing the links.

The setup checks for existing configuration files necessary for SIETS Enterprise Manager.

11. If the configuration files are detected, the setup asks if they are to be kept or overwritten. Select whether the configuration files are to be kept or overwritten.

The setup copies the files.

The SIETS Enterprise Manager setup is complete.

2.3. Uninstalling

To update SIETS, proceed as follows:

1. In the command prompt window, enter `SIETS-builddate.setup uninstall`.

Setup checks archive integrity.

The welcome message appears.

2. The setup warns that uninstalling SIETS will remove SIETS from your system and asks for confirmation. To confirm, select *Yes.*

The setup checks if the SIETS server is running.

If the SIETS server is running, the setup stops it.

The setup removes binaries.

The setup asks, if you want to remove SIETS server data files.

3. To remove the SIETS server data files, select *Yes.*

The setup asks, if you want to remove SIETS server log files.

4. To remove the SIETS server log files, select *Yes.*

The setup asks, if you want to remove SIETS Enterprise Manager data files.

5. To remove the SIETS Enterprise Manager data files, select *Yes.*

The setup asks, if you want to remove SIETS Enterprise Manager log files.

6. To remove the SIETS Enterprise Manager log files, select *Yes.*

The setup asks, if you want to remove SIETS configuration files.

7. To remove the SIETS configuration files, select *Yes.*

The setup is complete.

3. INSTALLING SIETS TOGETHER WITH OS

This section describes the SIETS installation procedure, when SIETS installed together with an operating system.

For more information on prerequisites, see Installation Options.

This section contains the following topics:

- Overview
- Performing Installation Steps

3.1.   Overview

As mentioned earlier, installation from a CD basically involves running the installation wizard, where all possible options are already selected. Those that are user or system specific you have to enter yourself, for example, the IP address. In other words, the installation is prepared so that even if you are new to installing Unix-like operating systems, you have no problems installing Red Hat Linux and SIETS.

However, if you want to change any option, you surely can do it, but at your own risk. Also be aware that the installation includes only those libraries and packages that are necessary for SIETS. If you want to install also other libraries and packages, you can install them afterwards from Internet, or install Red Hat Linux from the original Red Hat Linux installation disks.

3.2.   Performing Installation Steps

To install the SIETS server from the installation CD, proceed as the follows:

1. Ensure that BIOS on your computer allows booting from a CD-ROM drive and this option is the first in the list.

   For information about changing the BIOS, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the .4.2. Making an Installation Boot CD-ROM section.

2. Insert the installation CD with in the CD-ROM.

   For information on using the keyboard to navigate through the installation wizard steps, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.2.1. Using the Keyboard to Navigate section.

3. Wait until the Red Hat 9 boot screen appears.

4. To start the kick-start installation from the CD with all necessary options selected, press ENTER.

5. Wait until the **Welcome to Red Hat Linux** window appears. It may take up to several minutes.

6. In the **Welcome to Red Hat Linux** window, select **OK.**

   The **Mouse Selection** window appears. By default, the `No-mouse` option is selected.

   For information on configuring mouse, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.14. Mouse Configuration section.

7. If you agree with the default mouse settings, or after you have modified them, in the **Mouse Selection** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Partitioning** window appears. By default, the partitioning is configured so that you have one disk with three partitions on your computer.

For information on configuring partitioning settings, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.17. Disk Partitioning Setup section.

8. If you agree with the default partitioning settings, or after you have modified them, in the **Partitioning** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Boot Loader Configuration** window appears. By default, the GRUB boot loader is selected.

For information on configuring boot loader settings, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.20. Boot Loader Configuration section.

9. If you agree with the default boot loader settings, or after you have modified them, in the **Boot Loader Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Boot Loader Configuration** window is updated with step for adding special options for the kernel. By default, no options are selected.

For information on configuring boot loader special options settings, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.20. Boot Loader Configuration section.

10. If you agree with the default boot loader special options settings, or after you have modified them, in the **Boot Loader Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Boot Loader Configuration** window is updated with step for adding the password for the boot loader. By default, no password is set.

For information on configuring boot loader password settings, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.20. Boot Loader Configuration section.

11. If you agree with the default boot loader password settings, or after you have modified them, in the **Boot Loader Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Boot Loader Configuration** window is updated with step for selecting the default operating system. By default, the only available option: `Red Hat Linux` is selected.

For information on adding more operating systems to the boot loader, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.20. Boot Loader Configuration section.

12. If you agree with the default boot loader operating system settings, or after you have modified them, in the **Boot Loader Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Boot Loader Configuration** window is updated with step for selecting the path where to install the boot loader record. By default, the `Master Boot Record (/dev/hda)` option is selected.

For information on selecting other place for installing the boot loader record, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.20. Boot Loader Configuration section.

13. If you agree with the default boot loader record path settings, or after you have modified them, in the **Boot Loader Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Network Configuration for <eth#>** window appears, where <eth#> is the Ethernet network card name, for example, eth0. By default, all network settings are empty.

14. In the **Network Configuration for <eth#>** window, ensure that the `Use bootp/dhcp` option is not selected.

The `bootp/dhcp` protocol usually is not used for servers. However, if you have a reason to use a dynamic address, you can select this option at your own risk. If you select the `Use bootp/dhcp` option, proceed with the step 16.

15. In the **Network Configuration for <eth#>** window, enter information in fields described in the following table:

Field name	Description
IP address	IP address of your server.
Network	Network subnet mask.
Default gateway (IP)	IP address of the gateway in your subnet.
Primary nameserver	IP address of the primary nameserver in your network.
Secondary nameserver	IP address of the secondary nameserver in your network. This is optional.
Tertiary nameserver	IP address of the tertiary nameserver in your network. This is optional.

If you do not know these values, contact your network administrator.

For information on network configuration, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.21. Network Configuration section.

16. After you have complete entering network configuration parameters, in the **Network Configuration for <eth#>** window, select **OK.**

The **Hostname Configuration** window appears. By default, no hostname is entered.

17. In the **Hostname Configuration** window, enter the hostname of your computer, and select **OK.**

The **Firewall Configuration** window appears. By default, the `No Firewall` option is selected.

For information on firewall configuration, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.22. Firewall Configuration section.

18. If you agree with the default firewall configuration settings, or after you have modified them, in the **Firewall Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Language Support** window appears. By default, English (USA) is selected.

For information on language support, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.23. Language Support Selection section.

19. If you agree with the default language support settings, or after you have modified them, in the **Language Support** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Time Zone Selection** window appears. By default, Europe/Riga is selected.

For information on time zone selection, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.24. Time Zone Configuration section.

20. If you agree with the default time zone selection settings, or after you have modified them, in the **Time Zone Support** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Root Password** window appears. By default, no password is set.

For information on root password, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.25. Set Root Password section.

21. In the **Root Password** window, enter the root or administrator password for the system, which must be least 6 characters long, confirm it, and select **OK.**

The **Authentication Configuration** window appears. By default, the shadow passwords and MD5 passwords are selected.

For information on authentication configuration, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.26. Authentication Configuration section.

22. If you agree with the default authentication configuration settings, or after you have modified them, in the **Authentication Configuration** window, select **OK.** If you are not sure, it is safe to go with the default settings.

The **Package Group Selection** window appears. By default, only packages that are included in this installation and are necessary for SIETS are selected, including the SIETS server and SIETS Enterprise Manager.

> **Note:** It may take up to several minutes, while the **Package Group Selection** window appears.

For information on package group selection, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.27. Package Group Selection section.

23. In the **Package Group Selection** window, do not modify any settings, select **OK.**

> **Note:** If you add other than the default packages to be installed in the **Package Group Selection** window, errors will appear at the dependency check, because there will no be such packages included in the installation. If you remove any from the default packages to be installed in the **Package Group Selection** window, errors will appear at the dependency check.

The **Dependency Check** window appears and the dependency check is being performed.

If you did not modify any package group selection settings, as described in step 23, then there are no errors at the dependency check.

The **Installation to begin** window with the path of the complete log of the installation appears.

24. In the **Installation to begin** window, change the path to `/root/install.log`.

For information on preparing to install, see http://www.redhat.com/docs/manuals/linux/RHL-9-Manual/install-guide/, the 3.28. Preparing to Install section.

25. To start the installation, in the **Installation to begin** window, select **OK.**

26. Wait until all packages are installed. This may take up to several minutes.

The **Complete** window appears.

27. To complete the installation, remove the installation CD and in the **Complete** window, select **OK.**

The server is automatically being restarted. The SIETS server is started automatically at the server startup.

For information on administering and configuring SIETS, see the *SIETS Administration and Configuration Guide.*

For information on developing applications for the SIETS server, see the *SIETS Developer's Guide.*

4. INDEX