



syslog-ng Store Box 5.3.0

Installation Guide

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Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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Preface

Welcome to the syslog-ng Store Box 5.3.0 Installation Guide.

This document describes how to set up the syslog-ng Store Box (SSB) hardware and install SSB on certified hardware or as a VMware virtual appliance.

Summary of contents

[Introduction](#) on page 6 provides background information and describes the main purpose of the syslog-ng Store Box Installation Guide.

[Package contents inventory](#) on page 7 lists the contents of the package you receive with the syslog-ng Store Box (SSB).

[syslog-ng Store Box Hardware Installation Guide](#) on page 8 describes how to set up the SSB hardware.

[Hardware specifications](#) on page 12 describes the hardware specifications of the SSB appliance.

[syslog-ng Store Box Software Installation Guide](#) on page 13 describes how to install SSB on certified hardware.

[syslog-ng Store Box VMware Installation Guide](#) on page 16 describes how to install SSB as a VMware virtual appliance.

Target audience and prerequisites

This guide is intended for system administrators, network administrators, and system integrators responsible for server administration processes within an organization.

The following skills and knowledge are necessary for a successful SSB administrator:

- At least basic system administration knowledge.
- An understanding of networks, TCP/IP protocols, and general network terminology.

- An understanding of system logging and the protocols used in remote system logging.
- Familiarity with the concepts of the syslog-ng and the syslog-ng Agent for Windows applications.
- Working knowledge of the UNIX or Linux operating system is not mandatory but highly useful.

Products covered in this guide

This guide describes how to set up and install the syslog-ng Store Box version 5.3.0.



NOTE:

Users of the syslog-ng Store Box are entitled to use the syslog-ng Premium Edition application as a log collector agent for SSB. This guide does not cover the installation and configuration of syslog-ng Premium Edition, for details, see the [syslog-ng Store Box Documentation page](#).

About this document

This guide is a work-in-progress document with new versions appearing periodically. The latest version of this document can be downloaded from the [syslog-ng Store Box Documentation page](#).

Introduction

The aim of this guide is to provide detailed, step-by-step instructions on how to set up and install syslog-ng Store Box on unpacking it and any subsequent occasions that might require the re-installation of the product.

Note that the contents of this document were previously included in the syslog-ng Store Box Administrator Guide. This standalone guide was created to:

- Improve how information is organized in the syslog-ng Store Box documentation set.
- Make it easier for users to find information relevant to their roles, context, and how they use the product.

Package contents inventory

Carefully unpack all server components from the packing cartons. The following items should be packaged with the syslog-ng Store Box:

- A syslog-ng Store Box appliance, pre-installed with the latest syslog-ng Store Box firmware.
- syslog-ng Store Box accessory kit, including the following:
 - syslog-ng Store Box 5.3.0 Packaging Checklist (this document).
 - GPL v2.0 license.
- Rack mount hardware.
- Power cable.

The default BIOS and IPMI passwords are in the documentation.

syslog-ng Store Box Hardware Installation Guide

This section describes how to set up the syslog-ng Store Box (SSB) hardware. Refer to the following documents for step-by-step instructions:

- *syslog-ng Store Box T-1*: See the *SC512 Chassis Series User's Manual, Chapter 6: Rack Installation*. The manual is available online at <http://www.supermicro.com/manuals/chassis/1U/SC512.pdf>.
- *syslog-ng Store Box T-4*: See the *SC815 Chassis Series User's Manual, Chapter 6: Rack Installation*. The manual is available online at <http://www.supermicro.com/manuals/chassis/1U/SC815.pdf>.
- *syslog-ng Store Box T-10*: See the *SC219 Chassis Series User's Manual, Chapter 5: Rack Installation*. The manual is available online at <http://www.supermicro.com/manuals/chassis/2U/SC219.pdf>.

The manuals are also available online at the [syslog-ng Store Box Documentation page](#). Note that SSB hardware is built to custom specifications: CPU, memory, network card, and storage options differ from the stock chassis. You can find the hardware specifications in [.Hardware specifications](#)

- For details on how to install a single SSB unit, see [Installing the SSB hardware](#).
- For details on how to install two SSB units in high availability mode, see [Installing two SSB units in HA mode](#).

Installing the SSB hardware

The following describes how to install a single SSB unit.

To install a single SSB unit

1. Unpack SSB.
2. *Optional step*: Install SSB into a rack with the slide rails. Slide rails are available for all SSB appliances.
3. Connect the cables.

a. **For general networks:**

Connect the Ethernet cable facing your LAN to the Ethernet connector labeled as 1. This is the external interface of SSB. This interface is used for the initial configuration of SSB, and for communication between SSB and the clients. (For details on the roles of the different interfaces, see ["Network interfaces" in the Administration Guide.](#))

For 10Gbit-only networks:

Connect the cable facing your LAN to the SFP+ connector labeled as A. This is the external interface of SSB. This interface is used for the initial configuration of SSB, and for communication between SSB and the clients. (For details on the roles of the different interfaces, see ["Network interfaces" in the Administration Guide.](#))

NOTE:

For a list of compatible connectors, see [Linux* Base Driver for 10 Gigabit Intel® Ethernet Network Connection Overview](#). Note that SFP transceivers encoded for non-Intel hosts may be incompatible with the Intel 82599EB host chipset found in SSB.

CAUTION:

Do not leave any unused SFP/SFP+ transceiver in the 10Gbit interface. It may cause network outage.

b. Connect an Ethernet cable that you can use to remotely support the SSB hardware to the IPMI interface of SSB. For details, see the following documents:

- For SSB T1, see the [SMT IPMI User's Guide](#).
- For SSB T4 and T10, see the [X9 SMT IPMI User's Guide](#).

CAUTION:

Connect the IPMI before plugging in the power cord. Failing to do so will result in IPMI failure.

It is not necessary for the IPMI interface to be accessible from the Internet, but the administrator of SSB must be able to access it for support and troubleshooting purposes in case vendor support is needed. The following ports are used by the IPMI interface:

- Port 623 (UDP): IPMI (cannot be changed)
- Port 5123 (UDP): floppy (cannot be changed)
- Port 5901 (TCP): video display (configurable)
- Port 5900 (TCP): HID (configurable)

- Port 5120 (TCP): CD (configurable)
- Port 80 (TCP): HTTP (configurable)

Access to information available only via the IPMI interface is not mandatory, but highly recommended to speed up the support and troubleshooting processes.

- Optional step:* Connect the Ethernet cable to be used for managing SSB after its initial configuration to the Ethernet connector labeled as 2. This is the management interface of SSB. (For details on the roles of the different interfaces, see ["Network interfaces" in the Administration Guide.](#))
 - Optional step:* Connect the Ethernet cable connecting SSB to another SSB node to the Ethernet connector labeled as 4. This is the high availability (HA) interface of SSB. (For details on the roles of the different interfaces, see ["Network interfaces" in the Administration Guide.](#))
4. Power on the hardware.
 5. Change the BIOS password on the syslog-ng Store Box. The default password is ADMIN or changeme, depending on your hardware.
 6. Change the IPMI password on the syslog-ng Store Box. The default password is ADMIN or changeme, depending on your hardware.

NOTE:

Ensure that you have the latest version of IPMI firmware installed. You can download the relevant firmware from the One Identity Knowledge Base:

- [IPMI firmware for SSB T1](#)
- [IPMI firmware for SSB T4](#)
- [IPMI firmware for SSB T10](#)

To change the IPMI password, connect to the IPMI remote console.

NOTE:

If you encounter issues when connecting to the IPMI remote console, add the DNS name or the IP address of the IPMI interface to the exception list (whitelist) of the Java console. For details on how to do this, see the Java FAQ entry titled [How can I configure the Exception Site List?](#)

7. Following boot, SSB attempts to receive an IP address automatically via DHCP. If it fails to obtain an automatic IP address, it starts listening for HTTPS connections on the 192.168.1.1 IP address.

To configure SSB to listen for connections on a custom IP address, complete the following steps:

- a. Access SSB from the local console, and log in with username root and password default.
- b. In the Console Menu, select **Shells > Core shell**.
- c. Change the IP address of SSB:

ifconfig eth0 <IP-address> netmask 255.255.255.0

Replace <IP-address> with an IPv4 address suitable for your environment.

- d. Set the default gateway using the following command:

route add default gw <IP-of-default-gateway>

Replace <IP-of-default-gateway> with the IP address of the default gateway.

- e. Type **exit**, then select **Logout** from the Console Menu.

8. Connect to the SSB web interface from a client machine and complete the Welcome Wizard as described in "[The Welcome Wizard and the first login](#)" in the [Administration Guide](#).

NOTE:

The syslog-ng Store Box Administrator Guide is available on the [syslog-ng Store Box Documentation page](#).

Installing two SSB units in HA mode

The following describes how to install SSB with high availability support.

To install SSB with high availability support

1. For the first SSB unit, complete [Installing the SSB hardware](#) on page 8.
2. For the second SSB unit, complete Steps 1-3 of [Installing the SSB hardware](#) on page 8.
3. Connect the two units with an Ethernet cable via the Ethernet connectors labeled as 4.
4. Power on the second unit.
5. Change the BIOS and IPMI passwords on the second unit. The default password is ADMIN or changeme, depending on your hardware.
6. Connect to the SSB web interface of the first unit from a client machine and enable high availability mode. Navigate to **Basic Settings > High Availability** . Click **Convert to Cluster**, then reload the page in your browser.
7. Click **Reboot Cluster**.
8. Wait until the slave unit synchronizes its disk to the master unit. Depending on the size of the hard disks, this may take several hours. You can increase the speed of the synchronization via the SSB web interface at **Basic Settings > High Availability > DRBD sync rate limit**.

Hardware specifications

SSB appliances are built on high performance, energy efficient, and reliable hardware that are easily mounted into standard rack mounts.

Table 1: Hardware specifications

Product	SSB T-1	SSB T-4	SSB T-10
Redundant PSU	No	Yes	Yes
Processor	Intel(R) Xeon(R) X3430 @ 2.40GHz	Intel(R) Xeon(R) E3-1275V2 @ 3.50GHz	2 x Intel(R) Xeon(R) E5-2630V2 @ 2.6GHz
Memory	2 x 4 GB	4 x 4 GB	8 x 4 GB
Capacity	2 x 1 TB	4 x 2 TB	13 x 1 TB
RAID	Software RAID	LSI MegaRAID SAS 9271-4i SGL	LSI 2208 (1GB cache)
IPMI	Yes	Yes	Yes
NIC	2x Intel® 82574L Gigabit Ethernet Controllers (Label 1, 2) Supermicro AOC-SG-i2 Dual GbE PCI-E x4 (Label 3, 4)	2x Intel® 82574L Gigabit Ethernet Controllers (Label 1, 2) Supermicro AOC-SG-i2 Dual GbE PCI-E x4 (Label 3, 4)	Intel® i350 Dual Port Gigabit Ethernet (Label 1, 2) Supermicro AOC-SG-i2 Dual GbE PCI-E x4 (Label 3, 4) Intel® 82599 Dual Port 10G SFP+ (Label A, B)

The SSB T-10 appliance is equipped with a dual-port 10Gbit interface. This interface has SFP+ connectors (not RJ-45) labeled A and B, and can be found right of the Label 1 and 2 Ethernet interfaces. If you want faster communication, for example, in case of high data load, you can connect up to two 10G SFP+ transceivers. These transceivers are not shipped with the original package and have to be purchased separately.

syslog-ng Store Box Software Installation Guide

This section describes how to install the syslog-ng Store Box (SSB) software on a certified hardware.

Note that installing and reinstalling SSB can take a long time, especially for a HA cluster. There are no supported workarounds for reducing the necessary downtime. One Identity recommends testing SSB in a virtual environment, and using physical hardware only for verifying HA functionality and measuring performance.

Installing the SSB software

The following describes how to install a new SSB on a server.

To install a new SSB on a server

1. Log in to your [support portal](#) account and download the latest syslog-ng Store Box installation ISO file. Note that you need to have partner access to download syslog-ng Store Box ISO files. If you are a partner but do not see the ISO files, you can request partner access within the [support portal](#).
2. Mount the ISO image, or burn it to a CD-ROM.
3. Connect your computer to the IPMI interface of SSB. For details, see the following documents:
 - For SSB T1, see the [SMT IPMI User's Guide](#).
 - For SSB T4 and T10, see the [X9 SMT IPMI User's Guide](#).
4. Power on the server.
5. Log in to the IPMI web interface, and boot the syslog-ng Store Box installation CD on the server using a virtual CD-ROM. For details, see the following documents:
 - For SSB T1, see the [SMT IPMI User's Guide](#).
 - For SSB T4 and T10, see the [X9 SMT IPMI User's Guide](#).
6. When the syslog-ng Store Box installer starts, select **Installer**, press **Enter**, and wait

until the server finishes the boot process.

7. Select **Install a new SSB** and press **Enter** to start the installation process. Depending on the size of the disks, the installation process takes from a few minutes to an hour to complete. The progress of the installation is indicated in the **Installation Steps** window.
8. The installer displays the following question: **Warning, all data on the hard drive(s) will be erased. Are you sure?** Select **Yes** and press **Enter**.
9. The installer displays the MAC addresses of the network interfaces found in the SSB unit. Record these addresses.
10. The installer displays the product name (the SSB configuration that was installed). If the product name displayed does not match the product you wanted to install, complete the following steps:
 - a. Check that the hardware configuration of the appliance matches the specifications provided by One Identity.
 - b. If the configuration matches the specifications but the installer displays a different product name, [contact our Support Team](#).
11. During the **Finishing the Setup** step, the installer performs RAID synchronization.
 - Select **Yes** to perform the RAID synchronization. RAID synchronization is a two-step process, the progress of the active step is indicated on the progress bar. Wait until both steps are completed. Note that this synchronization takes several hours (about 8 hours on average).
 - Select **No** to skip the RAID synchronization. Note that the system will automatically perform the synchronization after the first boot, but in this case the process will take several days.
12. After the installation is finished, press **Enter** to return to the main menu.
13. Select **Reboot** and press **Enter** to restart the system. Wait until the system reboots.
14. Connect your computer to the EXT interface of SSB. Create an alias IP address for your computer that falls into the 192.168.1.0/24 subnet (for example, 192.168.1.10). For details, see ["The initial connection to SSB" in the Administration Guide](#).
15. Open the <http://192.168.1.1> URL in your web browser and verify that the Welcome Wizard of the syslog-ng Store Box is available.

NOTE:

For details on the supported web browsers and operating systems, see ["Supported web browsers" in the Administration Guide](#).

Figure 1: The Welcome Wizard

Welcome License Networking Users Certificate Finish

Welcome to syslog-ng Store Box

Import old configuration

You can use your old exported configuration or continue clicking 'Next'!

Configuration: No file selected.

Encryption password:

16. Power off the system.

syslog-ng Store Box VMware Installation Guide

This tutorial describes the possibilities and limitations of installing syslog-ng Store Box (SSB) 5.3.0 as a virtual appliance under a VMware ESXi server.

Limitations of SSB under VMware

The following limitations apply to running version 5.3.0 of SSB under VMware:

- SSB can be installed under the following VMware versions:
 - VMware ESXi 4.0 or later.
 - VMware ESX 4.0 or later.
- SSB can only use fixed disk space assigned to the virtual host, it is not possible to use on-demand disk allocation scenarios. To increase the size of the virtual disk, see [Increasing the virtual disk size of SSB under a virtual machine](#).
- If High Availability (HA) operation mode is required in a virtual environment, use the HA function provided by the virtual environment.
- Hardware-related alerts and status indicators of SSB may display inaccurate information, for example, display degraded RAID status.

Installing SSB under VMware ESXi/ESX

The following describes how to install a new SSB under VMware ESXi or ESX.

To install a new SSB under VMware ESXi or ESX

1. Create the virtual machine for SSB using the following settings:
 - Guest operating system: *Linux/Ubuntu 64-bit*.
 - Allocate memory for the virtual machine. SSB requires a minimum of 1 GiB of memory, in addition to the memory limit of the indexed logspaces. The recommended size for the memory depends on the exact environment, but consider the following:
 - The base system requires 256 MiB.
 - The syslog-ng server running on SSB requires between 128 MiB and 1 GiB of memory, depending on the message load and on the configuration of SSB.
 - For every logspace, SSB requires additional memory to index the incoming messages. The amount of memory allocated for the indexer can be set individually for every logspace.
 - The hard disk controller must be *LSI Logic Parallel*.
 - Do not use RAID for the hard disk, use the data duplication features of your virtual environment instead. That way, a single hard disk is sufficient for the system. If you need to use the built-in RAID support of SSB for some reason, use two hard disks, and SSB will automatically use them in software RAID.

⚠ CAUTION:
Hazard of data loss. When you install or reinstall SSB in a virtual environment, always create new hard disks. Using existing hard disks can cause unexpected behavior and operational problems.

 - Configure a fixed size disk with at least 8 GiB space.

About 5 GB is required for the base system, the remaining disk space is used to store data. To increase the initial disk size, see [Increasing the virtual disk size of SSB under a virtual machine](#).
 - SSB requires that you use either 1 network card or 4 network cards, all of them must be *VMXNET3*.
2. After creating the virtual machine, edit the settings of the machine. Set the following options:
 - a. Under **Options > VMware Tools**, enable the **Shutdown, Suspend, Reset** options, otherwise the SSB administrator will not be able to access these functions from the SSB web interface.
 - b. Under **Options > Boot options**, enable the **Force BIOS Setup** option. This is required to be able to check the system time (and modify it if needed) before installing SSB.
3. Log in to the [support portal](#) and download the latest syslog-ng Store Box installation ISO file. Note that you need to have purchased SSB as a virtual appliance or have partner access to download syslog-ng Store Box ISO files. If you are a partner but do

not see the ISO files, you can request partner access within the [support portal](#).

4. Mount the ISO image and boot the virtual machine. Follow the on-screen instructions to install SSB.

Once installation successfully completes, the virtual machine will restart automatically.

In case installation fails, a message will be displayed instructing you to press Ctrl+Alt+Delete to reboot the virtual machine.

syslog-ng Store Box Hyper-V Installation Guide

This tutorial describes the possibilities and limitations of installing syslog-ng Store Box (SSB) 5.3.0 as a virtual appliance under a Hyper-V server.

Limitations of SSB under Hyper-V

Version 5.3.0 of SSB has no special support for running under Hyper-V. While the basic functionality of SSB is not affected by running as a virtual appliance, the following limitations apply:

- If High Availability (HA) operation mode is required in a virtual environment, use the HA function provided by the virtual environment.
- Hardware-related alerts and status indicators of SSB may display inaccurate information, for example, display degraded RAID status.
- When running SSB under Microsoft Hyper-V, ensure that the network interfaces are actually connected to the network. When running under Hyper-V, SSB indicates on the **Basic Settings > Network > Ethernet links** page that there is a link, even if the network interface is configured and enabled, but not connected to the network.
- When rebooting SSB in Hyper-V, the following critical error message may appear in the event log of the Hyper-V host:

```
<Virtual machine name> was reset because an unrecoverable error occurred on a virtual processor that caused a triple fault.
```

This is normal, there is no problem with SSB. For details, see [Triple fault in event log shows reset of Linux virtual machines](#).

Installing SSB under Hyper-V

The following describes how to install a new SSB under Hyper-V.

To install a new SSB under Hyper-V

1. Create the virtual machine for SSB using the following settings:
 - Choose **Generation 1** for the virtual machine.
 - Allocate memory for the virtual machine. SSB requires a minimum of 1 GiB of memory, in addition to the memory limit of the indexed logspaces. The recommended size for the memory depends on the exact environment, but consider the following:
 - The base system requires 256 MiB.
 - The syslog-ng server running on SSB requires between 128 MiB and 1 GiB of memory, depending on the message load and on the configuration of SSB.
 - For every logspace, SSB requires additional memory to index the incoming messages. The amount of memory allocated for the indexer can be set individually for every logspace.
 - Configure a fixed size disk with at least 8 GiB space.

About 5 GB is required for the base system, the remaining disk space is used to store data.
 - Do not use RAID for the hard disk, use the data duplication features of your virtual environment instead. That way, a single hard disk is sufficient for the system. If you need to use the built-in RAID support of SSB for some reason, use two hard disks, and SSB will automatically use them in software RAID.

⚠ CAUTION:
Hazard of data loss. When you install or reinstall SSB in a virtual environment, always create new hard disks. Using existing hard disks can cause unexpected behavior and operational problems.

 - SSB requires that you use either 1 network card or 4 network cards. If you wish to use more than one network card, then after completing the steps of the **New Virtual Machine Wizard**, add the additional network cards in the **Settings** of the virtual machine.
2. Log in to your [support portal](#) account and download the latest syslog-ng Store Box installation ISO file. Note that you need to have purchased SSB as a virtual appliance or have partner access to download syslog-ng Store Box ISO files. If you are a partner but do not see the ISO files, you can request partner access within the [support portal](#).
3. Mount the ISO image and boot the virtual machine. Follow the on-screen instructions to install SSB.

Once installation successfully completes, the virtual machine will restart automatically.

In case installation fails, a message will be displayed instructing you to press **Ctrl+Alt+Delete** to reboot the virtual machine.

Increasing the virtual disk size of SSB under a virtual machine

Increasing the virtual disk size of SSB version 4.9 or later under a virtual machine

SSB can only use fixed disk space assigned to the virtual host. If you must increase the size of the virtual disk, complete the following steps.

Prerequisites:

The following prerequisites are essential for the resize procedure to work:

- The machine that SSB is running on has to be a virtual machine. This procedure will not work on a physical machine.
- The version running on the virtual machine must be a newly installed SSB version 4.9 or later. This procedure will not work in case of an SSB that was upgraded from an earlier version.
- No software RAID.

To increase the size of the virtual disk

1. To ensure that no data is lost in case of an error, create a full system backup (configuration and data backup). For detailed instructions, see "[Data and configuration backups](#)" in the [Administration Guide](#).
2. Power down the virtual machine.
3. Increase the storage size.
4. Restart SSB.

If you have encountered any errors, [contact our Support Team](#).

One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

Contacting us

For sales or other inquiries, visit <https://www.oneidentity.com/company/contact-us.aspx> or call +1-800-306-9329.

Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at <https://support.oneidentity.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
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- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos at www.YouTube.com/OneIdentity
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product