

# Veritas Appliance Management Guide

NetBackup Appliance 3.2 (5250)

(AMS 1.3)

# Veritas Appliance Management Guide

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[https://sort.veritas.com/data/support/SORT\\_Data\\_Sheet.pdf](https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf)

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# Introduction

This chapter includes the following topics:

- [Overview](#)
- [About the Appliance Management Console](#)
- [About the Appliance Management Server](#)
- [About the Appliance Management Agent](#)
- [About the AMS and the agent topology](#)

## Overview

The Veritas Appliance Management Console is a centralized management interface for multiple appliances. It enables a single administrator to manage many appliances simultaneously. This functionality is available from NetBackup Appliance 3.1 onwards.

The Appliance Management Console is hosted on an Appliance Management Server (AMS). You can add or remove configured appliances from the Appliance Management Console.

From the Appliance Management Console, you can perform the following tasks:

- Upgrade selected appliances at the same time
- Install emergency engineering binary files (patches) on or uninstall them from selected appliances

Emergency engineering binary files are customer-related fixes that are incorporated into each release.

The *Appliance Management Guide* provides the processes you need to manage multiple appliances within a centralized management interface.

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**Note:** The Appliance Management Console supports NetBackup Appliances as well as NetBackup Virtual Appliances, but not Flex Appliances.

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## About the Appliance Management Console

The Appliance Management Console is a web-based graphical user interface that lets you centrally manage multiple NetBackup appliances from a single pane. It provides enterprise-wide monitoring and management of NetBackup appliances. The console enables you to upgrade and install emergency engineering binary files (EEB) on multiple appliances at the same time.

---

**Note:** Appliances that use software versions 2.7.3 and 3.0 are also supported for upgrades through the Appliance Management Console. To upgrade appliances with versions 2.7.3 or 3.0 from the Appliance Management Console, you must first apply specific EEBs on those appliances. Check this [link](#) for more information.

---

A management interface saves time and money especially when you have multiple appliances in your environment. Logging on to each individual appliance for upgrades or installing EEBs is not required. The managed appliances can exist on one network or on segregated networks, which are visible to one management network.

With 3.1 and later, two web-based graphical user interfaces are available with the NetBackup appliances. You can choose to use either of the following based on your requirements:

- NetBackup Appliance Web Console  
The NetBackup Appliance Web Console relates to management and configuration of an individual appliance.
- Appliance Management Console  
If you configure an appliance as an AMS, you can access the Appliance Management Console for the specific appliance. The Appliance Management Console is a management interface that can be used for upgrading or installing EEBs on multiple NetBackup appliances.

The following are the capabilities of the Appliance Management Console:

- Display managed servers on the Home page.
- Upgrade multiple appliances with the same version.
- If you want to upgrade appliances with versions 2.7.3 or 3.0 from the Appliance Management Console, you must first apply specific EEBs on those appliances. Check this [link](#) for more information.



- Apply an EEB to multiple appliances with the same version. Only a single EEB is applied at one time on multiple appliances.
- View all installations or upgrades that are currently in progress from the Activity Monitor. You can also view events on the Appliance Management Server from Monitor > Events.

---

**Note:** The installations or upgrades must be started from the Appliance Management Console for them to be visible in the Activity Monitor.

---

You can click ? from the top-right corner of any page and access the *Appliance Management Guide*.

## About the Appliance Management Server

The following components are key to appliance management:

- Appliance Management Server (AMS)
- Appliance Management Agents (Agents)

Any configured NetBackup appliance with version 3.1 or later can be set as an AMS. Veritas recommends that the AMS is configured on a master server. AMS configuration does a number of things like creating a database and a repository. The AMS takes the operational data that is sent by agents and inserts it into the database. There is no limit on the maximum number of agents per AMS.

A single management server manages multiple agents in an environment. Any configured NetBackup appliance with version 3.1 or later can be set as agent. An agent can be a master or a media server. All the agents connect and communicate with the AMS on port 443 (https) via REST API calls. The agents can be located in a single enterprise datacenter or in multiple enterprise datacenters. If agents are in multiple datacenters, all agents are assumed to belong to the same enterprise network infrastructure, that is, they can all connect to each other's IP addresses directly by some form of enterprise-wide VPN. Communication between all components in the same system is secure, based on trusted identity certificates and security tokens. This secure communication infrastructure is deployed during AMS installation and when agents are added to the Appliance Management Console. The security is maintained as certificates and tokens expire or are revoked when agents are removed from the Appliance Management Console.

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**Note:** An appliance can either be an agent or an AMS and not both.

---

Only authenticated and authorized AMS administrators can issue AMS commands and control agent nodes. All agents periodically send some state information to the AMS. The flow of information from agents to the AMS is secure and continuous, supporting collection of key time-series data, such as storage consumption, and significant events.

The AMS user role manages appliances from a web-application that is hosted on the AMS. This is called the Appliance Management Console. The Appliance Management Console provides enterprise-wide monitoring and management of NetBackup appliances. It enables you to upgrade and install EEBs on appliances that have the same version. You can always log on to a dedicated appliance and use the NetBackup Appliance Web Console for all the other tasks.

## About the Appliance Management Agent

Once an AMS is configured, an `AMS` user must add the appliances to the Appliance Management Console. A NetBackup appliance must register with the Appliance Management Console as an agent. The agent registration process involves generating an access key from the Appliance Management Console and pasting this key into the agent shell menu.

See [“Adding an appliance to the Appliance Management Console”](#) on page 31.

Once the agents are added, the AMS user can then manage the agents from the Appliance Management Console. All the agents connect and communicate with the AMS on port 443 (https) via REST API calls.

Note that an appliance can either be an agent or an AMS.

The following scenarios are not supported:

- Elevating an agent to become an AMS is not supported.
- Changing the management role of an AMS to agent is not supported.

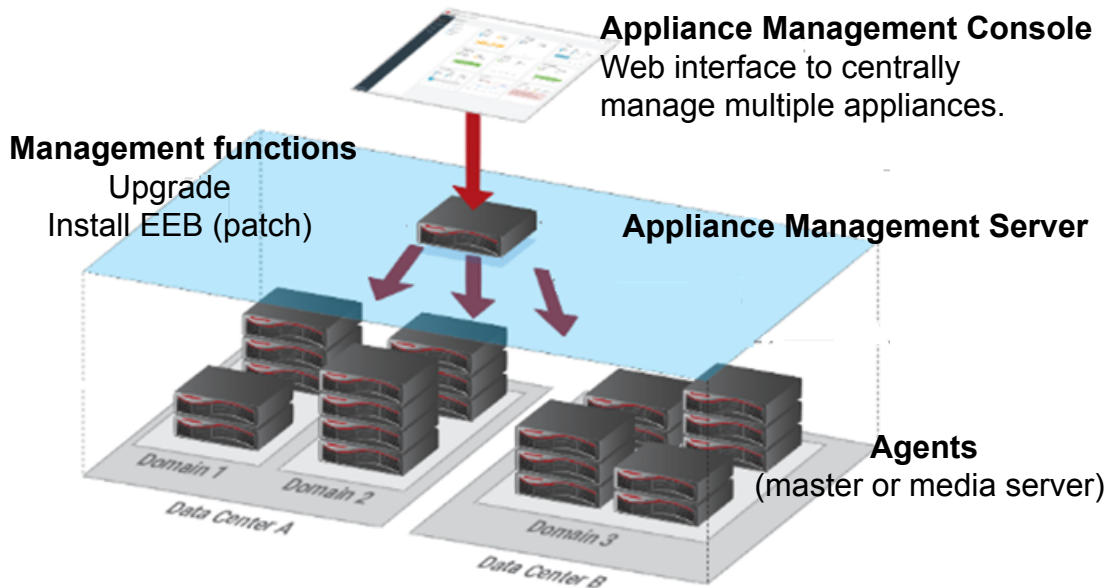
## About the AMS and the agent topology

This topic explains how you can set the topology to enable central management of appliances.

A topology consists of one AMS that manages multiple agents. You can have multiple such topologies in your environment depending on workload and performance.

[Figure 1-1](#) shows the AMS and the agent topology.

**Figure 1-1** AMS and agent topology



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**Note:** Only one AMS is supported in a topology.

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# Appliance as an AMS

This chapter includes the following topics:

- [Configuring an appliance as AMS](#)
- [Setting or removing the management role of an appliance as AMS](#)
- [About the AMS user role](#)
- [Granting the AMS role to a user or a user group](#)

## Configuring an appliance as AMS

You can configure any 3.1 or later NetBackup appliance as an Appliance Management Server. Veritas recommends that the AMS is configured on a master server.

Use the following procedures to configure an appliance as AMS:

**Table 2-1** Configuring an appliance as AMS

Step No.	Description	Link to topic
1.	Set the management role of the appliance as AMS.	See <a href="#">"Setting or removing the management role of an appliance as AMS"</a> on page 13.
2.	Grant the AMS role to a user or a user group.	See <a href="#">"About the AMS user role"</a> on page 14.

**Table 2-1**      Configuring an appliance as AMS (*continued*)

Step No.	Description	Link to topic
3.	Access the NetBackup Appliance Web Console login page on the AMS and log on with the AMS user credentials. You can access the Appliance Management Console.	See <a href="#">“Logging on to the Appliance Management Console”</a> on page 16.
4.	Add the appliances that you want to manage.	See <a href="#">“Adding an appliance to the Appliance Management Console”</a> on page 31.

# Setting or removing the management role of an appliance as AMS

You can set the management role for a NetBackup appliance. If you want to centrally manage multiple NetBackup appliances in your environment from the Appliance Management Console, you must set the management role of the appliances. In an environment, you can have one AMS that manages multiple agents.

Review the following prerequisites before setting the management role of an appliance as AMS:

- Any appliance with version 3.1 or later can be set as an Appliance Management Server (AMS). The appliance must be configured.  
Veritas recommends that the AMS is configured on a master server.
- You can either set the management role of an appliance as AMS or an agent and not both.
- If you install your own certificate on the AMS or change the hostname of the AMS, then all the agents that were already registered must be added again. Similarly if you install your own certificate on the agent or change the hostname of the agent, then the agent must be added again to the AMS.

## To set the management role of an appliance as AMS

- 1 Log on to the NetBackup Appliance Shell Menu. This should be the appliance that you want to set as AMS. The appliance must be version 3.1 or later.
- 2 Navigate to the **Appliance** menu.

**3** Run the following command:

```
Management Server
```

**4** The following message is displayed:

```
[INFO] The Appliance Management Server is successfully configured.  
Use the NetBackup Appliance Shell Menu to create an appliance user  
(Local/LDAP/AD) with the AMS role.  
Log on to the NetBackup Appliance Web Console with this account.
```

**To remove the management role of an appliance as AMS****◆** Run the following command sequence from the shell menu:

```
Appliance > Management Server Unconfigure
```

## About the AMS user role

To enhance security, each user can be assigned a different role. Roles enable you to restrict system access to a set of privileges. A role can be applied to an individual user, or it can be applied to a group that includes multiple users. The user roles that are described in this topic are specific to LDAP, Active Directory (AD), and NIS users.

The following describes the user roles and their associated privileges:

User role	Privileges
Administrator	User can access the following: <ul style="list-style-type: none"><li>■ NetBackup Appliance Web Console</li><li>■ NetBackup Appliance Shell Menu</li><li>■ NetBackup Administration console</li></ul>
AMS	Appliance Management Console that is hosted on the AMS
NetBackupCLI	NetBackup command line

Review the following considerations for an `AMS` user:

- An `AMS` user can access the Appliance Management Console on the AMS. An `AMS` user cannot access the NetBackup Appliance Shell Menu or the NetBackup Appliance Web Console on the AMS.
- Only an Administrator can grant the `AMS` role to a user from the NetBackup Appliance Shell Menu on the AMS.
- Before you grant the `AMS` role, you must configure AMS on the appliance.

See “[Configuring an appliance as AMS](#)” on page 12.

# Granting the AMS role to a user or a user group

You can grant the **AMS** role to a user from the NetBackup Appliance Shell Menu on the AMS. Ensure that AMS is configured on the appliance where you want to grant an AMS user role.

To know more about creating a user or a user group, see the *NetBackup Appliance Administrator's Guide*.

## To grant AMS role to a user

- 1 Log on to the NetBackup Appliance Shell Menu on the AMS as an Administrator. Only an Administrator can grant an AMS user role.
- 2 Navigate to Main > Settings > Security > Authorization.
- 3 You can grant the AMS role to a user or a group. Use either of the following commands:

```
Grant AMS Users users
```

Example: `Grant AMS Users garry`

Here, *users* is a comma-separated list of local users, or registered users that have been added to the appliance from a configured remote directory service (such as LDAP, AD, or NIS).

```
Grant AMS Group groups
```

Here, *groups* is a comma-separated list of registered user groups that have been added to the appliance from a configured remote directory service (such as LDAP, AD, or NIS).

- 4 You can use the `List` command to verify the role of the user or user group.

Example:

```
nbapp.Authorization> List
```

Principal Type	Name/login	Access	Role	Principal Source
User	garry	Allowed	AMS	Local
Group	NBALocalAdmins	Allowed	Administrator	Local
Group	AMSadmin-grp	Allowed	AMS	Local

# Using the Appliance Management Console

This chapter includes the following topics:

- [Logging on to the Appliance Management Console](#)
- [Using the Home page](#)
- [Changing passwords from the AMS](#)
- [Managing the repository](#)
- [Limiting the bandwidth used for downloads](#)
- [Logging out of the Appliance Management Console](#)

## Logging on to the Appliance Management Console

You must do the following before you can access the Appliance Management Console:

- Set the management role of an appliance as AMS.  
See [“Setting or removing the management role of an appliance as AMS”](#) on page 13.
- Grant `AMS` role to a user on the AMS  
See [“About the AMS user role”](#) on page 14.  
See [“Granting the AMS role to a user or a user group”](#) on page 15.

Once you meet these prerequisites, open the NetBackup Appliance Web Console login page on the AMS by using a supported browser and log on as an `AMS` user to access the Appliance Management Console. The login page can be used for logging on to the Appliance Management Console and also the NetBackup Appliance Web



Console. You must enter **AMS** user credentials to access the Appliance Management Console. If you enter the regular admin credentials on the login page, you can access the NetBackup Appliance Web Console for the specific appliance.

[Table 3-1](#) lists the recommended browsers for accessing the Appliance Management Console.

**Table 3-1** Recommended browsers for Appliance Management Console

Browser	Supported version
Mozilla Firefox	52.0.0 and later
Google Chrome	57.0.2987 and later

The procedure to access the Appliance Management Console from the login page is described as follows.

### To log on to the Appliance Management Console

---

**Note:** Before logging on the Appliance Management Console, you must set the appliance as AMS. You must also grant an AMS role to a user from the AMS shell menu.

---

- 1 On a system that has a network connection to the appliance, start a web browser.

[Table 3-1](#) lists the recommended browsers for accessing the Appliance Management Console.

In the web browser address bar, enter the following:

https://host.domain where host.domain is the fully qualified domain name (FQDN) of the AMS and can also be an IP address.

The hostname is the label that is assigned to your appliance to identify the device in your network.

- 2 Enter the credentials of a user with an **AMS** role.

You can access the Home page on the Appliance Management Console.

---

**Note:** You must enter **AMS** user credentials to access the Appliance Management Console. If you enter the regular admin credentials on the login page, you will access the NetBackup Appliance Web Console for the specific appliance.

---

## Using the Home page

When you open the NetBackup Appliance Web Console login page and log in as an **AMS** user, you can access the home page on the Appliance Management Console. This page is displayed after you have configured the appliance role like a master server.

From the Home page, you can add the appliances that you want to manage (agents). Only NetBackup 3.1 or later appliances that are configured as a master or a media server can be added.

---

**Note:** Appliances that use software versions 2.7.3 and 3.0 can be added and are also supported for upgrades through the Appliance Management Console. To add or upgrade appliances with versions 2.7.3 or 3.0 from the Appliance Management Console, you must first apply specific EEBs on those appliances. Check this [link](#) for more information.

---

**Figure 3-1** Home page



Hostname	Model	Role	Master	Appliance version	AMS/Agent version	Total capacity used	Last contact time
Host1 (AMS)	5240	Master	-	3.1.2	1.3.0	0.1%	Sep 5, 2019 16:50:55
Host2	5230	Master	-	3.2	1.3.0	0%	Sep 5, 2019 16:50:02

[Table 3-2](#) describes each column that appears on the Home page.

**Table 3-2** Home page

Column	Description
Hostname	<p>Displays the hostname (FQDN) of the agents that are managed from the Appliance Management Console.</p> <p>Click the hostname to view the appliance details and performance metrics.</p> <p>See <a href="#">“Viewing the appliance details”</a> on page 26.</p> <p>See <a href="#">“Viewing performance charts for appliance”</a> on page 28.</p>
Model	Displays the hardware model of the agent
Role	Role of the agent like master or media
Master	Associated master server of the agent. This field is blank if the agent itself is a master server.

**Table 3-2** Home page (*continued*)

Column	Description
Appliance version	Version of the appliance software.
AMS/Agent version	Version of the AMS or Agent software on the appliance depending on whether the appliance is configured as an AMS or an agent. <b>Note:</b> After the AMS/Agent versions is updated, it can take up to an hour for some of the updated information to be displayed on the Home page.
Total capacity used	Used capacity on the agent. This includes all partitions like MSDP, AdvancedDisk, Shares, Configuration, and so on. The used capacity is shown graphically in percentage.
Last contact time	Displays the time when either of the following occur: <ul style="list-style-type: none"><li>■ EEB is installed</li><li>■ Upgrade is performed</li><li>■ Inventory data is received from the specific agent</li></ul>

You can add the appliances that you want to manage by clicking **Add**. You can also remove the selected agents by clicking **Remove**.

Use **Manage** to upgrade software or install EEB (patch) on selected agents. You can also search for specific hostnames, versions, or models on this page.

---

**Note:** You cannot upgrade the AMS appliance from AMS. To upgrade the NetBackup Appliance version of the appliance that is configured as AMS, perform the upgrade operation from NetBackup Appliance Shell Menu.

---

See [“Adding an appliance to the Appliance Management Console”](#) on page 31.

See [“Removing one or more agents from the Appliance Management Console”](#) on page 34.

## Changing passwords from the AMS

The **Change password** page allows a logged-in user to change their password. New passwords must meet the requirements of the password policy that is currently enforced.

---

**Note:** This page lets you change passwords for NetBackup Appliances only. To change passwords for NetBackup Virtual Appliances, use the NetBackup Virtual Appliance Shell Menu commands under **Settings > Security**.

---

By default, all NetBackup appliances enforce the following password rules:

- Eight or more characters
- At least one lowercase letter
- At least one number (0-9)

---

**Note:** Uppercase letters and special characters can be included, but they are not required.

---

- Dictionary words are considered weak passwords and are not accepted.
- The last seven passwords cannot be reused, and the new password cannot be similar to previous passwords.

Use the following procedure to change the password for the current user.

**To change the current user password**

- 1 On the **Home** page, in the left column, click **Settings**.
- 2 On the **Settings** page, click **Change password**.
- 3 On the **Change password** page, enter the following information:
  - **Old password:** Enter the current password.
  - **New password:** Enter a new password.
  - **Confirm new password:** Enter the new password again for confirmation.
- 4 Click **Save**.

If the new password is accepted, the following message appears: **Password changed successfully**.

If the new password is not accepted, the following message appears: **Password change failed**. Repeat the procedure and enter a valid password.

## Managing the repository

The **Repository** page lets you manage the upgrade packages and the Emergency Engineering Binary (EEB) files that you can store on the Appliance Management Server (AMS).

The following provides a brief description of each package:

- **Upgrade package (Release Update)**  
These packages upgrade all appliance applications including the operating system, the appliance software, and NetBackup software.
- **EEB file (Patch)**  
These files fix a specific problem for a specific appliance software version.
- **AMS updates**  
This package updates the Appliance Management Server and includes fixes and new features for the management server. This package updates the management function and does not affect the appliance software on the AMS.

The following describes the functions for managing the repository and the details that appear for packages or files that reside in the repository:

- **Add** Opens a dialog box where you can locate and select a package or a file to add to the repository. When adding packages or files to the repository, the most recent addition appears at the top.
- **Remove** Lets you remove selected packages or files from the repository.
- **File name** The complete package or file name.
- **Type** The package or the file type; **Upgrade**, **EEB**, or **AMS update**.
- **Size** The package or the file size.
- **Version** The software version of the upgrade package, the appliance software version that pertains to the EEB file, or version of the AMS update package.

The following shows an example of an empty repository before any files or packages have been added:



The following shows an example after an upgrade package has been added:



## Guidelines for adding upgrade packages or files to the Repository

Use the following guidelines when adding upgrade packages to the Repository:

- Add upgrade packages or EEB files that have been downloaded only from the Veritas Support site.
- Do not change or modify the upgrade package or EEB file names.
- Do not add a package or a file that is larger than 10 GB.
- Before adding a package or a file, make sure that the repository has enough space to accommodate it.

---

**Note:** After an upgrade to version 3.1, before adding any packages or files to the repository you must first increase the size of the `/config` partition to 150 GB. Log in to the NetBackup Appliance Shell Menu and navigate to the `Main_Menu > Manage > Storage` view. Next, run the following command to resize the partition to 150 GB: `Resize Configuration 150GB`.

---

## Adding upgrade packages or EEB files to the Repository

Adding upgrade packages or EEB files to the repository consist of the following tasks:

- Download the package or the file from Veritas.
- From the AMS, locate the downloaded package or file and add it to the Repository.

Use the following procedure to download and add upgrade packages or EEB files to the Repository.

### To download and add packages or EEB files to the Repository

- 1 From a computer within your appliance domain, download the appropriate package or file from Veritas.
- 2 From the same computer, open another browser window and log in to the **AMS** as the AMS user.
- 3 On the **Home** page, click **Settings**.
- 4 On the **Settings** page, click **Repository**.
- 5 On the **Repository** page, click **Add**.
- 6 In the dialog box that appears, do the following:
  - At the top of the dialog box, click on the drop-down and navigate to the location where you downloaded the package or the file from Veritas.
  - Select the downloaded package or file from the list of items that appears, then click **Open**.

The package or the file should appear at the top of the list on the **Repository** page.

## Removing upgrade packages or EEB files from the Repository

Use the following procedure to permanently remove any packages or EEB files from the **Repository**.

### To permanently remove upgrade packages or EEB files from the Repository

- 1 Click the check box next to any packages or files that are no longer needed. To select all packages and files, click the check box that appears above the first item in the list.
- 2 Click **Remove**.

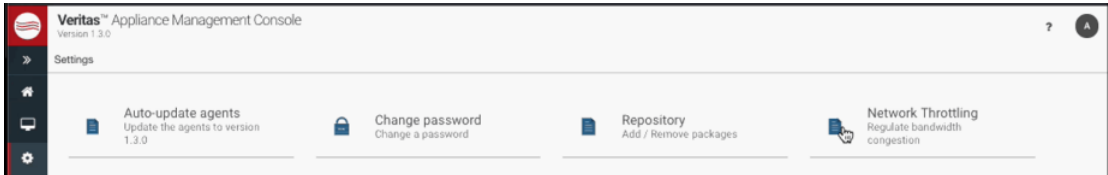
## Limiting the bandwidth used for downloads

When you upgrade the appliance software or install EEBs, the upgrade or the EEB packages are first downloaded from the AMS to the agents. You can use network throttling to limit the bandwidth that is used for these downloads.

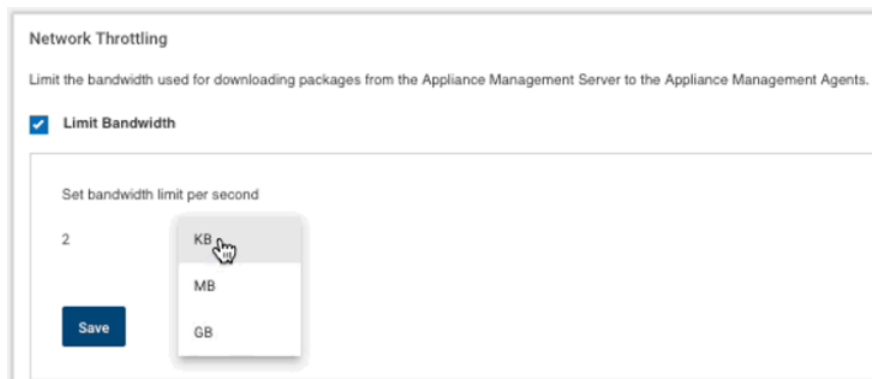
If a download times out, you can rerun the appliance software upgrade or the EEB installation to resume the download.

### To limit the network bandwidth used for downloads

- 1 Log on to the Appliance Management Console.
- 2 Click Settings and then click **Network Throttling**.



- 3 On the **Network Throttling** page, select **Limit Bandwidth**. Enter the value of the limit that you want to set, select the bandwidth from the drop-down, and then click **Save**.



---

**Note:** Upgrade packages are large (in GBs) and may need more than an hour to download at 1 MBps, for example. Therefore, Veritas recommends that you set the throttle to 2 MBps or higher.

---

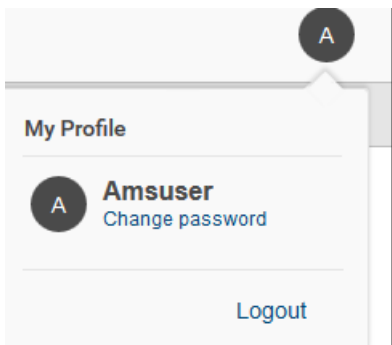
## Logging out of the Appliance Management Console

You must log out to exit the Appliance Management Console. Use the following procedure to log out:



### To log out of the Appliance Management Console

- 1 Click the icon on the upper-right corner of the Appliance Management Console. The icon is the initial letter of the user name.



- 2 Click **Logout**.

---

**Note:** A user is logged out automatically after 60 minutes of inactivity.

---

# Managing appliances from the Home page

This chapter includes the following topics:

- [Viewing the appliance details](#)
- [Viewing performance charts for appliance](#)
- [Exporting the appliance performance data](#)
- [Adding an appliance to the Appliance Management Console](#)
- [Removing one or more agents from the Appliance Management Console](#)
- [Managing appliance software upgrades](#)
- [Managing EEBs](#)

## Viewing the appliance details

The **Overview** tab provides appliance details like hostname, storage configuration, model, and so on. It also provides the AMS or agent version and the appliance software version along with application information like serial number, role, master server and so on. You can view the hardware configuration of the appliance like the number of storage shelves or expansion shelves that are attached to this appliance.

You can use the **Rack number** field to enter details like the physical location of the appliance. You may choose to add other details about the appliance in the **Notes** field.

**Note:** Currently, information about the storage shelves that are attached to a 5250 appliance cannot be displayed.

The following is a sample view of the Overview tab:

The screenshot shows the Veritas Appliance Management Console interface. The top header displays the Veritas logo and the text "Veritas™ Appliance Management Console Version 1.3.0". Below the header is a navigation bar with "Home" and the URL "https://...veritas.com". The main content area is divided into two tabs: "Overview" (selected) and "Performance".

The Overview tab displays the following information:

- Hostname:** ...veritas.com
- Model:** 5250
- AMS / Agent:** Agent 1.3.0
- Version:** 3.2

Below the metadata, there are two sections:

- Hardware configuration:** Includes a diagram of the appliance and the text "No storage shelves are attached to this appliance."
- Application info:** Includes the following details:
  - Serial number: VRTSVE85D1A13773
  - Role: Master
  - Master server: -
  - Call Home: ✔ Connected
  - IPMI: ⚠ Offline
  - Rack number: rack #4
  - Notes: this is a test note

A "Web console" button is located at the bottom right of the Application info section.

This screenshot is similar to the one above, but for a Model 5100 appliance. The interface structure is identical, with the same header, navigation bar, and tabs. The metadata section shows:

- Hostname:** ...veritas.com
- Model:** 5100
- AMS / Agent:** Agent 1.3.0
- Version:** 3.2

The Hardware configuration and Application info sections also follow the same layout as the previous screenshot, with the same fields and status indicators.

Click **Web console** to access the NetBackup Appliance Web Console login page for the appliance. The Web console button is only displayed for agents.

---

**Note:** If the agent is on appliance software version 3.1.1 and the model is 52xx, the storage shelf size (capacity) that is displayed on the **Overview** tab is inaccurate. For accurate information about the storage shelf size, use the **Manage > Storage > Show** command on the shell menu. To resolve this issue, upgrade the agent to appliance software version 3.1.2 or later.

---

## Viewing performance charts for appliance

You can view the performance of each appliance (AMS or agent). In addition you can compare the performance metrics of each appliance with up to four other appliances that use the same AMS. You can also export these metrics as a CSV file.

You can refresh this page by clicking refresh and view the updated data. The default timeframe is last 24 hours.

To view the performance metrics, you can select the following parameters:

**Table 4-1** Performance parameters

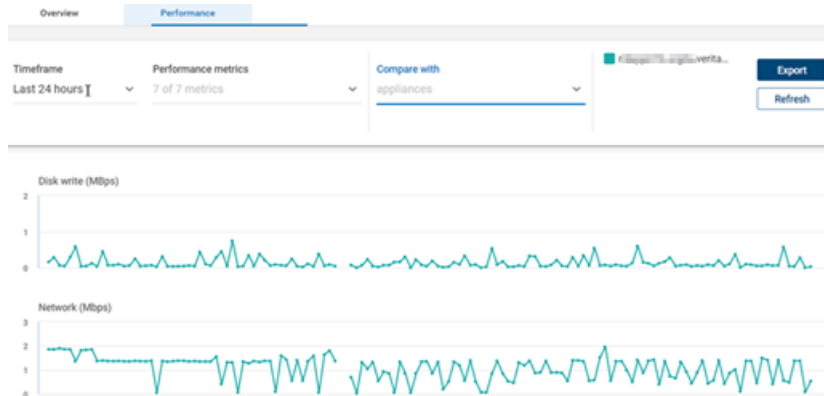
Timeframe	You can select from several options like Last 1 hour, 6 hours, 12 hours etc. You can view data for the last 30 days at a maximum.
Performance metrics	You can check the metrics that you want to see or compare.
Compare with appliances	You can compare with up to four other appliances that use the same AMS. You can search for an appliance or select an appliance from the list.
Color legend for multiple appliances	The colors and legend for different appliances appear on the right so that you can identify the appliance easily on the chart.

The performance metrics are a combination of system metrics like CPU, memory etc. and application variables like NetBackup jobs, Overall NetBackup deduplication ratio. The following metrics are displayed:

**Table 4-2** Performance metrics

Performance metric	Description
CPU (%)	Displays the CPU utilization by the specific appliance for the selected timeframe. You can compare the CPU utilization with four other appliances to assess the performance.
Memory (%)	Displays the memory utilization by the appliance for the selected timeframe. You can compare the CPU utilization with four other appliances to assess the performance.
Disk read (MBps)	Displays how much data is read per second by the appliance for the selected timeframe.
Disk write (MBps)	Displays how much data is written per second by the appliance for the selected timeframe.
Network (Mbps)	Displays the network utilization by the specific appliance for the selected timeframe.
Storage utilization (%)	Displays the storage utilization by the specific appliance for the selected timeframe.
NetBackup jobs (#)	Displays active NetBackup jobs for the selected timeframe. This includes all NetBackup jobs like backup, restore, duplication, replication, and so on.
Overall NetBackup deduplication ratio (%)	Displays the ratio at which the deduplication is happening on the selected appliance. This metric applies to completed backup jobs.

The following figure shows a sample view of the performance charts. This depicts the Disk write and Network metrics at different time periods.



You can point your cursor at different points on the chart and view the performance statistics on the tooltip for a specific time.

After the AMS or the agent is updated to version 1.2, the performance data is collected after every 10 minutes. Usually, you can see a data point on the performance chart after every 10 minutes. However, when the AMS or the agent is updated to version 1.2, the performance data that was collected before the update is shown in hourly intervals.

## Exporting the appliance performance data

You can export the performance data for an appliance for the selected timeframe, performance metrics, and compare with parameters. This data is exported as a CSV file.

If you are comparing the performance of an appliance with other appliances, the data for multiple appliances is exported as a zip file. The following sample message is displayed:

```
The selected data for five appliances is exported here: <appliance name>_2018-11-20T21:53:30-07:00.zip
```

### To export the appliance performance data

- 1 Log on to the Appliance Management Console.
- 2 From the **Home** page, click the hostname of the appliance that interests you.
- 3 Click the **Performance** tab.

- 4 Select the timeframe, performance metrics, and compare with appliances parameters. The compare with appliances parameter lets you compare data for the selected appliance with up to four other appliances that use the same AMS. You can search for an appliance or select an appliance from the list. The colors and legend for different appliances appear on the right so that you can identify the appliance easily on the chart.
- 5 Click **Export** to export the currently displayed data. The data is exported as a CSV for a single appliance and as a zip file for multiple appliances. The zip file contains multiple CSV files.

## Adding an appliance to the Appliance Management Console

You can add multiple appliances to be managed by an AMS. You can add these appliances from the Appliance Management Console. Only 3.1 or later appliances that are configured as a master or media server can be added.

Adding an appliance requires that mutual authentication be performed between agent and management server before the exchange of information between them. To secure the authentication process between the two, each agent must be registered to the AMS by using an access key. The access key should be copied from the **Add Appliance** page on the Appliance Management Console and then pasted it into the shell menu of each agent. This leads to secure communication between AMS and the agent.

Review the following pointers about the access key:

- The access key is 32 characters in length.
- You can use the same access key for multiple agents.
- The access key does not expire unless you click **Regenerate**.
- You can always regenerate the access key and command as needed. Once you regenerate the access key, the previous access key and command are not valid.

Review the following considerations before adding an appliance to the Appliance Management Console:

- You must add an appliance to only one AMS. Adding an appliance to two or more different management servers is not supported
- Before adding 3.2 appliances, upgrade the AMS to version 1.3. If the current AMS version is 1.2 or earlier, upgrade it to version 1.3.  
See [“Managing AMS updates”](#) on page 52.

- To add or upgrade appliances with versions 2.7.3 or 3.0 from the Appliance Management Console, you must first apply specific EEBs on those appliances. Check this [link](#) for more information.
- If an appliance is already managed by the AMS and you add the same appliance to the same AMS again, it does not result in an error message. The AMS and agent will continue to work normally.
- Consider a scenario where an agent is being managed by an AMS and then a factory reset is performed on the specific agent. In this case, the agent is still displayed on the Home page in the AMS but some of the operations performed on that agent will fail. There will be no other indication on the AMS that the agent is no longer added to the AMS. To resolve this issue, you can remove the agent from the Appliance Management Console and then add the agent again to the specific AMS.
- Once an appliance is configured as an agent, changing its management role to AMS is not supported.

#### **To add an agent**

- 1 Open the NetBackup Appliance Web Console login page on the AMS. Log on as a user with `AMS` role to access the Appliance Management Console.  
 See [“Logging on to the Appliance Management Console”](#) on page 16.
- 2 On the **Home** page, click **Add**.
- 3 On the **Add Appliance** page, you have the option of either copying the full command or only the access key. Do one of the following:
  - Click **Copy Command** to copy the full command.  
 or
  - Click **Copy Access Key** to copy only the access key. With this option, you need to type the command into the agent shell menu in step 4.



### Add Appliance

Copy the access key or the command, log on to the agent, then paste into the shell menu. You can use the same access key for multiple agents.

4d77f1d33427w38fa9634963f5db2d971

Copy Access Key

Paste this key into the Appliance menu

OR

Management Agent Register *amadenso.esgba.veritas.com* 4d77f1d33427w38fa9634963f5db2d971

Copy Command

Paste this command into the Appliance menu.

You can click **Regenerate** if you want to generate a new access key. Once you regenerate the access key, the previous access key and command are not valid.

- 4 Log on to the NetBackup Appliance Shell Menu on the agent appliance. Do one of the following based on if you copied the access key or the whole command:
  - If you clicked **Copy Command**, browse to the **Appliance** menu and then right-click to paste the command. Proceed to step 5.
  - If you clicked **Copy Access Key**, browse to the **Appliance** menu. Type the following command to configure the appliance as an agent:  
 Management Agent Register *<server> <access key>*  
 Here *<server>* is the hostname or IP address of the AMS. Paste the access key into the shell menu.

- 5 The following information is displayed on the agent shell menu:

```
[INFO] Preparing to set this appliance as an agent...
[INFO] Establishing a secure connection with the AMS...
[INFO] This appliance is now set as an agent and registered
to the AMS <hostname>.
```

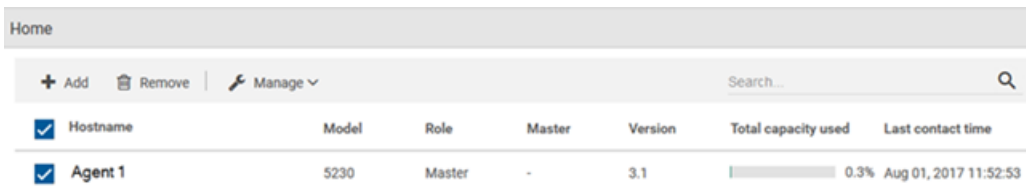
- 6 Go to the Appliance Management Console and refresh the browser. The agent should be there in the list of appliances on the Home page.

# Removing one or more agents from the Appliance Management Console

Use the following procedure to remove one or more agents from the Appliance Management Console.

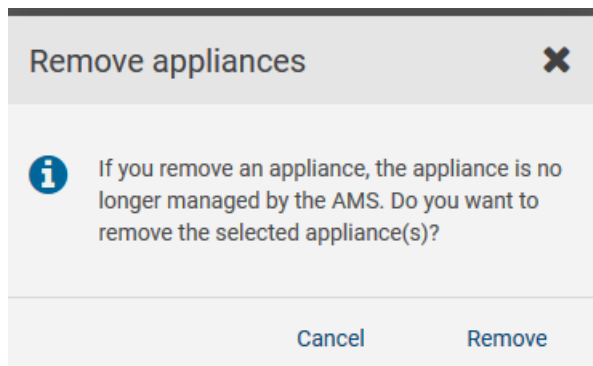
## To remove one or more agents

- 1 On the Home page, select the agents that you want to remove.



<input checked="" type="checkbox"/>	Hostname	Model	Role	Master	Version	Total capacity used	Last contact time
<input checked="" type="checkbox"/>	Agent 1	5230	Master	-	3.1	<div><div></div></div> 0.3%	Aug 01, 2017 11:52:53

- 2 Click **Remove**.
- 3 The following dialog box is displayed:



Click **Remove** to remove the selected appliances. The appliance is removed and is no longer managed from the Appliance Management Console.

## Managing appliance software upgrades

The **Upgrade software** page lets you manage and deploy software upgrades for multiple appliances, simultaneously.

**Note:** The **Appliance Management Console** does not support upgrades for the appliances (nodes) in a high availability (HA) setup. To upgrade these appliances, use the NetBackup Appliance Shell Menu.

The top of the page provides a description of each required task. As you complete a task and continue to the next one, the page refreshes with details and new column headings for the next step.

The following describes the details column headings for each task:

1 Confirm appliance selection

Upgrade software

1 Confirm appliance selection 2 Select upgrade package 3 Check readiness 4 Additional requirements 5 Start upgrades

Ensure that the selected appliances have the same version.  
To confirm the selected appliances, click Next. To make changes, click Back.

Search...

Selected appliances (2)	Role	Master	Version
veritas.com	Media	veritas.com	3.1

- **Selected appliances (n)** The host name of each appliance and the total number of selected appliances.
- **Role** The configured role for the selected appliance.
- **Master** The name of the associated master server for the selected appliance.
- **Version** The current software version on the selected appliance.

2 Select upgrade package

Upgrade software

1 Confirm appliance selection 2 Select upgrade package 3 Check readiness 4 Additional requirements 5 Start upgrades

Select one of the following upgrade packages:

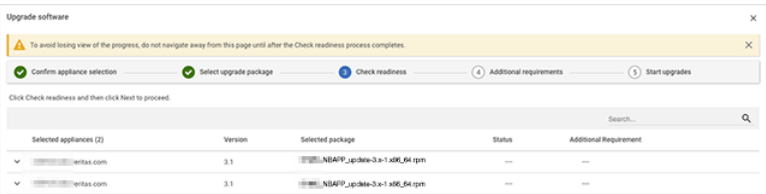
Search...

Applicable packages	Type	Version
<input type="radio"/> SYNC_NBAVP_upgrade-3.0-1.x86_64.rpm	Upgrade	3.0

- **Applicable packages** The full name of each compatible upgrade package that resides in the **Repository**.
- **Type** The package type; **Upgrade**.
- **Version** The software version of each listed upgrade package.

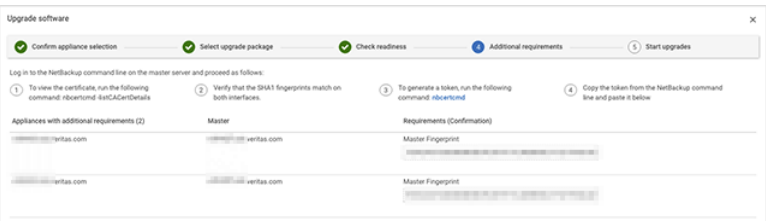
**Note:** To upgrade appliances to NetBackup 3.2 or later, the Appliance Upgrade Readiness Analyzer package must be added to the AMS repository along with the update package. AMS displays an error message if it does not file the analyzer package when you begin to upgrade an appliance.

3 Check readiness



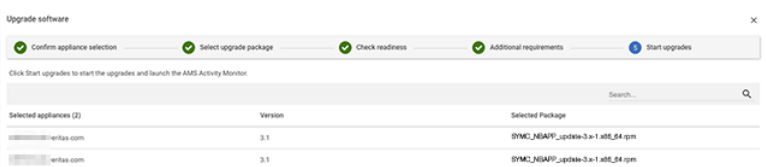
- **Selected appliances (n)** The host name of each appliance and the total number of selected appliances.
- **Version** The current software version on the selected appliance.
- **Selected package** The name of the selected upgrade package for the appliance.
- **Status** The progress of the readiness check and the result after completion.
- **Additional requirements** Any requirements that are needed for a specific appliance, before the upgrade. Click **Next** to see the details.

4 Additional requirements



- **Appliances with additional requirements (n)** The host name of the affected appliance and the total number of affected appliances.
- **Master** The name of the associated master server for the selected appliance.
- **Requirements (confirmation)** A description of any required tasks to perform before the upgrade.
- **Requirements (input)** A data entry field to provide any required information.

5 Start upgrades



- **Selected appliances (n)** The host name of each appliance and the total number of listed appliances.
- **Version** The current software version of the appliance.
- **Selected package** The name of the selected upgrade package for the appliance.

## Guidelines for multiple appliance upgrades

Use the following guidelines when planning for multiple appliance upgrades:

- Before you begin the upgrade process, download the appropriate upgrade package and add it to the Repository.
- When selecting the appliances to upgrade, select only those that use the same software version.
- Select only one upgrade package to deploy for all selected appliances. Simultaneous upgrades of different version upgrade packages are not supported.
- Appliances that use software versions 2.7.3 and 3.0 are also supported for upgrades through the Appliance Management Console. To upgrade appliances with versions 2.7.3 or 3.0 from the Appliance Management Console, you must first apply specific EEBs on those appliances. Check this [link](#) for more information.
- When you upgrade from software version 2.7.3 to 3.2 and from 3.0 to 3.2, an agent must be registered again after the upgrade.
- Consider a scenario where you are trying to upgrade an existing agent to version 3.1.2 by using a 3.1.1 AMS. Before upgrading your agents to 3.1.2, upgrade the appliance software version on the AMS to 3.1.2 from the NetBackup Appliance Shell Menu. See the *NetBackup Appliance Upgrade Guide* for information about upgrading the appliance software version on the AMS.

## Upgrading appliance software

Before you start any upgrades, make sure that you have already done the following:

- Completed any required pre-upgrade tasks as described in the *Veritas NetBackup Appliance Upgrade Guide*.
- Added the appropriate upgrade package to the Repository.  
See “[Managing the repository](#)” on page 20.

Use the following procedure to upgrade the appliance software.

### To upgrade appliance software

- 1 On the **Home** page, select the appliances that you want to upgrade. All selected appliances must use the same software version. After completing the appliance selections, click **Manage > Upgrade software**.

- 2 On the **Upgrade software** page (**1 Verify appliance selection**), review and verify the displayed information for the appliances that you selected on the **Home** page. If the list is correct, click **Next**.

To make any changes, go back to the **Home** page and make them. Return to this page to verify your selections and click **Next**.

- 3 On the refreshed page (**2 Select upgrade package**), select the appropriate upgrade package in the **Applicable packages** column and click **Next**.

---

**Note:** Only one package can be selected.

---

- 4 On the refreshed page (**3 Check readiness**), click **Check readiness** to initiate the preflight upgrade check.

---

**Note:** Do not click **Back**, **Next**, or try to refresh the page during this task.

---

Watch the **Status** column for the progress and the results of the preflight check for each appliance. To see the detailed status of a single appliance, click on the down arrow next to the appliance name to expand that row.

After the preflight check has completed, the result for each appliance appears in this column. The **Additional requirements** column may also indicate if other action is needed. The following results are possible:

- **Successful**  
The appliance has passed the readiness check and is ready for an upgrade.
- **Successful, Click Next for details.**  
The appliance has passed the readiness check, but other tasks are required before the upgrade.
- **Failed**  
The appliance has failed the readiness check and is not ready to upgrade. Click **Next**.

- 5 On the refreshed page (**4 Additional requirements**), review the information for any additional requirements.

- For appliances that require a certificate, a token, or both, steps to obtain these items appear above the table on the page. The following describes the steps.

**Log in to the NetBackup command line on the master server and proceed as follows:**

- **1 - To view the certificate, run the following command: `nbcertcmd -listCACertDetails`**
- **2 - Verify that the SHA1 fingerprints match on both interfaces.**
- **3 - To generate a token, run the following command: `nbcertcmd`.**
- **4 - Copy the token from the NetBackup command line and paste it below.**

Enter a valid token for each appliance that needs one.

---

**Note:** A valid token can only be obtained from the master server and it cannot be modified. An error appears if an invalid token is entered for any appliance and prevents you from clicking **Trust and continue**.

---

- For appliance master server upgrades from software versions 3.1.1 and earlier, you are required to obtain a customer registration key for the Veritas Smart Meter feature. To obtain a key, follow the onscreen prompts as described below:
  - Log in to the [Veritas Smart Meter](#) site with your VEMS credentials and go the **Registration Keys** page to download a customer registration key file.
  - Open the downloaded file in a text editor, then copy and paste the entire contents in the **Requirements (input)** column under **Smart Meter Customer Registration Key**.

After you have entered the information on this page, click **Trust and continue**.

- 6 On the refreshed page (**5 Start upgrades**), click **Start upgrades**.

The **Activity monitor** appears so that you can watch the upgrade progress for all of the selected appliances. Expand the row of any appliance during the upgrade progress to see the step by step progress, as follows:

```
Step 1 of 8: hh:mm:ss, Performing the preflight check---
Step 2 of 8: hh:mm:ss, Performing the pre-upgrade self-test---
Step 3 of 8: hh:mm:ss, Creating the pre-upgrade checkpoint---
Step 4 of 8: hh:mm:ss, Performing the pre-upgrade tasks---
Step 5 of 8: hh:mm:ss, Upgrading the appliance software---
Step 6 of 8: hh:mm:ss, Upgrading NetBackup---
Step 7 of 8: hh:mm:ss, Performing the post-upgrade tasks---
Step 8 of 8: hh:mm:ss, Performing the post-upgrade self-test---
```

- 7 For any appliance that shows the state as **Paused**, expand that appliance row for complete details about how to proceed. A message prompts you to log in to the IPMI console and select one of the following options:

- Press the **A** key to attempt the self-test again.
- Press the **R** key to roll back the appliance to the previous software version. If you press **A** and the self-test fails again, press **R** to roll back to the previous version, or contact Technical Support for assistance.

---

**Note:** A rollback occurs automatically after one hour if you do not log in to the IPMI console and make a selection.

---

## Managing EEBs

Each release of NetBackup incorporates fixes to several known issues that affected previous versions of NetBackup. Several of the customer-related fixes that are incorporated into each release are also made available as emergency engineering binaries (EEBs).

The installation and the uninstallation workflows are as follows:

- **1 Confirm appliance selection > 2 Select an EEB > 3 Review and confirm > 4 Start EEB install**

See [“Installing EEBs”](#) on page 41.

- **1 Confirm appliance selection > 2 Enter EEB to uninstall > 3 Confirm and Uninstall**

See [“Uninstalling EEBs”](#) on page 44.



The top of the page provides a description of each required task. As you complete a task, the page refreshes with details for the next step.

## Installing EEBs

The **Install EEB (patch)** page lets you manage and deploy EEB software for multiple appliances.

---

**Note:** Ensure that there is no other EEB being installed simultaneously.

---

### To install EEB (patch)

- 1 On the **Home** page, select the appliances where you want the EEBs installed. All selected appliances must have the same software version. After completing the appliance selections, click **Manage > Install EEB (patch)**.
- 2 On the **Install EEB (patch)** page (**1 Confirm appliance selection**), review and verify the displayed information for the appliances that you selected on the **Home** page. If the list is correct, click **Next**.

#### Install EEB (patch)

1 Confirm appliance selection

2 Select EEB

3 Review and confirm

4 Install

Ensure that the selected appliances have the same version.  
To confirm the selected appliances, click Next. To make changes, click Back.

Search...

Selected appliances (2)	Role	Master	Version
^ m35-lv08-001.veritas.com	Media	m35-lv08-001.veritas.com	3.1.1
Installed EEBs (1)			
NBAPP_EEB_ET 3.1.0.0-2.x86_64 Jan 29, 2018 09:36:30			
^ m35-lv08-001.veritas.com	-	-	3.1.1
Installed EEBs (0)			

Back

Next

- **Selected appliances (n)** displays the host name of each appliance and the total number of listed appliances.  
Click the drop-down arrow on the left to view the list of EEBs that are already installed on this appliance.
- **Role** displays the configured role for each appliance.

- **Master** displays the associated master server for any listed appliance media server.
- **Version** displays the current software version of the appliance.

To make any changes, go back to the **Home** page and make them. Return to this page to confirm your selections and click **Next**.

- 3 On the **Select EEB** page, select the appropriate EEB package in the **Applicable packages** column and click **Next**.

---

**Note:** Only one package can be selected.

---

Install EEB (patch)

☒ Confirm appliance selection
 ☒ **Select EEB**
☐ Review and confirm
 ☐ Start EEB install

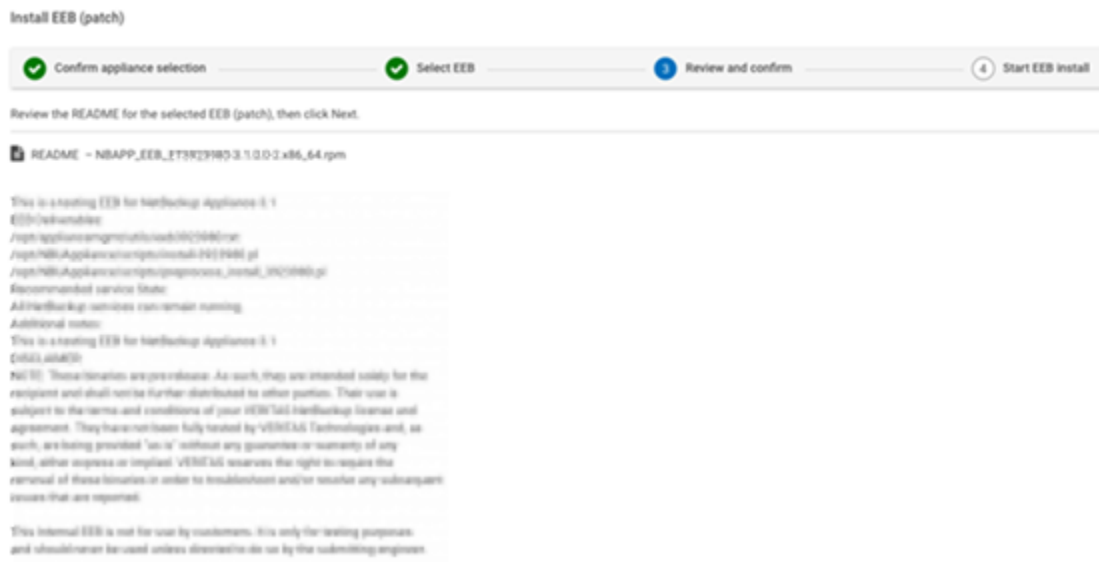
Select an EEB (patch) from the following list:

Search...

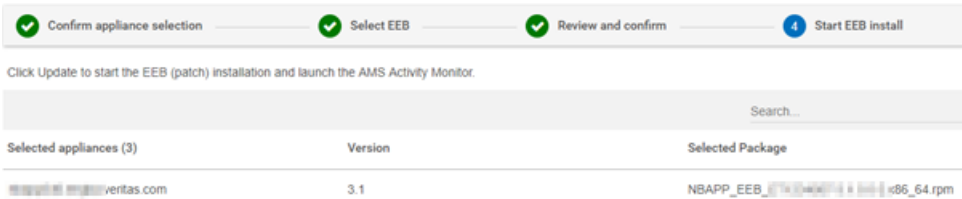
Applicable packages	Type	Version
<input checked="" type="radio"/> NBAPP_EEB_8710227000.1.0.0 [x86_64.rpm]	EEB	3.1.0.0

- **Applicable packages** displays the full name of each compatible EEB that resides in the AMS Repository.
- **Type** displays the package type; EEB.
- **Version** displays the software version of each listed EEB.

- 4
- On **Review and confirm** page, review and confirm the information in the Readme file. Then click **Next**.



- 5
- On the **Start EEB install** page, click **Install** to start the installation.



- **Selected appliances (n)** displays the host name of each appliance and the total number of listed appliances.
  - **Version** displays the software version of the listed EEB.
  - **Selected package** displays the name of the selected EEB for the appliance.
- 6
- On the **Activity Monitor**, watch the **State** column for the progress and the results of the EEB installation for each appliance, as follows:

## Activity Monitor

Hostname	Task	State	Detail	Time started
▼ 192.168.1.100.veritas.com	Upgrade	✓ Successful	---	Sep 12, 2017 03:05:30
▼ 192.168.1.101.veritas.com	Upgrade	✓ Successful	---	Sep 12, 2017 03:05:30

- **In queue**  
The EEB installation will begin.
- **In progress**  
The EEB installation has begun.
- **Successful**  
The EEB installation is complete.
- **Failed**  
The EEB installation has failed.

## Uninstalling EEBs

The **Uninstall EEB (patch)** page lets you uninstall EEB software for multiple appliances.

### To uninstall EEB (patch)

- 1 On the **Home** page, select the appliances from which you want to uninstall the EEBs. All the selected appliances must have the same software version. After completing the appliance selections, click **Manage > Uninstall EEB (patch)**.
- 2 On the **Uninstall EEB (patch)** page (**1 Confirm appliance selection**), review and verify the displayed information for the appliances that you selected on the **Home** page. If the list is correct, click **Next**.

Uninstall EEB (patch)

1 Confirm appliance selection

2 Enter EEB to uninstall

3 Confirm and Uninstall

Ensure that the selected appliances have the same version.  
To confirm the selected appliances, click Next. To make changes, click Back.

Search...

Selected appliances (1)	Role	Master	Version
192.168.1.100.com	Master	-	3.2

To make any changes, go back to the **Home** page and make them. Return to this page to confirm your selections and click **Next**.

- 3
- On the **Enter EEB to uninstall** page, enter the name of the appropriate EEB package and click **Next**.

**Note:** Only one package can be specified.

Uninstall EEB (patch)

Confirm appliance selection

Enter EEB to uninstall

Confirm and Uninstall

Identify the EEB (patch) to uninstall.

Enter name of the EEB to be uninstalled. \*

NBAPP\_EEB\_ET3980945-3.2.0.0-1.x86\_64.rpm

- 4
- On **Confirm and Uninstall** page, review and verify the list of appliances from which to uninstall the EEB package. Then click **Uninstall** to start the uninstallation.

Uninstall EEB (patch)

Confirm appliance selection

Enter EEB to uninstall

Confirm and Uninstall

Click Uninstall to remove EEB (patch) from selected appliances and launch the AMS Activity Monitor.

Search...

Selected appliances (1)	Version	Selected package
██████████.com	3.2	NBAPP_EEB_ET3980945-3.2.0.0-1.x86_64.rpm

- 5
- On the **Activity Monitor**, watch the **State** column for the progress and the results of the EEB uninstallation for each appliance, as follows:

Activity Monitor

Hostname	Task	State	Detail	Time started
▼ ██████████.com	EEB Uninstall	In queue	---	Sep 5, 2019 16:59:04
▼ ██████████.com	EEB Install	Successful	---	Sep 5, 2019 16:51:31
▼ ██████████.com	EEB Uninstall	Successful	---	Sep 5, 2019 13:15:12
▼ ██████████.com	EEB Install	Failed	Step 3 of 3: Install EEB	Sep 5, 2019 13:12:51
▼ ██████████.com	EEB Install	Successful	---	Sep 5, 2019 10:20:52

- In queue

The EEB uninstallation will begin.

- **In progress**  
The EEB uninstallation has begun.
- **Successful**  
The EEB uninstallation is complete.
- **Failed**  
The EEB uninstallation has failed.

# Using Activity Monitor and Events

This chapter includes the following topics:

- [About the Activity Monitor](#)
- [Accessing the Activity Monitor](#)
- [Monitoring events](#)
- [Accessing the MyAppliance portal](#)

## About the Activity Monitor

Use the Activity Monitor in the Appliance Management Console to monitor all the tasks within the last 90 days. The Activity Monitor also lists the hostname of appliances that are being upgraded or updated. Apart from the hostname, it also lists the details about the task, state, detail, and the time when the task started.

Activity Monitor

Hostname	Task	State	Detail	Time started
▼  veritas.com	Upgrade	✓ Successful	---	Sep 12, 2017 03:05:30
▼  veritas.com	Upgrade	✓ Successful	---	Sep 12, 2017 03:05:30

Updates to the Activity Monitor occur as upgrades or EEB installations are initiated, are in progress, failed, or completed. Without a refresh cycle, updates occur instantaneously.

The EEB installations or upgrades must be started from the Appliance Management Console for them to be visible in the Activity Monitor.

---

**Note:** You cannot monitor the tasks that are older than 90 days.

---

## Accessing the Activity Monitor

The Activity Monitor shows a summary of all the tasks that occurred in the last 90 days. It shows all tasks like failed and completed tasks, and also the tasks that are in progress.

### To access the Activity Monitor

- 1 Log on to the Appliance Management Console on the AMS. Log in by using your **AMS** user credentials.
- 2 Click the **Monitor** icon.
- 3 Under **Activity Monitor**, click **View**.

## Monitoring events

Use the Monitor > Events page in the Appliance Management Console to monitor the events that occur on the AMS and the agents that are managed.








Events that occurred in the last 6 months are displayed. You can also export events from the last 90 days in a CSV file.

Click **Export** to export events from the last 90 days in a CSV file.

[Figure 5-1](#) shows a sample Events page.



**Figure 5-1** Events page

Events <span>×</span>						
 Export		Search... 				
UMI code	Severity	Hostname	Description	Category	Username	Timestamp
V-409-919-1501	 Information	Agent 1	Appliance was set as an AMS	Application	admin	Jul 31, 2017 22:21:03
V-409-919-2001	 Information	Agent 2	Access key was regenerated	Application	amsadmin	Aug 01, 2017 11:06:59
V-409-919-1502	 Information	Agent 3	Appliance was registered to AMS	Application	admin	Aug 01, 2017 11:28:05
V-409-919-1502	 Information	Agent 4	Appliance was registered to AMS	Application	admin	Aug 01, 2017 11:28:23
V-409-919-1502	 Information	Agent 5	Appliance was registered to AMS	Application	admin	Aug 01, 2017 11:50:57

Examples of some events that can occur are:

- Appliance was set as an AMS
- Appliance was added to the AMS
- Packages were added to the repository
- Packages were deleted from the repository
- Upgrade has started
- Upgrade is complete
- Upgrade has failed
- Preflight check has started
- Preflight check is complete
- Preflight check has failed
- EEB installation has started
- EEB installation is complete
- EEB installation has failed
- User password was changed
- Access key was regenerated
- Access key could not be regenerated
- AMS update has started (<package name>)

- AMS update is complete (<package name>)
- AMA update has started (<package name>)
- AMA update is complete (<package name>)

---

**Note:** When you update the 3.1.1 AMS to version 1.2 by using the management update package, you may see the event **AMS upgrade has started** on the Monitor > Events page. This is incorrect and it should say AMS update instead of AMS upgrade.

On completion of the update, another event is logged: **AMS update is complete**. This event correctly describes the event as AMS update.

---

Each event is attached to a specific host (AMS or agent) and has a severity. The event severity can be one of the following:

Event Severity	Description
Information	Information about normal system operation
Error	Indicates problems where immediate intervention is required. It may indicate that one or more operations have failed.
Warning	Alerts you about a condition that may cause an error.

You can search for the UMI code column (Unique Message Identifier) on the Support site to learn more about the event. Visit the Support site at:

<https://www.veritas.com/support>

## Accessing the MyAppliance portal

You can access the MyAppliance portal from the **Monitor** tab. Click **Launch** and log on to the Veritas Account Manager, then view the MyAppliance Portal. The MyAppliance Portal lets you register appliances, view and edit existing registered appliances, view support cases, and inspect heartbeat data.

# Applying management updates on earlier appliance versions

This chapter includes the following topics:

- [Downloading the AMS and agent updates for earlier versions](#)
- [Managing AMS updates](#)
- [Performing automatic or manual agent updates](#)

## Downloading the AMS and agent updates for earlier versions

NetBackup Appliance 3.2 includes the latest versions of the AMS/agent software (). The AMS/agent version installed on NetBackup Appliance 3.1.1 or later can be updated by downloading and installing the appropriate management update package.

After you update the AMS, the agents that are added to the AMS can be updated automatically or manually. The procedures for updating the AMS and agents are listed in the following sections:

See [“Managing AMS updates”](#) on page 52.

See [“Performing automatic or manual agent updates”](#) on page 55.

You can view the AMS and agent version from the Home page of the Appliance Management Console. These are listed in the **AMS/Agent version** column.

+ Add   Manage		Search...						
<input type="checkbox"/>	Hostname	Model	Role	Master	Appliance version	AMS/Agent version	Total capacity used	Last contact time
<input type="checkbox"/>	com (AMS)	5100	Master	-	3.2	1.3.0	0%	Sep 5, 2019 10:17:59
<input type="checkbox"/>	com	5100	Master	-	3.1.2	1.2.0	0%	Sep 5, 2019 15:41:02

The following table lists the AMS/agent version that is included with the corresponding appliance software version.

NetBackup appliance software version	AMS/agent version	Updates supported
3.2	1.3	AMS/agent
3.1.2	1.2	AMS/agent
3.1.1	1.1	AMS
3.1	1.0	None
3.0	1.0	None
2.7.3	1.0	None

# Managing AMS updates

The management update package includes fixes and new features for the Appliance Management Server and agents. Veritas recommends that you update both the AMS and the agents so that they have the same AMS/agent version.

**Note:** AMS can be updated only if the version of AMS installed is 1.1 or later.

The management update package updates the management function and does not affect the appliance software on the AMS.

**Note:** If you want to upgrade the appliance software on the AMS, use the NetBackup Appliance Shell Menu. See the *NetBackup Appliance Upgrade Guide* for details.

Use the following procedure to install the management updates on the AMS.

### To install management updates on the AMS

- 1 Before starting this procedure, add the management update package to the Repository on the AMS.  
  
 From a computer within your appliance domain, download the appropriate package or file from Veritas Entitlement Management System (VEMS). To access VEMS, go to the Veritas Support website and click **Licensing**. Download the `Veritas-ApplianceManagement-1.3-dateTimeStamp.x86_64.rpm` file.
- 2 From the same computer, open another browser window and log on to the AMS as the AMS user.
- 3 On the **Settings** page, click **Repository**.
- 4 On the Repository page, click **Add**.
- 5 In the dialog box that appears, do the following:
  - At the top of the dialog box, click on the drop-down and navigate to the location where you downloaded the package or the file from Veritas.
  - Select the downloaded package or file from the list of items that appears, then click **Open**. The package or the file should appear at the top of the list on the Repository page.
- 6 After the package is added to the Repository, the following message is displayed on the Home page:

 A new package is available for  veritas.com (AMS). To update the AMS, click [Settings > Update AMS](#).

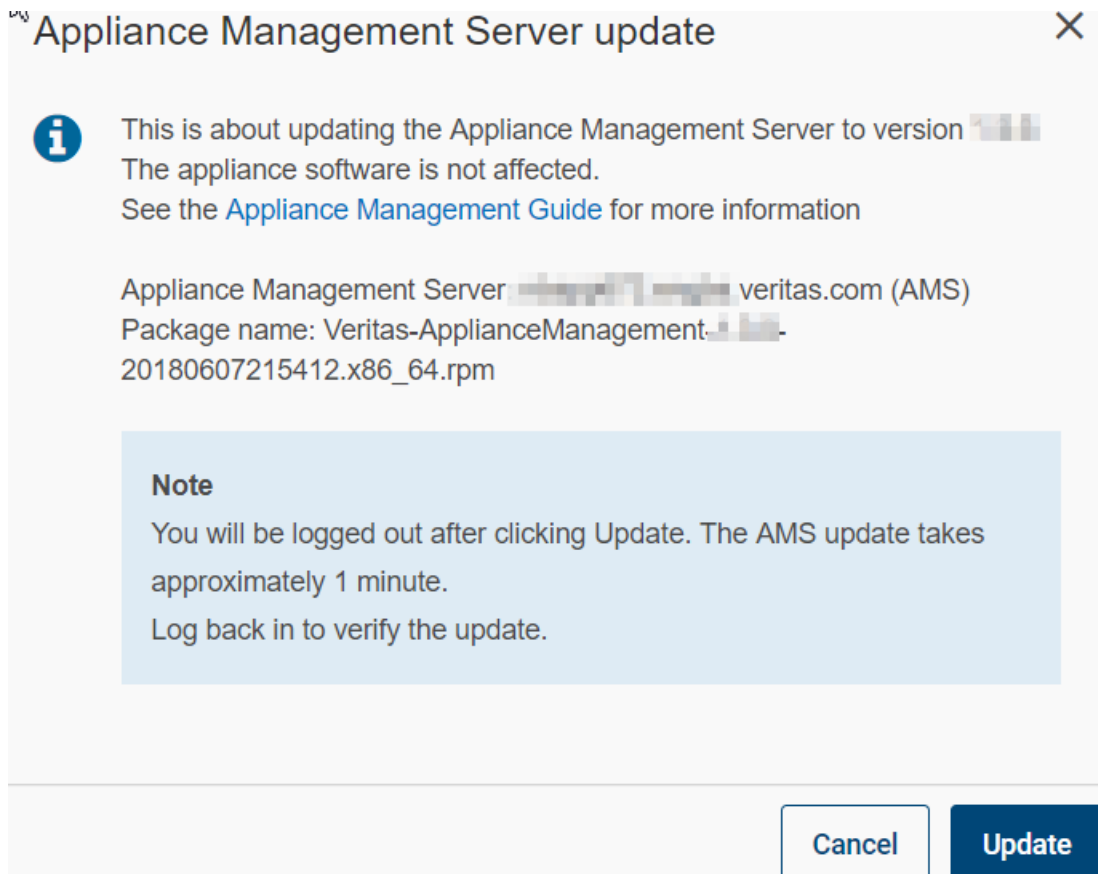
- 7 Go to **Settings > Update AMS**.

---

**Note:** When you add the management update package to the Repository on AMS 3.1.1, the Settings page may not display the **Update AMS** option. To resolve this issue, go to any other page on the Appliance Management Console and return to the Settings page.

---

- 8 Review the screen that appears, then click **Update**.



After you click **Update**, you are logged out, and the update of the management function on the AMS begins in the background.

---

**Note:** The AMS update usually takes one minute, but sometimes it may take more time due to environmental factors.

---

- 9 You are redirected to the sign-in page. Log on as a user with the AMS role to access the Appliance Management Console.

Click **Monitor > Activity Monitor** to view the AMS update task details. The AMS update usually takes a few minutes to complete.

The AMS version is also listed at the top-left corner on every screen under the text Veritas Appliance Management Console.

- 10 Veritas recommends that you update the agents that are added to an AMS after you update the AMS itself, so that they have the same AMS/agent version. You can choose to update these agents automatically or manually.

---

**Note:** Only agents with appliance software version 3.1.1 or later can be updated.

---

See [“Performing automatic or manual agent updates”](#) on page 55.

## Performing automatic or manual agent updates

You can set up automatic updates so that the agent can update to the latest version () once the AMS has been updated. By default, this option is disabled. Agents with appliance software version 3.1.1 or later can be updated.

Before starting this procedure, you must have the required management update package and add it to the Repository on the AMS. This is required for the automatic updates to work.

### To configure automatic agent updates

- 1 Log on to the Appliance Management Console.
- 2 Click **Settings** and then click **Auto-update agents**.
- 3 You can toggle the Auto-update agents slider and enable automatic updates. Enabling this feature means that each agent updates automatically over the next 24 hours. The agents are updated over the next 24 hours so it may take some time to display the updated agent version on the Home page. You can also click **Monitor > Activity Monitor** to view the AMA update task details for each appliance.

If you wish to disable automatic updates, you must update each agent manually to match the AMS version. You must download the required management update package from the Veritas Support website and add it to the Repository, then use the following procedure.

**To update agent manually**

- 1** Log on to the Appliance Management Console.
- 2** Click the agent hostname on the Home page.
- 3** On the **Overview** page, click **Update**.

You can also click **Monitor > Activity Monitor** to view the AMA update task details for each appliance. You can view the updated agent version from the **AMS/Agent version** column on the Home page.

- 4** Repeat this procedure for all the agents that use the AMS.



# Running AMS on NetBackup Virtual Appliance

This chapter includes the following topics:

- [AMS on NetBackup Virtual Appliance](#)
- [Configuring standalone AMS on a virtual appliance without any NetBackup configuration](#)
- [Configuring master server or media server and AMS on a virtual appliance](#)
- [Appliance Management Console login and user password change](#)

## AMS on NetBackup Virtual Appliance

Starting with NetBackup Appliance 3.2 (AMS 1.3), you can deploy AMS on NetBackup Virtual Appliances.

You can use this ability to address the following use cases:

- Configure a VM to work as an AMS but not as a master or a media server  
See [“Configuring standalone AMS on a virtual appliance without any NetBackup configuration”](#) on page 58.
- Configure a VM to work as an AMS as well as a master or a media server  
See [“Configuring master server or media server and AMS on a virtual appliance”](#) on page 59.

### OVF template

NetBackup Virtual Appliance OVF templates are available for download at:

[https://www.veritas.com/content/support/en\\_US/downloads](https://www.veritas.com/content/support/en_US/downloads)

Download and use NetBackup Virtual Appliance combined master and media server for remote offices and branch offices (ROBO) template, which is the (NetBackup\_VA\_ROBO\_VMware\_3.2\_EN.ova) file.

## System requirements

The system requirements for AMS on NetBackup Virtual Appliance are as follows:

- A minimum of 16 GB RAM
- At least 500 GB of storage
- A physical network connection is required for the transfer of large files (in GBs or larger).

---

**Note:** For details about system requirements and the procedure for deployment, refer to the Veritas NetBackup Virtual Appliance documentation.

---

## Known issue

Sometimes, an appliance that is configured as AMS entry may appear twice on the Home page of the Appliance Management Console. You can safely ignore this issue because it does not interfere with the working of AMS. You can click any of the repeated entries to view its details or select any one of them to perform further actions.

# Configuring standalone AMS on a virtual appliance without any NetBackup configuration

In this configuration, you create a VM and set up AMS on it without having to set up the VM as a master or a media server. The advantages of this configuration are: the ability to set up a VM quickly and a low storage requirement because the VM is thinly provisioned.

Review the following considerations before you perform this configuration:

- A 50-GB storage capacity is available for the AMS repository.
- The NetBackup master server or NetBackup media server options are not available.
- If you configure this virtual appliance as a master or a media server after you set it up as an AMS, the AMS configuration is erased. You can configure a fresh AMS after the appliance is configured as a master server or a media server. All

the appliances that were previously registered with the AMS must be re-registered on this freshly configured AMS.

#### Tasks to create a standalone AMS

1. Deploy the OVA, which has its default resource requirements.  
The storage is thin-provisioned.
2. Set up the network and the host name.
3. Configure AMS from the NetBackup Appliance Shell Menu by using the commands sequence: `Appliance > Management Server`.

See [“Setting or removing the management role of an appliance as AMS”](#) on page 13.

4. Set up users for signing in to AMS.

See [“Granting the AMS role to a user or a user group”](#) on page 15.

## Configuring master server or media server and AMS on a virtual appliance

In this configuration, you create a VM to server as a master or a media server and also as an AMS. In this case, AMS uses the Configuration partition, so, set it up in this manner if you need a bigger repository for AMS.

#### Tasks to create an AMS along with a master or a media server

1. Deploy the OVA, which has its default resource requirements.  
The storage is thin-provisioned.
2. Set up the network and the host name.
3. Configure the NetBackup master server or the NetBackup media server role.
4. Configure AMS from the NetBackup Appliance Shell menu by using the commands sequence: `Appliance > Management Server`.

See [“Setting or removing the management role of an appliance as AMS”](#) on page 13.

5. Set up users for signing in to AMS.

See [“Granting the AMS role to a user or a user group”](#) on page 15.

# Appliance Management Console login and user password change

The AMS functionality differs between NetBackup Appliance and NetBackup Virtual Appliance in the following terms only:

- Login page  
The NetBackup software appliance has a NetBackup Appliance Web Console, which provides a login page for the Appliance Management Console. The NetBackup Appliance Web Console is not available on NetBackup Virtual Appliance. AMS provides a separate login page on NetBackup Virtual Appliance.
- User password change  
The Appliance Management Console lets you change user passwords on NetBackup Appliance but *not* on NetBackup Virtual Appliance. To change a user password, use the NetBackup Virtual Appliance Shell Menu.

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