



Setting up NetBackup CloudCatalyst in AWS

How to get CloudCatalyst running in the cloud

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SUMMARY

This document describes the process to deploy NetBackup in AWS and configure CloudCatalyst to back up to object storage.

Note: This document assumes that you already have set up a NetBackup 8.1.2 or later master server instance in EC2. Your environment may vary.

TERMINOLOGY

Amazon Elastic Block Store (Amazon EBS): A storage file system that provides the persistent block storage volumes that can be used with Amazon EC2 instances in the AWS Cloud.

Amazon Elastic Compute Cloud (Amazon EC2): A web service that provides secure, resizable compute capacity in the cloud.

Amazon Machine Image (AMI): A file that provides the information necessary to launch an instance (or virtual server) in the Amazon cloud.

Amazon CloudFormation Template (CFT): A CFT allows for automation of deployment of services in AWS

NetBackup Extendable Storage File System (NetBackup ESFS): The NetBackup CloudCatalyst database that is used for CloudCatalyst operations. CloudCatalyst uses the NetBackup Extendable Storage File System Service (vxesfsd) and its subcomponents to move and manage files in the local cache directory and the cloud.

DEPLOYING NETBACKUP CLOUDCATALYST IN AWS

USING THE AWS MARKETPLACE

NetBackup is available on the AWS Marketplace (<https://aws.amazon.com/marketplace>). The NetBackup page is available [here](#).

The screenshot shows the AWS Marketplace listing for Veritas NetBackup for AWS (BYOL). The header includes the Veritas logo, the product name, the provider 'Veritas Technologies LLC', and the latest version '1.0'. It states 'Instantly access Enterprise Data Protection in AWS and set it up for new or existing AWS environments' and lists 'Linux/Unix' as supported OSes. There are five stars and '(0)' reviews, and a 'BYOL' badge. Below the header are tabs for 'Overview', 'Pricing', 'Usage', and 'Support'. The 'Overview' tab is selected, showing a 'Product Overview' section with a description of the BYOL version and a 'Highlights' section with bullet points: 'Quick install and setup - Easily deploy NetBackup AWS EC2 with the NetBackup Amazon AMI.', 'Simple automated configuration of Master, CloudCatalyst roles.', and 'Self-Managed'.

From the AWS Marketplace, NetBackup can be deployed as a master or a media server using a straightforward CloudFormation Template (CFT) form. Indicate the desired networking and host configuration as prompted by the form. A NetBackup license and Smart Meter file bucket location is required.

Application Parameters

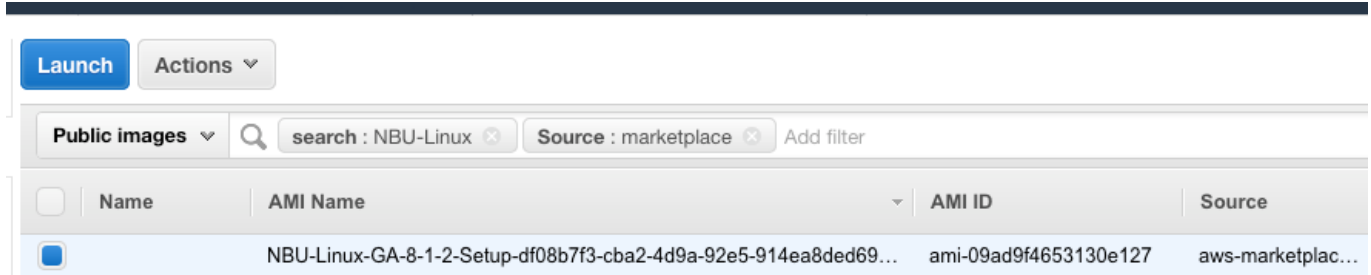
NetBackupRole	<input type="text" value="Master"/>	Install NetBackup as Master / Media server
NBUMasterServerName	<input type="text" value="master1"/>	Use only lowercase(a-z), digits(0-9), minus sign(-) and period(.) for NetBackup master
NBUMediaServerName	<input type="text" value="media1"/>	Use only lowercase(a-z), digits(0-9), minus sign(-) and period(.) for NetBackup media
LicenseKey	<input type="text" value="XXX-XXX-XXX-XXX-XXX-XX-XXX-XX"/>	NetBackup License Key
Token	<input type="text"/>	NetBackup Token(use it only when installing media)
RegistrationKeysS3BucketName	<input type="text" value="launchstuff"/>	S3 bucket name for registration keys(Use it only for master deployment)
RegistrationKeysPath	<input type="text" value="chstuff/veritas_customer_registration_key.json"/>	Registration keys(meter file) path in S3. A customer registration key is required to proceed with the installation of this Master Server. Log in this Master Server(Use it only for master deployment)

The CFT helps deploy NetBackup with an existing or a new VPC, including setting up the necessary Security Group requirements for secure communication.

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LAUNCHING AN ELASTIC COMPUTE CLOUD (AMAZON EC2) INSTANCE

Alternately, launch an EC2 instance manually from an AMI from the Ec2 ->images -> AMIs dialog.



1. On the **Choose an Instance Type** page, select an appropriate size for your performance requirements. For more information about specifications, review the following document:
https://www.veritas.com/content/support/en_US/doc/NB_CC_MIN_SYS_REQ
Note this document details minimum system requirements. Based on your objective, a larger system may be required. Remember that the instance can easily be resized after deployment. In AWS, a m4.xlarge is a good system to start with.

<input type="checkbox"/>	General purpose	m4.xlarge	4	16
<input checked="" type="checkbox"/>	General purpose	m4.2xlarge	8	32
<input type="checkbox"/>	General purpose	m4.4xlarge	16	64

2. Click **Next: Configure Instance Details**.
3. On the **Configure Instance Details** page:
 - Under **Network**, select the appropriate VPC.
 - Enable **Auto-assign Public IP** to access the instance from your desktop.
4. Click **Next: Add Storage**.
5. On the **Add Storage** page, select the storage size and volume type. Select an appropriate EBS volume size for the root disk. It's recommended that a second disk be added for the CloudCatalyst Cache. The cache size should be a minimum of 1TB for production usage.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	throughput (MB/s)
Root	/dev/sda1	snap-0fcae4949a75c5312	100	General Purpose SSD (gp2)	300 / 3000	N/A
EBS	/dev/sdb	Search (case-insensit	1024	General Purpose SSD (gp2)	3072	N/A

6. Click **Next: Add Tags**.

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- On the **Add Tags** page, add tags if desired. However, tags are not required.

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.
A copy of a tag can be applied to volumes, instances or both.
Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (127 characters maximum) Value (255 characters maximum) Instances Volumes

This resource currently has no tags

Choose the Add tag button or [click to add a Name tag](#).
Make sure your [IAM policy](#) includes permissions to create tags.

Add Tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

- Click **Next: Configure Security Group**.

- On the **Configure Security Group**.

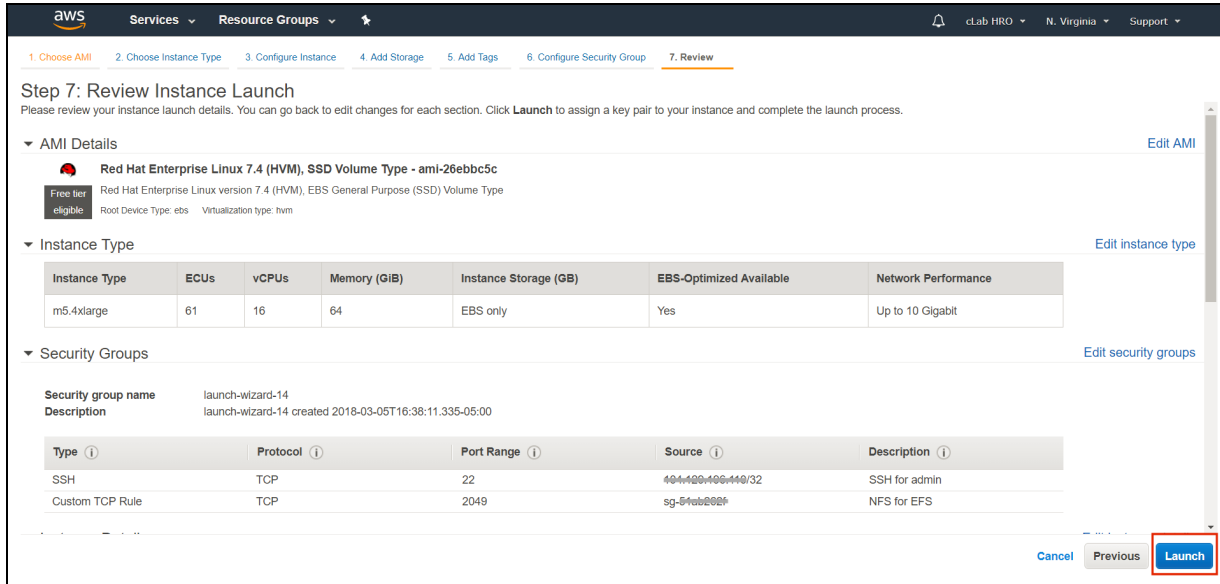
In this example, we've allowed access from sources outside the VPC to NetBackup services

Type	Protocol	Port Range	
Custom TCP Rule	TCP	10102	6
Custom TCP Rule	TCP	1556	6
Custom TCP Rule	TCP	1556	0
Custom TCP Rule	TCP	1556	::
SSH	TCP	22	0
SSH	TCP	22	::
Custom TCP Rule	TCP	10086	6
Custom TCP Rule	TCP	5637	6
RDP	TCP	3389	0
RDP	TCP	3389	::
HTTPS	TCP	443	0
HTTPS	TCP	443	::
Custom TCP Rule	TCP	10082	6

- Click **Review and Launch**.

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11. On the **Review Instance Launch** page, review the EC2 instance, and then click **Launch**. The instance is available in approximately 15 minutes.



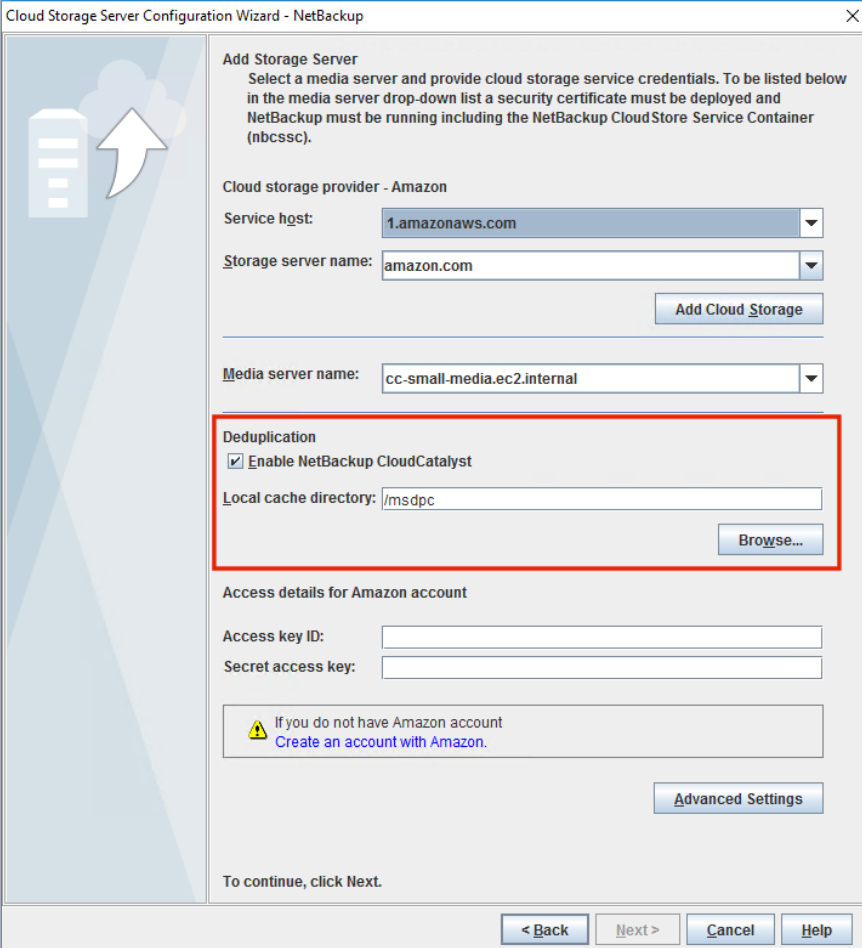
12. Once available, change the host name of the computer to a fully qualified domain name (FQDN) using the following procedure: [Assign a static hostname to a private Amazon EC2 instance](#).
13. To assign a static IP to the instance, use an elastic IP: [How to assign an Elastic IP Address](#).
14. When using the second volume for the CloudCatalyst cache, be sure to configure it for use before configuring CloudCatalyst: [Making an Amazon EBS Volume Available for Use on Linux](#)

CONFIGURE CLOUDCATALYST ON THE EC2 INSTANCE

If using the CFT, NetBackup should be up and running, ready to be configured. If manually deploying from the AMI, NetBackup can be deployed for use by connecting to the host by ssh as directed in the "Connect to your instance" dialog in the EC2 interface. After connecting, run the NetBackup installer in: `/root/NBSetup/`.

During the CloudCatalyst configuration, as part of the Cloud Storage Server Configuration Wizard, enter the EBS mount point as the CloudCatalyst **Local cache directory**. In the following example, the EBS mount point is: `/msdpc`. Follow the configuration wizard prompts, selecting the desired bucket type such as S3 Standard or Glacier. Only supported bucket types will be selectable.

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Cloud Storage Server Configuration Wizard - NetBackup

Add Storage Server
Select a media server and provide cloud storage service credentials. To be listed below in the media server drop-down list a security certificate must be deployed and NetBackup must be running including the NetBackup CloudStore Service Container (nbcssc).

Cloud storage provider - Amazon

Service host: 1.amazonaws.com

Storage server name: amazon.com

Add Cloud Storage

Media server name: cc-small-media.ec2.internal

Deduplication

☒ Enable NetBackup CloudCatalyst


Local cache directory: /msdpc

Browse...

Access details for Amazon account

Access key ID:

Secret access key:

 If you do not have Amazon account [Create an account with Amazon.](#)

Advanced Settings

To continue, click Next.

< Back Next > Cancel Help

FOR MORE INFORMATION

The following documents provide useful information about NetBackup CloudCatalyst and the procedures that are described in this document:

- *Veritas NetBackup 8.1.2 Deduplication Guide*, for detailed information about NetBackup CloudCatalyst.
https://www.veritas.com/content/support/en_US/doc/25074086-131900563-0/index
- *Veritas NetBackup 8.1.2 Cloud Administrators Guide*, for more information about NetBackup Cloud options.
https://www.veritas.com/support/en_US/doc/58500769-132715871-0/index
- "How do I assign a static host name to a private Amazon EC2 instance running RHEL 7 or CentOS 7?"
<https://aws.amazon.com/premiumsupport/knowledge-center/linux-static-hostname-rhel7-centos7/>

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VERITAS™
The truth in information.

Veritas World Headquarters
2625 Augustine Drive
Santa Clara, CA 95054

(866) 837-4827

www.veritas.com

For specific country offices
and contact numbers,
please visit our website.