

# Symantec NetBackup™ Appliance Getting Started Guide

NetBackup 52xx Series

Release 2.5.2

# NetBackup 52xx Series Appliance Getting Started Guide

The software described in this book is furnished under a license agreement and may be used only in accordance with the terms of the agreement.

Documentation version: 2.5.2

PN: 21283281

## Legal Notice

Copyright © 2013 Symantec Corporation. All rights reserved.

Symantec, the Symantec Logo, the Checkmark Logo, NetBackup, and Veritas are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners.

This Symantec product may contain third party software for which Symantec is required to provide attribution to the third party ("Third Party Programs"). Some of the Third Party Programs are available under open source or free software licenses. The License Agreement accompanying the Software does not alter any rights or obligations you may have under those open source or free software licenses. Please see the Third Party Legal Notice Appendix to this Documentation or TPIP ReadMe File accompanying this Symantec product for more information on the Third Party Programs.

The product described in this document is distributed under licenses restricting its use, copying, distribution, and decompilation/reverse engineering. No part of this document may be reproduced in any form by any means without prior written authorization of Symantec Corporation and its licensors, if any.

THE DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. SYMANTEC CORPORATION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, PERFORMANCE, OR USE OF THIS DOCUMENTATION. THE INFORMATION CONTAINED IN THIS DOCUMENTATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

The Licensed Software and Documentation are deemed to be commercial computer software as defined in FAR 12.212 and subject to restricted rights as defined in FAR Section 52.227-19 "Commercial Computer Software - Restricted Rights" and DFARS 227.7202, "Rights in Commercial Computer Software or Commercial Computer Software Documentation", as applicable, and any successor regulations. Any use, modification, reproduction release, performance, display or disclosure of the Licensed Software and Documentation by the U.S. Government shall be solely in accordance with the terms of this Agreement.

Symantec Corporation  
350 Ellis Street  
Mountain View, CA 94043

<http://www.symantec.com>

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

# Technical Support

Symantec Technical Support maintains support centers globally. Technical Support's primary role is to respond to specific queries about product features and functionality. The Technical Support group also creates content for our online Knowledge Base. The Technical Support group works collaboratively with the other functional areas within Symantec to answer your questions in a timely fashion. For example, the Technical Support group works with Product Engineering and Symantec Security Response to provide alerting services and virus definition updates.

Symantec's support offerings include the following:

- A range of support options that give you the flexibility to select the right amount of service for any size organization
- Telephone and/or Web-based support that provides rapid response and up-to-the-minute information
- Upgrade assurance that delivers software upgrades
- Global support purchased on a regional business hours or 24 hours a day, 7 days a week basis
- Premium service offerings that include Account Management Services

For information about Symantec's support offerings, you can visit our website at the following URL:

[www.symantec.com/business/support/](http://www.symantec.com/business/support/)

All support services will be delivered in accordance with your support agreement and the then-current enterprise technical support policy.

## Contacting Technical Support

Customers with a current support agreement may access Technical Support information at the following URL:

[www.symantec.com/business/support/](http://www.symantec.com/business/support/)

Before contacting Technical Support, make sure you have satisfied the system requirements that are listed in your product documentation. Also, you should be at the computer on which the problem occurred, in case it is necessary to replicate the problem.

When you contact Technical Support, please have the following information available:

- Product release level

- Hardware information
- Available memory, disk space, and NIC information
- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description:
  - Error messages and log files
  - Troubleshooting that was performed before contacting Symantec
  - Recent software configuration changes and network changes

## Licensing and registration

If your Symantec product requires registration or a license key, access our technical support Web page at the following URL:

[www.symantec.com/business/support/](http://www.symantec.com/business/support/)

## Customer service

Customer service information is available at the following URL:

[www.symantec.com/business/support/](http://www.symantec.com/business/support/)

Customer Service is available to assist with non-technical questions, such as the following types of issues:

- Questions regarding product licensing or serialization
- Product registration updates, such as address or name changes
- General product information (features, language availability, local dealers)
- Latest information about product updates and upgrades
- Information about upgrade assurance and support contracts
- Information about the Symantec Buying Programs
- Advice about Symantec's technical support options
- Nontechnical presales questions
- Issues that are related to CD-ROMs, DVDs, or manuals

## Support agreement resources

If you want to contact Symantec regarding an existing support agreement, please contact the support agreement administration team for your region as follows:

Asia-Pacific and Japan	<a href="mailto:customercare_apac@symantec.com">customercare_apac@symantec.com</a>
Europe, Middle-East, and Africa	<a href="mailto:semea@symantec.com">semea@symantec.com</a>
North America and Latin America	<a href="mailto:supportsolutions@symantec.com">supportsolutions@symantec.com</a>

# Contents

Technical Support .....	4
Chapter 1      Introduction .....	9
About NetBackup appliance deployment .....	9
About NetBackup appliance and Symantec Storage Shelf matched pairs .....	12
Chapter 2      Hardware installation .....	13
About mounting NetBackup appliance components .....	13
Connecting network and configuration sources to a NetBackup appliance .....	14
Connecting the Symantec Storage Shelf to a NetBackup appliance .....	16
Applying power to a NetBackup appliance system .....	22
Chapter 3      Configuration .....	25
About appliance configuration guidelines .....	25
About the appliance initial configuration .....	28
About NetBackup appliance roles and modes .....	32
About appliance system configuration sequence .....	33
About IPv4-IPv6-based network support .....	34
Adding an appliance media server name to a master server .....	36
Configuring a new appliance from the appliance interface .....	37
Configuring a new appliance from the appliance shell menu .....	49
About post appliance configuration tasks .....	57
Adding the disk space of a storage expansion unit to an appliance .....	58
Installing NetBackup client software on clients through CIFS and NFS shares .....	59
About configuring the maximum transmission unit size .....	60
About appliance and NetBackup documentation .....	61
Index .....	63





# Introduction

This chapter includes the following topics:

- [About NetBackup appliance deployment](#)
- [About NetBackup appliance and Symantec Storage Shelf matched pairs](#)

## About NetBackup appliance deployment

NetBackup appliance deployment consists of the complete installation and configuration of all appliance components to create a backup environment that is ready to use.

The *Symantec NetBackup Appliance Getting Started Guide* provides you with the information to get your appliance environment operational. Updates to this document were expected at the time of release. For the latest version of this document with the most recent updates, click on the following link:

<http://www.symantec.com/docs/DOC2792>

Additional language versions of the *Symantec NetBackup Appliance Getting Started Guides* are available on line at these locations:

- NetBackup Deduplication 5000 Series Appliances  
<http://www.symantec.com/business/support/index?page=content&id=TECH145661&key=58991>
- NetBackup Backup 5200 Series Appliances  
<http://www.symantec.com/business/support/index?page=content&id=DOC2792&key=58991>

The following provides a brief description of the available appliance system components:

**Table 1-1** Available appliance components

Component	Description
Servers	<p>NetBackup 5200:</p> <ul style="list-style-type: none"> <li>■ 4U rackmount unit</li> <li>■ Built-in disk storage</li> <li>■ Use as a master server or a media server.</li> </ul> <p>NetBackup 5220:</p> <ul style="list-style-type: none"> <li>■ 2U rackmount unit</li> <li>■ Built-in disk storage</li> <li>■ Use as a master server or a media server</li> </ul> <p>NetBackup 5230:</p> <ul style="list-style-type: none"> <li>■ 2U rackmount unit</li> <li>■ Built-in disk storage</li> <li>■ Use as a master server or a media server</li> </ul>
Storage expansion unit	<p>Symantec Storage Shelf:</p> <ul style="list-style-type: none"> <li>■ 3U rackmount unit</li> <li>■ Includes 16 disk drives</li> </ul> <p><b>Note:</b> The Symantec Storage Shelf is supported for use only with a NetBackup 5220 or 5230.</p>

The following describes the supported NetBackup appliance configurations that you can deploy:

**Table 1-2** Supported NetBackup appliance deployments

System components	Deployment description
Master server	Single (standalone) NetBackup 5200, 5220, or 5230 appliance with combined master server and media server functionality.
Master server with storage expansion unit	Single (standalone) NetBackup 5220 or 5230 appliance with combined master server and media server functionality and up to two Symantec Storage Shelf units.
Master server and media servers	A NetBackup 5200, 5220, 5230 master server, and a NetBackup 5200, 5220, or 5230 media server.
Master server, media servers, storage expansion unit	Same combinations as listed above, and up to two Symantec Storage Shelf units can be connected to each NetBackup 5220 or 5230.

The following describes the required tasks to deploy your NetBackup appliance environment:

**Table 1-3** Appliance deployment tasks

Step	Task	Description
1	Install hardware	<ul style="list-style-type: none"> <li>■ Mount all appliances in a 19-inch rack.</li> <li>■ Mount the optional storage expansion unit in a 19-inch rack.</li> </ul> <p>See <a href="#">“About mounting NetBackup appliance components”</a> on page 13.</p>
2	Connect cables and turn on units	<ul style="list-style-type: none"> <li>■ Connect a ground wire to the appliance (NetBackup 5200 only).</li> <li>■ Connect the appliance to the corporate network and connect a laptop to the appliance. See <a href="#">“Connecting network and configuration sources to a NetBackup appliance”</a> on page 14.</li> <li>■ Connect the optional storage expansion unit to the appropriate appliance. See <a href="#">“Connecting the Symantec Storage Shelf to a NetBackup appliance”</a> on page 16.</li> <li>■ Apply power to the NetBackup appliance system. See <a href="#">“Applying power to a NetBackup appliance system”</a> on page 22.</li> </ul> <p><b>Note:</b> For the systems that include a Symantec Storage Shelf, this unit must be turned on first and allowed to boot up completely. In case the system fails to boot correctly, contact Symantec Technical Support.</p>
3	Configure	<ul style="list-style-type: none"> <li>■ Configure all appliances. See <a href="#">“About the appliance initial configuration”</a> on page 28.</li> <li>■ Add the storage expansion unit to the appropriate appliance. See <a href="#">“Adding the disk space of a storage expansion unit to an appliance”</a> on page 58.</li> </ul>

## About NetBackup appliance and Symantec Storage Shelf matched pairs

The NetBackup 52xx appliances ship with zero, one, or two storage shelves. When you order a NetBackup 52xx and a Symantec Storage Shelf together, these units are initialized together at the factory to create a matched pair. Matched pairs provide optimum performance and they should always be used together to help ensure successful installation and configuration.

Each storage shelf contains two numbers that show the matched set. The HOST number refers to the appliance to which a particular storage shelf is matched. The HOST and STORAGE numbers are located in either of the following locations:

- On a white plastic panel that pulls out from the right, rear panel of the storage shelf.
- On a label that is located under the two SAS ports on the right, rear I/O module of the storage shelf.

If your system includes a second Symantec Storage Shelf, this secondary unit must be physically connected to the first Symantec Storage Shelf and not to the appliance.

# Hardware installation

This chapter includes the following topics:

- [About mounting NetBackup appliance components](#)
- [Connecting network and configuration sources to a NetBackup appliance](#)
- [Connecting the Symantec Storage Shelf to a NetBackup appliance](#)
- [Applying power to a NetBackup appliance system](#)

## About mounting NetBackup appliance components

Each appliance system component includes guide rails and fasteners for installation in a 19-inch rack.

The following describes the guide rail styles that are included with each system component:

**Table 2-1** Guide rails styles for NetBackup appliance systems

Component	Guide rail style
NetBackup 5200 (4U)	Screw mount
NetBackup 5220 or 5230 (2U)	Snap-in mount
Symantec Storage Shelf (3U)	Screw mount

**Note:** Mounting methods vary by rack manufacturer. Racks may contain mounting rails with square holes, round holes, or round threaded holes. You may need to acquire other mounting hardware to install the guide rails in your rack.

See [“About NetBackup appliance deployment”](#) on page 9.

## Connecting network and configuration sources to a NetBackup appliance

After all appliance hardware installation is completed, you are ready to make all the necessary cable connections.

Use the following procedure to connect the network and the configuration sources to the appliance.

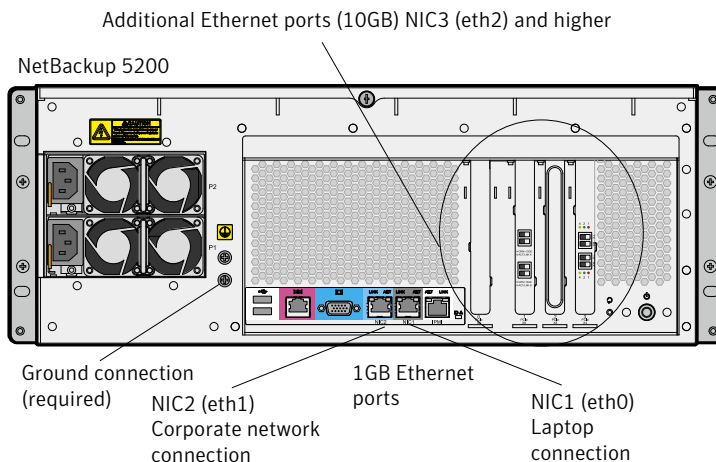
### To connect the network and the configuration sources to the appliance

- 1 For 5200 appliances, connect your corporate network to the appliance ports as shown in the following diagram:

---

**Note:** Make sure that you also connect a ground wire from the ground screw on the NetBackup 5200 appliance to a true earth ground.

---

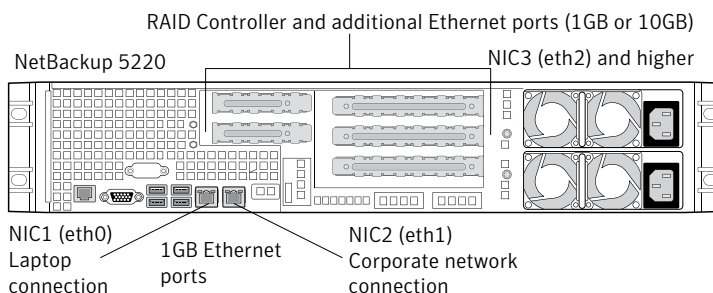


---

**Note:** The number of expansion card ports (NIC3/eth2 and higher) varies depending on the hardware configuration that was ordered.

---

- 2 For 5220 appliances, connect your corporate network to the appliance ports as shown in the following diagram:

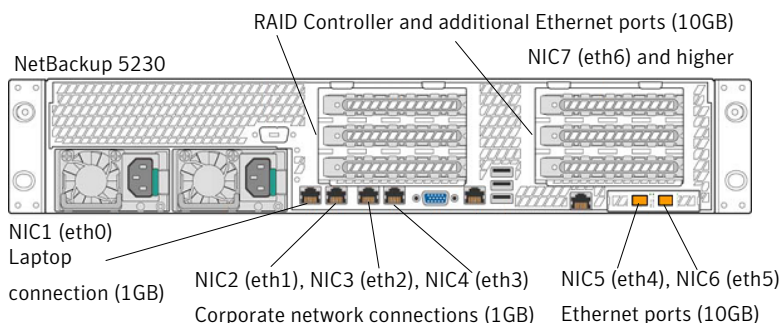



---

**Note:** The number of expansion card ports (NIC3/eth2 and higher) varies depending on the hardware configuration that was ordered.

---

- Connect a standard Ethernet cable from a laptop computer to appliance port NIC1.
- The laptop is used to perform the initial configuration of the appliance.
- For the systems that include a Symantec Storage Shelf, connect this device to the appliance now by using the following procedure:  
See [“Connecting the Symantec Storage Shelf to a NetBackup appliance”](#) on page 16.
- 3** For 5230 appliances, connect your corporate network to the appliance ports as shown in the following diagram:




---

**Note:** The number of expansion card ports (NIC7/eth6 and higher) varies depending on the hardware configuration that was ordered.

---

- Connect a standard Ethernet cable from a laptop computer to appliance port NIC1.

The laptop is used to perform the initial configuration of the appliance.

- For the systems that include a Symantec Storage Shelf, connect this device to the appliance now by using the following procedure:  
See “[Connecting the Symantec Storage Shelf to a NetBackup appliance](#)” on page 16.

## Connecting the Symantec Storage Shelf to a NetBackup appliance

The Symantec Storage Shelf (storage expansion unit) provides additional disk storage space. Starting with appliance version 2.5, you can add up to two of these units to one NetBackup 5220 or 5230.

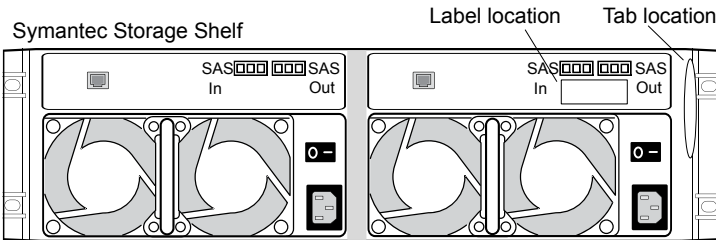
Only one storage expansion unit can be physically connected to the appliance. For optimum performance, the storage expansion unit that is matched to work with your NetBackup 5220 or 5230 appliance must be physically connected to the appliance. If your system includes two storage expansion units, the secondary unit must be physically connected to the first unit (serial or daisy chain). The secondary unit cannot be connected directly to the appliance.

To help you identify matched pairs, a matched storage expansion unit has a label and a pull-out tab on the rear panel. For matched pairs, the label and the tab on the matching storage expansion unit identifies a **HOST** number. The host number is the serial number of the matching 5220 or 5230 appliance. The serial number of the appliance server is located on the left side of the front panel.

**Note:** The Symantec Storage Shelf that is matched to work with a 5220 or 5230 appliance must always be physically connected to the appliance.

Figure 2-1 shows the label and the tab locations on the back of a storage expansion unit that is matched for use with a NetBackup 5220 or 5230 appliance.

**Figure 2-1** Label and tab locations on a storage expansion unit



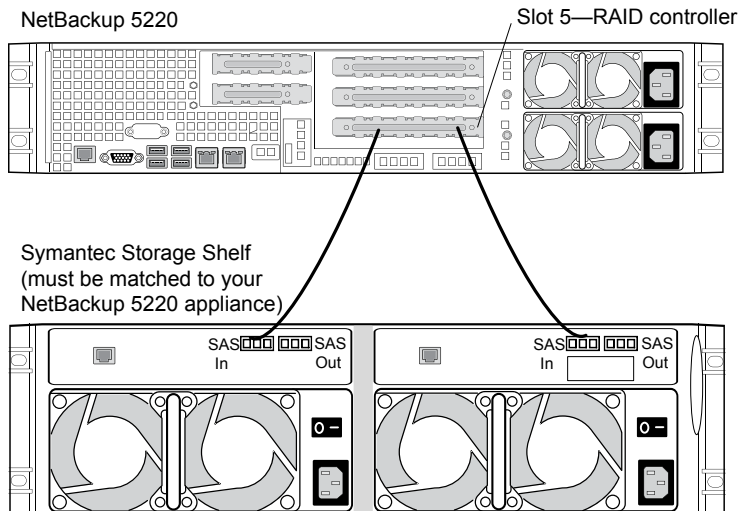


**Note:** The following procedures describe only how to connect communications cables. Do not apply power to any devices at this time. The power-up sequence is documented separately and is critical to help ensure correct communication between the appliance and any storage expansion units.

The following procedures describe how to connect the storage expansion unit to a NetBackup 5220 appliance.

#### To connect one storage expansion unit to a NetBackup 5220 appliance

- ◆ Connect two SAS cables to the **SAS In** ports on the storage expansion unit. Connect the other ends of the SAS cables to the available ports on the RAID card (slot 5) on the NetBackup 5220 appliance.



**Warning:** Once these connections are made, the storage expansion unit becomes an electrically integral part of the appliance. Any disconnection of these cables requires that you contact Symantec Technical Support.

#### To connect two storage expansion units to a NetBackup 5220 appliance

**Note:** This configuration is supported only in appliance software versions 2.5 and later.

- 1 Identify the storage expansion unit that is matched to your NetBackup 5220 appliance. This unit must be physically connected to the appliance.

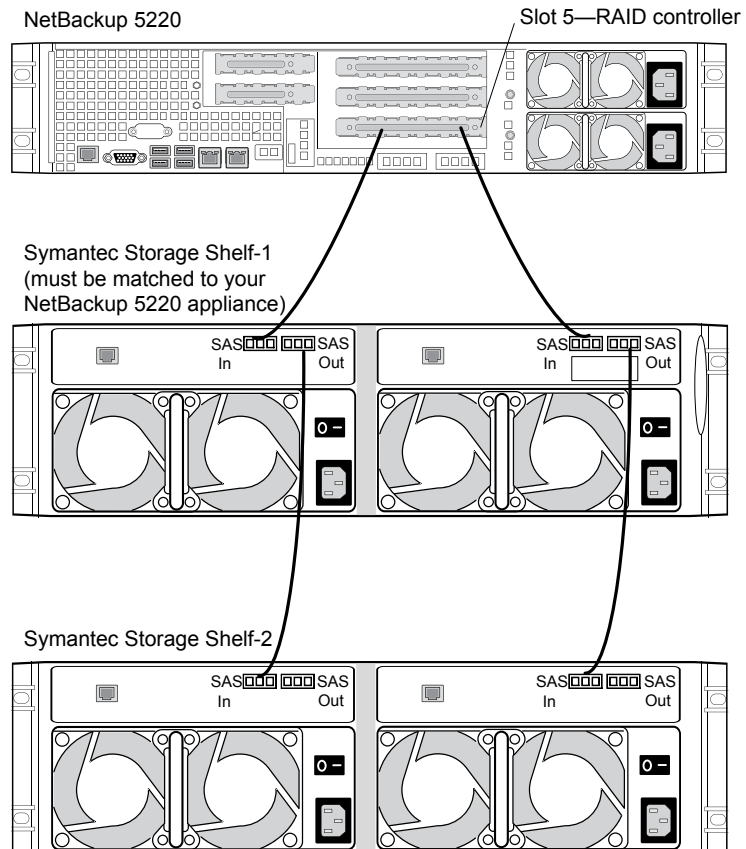
- 2 Connect two SAS cables to the **SAS In** ports on the storage expansion unit that is matched to your 5220 appliance. Connect the other ends of the SAS cables to the available ports on the RAID card (slot 5) on the NetBackup 5220 appliance.

On the second storage expansion unit, connect two SAS cables to the **SAS In** ports. Connect the other ends of these SAS cables to the **SAS Out** ports on the first storage expansion unit.

---

**Warning:** Once these connections are made, the storage expansion unit becomes an electrically integral part of the appliance. Any disconnection of these cables requires that you contact Symantec Technical Support.

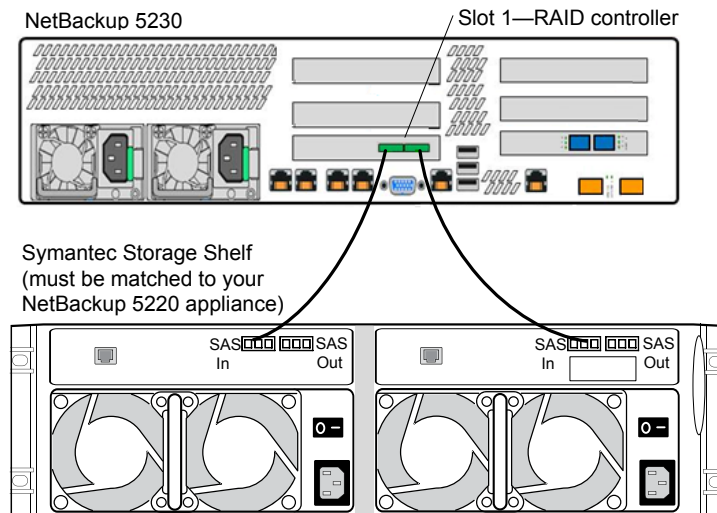
---



The following procedures describe how to connect the storage expansion unit to a NetBackup 5230 appliance.

**To connect one storage expansion unit to a NetBackup 5230 appliance**

- ◆ Connect two SAS cables to the **SAS In** ports on the storage expansion unit. Connect the other ends of the SAS cables to the available ports on the RAID card (slot 1) on the NetBackup 5230 appliance.



---

**Warning:** Once these connections are made, the storage expansion unit becomes an electrically integral part of the appliance. Any disconnection of these cables requires that you contact Symantec Technical Support.

---

**To connect two storage expansion units to a NetBackup 5230 appliance**

---

**Note:** This configuration is supported only in appliance software versions 2.5 and later.

---

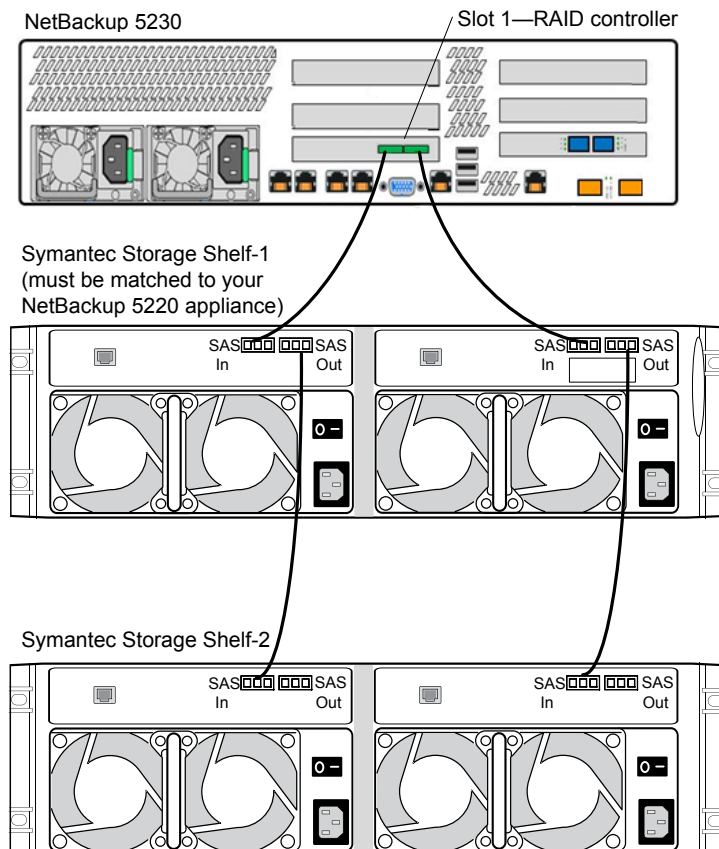
- 1 Identify the storage expansion unit that is matched to your NetBackup 5230 appliance. This unit must be physically connected to the appliance.
- 2 Connect two SAS cables to the **SAS In** ports on the storage expansion unit that is matched to your 5230 appliance. Connect the other ends of the SAS cables to the available ports on the RAID card (slot 1) on the NetBackup 5230 appliance.

On the second storage expansion unit, connect two SAS cables to the **SAS In** ports. Connect the other ends of these SAS cables to the **SAS Out** ports on the first storage expansion unit.

---

**Warning:** Once these connections are made, the storage expansion unit becomes an electrically integral part of the appliance. Any disconnection of these cables requires that you contact Symantec Technical Support.

---



After you have made all of the necessary laptop, network, and Symantec Storage Shelf connections, proceed to the following topic to apply power to your appliance system:

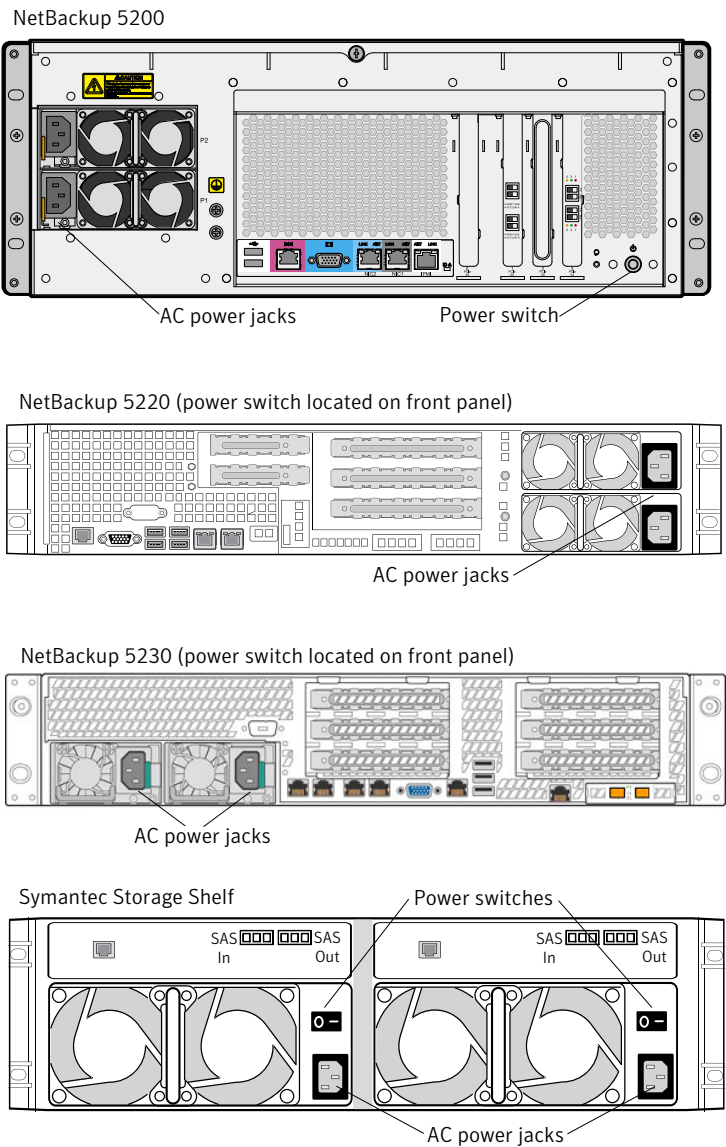
See [“Applying power to a NetBackup appliance system”](#) on page 22.

## Applying power to a NetBackup appliance system

A NetBackup appliance system may consist of only appliance servers, or it may include Symantec Storage Shelf (storage expansion unit) units. For the systems that include storage expansion units, the power-up sequence is critical to help ensure correct communication with the appliance.

[Figure 2-2](#) describes the AC power jack and the power switch locations on each unit.

Figure 2-2 AC power jack and power switch locations



The following procedures describe the sequence in which units in the system should be turned on.

**To apply power to units in the systems that consist only of appliance servers**

- 1 Connect two power cables to each appliance, then plug in the other ends to the AC power source.
- 2 Turn on each appliance server.  
The order in which the units are turned on is not critical.
- 3 Turn on the laptop computer.  
The appliance is now ready for configuration.

See [“About appliance configuration guidelines”](#) on page 25.

**To apply power to units in the systems that consist of appliance servers and storage expansion units**

- 1 Connect two power cables to each appliance, then plug in the other ends to the AC power source.

---

**Note:** Do not turn on the appliance at this time.

---

- 2 Connect two power cables to each storage expansion unit, then plug in the other ends to the AC power source.
- 3 Turn on all storage expansion units and wait for each unit to boot up completely.  
When all of the lights on the units stop blinking and are on steady, the boot up is complete.
- 4 Turn on all appliances.
- 5 Turn on the laptop computer.

The appliance is now ready for configuration.

See [“About appliance configuration guidelines”](#) on page 25.



# Configuration

This chapter includes the following topics:

- [About appliance configuration guidelines](#)
- [About the appliance initial configuration](#)
- [About appliance system configuration sequence](#)
- [About IPv4-IPv6-based network support](#)
- [Adding an appliance media server name to a master server](#)
- [Configuring a new appliance from the appliance interface](#)
- [Configuring a new appliance from the appliance shell menu](#)
- [About post appliance configuration tasks](#)
- [About appliance and NetBackup documentation](#)

## About appliance configuration guidelines

Use the following configuration guidelines when you deploy new appliances:

Table 3-1 Appliance configuration guidelines

Parameter	Description
Required names and addresses	<p>Before you start the configuration, make sure that you have the following information:</p> <ul style="list-style-type: none"><li>■ Network IP addresses, netmask, and gateway IP addresses for the appliance.</li><li>■ Network names for all appliances</li><li>■ DNS or host information</li></ul> <p>If DNS is used, make sure that the network names of all appliances and the master server are DNS resolvable (FQHN and short name).</p> <p><b>Note:</b> If DNS is not used, make sure that you enter the proper host entries for the appliance during the initial configuration.</p> <p>In the procedure "Configuring a new appliance from the appliance interface", you would not need to enter the DNS information in Step 7.</p> <p>In the procedure "Configuring a new appliance from the appliance shell menu", you can skip Steps 4 - 6.</p> <ul style="list-style-type: none"><li>■ Password for appliance access The default password for appliance access is <b>P@ssw0rd</b>.</li><li>■ Names for NetBackup storage units The <b>Storage Name</b> fields appear only when you configure the appliance as a media server. You can change the default names or leave them.</li></ul> <p><b>Note:</b> Only the storage unit name can be customized during the media appliance role configuration.</p> <p>The default values that appear in the NetBackup Administration Console for the storage units and disk pools are as follows:</p> <ul style="list-style-type: none"><li>■ For the AdvancedDisk: Default storage unit name: stu_adv_&lt;hostname&gt; Default disk pool name: dp_adv_&lt;hostname&gt;</li><li>■ For the NetBackup Deduplication: Default storage unit name: stu_disk_&lt;hostname&gt; Default disk pool name: dp_disk_&lt;hostname&gt;</li></ul>

**Table 3-1** Appliance configuration guidelines (*continued*)

Parameter	Description
Firewall port usage	<p>Make sure that the following ports are open on any firewall that exists between a master server and a media server:</p> <ul style="list-style-type: none"> <li>■ 13724 (vnetd)</li> <li>■ 13720 (bprd)</li> <li>■ 1556 (PBX)</li> <li>■ 7578 (Specific for the 5220 when using TCP protocol)</li> <li>■ 80 and 5900 (Specific for the 5200 when using TCP protocol)</li> </ul> <p>For more information about firewall ports for NetBackup and the NetBackup appliance, see the following Technote on the Symantec Support Web site.</p> <p><a href="http://www.symantec.com/docs/TECH178855">http://www.symantec.com/docs/TECH178855</a></p>
Disk storage option licenses	<p>Your appliance comes with an NFR license key that expires after a specific period of time. The appliance does not provide a warning message that this license key is about to expire. Thus, Symantec recommends that you change this key to a permanent key after you install and configure the appliance. See the <i>Symantec NetBackup Appliance Administrator's Guide</i> for information and instructions on how to view and change a license key.</p> <p><b>Note:</b> You must replace the keys with permanent keys before they expire.</p>
NetBackup version compatibility	<p>NetBackup appliance Release 2.5.2 includes NetBackup version 7.5.0.5.</p> <p>To use an appliance media server with a traditional NetBackup master server, the master server must also use NetBackup version 7.5.0.5 or later. If the NetBackup master server currently uses NetBackup version 7.5.0.4 or earlier, it must first be upgraded to version 7.5.0.5 before you configure the appliance.</p> <p>For all configurations, the master server must always use the same or a later version of NetBackup than the NetBackup version used on media servers. The only exception to this rule is if the media servers have a Maintenance Release installed. For example, a media server can have 7.5.0.x installed and be controlled by a 7.5 master server.</p>

See “[About NetBackup appliance roles and modes](#)” on page 32.

See “[About appliance system configuration sequence](#)” on page 33.

# About the appliance initial configuration

Figure 3-1 shows an introductory page which provides an overview and a summary of the pages that follow.

Figure 3-1 Overview of appliance setup

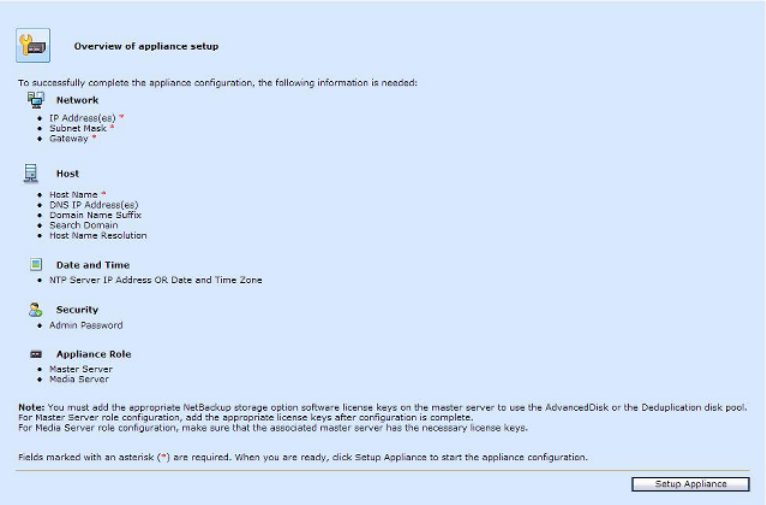
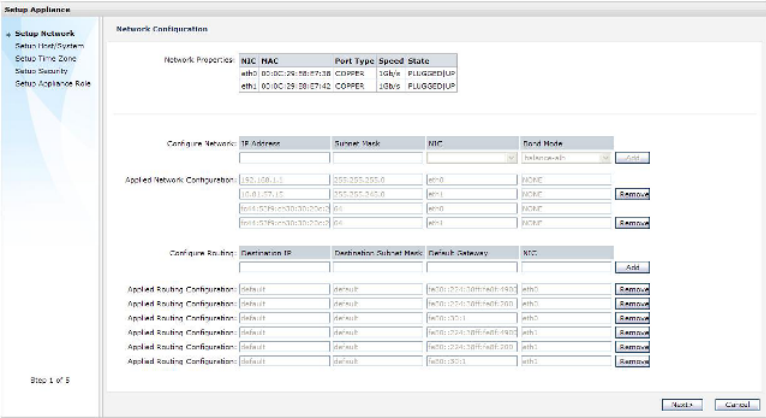


Figure 3-2 shows the **Network Configuration** page. The data entry fields are identified below the figure.

Figure 3-2 Network configuration page



## ■ IP Address

- Subnet Mask

- NIC

- Bond Mode

This field provides a drop-down list with the following options:

- balance-rr
- active-backup
- balance-xor
- broadcast
- 802.3ad
- balance-tlb
- balance-alb (default)

For more information on bond modes, refer to the following:

See “Configuring a new appliance from the appliance interface” on page 37.

<http://www.kernel.org/doc/Documentation/networking/bonding.txt>

- Destination IP

- Destination Subnet Mask

- Default Gateway

Figure 3-3 shows the **Host and System Configuration** page. The data entry fields are identified below the figure.

Figure 3-3 Host and system configuration page

The screenshot shows the 'Setup Appliance' window with the 'Host and System Configuration' tab selected. The left sidebar lists the setup steps: Setup Network, Setup Host/System, Setup Time Zone, Setup Security, and Setup Appliance Rule. The main content area is titled 'Host and System Configuration' and contains the following sections:

- Host Name:** A text field containing 'fatcym7'.
- DNS and Host Name Resolution:**
  - A note: '\* Either of: use DNS or Host Name Resolution information.'
  - DNS IP Address(es):** A text field containing '10.20.120.100' with a note '(Use comma as the delimiter to separate multiple IP addresses)'.
  - Domain Name Suffix:** A text field containing 'mcs.varela.com'.
  - Search Domain(s):** A text field containing 'mcs.varela.com'.
  - Host Name Resolution:** A section with three columns: 'IP Address', 'Fully Qualified Host Name', and 'Short Host Name'. There is an 'Add...' button to the right.
  - A note: 'Notes: These entries update the local hosts file and provide an alternate method of name resolution.'
- Failure Alerts:**
  - A note: 'Enter SMTP Server and email address to enable alerts on hardware/software failure.'
  - SMTP Server:** A text field.
  - Email address(es):** A text field with a note '(Use semi-colon as the delimiter to separate multiple email addresses)'.

At the bottom left, it says 'Step 2 of 5'. At the bottom right, there are buttons for 'Back', 'Next', and 'Cancel'.

For **DNS and Host Name Resolution**:

- **Host Name**
- **DNS IP Address(es)**
- **Domain Name Suffix**
- **Search Domain(s)**
- **Host Name Resolution**
  - **IP Address**
  - **Fully-Qualified-Hostname**
  - **Short-Hostname**

For **Failure Alerts**:

- **SMTP Server**
- **Email address(es)**

Figure 3-4 shows the **Time Zone and Date Configuration** page. The data entry fields and options are identified below the figure.

**Figure 3-4** Time zone and date configuration page

Setup Appliance

- Setup Network
- Setup Host/System
- Setup Time Zone
- Setup Security
- Setup Appliance Tools

Step: 5 of 5

Time Zone and Date Configuration

Time Synchronization

☐ NTP Server IP Address: [ ]

☒ None Date and Time: 04/29/2012 14:41:22

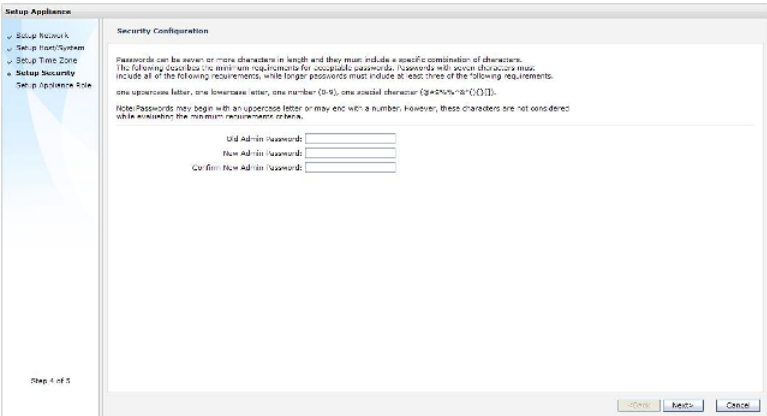
☒ Time Zone Zone: UTC

OK Apply Cancel

- **NTP**
  - Server IP Address**
- **None**
  - Date and Time**
- **Time Zone**

Figure 3-5 shows the **Security Configuration** page. The data entry fields are identified below the figure.

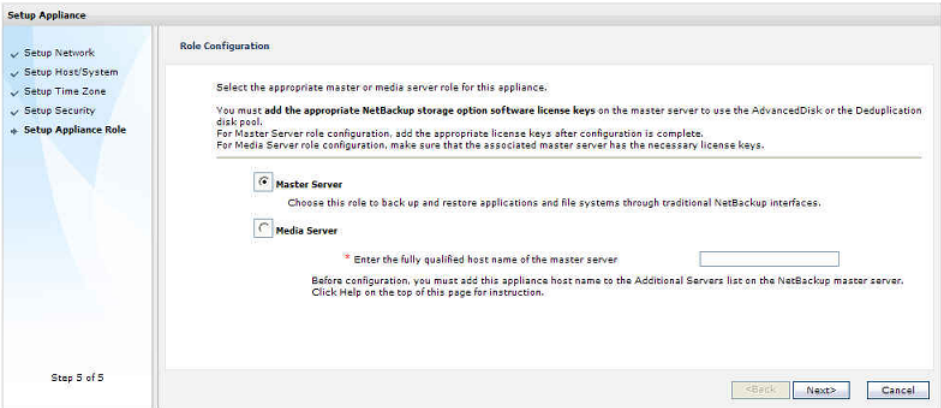
Figure 3-5 Security configuration



- Old Admin Password
- New Admin Password
- Confirm New Admin Password

Figure 3-6 shows the **Role Configuration** page. The data entry fields and options are identified below the figure.

Figure 3-6 Role configuration page

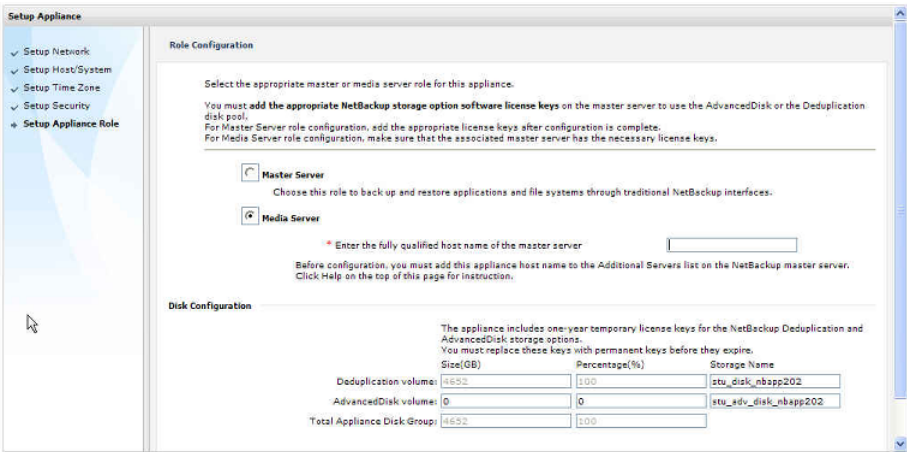


- Master Server
- Media Server
- Enter the fully qualified host name of the master server (required only when Media Server is selected)

Figure 3-7 shows the **Role Configuration** page with the disk configuration data entry fields. The data entry fields and options are identified below the figure.

**Note:** The **Disk Configuration** fields appear only when you select the media server role. When you perform the initial configuration for this role, only the **Storage Name** for each volume can be changed. After you have completed the initial configuration, you can change the size of each volume as needed by using one of the appliance interfaces.

Figure 3-7 Role configuration page with disk configuration data entry fields



The default values that appear for the storage unit and the disk volume names are as follows:

- AdvancedDisk volume  
Default storage unit name: stu\_adv\_<hostname>  
Default disk pool name: dp\_adv\_<hostname>
- Deduplication volume  
Default storage unit name: stu\_disk\_<hostname>  
Default disk pool name: dp\_disk\_<hostname>

## About NetBackup appliance roles and modes

When you configure your appliance for the first time, you must select a role and a mode for the appliance. The role refers to the server type and the mode refers to the interface that is used for system administration.

The following describes the available roles and the associated modes:



**Table 3-2** Appliance role and mode descriptions

Role—server type	Mode—user interface
<b>Master Server</b>	<p>Select this role to configure the appliance as a master server.</p> <p>This role provides the traditional NetBackup interfaces to back up and restore applications and file systems.</p>
<b>Media Server</b>	<p>Select this role to configure the appliance as a media server.</p> <p>You must also identify the master server that you plan to use with this appliance. The master server can be either a traditional NetBackup master server or a NetBackup appliance master server.</p> <p>A traditional NetBackup master server must have NetBackup version 7.5.0.5 or later installed. A NetBackup appliance master server must have appliance software version 2.5.2 or later installed.</p> <p>When you select the media server role, you must also define the storage names for the following disk volumes:</p> <ul style="list-style-type: none"> <li>■ <b>Deduplication volume</b></li> <li>■ <b>AdvancedDisk volume</b></li> </ul>

## About appliance system configuration sequence

If your system includes more than one appliance or a storage expansion unit, configuration must be done in a specific order.

The following describes the proper sequence for appliance configuration, based on the system components.

**Table 3-3** Appliance configuration order

System	Configuration order
Single appliance system (standalone)	<p>Configure the appliance as a master server.</p> <p>See <a href="#">“Configuring a new appliance from the appliance interface”</a> on page 37.</p> <p>See <a href="#">“Configuring a new appliance from the appliance shell menu”</a> on page 49.</p>

Table 3-3           Appliance configuration order (continued)

System	Configuration order
Multiple appliance system (master server and media servers)	<ul style="list-style-type: none"><li>■ Configure the first appliance as a master server.</li><li>■ Configure the remaining appliances as media servers for use with an appliance master server.</li></ul> <p>See <a href="#">“Configuring a new appliance from the appliance interface”</a> on page 37.</p> <p>See <a href="#">“Configuring a new appliance from the appliance shell menu”</a> on page 49.</p>
Appliance media server	<p>Before you configure the appliance as a media server, you must first update the master server with the host name of this appliance.</p> <p>Perform the following tasks in the order as shown:</p> <ul style="list-style-type: none"><li>■ Add the host name of this appliance to the master server. See <a href="#">“Adding an appliance media server name to a master server”</a> on page 36.</li><li>■ Configure the appliance as a media server. See <a href="#">“Configuring a new appliance from the appliance interface”</a> on page 37. See <a href="#">“Configuring a new appliance from the appliance shell menu”</a> on page 49.</li></ul>
Systems that include a storage expansion unit	<p>After all appliances have been configured, add the storage expansion unit to the server on which it is physically connected.</p> <p>See <a href="#">“Adding the disk space of a storage expansion unit to an appliance”</a> on page 58.</p>

## About IPv4-IPv6-based network support

NetBackup appliances are supported on a dual stack IPv4-IPv6 network and can communicate with IPv6 clients for backups and restores. You can assign an IPv6 address to an appliance, configure DNS, and configure routing to include IPv6 based systems.

Either the Appliance Web Console or the appliance shell menu can be used to enter the IPv4 and IPv6 address information.

Review the following considerations for IPv6 addresses:

- NetBackup appliances do not support a pure IPv6 network. An IPv4 address must be configured for the appliance, otherwise the initial configuration (which

requires the command `hostname set`) is not successful. For this command to work, at least one IPv4 address is required.

For example, suppose that you want to set the `hostname` of a specific host to `v46`. To do that, first make sure that the specific host has at least one IPv4 address and then run the following command:

```
Main_Menu > Network > Hostname set v46
```

- Only global addresses can be used, not addresses with link-local or node-local scope. Global-scope and unique-local addresses are both treated as global addresses by SUSE.

Global-scope IP addresses refer to the addresses that are globally routable. Unique-local addresses are treated as global on SUSE.

- You cannot use both an IPv4 and an IPv6 address in the same command. For example, you cannot use `Configure 9ffe::9 255.255.255.0 1.1.1.1`. You should use `Configure 9ffe::46 64 9ffe::49 eth1`.

- Embedding the IPv4 address within an IPv6 address is not supported. For example, you cannot use an address like `9ffe::10.23.1.5`.

- You can add an appliance media server to the master server if the IPv6 address and the host name of the appliance media server are available.

For example, to add an appliance media server to the master server, enter the IPv6 address of the appliance media server as follows:

Example:

```
Main > Network > Hosts add 9ffe::45 v45 v45
```

```
Main > Appliance > Add v45 <password>
```

You do not need to provide the IPv4 address of the appliance media server.

- A pure IPv6 client is supported in the same way as in NetBackup.
- You can enter only one IPv4 address for a network interface card (NIC) or bond. However, you can enter multiple IPv6 addresses for a NIC or bond.
- Network File System (NFS) or Common Internet File System (CIFS) protocols are supported over an IPv4 network on appliance. NFS or CIFS are not supported on IPv6 networks.
- The NetBackup client can now communicate with the media server appliance over IPv6.
- The `Main_Menu > Network > Hosts` command supports multiple IPv6 addresses to be assigned to the same host name having one network interface card (NIC). However, only one IPv4 address can be assigned to a specific host name having one NIC using this command.
- You can add an IPv6 address of a network interface without specifying a gateway address.

For more details, see the *NetBackup Appliance Command Reference Guide*.

## Adding an appliance media server name to a master server

Before you configure a NetBackup appliance as a media server, you must add its name to the master server that must work with this appliance.

Use the following procedure to add the network name of an appliance media server to a master server.

### To add the network name of an appliance media server to a master server

- 1 Log in to the master server that must work with this appliance media server as follows:

For a configured and operational appliance master server:

From the Appliance Web Console:

- Click **Manage > Additional Servers > Add**.
- In the **Appliance Hostname** field, enter the fully qualified host name (FQHN) of the appliance media server that you want to add.
- Click **Add**.

If the appliance has more than one host name, you must add all of the names.

From the appliance shell menu:

- From the **Main\_Menu > Appliance** view, run the following command:

```
Settings > NetBackup AdditionalServers  
Add media-server
```

Where *media-server* is the fully qualified host name (FQHN) of the appliance media server that is not yet configured.

If the appliance has more than one host name, you must add all of the names.

- For a traditional NetBackup master server:
- Log on to the NetBackup Administration Console as the administrator.
  - On the main console window, in the left pane, click **NetBackup Management > Host Properties > Master Servers**.
  - In the right pane, click on the master server host name.
  - On the **Host Properties** window, in the left pane, click **Servers**.
  - In the right pane, in the **Additional Servers** section, click **Add** and enter your appliance host name. The appliance host name should appear in the top **Additional Servers** section.  
If the appliance has more than one host name, you must add all of the names.
  - Click **OK** and close the **Master Server Properties** window.

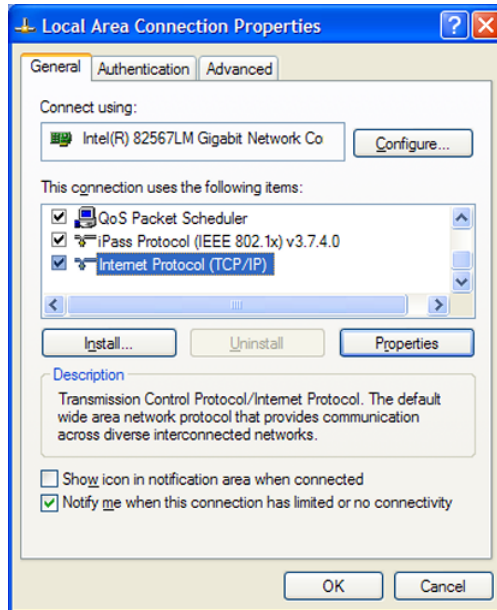
- 2 Perform the initial configuration on the appliance media server as follows:
  - When the **Role Configuration** page appears, select **Media Server**.
  - Enter the name of the master server that you logged in to in step 1

## Configuring a new appliance from the appliance interface

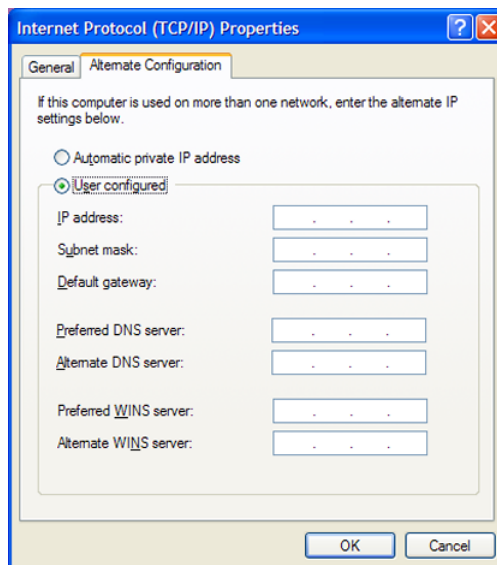
The following procedure describes how to configure a new appliance by using the appliance user interface.

### To configure a new appliance from the appliance user interface

- 1 On the laptop that is connected to the **NIC1** appliance port, navigate to the **Local Area Connection Properties** dialog box.  
  
On the **General** tab, select **Internet Protocol (TCP/IP)** so that it is highlighted, then click **Properties**.



On the **Alternate Configuration** tab, perform the following tasks:



- Click **User Configured**.

- 
- **Note:** For appliance versions 2.5.3 and later, the default IP address range has changed. You must use the following IP address range as described below.
- 

For the **IP address**, enter `192.168.229.nnn`, where `nnn` is any number from 2 through 254 except for 233.

- For the **Subnet mask**, enter `255.255.255.0`.
  - Click **OK**.
- 2 On the laptop that is connected to the appliance, open a Web browser to the following URL:

---

**Note:** For appliance versions 2.5.3 and later, the IP address assignment has changed. You must use the following IP address.

---

**`http://192.168.229.233`**

Make sure that you affirm the security exception to proceed.

- 3 Log on to the appliance as follows:
  - For **User Name**, enter **admin**.
  - For **Password**, enter **P@ssw0rd**.
- 4 On the **Overview of appliance setup** page, review the summary of information that you need to perform the initial configuration. When you are ready to start the configuration, click **Setup Appliance**.
- 5 On the **Network Configuration** page, you enter the IP addresses and other information that pertains to your network environment. This step describes the network information that you must provide.

## Configure Network

When you add entries to the **Configure Network** fields, those values are configured on the appliance after you click **Add**. The configuration entries then appear automatically in the read-only fields of the **Applied Network Configuration** table. The following describes the **Configure Network** fields.

### ■ IP Address

Enter an IPv4 or IPv6 address to be used for this appliance. Only global-scope and unique-local IPv6 addresses are allowed.

See [“About IPv4-IPv6-based network support”](#) on page 34.

### ■ Subnet Mask

Enter the subnet value that corresponds to the IP address.

### ■ NIC

This field displays the network device name that you can choose when you add a new network to the configuration.

Use the following guidelines to bond NICs:

- The NIC drop-down list shows the supported combination of appliance Ethernet ports that can be bonded. The list is compiled automatically and is based on the link types and the link speeds of the ports. Ports do not require connection to the network to appear in the list.
- Select **Auto** to have the NICs selected automatically. This mode selects the best possible set of NICs to plumb the IP address on. The selection is based on the available NICs, the link type (copper or FC), and the link speed. If multiple NICs have the same properties, then a bond (link aggregation) is created and the IP address is plumbed on the bond.
- Only NICs of the same type and speed can be bonded.
- Once a NIC is bonded, it cannot be bonded to another NIC. To reassign a bond, you must first remove the NIC from its current bond.



■ **Bond Mode**

This field lets you combine (aggregate) multiple network interfaces into a single logical "bonded" interface. The behavior of the bonded interfaces depends upon the mode. The default bond mode is **balance-alb**.

The available bonding modes from the drop-down list are as follows:

- **balance-rr**
- **active-backup**
- **balance-xor**
- **broadcast**
- **802.3ad**
- **balance-tlb**
- **balance-alb**

Some bond modes require additional configuration on the switch or the router. You should take additional care when you select a bond mode.

For more information about bond modes, see the following documentation:

<http://www.kernel.org/doc/Documentation/networking/bonding.txt>

After you enter all of the necessary information in the **Configure Network** fields, you must click **Add**. The information that you entered appears in the **Applied Network Configuration** table for confirmation.

**Configure Routing** Enter the kernel routing configuration of the appliance as follows:

- **Destination IP**  
Enter the network IP address of a destination network.  
The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.  
See [“About IPv4-IPv6-based network support”](#) on page 34.  
For the initial appliance configuration, this field contains a default value that cannot be changed. When you configure another destination IP, you must enter the appropriate address.
- **Destination Subnet Mask**  
Enter the subnet value that corresponds to the IP address.  
For the initial appliance configuration, this field contains a default value that cannot be changed. When you configure another route, you must enter the appropriate value.
- **Default Gateway**  
Enter the address of the network point that acts as an entrance to another network.  
The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.  
See [“About IPv4-IPv6-based network support”](#) on page 34.
- **NIC**  
The appliance can use multiple network interface cards (NICs). This column displays the network device name.  
Refer to the Linux `route` command for more information about how to add routing entries.

After you enter all of the necessary information in these fields, you must click **Add**. The information that you entered appears in the **Applied Routing Configuration** table for confirmation.

- 6 Click **Next**.
- 7 On the **Host and System Configuration** page, you enter the appliance host name information along with the SMTP server and email addresses for failure alerts. This step describes the host, the system, and the failure alert information that you must provide.

---

**Note:** If DNS is not used, you do not have to enter DNS information in this step.

---

**Host Name**

Enter the fully qualified host name (FQHN) of the appliance name.

**Note:** For media servers to be used with a traditional NetBackup master server, make sure that you have already added the appliance name to the **Additional Servers** list on the NetBackup master server. That ensures that the appliance host name is resolvable from the master server.

## DNS and Host Name Resolution

### ■ DNS IP Address(es)

Enter the IP address of the DNS server.

The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.

See [“About IPv4-IPv6-based network support”](#) on page 34.

To enter multiple DNS IP addresses, use a comma character as the delimiter between each address and no spaces.

### ■ Domain Name Suffix

Enter the suffix name of the DNS server.

### ■ Search Domain(s)

You can enter one or more DNS search domain names to search when an unqualified host name is given. To enter multiple search domain names, use a comma character as the delimiter between each name and no spaces.

### ■ Host Name Resolution

#### ■ IP Address

Enter the IP address of the appliance.

The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.

See [“About IPv4-IPv6-based network support”](#) on page 34.

#### ■ Fully-Qualified-Hostname

Enter the fully qualified domain name (FQHN) of the appliance.

#### ■ Short-Hostname

Enter the short name of the appliance.

After you enter all of the necessary information in these fields, you must click **Add**. The **Host Name Resolution** information that you entered appears below these data entry fields for confirmation.

If DNS is not used, you should include host name entries for all of the following, as required.

- All appliances including the one being configured
- Master server
- Non-appliance media servers
- Clients
- SNMP Server
- SMTP Server
- NTP Server
- Call home server (www.symappmon.com)

- SMTP Server

Enter the fully qualified host name (FQHN) of the SMTP (Simple Mail Transfer Protocol) server.

This server is used to send the notifications of alerts from the appliance to the email addresses that you enter in the following data entry field.
- Email address(es)

Specify the Email IDs to receive any replies to the alerts or the reports from the appliance.

To enter multiple addresses, use a comma character as the delimiter between each address and no spaces.

- 8

Click **Next**.

The page clears and shows a status and a result for the host and the system configuration.

Click **Next** again.
- 9

On the **Time Zone and Date Configuration** page, you set the appropriate time and date for the appliance. You can select to use an NTP server or enter the information manually. This step describes the information that you must provide.

- NTP

Server IP Address

To use NTP (Network Time Protocol) to set the time and the date of the appliance, enter the IP address of the NTP server.

The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.

See [“About IPv4-IPv6-based network support”](#) on page 34.
- None

Date and Time

To set the date and the time of the appliance without NTP, click **None** and enter the appropriate date and time.

Enter the date manually by using the **mm/dd/yyyy** format, or click on the calendar icon and select the date.

Enter the time by using the **hh:mm:ss** format. Entries must be in the 24-hour format (**00:00:00 – 23:59:59**).
- Time Zone

Whether you select to use **NTP** or **None**, you must set the time zone.

To set the time zone for the appliance, click on the **Time Zone** drop-down box and select the appropriate time zone.

10 Click **Next**.

The page clears and shows the results of the time and date configuration.  
Click **Next** again.

11 On the **Security Configuration** page, you enter a new administrator's password for appliance access to replace the default password. This step describes the information that you must provide.

**Note:** You are not required to change the default administrator's password. For increased security, Symantec recommends that you change the password periodically and keep a record of the current password in a secure location.

Old Admin Password	For the initial configuration, the default password is <b>P@ssw0rd</b> .
New Admin Password	<p>Enter the new password.</p> <p>The password must be seven or more characters long.</p> <p>A seven character password must include all of the following requirements, while a longer password must include at least three of the following requirements:</p> <ul style="list-style-type: none"><li>■ One uppercase letter</li><li>■ One lowercase letter</li><li>■ One number (0-9)</li><li>■ One special character (for example, !, @, #, etc.)</li></ul> <p>A password that begins with an uppercase letter and ends with a number is unacceptable, unless you include another uppercase letter and another number between them.</p>
Confirm New Admin Password	Enter the new password again for confirmation.

12 Click **Next**.

The page clears and shows the results of the password configuration.  
Click **Next** again.

13 On the **Role Configuration** screen, you select either a master server role or a media server role for the appliance. If you select the media server role, you must also configure the built-in disk storage on the appliance. This step describes the information that you must provide.

**Role  
 Configuration**

Choose the role for the appliance as follows:

■ **Master Server**

Select this role to configure the appliance as a master server.

■ **Media Server**

Select this role to configure the appliance as a media server.

The associated master server can be a traditional NetBackup master server or an appliance master server. A traditional NetBackup master server must have NetBackup version 7.5.0.5 or later installed. An appliance master server must have appliance software version 2.5.2 or later installed.

Before you continue with this selection, you must first add this appliance media server host name to the **Additional Servers** list on the NetBackup master server.

To add this appliance media server host name to the **Additional Servers** list on the NetBackup master server, do the following:

- On the master server, log on to the NetBackup Administration Console as the administrator.
- On the main console window, in the left pane, click **NetBackup Management > Host Properties > Master Servers**.
- In the right pane, click on the master server host name.
- On the **Host Properties** window, in the left pane, click **Servers**.
- In the right pane, in the **Additional Servers** section, click **Add** and enter your appliance host name. The appliance host name should appear in the top **Additional Servers** section.

If the appliance has more than one host name, you must add all of the names to the additional server sections on the master server.

- Click **OK** and close the **Master Server Properties** window.
- Continue here with the media server appliance role configuration by entering the fully qualified host name of the master server.

When you enter multiple names, the cluster name must be entered first. Then enter the remaining master server names and separate each name with a comma and no space.

## Storage Configuration

**Note:** The **Storage Configuration** fields appear only when you configure an appliance as a media server.

You can configure appliance disk unit storage as NetBackup Deduplication, AdvancedDisk, or a combination of both. By default, the entire disk is allocated for NetBackup Deduplication.

**Note:** Your appliance comes with an NFR license key that expires after a specific period of time. The appliance does not provide a warning message that this license key is about to expire. Thus, Symantec recommends that you change this key on the master server to a permanent key after you install and configure the appliance. See the *Symantec NetBackup Appliance Administrator's Guide* for information and instructions on how to view and change a license key.

To resize disk storage units, enter the size or the percentage of storage that you want to allocate for the AdvancedDisk disk partition. The remaining storage is calculated and assigned automatically to the NetBackup Deduplication partition. When both are added together, the new storage values for both disk volumes are displayed as the **Total Appliance Disk Group**.

To create the storage partitions and the NetBackup storage units, do the following:

- To configure the **AdvancedDisk volume** storage:
  - Enter the appropriate number in the **Size (GB, TB, or PB)** field or the **Percentage (%)** field.
  - The NetBackup disk pool is created automatically with the following name: `dp_adv_<hostname>`.
  - **NetBackup Storage Unit Name**  
You can accept the default name or you can change it.
- To configure the **Deduplication volume** storage:
  - Enter the appropriate number in the **Size (GB, TB, or PB)** field or the **Percentage (%)** field.
  - The NetBackup disk pool is created automatically with the following name: `dp_disk_<hostname>`.
  - **NetBackup Storage Unit Name**  
You can accept the default name or you can change it.

**Note:** The disk pool names cannot be changed.

**Note:** If you have not allocated the entire storage space, the remaining storage appears as unallocated space that you may configure and use at any time.



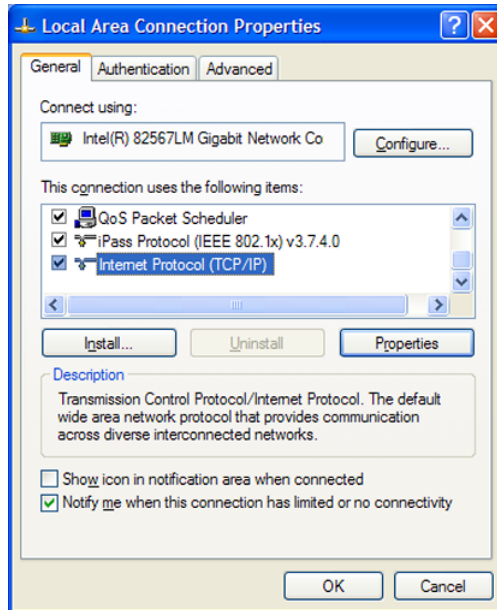
- 14 To review your configuration selections, click **Next**. A pop-up window appears and asks you to verify that your appliance role configuration selection is correct. You can do one of the following:
  - If you do not want to change any items, click **OK**. The summary page appears.
  - If you want to change any items, click **Cancel**. The **Role Configuration** page is still active and you can make changes to your configuration. Click **Next**. The confirmation pop-up window appears for you to verify your configuration selections. Click **OK**. The summary page appears.
- 15 After configuration has completed, wait about 10 minutes for the NetBackup services to start. You must then use the fully qualified host name to reconnect to the appliance.
- 16 Repeat this procedure to configure all other new or unconfigured appliances.
- 17 After all appliances have been configured, proceed to the following topic:  
See [“About post appliance configuration tasks”](#) on page 57.

## Configuring a new appliance from the appliance shell menu

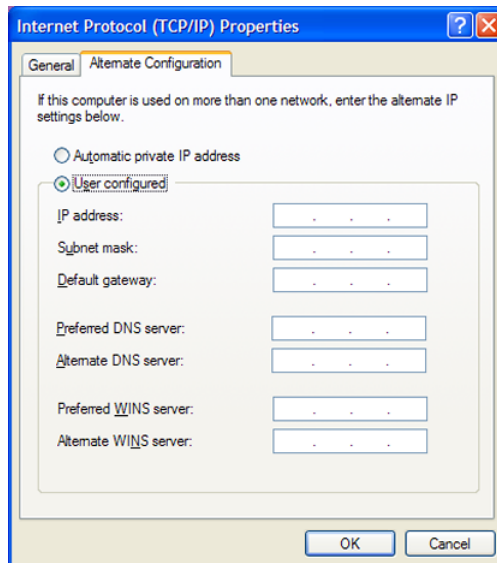
The following procedure describes how to configure a new appliance from the appliance shell menu.

### To configure a new appliance from the appliance shell menu

- 1 On the laptop that is connected to the **NIC1** appliance port, navigate to the **Local Area Connection Properties** dialog box.  
  
On the **General** tab, select **Internet Protocol (TCP/IP)** so that it is highlighted, then click **Properties**.



On the **Alternate Configuration** tab, perform the following tasks:



- Click **User Configured**.

- 
- **Note:** For appliance versions 2.5.3 and later, the default IP address range has changed. You must use the following IP address range as described below.
- 

For the **IP address**, enter `192.168.229.nnn`, where `nnn` is any number from 2 through 254 except for 233.

- For the **Subnet mask**, enter `255.255.255.0`.
  - Click **OK**.
- 

- 2 **Note:** For appliance versions 2.5.3 and later, the IP address assignment has changed. You must use the following IP address.
- 

On the laptop that is connected to the appliance, open an SSH session to `192.168.229.233` and log on to your appliance.

The logon is `admin` and the default password is `P@ssw0rd`.

After you log on, the welcome message appears in the shell menu and the prompt is at the **Main\_Menu** view.

- 3 From the **Main\_Menu > Network** view, enter the following command to configure the IP address of a single network that you want your appliance to connect to.

```
Configure IPAddress Netmask GatewayIPAddress [InterfaceNames]
```

Where *IPAddress* is the new IP address, *Netmask* is the netmask, and *GatewayIPAddress* is the default gateway for the interface. The *[InterfaceNames]* option is optional.

The *IP Address* or the *Gateway IP Address* can be an IPv4 or IPv6 address. Only global-scope and unique-local IPv6 addresses are allowed.

Remember that you should not use both IPv4 and IPv6 address in the same command. For example, you cannot use `Configure 9ffe::9 255.255.255.0 1.1.1.1..` You should use `Configure 9ffe::46 64 9ffe::49 eth1`

See [“About IPv4-IPv6-based network support”](#) on page 34.

If you want to configure multiple networks you must first configure the IP address of each network that you want to add. Then you configure the Gateway address for each network you added. You must make sure that you add the default Gateway address first. Use the following two commands:

Configure the IP address of each network

Use either of the following commands depending on whether you want to configure an IPv4 or an IPv6 address for the network interface:

To configure the IPv4 address of a network interface:

```
IPv4 IPAddress Netmask [InterfaceName]
```

Where *IPAddress* is the new IP address, *Netmask* is the netmask, and *[InterfaceName]* is optional. Repeat this command for each IP address that you want to add.

To configure the IPv6 address of a network interface:

```
IPv6 <IP Address> <Prefix> [InterfaceNames]
```

Where *IPAddress* is the IPv6 address, *Prefix* is the prefix length, and *[InterfaceName]* is optional.

Configure the gateway address for each network that you added

```
Gateway Add GatewayIPAddress
[TargetNetworkIPAddress] [Netmask]
[InterfaceName]
```

Where *GatewayIPAddress* is the gateway for the interface and *TargetNetworkIPAddress*, *Netmask*, and *InterfaceName* are optional. Repeat this command to add the gateway to all of the destination networks.

The *Gateway IP Address* or the *TargetNetworkIPAddress* can be an IPv4 or an IPv6 address.

Remember that you should not use both IPv4 and IPv6 address in the same command. For example, you cannot use `Gateway Add 9ffe::3 255.255.255.0 eth1`. You should use `Gateway Add 9ffe::3 6ffe:: 64 eth1`.

- 4 From the **Main\_Menu > Network** view, use the following command to set the appliance DNS domain name.

---

**Note:** If you do not use DNS, then you can proceed to Step 7.

---

```
DNS Domain Name
```

Where *Name* is the new domain name for the appliance.

- 5 From the **Main\_Menu > Network** view, use the following command to add the DNS name sever to your appliance configuration.

```
DNS Add NameServer IPAddress
```

Where *IPAddress* is the IP address of the DNS server.

The address can be either IPv4 or IPv6. Only global-scope and unique-local IPv6 addresses are allowed.

See [“About IPv4-IPv6-based network support”](#) on page 34.

To add multiple IP addresses, use a comma to separate each address and no space.

- 6 From the **Main\_Menu > Network** view, use the following command to add a DNS search domain to your appliance configuration so the appliance can resolve the host names that are in different domains:

```
DNS Add SearchDomain SearchDomain
```

Where *SearchDomain* is the target domain to add for searching.

- 7 This step is optional. It lets you add the IP addresses of other hosts in the appliance hosts file.

From the **Main\_Menu > Network** view, use the following command to add host entries to the hosts file on your appliance.

```
Hosts Add IPAddress FQHN ShortName
```

Where *IPAddress* is the IPv4 or IPv6 address, *FQHN* is the fully qualified host name, and *ShortName* is the short host name.

See [“About IPv4-IPv6-based network support”](#) on page 34.

- 8 From the **Main\_Menu > Network** view, use the following command to set the host name for your appliance.

```
Hostname Set Name
```

Where *Name* is the fully qualified host name.

With this step, NetBackup is re-configured to operate with the new host name. This process may take a while to complete.

For the command `Hostname set` to work, at least one IPv4 address is required. For example, you may want to set the host name of a specific host to v46. To do that, first ensure that the specific host has at least an IPv4 address and then run the following command.

```
Main_Menu > Network > Hostname set v46
```

- 9 From the **Main\_Menu > Settings** view, use the following commands to enter the SMTP server name and the email addresses for appliance failure alerts.

Enter the SMTP server name `Email SMTP Add smtp [acct] [pass]`

Where *smtp* is the host name of the target SMTP server, *acct* is the account name for authentication to the SMTP server, and *pass* is the password for authentication to the SMTP server.

Enter email addresses `Email Software Add eaddr`

Where *eaddr* is the Email address where you want to receive failure alerts from the appliance.

To enter multiple addresses, separate each address with a semi-colon.

- 10 Select the role for the appliance and run the appropriate configuration commands as follows:

- **Master Server**

From the **Main\_Menu > Appliance** view, run the following command:

```
Master
```

### ■ Media Server

#### **For use with an appliance master server**

For this role, there is no command to enter. The initial configuration is complete.

The next task you must complete is to add the name of this media server to the configured appliance master server.

### ■ Media Server

---

**Note:** Before you configure this appliance as a media server, you must add the name of this appliance to the master server that must work with this appliance. See [“Adding an appliance media server name to a master server”](#) on page 36.

---

From the **Main\_Menu > Appliance** view, run the following command:

```
Media MasterServer
```

Where *MasterServer* is either a stand-alone master server, a multihomed master server, or a clustered master server.

The following defines each of these scenarios:

#### ■ Stand-alone master server

This scenario shows one master server host name. This name does not need to be a fully qualified name as long as your appliance recognizes the master server on your network. The following is an example of how the command would appear.

```
Media MasterServerName
```

#### ■ Multihomed master server

In this scenario, the master server has more than one host name that is associated with it. You must use a comma as a delimiter between the host names. The following is an example of how the command would appear.

```
Media MasterNet1Name,MasterNet2Name
```

#### ■ Clustered master server

In this scenario, the master server is in a cluster. Symantec recommends that you list the cluster name first, followed by the active node, and then the passive nodes in the cluster. This list requires you to separate the node names with a comma. The following is an example of how the command would appear.

```
Media MasterClusterName,ActiveNodeName,PassiveNodeName
```

■ Multihomed clustered master server

In this scenario, the master server is in a cluster and has more than one host name that is associated with it. Symantec recommends that you list the cluster name first, followed by the active node, and then the passive nodes in the cluster. This list requires you to separate the node names with a comma. The following is an example of how the command would appear.

```
Media MasterClusterName,ActiveNodeName,  
PassiveNodeName,MasterNet1Name,MasterNet2Name
```

To prevent any future issues, when you perform the appliance role configuration, Symantec recommends that you provide all of the associated master server names.

---

**Note:** The remaining steps for disk configuration apply only for the appliances that are configured for the media server role.

---

- 11** If you selected the media server role, the default disk storage configuration for the appliance appears. The following example shows how the default information appears for the built-in disk storage on the appliance:

```
Available Storage = xGB  
Current Storage Pool Configuration:  
Deduplication Storage = xGB (100%), AdvancedDisk = 0GB (0%)
```

- 12** The configuration process asks you if you want to configure your storage as AdvancedDisk.

```
Do you want part of your storage configured as AdvancedDisk?  
(yes/no): y
```

Enter **y** to configure an AdvancedDisk volume.

- 13** You are then asked to enter the size of AdvancedDisk Volume.

```
Enter Size of AdvancedDisk Volume (use a % sign if you want it as a  
percent of the total, or input size is GBs): 50%
```

Enter a percentage of the total storage, or enter a value that in Gigabytes (GB).

- 14** Enter **y** to confirm the size you entered. Enter **n** if you want to change the value.

- 15** You are then prompted to enter an AdvancedDisk storage unit name if the AdvancedDisk volume size is greater than zero. In addition, you are prompted



to enter a Deduplication storage unit name if the Deduplication volume size is greater than zero. You are not required to change the default names.

Enter a name for the AdvancedDisk partition. For example, `stu_adv_hostname`.

Enter a name for the NetBackup Deduplication partition. For example, `stu_disk_hostname`

---

**Note:** The default values that appear in the NetBackup Administration Console for the storage units and disk pools are as follows:

---

- For AdvancedDisk:
  - Default storage unit name: `stu_adv_<hostname>`
  - Default disk pool name: `dp_adv_<hostname>`
- For Deduplication:
  - Default storage unit name: `stu_disk_<hostname>`
  - Default disk pool name: `dp_disk_<hostname>`

A confirmation message appears that states the storage unit pools have been successfully created.

You can view information about your appliance by reviewing the NetBackup appliance log files.

---

**Note:** Before or immediately after initial configuration, Symantec recommends that you change the default maintenance password (**P@ssw0rd**) for your appliance. This password must be provided to technical support in case you need future troubleshooting assistance. You must change the maintenance password through the command-line interface with the following command: `Main > Support > Maintenance`. For complete information, see the *Symantec NetBackup Appliance Administrator's Guide*.

---

## About post appliance configuration tasks

If your appliance system includes media servers or a Symantec Storage Shelf, you must add these components to the appropriate configured server. You also need to install NetBackup client software on the computers that you want to back up.

The following describes the necessary post appliance configuration tasks. The tasks appear in the order in which they must be performed.

Table 3-4 Post appliance configuration tasks

Task	Description
Add the storage expansion unit to the appliance	<p>If your system includes storage expansion units, they must be added to the appropriate appliance.</p> <p>See <a href="#">“Adding the disk space of a storage expansion unit to an appliance”</a> on page 58.</p>
Install client software	<p>After all appliances and storage expansion units are operational, you are ready to install client software on the computers that you want to back up.</p> <p>See <a href="#">“Installing NetBackup client software on clients through CIFS and NFS shares”</a> on page 59.</p> <p><b>Note:</b> The client installation instructions are also included in the <i>Symantec NetBackup Appliance Administrator's Guide</i>.</p>

## Adding the disk space of a storage expansion unit to an appliance

After you have completed the appliance configuration, you must add the disk space of any connected Symantec Storage Shelf (storage expansion unit) to the appliance. This task allows the appliance to detect the additional storage space.

You can add the disk space of a storage expansion unit to the appliance by using the Administrative Web UI or the appliance shell interface.

Use the following procedure to add the disk space of a storage expansion unit to the appliance using the Administrative Web UI.

**To add the disk space of a storage expansion unit to the appliance using the Administrative Web UI**

- 1 Log in to the Administrative Web UI.
- 2 Click **Manage > Storage**.  
  
The **Status** of the storage expansion unit is displayed as **New Available**, followed by an **Add** icon.
- 3 To add the storage expansion unit, click **Add**.
- 4 To allocate the added storage space, refer to the *Symantec NetBackup Appliance Administrator's Guide*. See the section "Working with partitions".

Use the following procedure to add the disk space of a storage expansion unit to the appliance using the appliance shell interface.

### To add the disk space of a storage expansion unit to the appliance using the appliance shell interface

- 1 Log in to the configured appliance through an SSH connection.
- 2 To view all available disks, enter the following command:

```
Manage > Storage > Show Device
```

The screen shows a list with details of the available storage devices. A storage expansion unit is identified as **Expansion Unit Storage (unit\_n)**.

Where **(unit\_n)** is the name of a storage expansion unit.

- 3 To add the disk space of a storage expansion unit, enter the following command:

```
Manage > Storage > Add ExpansionUnit
```

Where *ExpansionUnit* is *unit\_n*.

---

**Warning:** Do not disconnect or power cycle the storage expansion unit during this process.

---

A series of messages appear as the appliance adds the new storage space to the disk pool total.

- 4 After the message **Succeeded** appears, enter the following command to view the added storage space:

```
Manage > Storage > Show Device
```

The added storage space appears in the **Unallocated** column.

- 5 To allocate the added storage space, refer to the *Symantec NetBackup Appliance Administrator's Guide*. See the section "Working with partitions".

## Installing NetBackup client software on clients through CIFS and NFS shares

After all appliance configuration has been completed, you can use the following procedures to install Windows and UNIX client software on the clients that are used with NetBackup appliances. These procedures explain how to obtain the software packages through a CIFS or NFS share.

---

**Note:** If you have existing NetBackup clients that you want to use with the appliance master server, they must be version 6.0 or later. For these clients, you only need to add the appliance master server name to the client.

---

**To install the NetBackup client software on a Windows client through a CIFS share**

- 1 On the Windows client computer where you want to install the NetBackup client software, log on as the administrator.
- 2 Open a Map or a directory to the following CIFS shared folder on the appliance:

**`\\<appliance_name>\install`**

- 3 Click on the Windows executable, **quickinstall.exe**.

This action installs the NetBackup client software and adds the appliance master server name on the client.

**To install the NetBackup client software on a UNIX client through an NFS share**

- 1 On the UNIX client computer where you want to install the NetBackup client software, log on as root.
- 2 Mount the following NFS share:

**`<appliance_name>:/inst/client`**

- 3 Browse the files within the NFS share directory. Files that are similar to the following appear:

<code>.packages</code>	<code>clientconfig</code>	<code>quickinstall.exe</code>
<code>PC_Clnt</code>	<code>docs</code>	<code>unix-client-install</code>

- 4 Run the `unix-client-install` script.

This action installs the NetBackup client software.

- 5 Add the appliance master server name to the `bp.conf` file on the client as follows:

- On the client, navigate to the following location:  
`cd /usr/opensv/netbackup`
- Enter `ls` to see the contents of the directory.
- Open the `bp.conf` file in a text editor.
- Enter the fully qualified host name of the appliance master server.
- Save your changes and close the file.

## About configuring the maximum transmission unit size

The MTU property controls the maximum transmission unit size for an Ethernet frame. The standard maximum transmission unit size for Ethernet is 1500 bytes

(without headers). In supported environments, the MTU property can be set to larger values up to 9000 bytes. Setting a larger frame size on an interface is commonly referred to as using jumbo frames. Jumbo frames help reduce fragmentation as data is sent over the network and in some cases, can also provide better throughput and reduced CPU usage. To take advantage of jumbo frames, the Ethernet cards, drivers, and switching must all support jumbo frames. Additionally, each server interface that is used to transfer data to the appliance must be configured for jumbo frames.

Symantec recommends that if you configure the MTU property of an interface to values larger than 1500 bytes, make sure that all systems that are connected to the appliance on the specific interface have the same maximum transmission unit size. Such systems include but are not limited to NetBackup clients and remote desktops. Also verify the network hardware, OS, and driver support on all systems before you configure the MTU property.

You can configure the MTU property for an interface by using the `SetProperty` command in the appliance shell menu.

See the `SetProperty` command in the *Symantec NetBackup Appliance Command Reference Guide*.

## About appliance and NetBackup documentation

After all appliance configuration and client software installation have been completed, you are ready to use your NetBackup appliance system.

The following describes the documentation that you should reference for system management:

- All traditional NetBackup documentation (excluding installation guides)  
All NetBackup documentation can be found on the Symantec Support at the following location:  
<http://www.symantec.com/docs/DOC5138>
- *NetBackup Appliance Administrator's Guide*
- *NetBackup 52xx Appliance 2.5.2 Release Notes*
- *NetBackup 52xx Appliance Troubleshooting Guide Technote*
- *NetBackup 52xx Troubleshooting Guide Technote*

All NetBackup 52xx documentation can be found at the following location:

<http://www.symantec.com/docs/DOC2792>



# Index

## A

- about
  - appliance and NetBackup doumentation 61
  - appliance configuration guidelines 25
  - appliance deployment 9
  - appliance initial configuration 28
  - mounting appliance components 13
  - NetBackup appliance and Symantec Storage Shelf matched pairs 12
- add
  - storage expansion unit 58
- appliance
  - about initial configuration 28
  - add storage expansion unit to 58
- appliance and NetBackup
  - documentation 61
- appliance configuration
  - about guidelines 25
- appliance deployment
  - about 9
- appliance interface
  - configure new appliance from 37
- appliance media server name
  - add to master server 36
- appliance roles and modes 32
- appliance shell menu
  - configure new appliance from 49
- appliance system
  - apply power to 22
  - configuration sequence 33
- apply power
  - to appliance system 22

## C

- clients used with appliances
  - install client software on 59
- configuration
  - of maximum transmission unit size 60
- configuration sequence
  - for appliance systems 33

- configure new appliance
  - from appliance interface 37
  - from appliance shell menu 49
- connect network and and laptop
  - to NetBackup appliance 14

## D

- deployment
  - NetBackup appliance 9
- documentation
  - appliance and NetBackup 61

## G

- guidelines
  - appliance configuration 25

## I

- install client software
  - on clients used with appliances 59
- intial configuration
  - about 28
- IPv4 and IPv6 support 34

## M

- matched pairs
  - NetBackup appliance and Symantec Storage Shelf 12
- maximum transmission unit size
  - about configuration for 60
- mount appliance components
  - about 13

## N

- NetBackup appliance
  - connect to a Symantec Storage Shelf 16
- NetBackup appliance and Symantec Storage Shelf
  - matched pairs 12

## **P**

- post configuration
  - tasks 57
- post configuration tasks
  - about 57
- power-up sequence 22

## **S**

- sequence
  - for appliance system configuration 33
- storage expansion unit
  - add to appliance 58
- Symantec Storage Shelf
  - connect to NetBackup appliance 16

## **T**

- tasks
  - post appliance configuration 57