

# Veritas IOFilter Management Utility

Configuration Guide

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## Introduction

Veritas I/O filter is a VMware certified I/O filter driver that allows to capture the data from virtual machines and replicate to the NetBackup Continuous data protection gateway.

This guide explains how to configure and use the Veritas IOFilter Management Utility.

You can use the Veritas IOFilter Management Utility in the following scenarios:

- Install, upgrade, or remove a VIB bundle from the vCenter cluster.
- Create a storage policy and attach or detach the policy to a VM.
- Use the inbuilt web server for hosting the IOFilter VIB bundle.

### Download and configure the Veritas IOFilter Management Utility

The Veritas IOFilter Management Utility is available on Veritas SORT. You can download the Veritas IOFilter Management Utility bundle contained in the archive file *Veritas\_IOFilter\_Management\_Utility.tar.gz* on a NetBackup CDP Gateway media server. It is recommended to create a directory and download the bundle inside it.

Extract the downloaded bundle. The extracted directory *Veritas\_IOFilter\_Management\_Utility* contains the bundle.

If you have an existing web server, host the VIB bundle on that web server. For the Install and Upgrade operations the VIB URL is required. This VIB URL can be the URL of the VIB bundle hosted on any web server.

If you do not have an existing web server to host the VIB bundle, then only use the web server provided by this utility to host the VIB bundle. See the section *Launch the web server to host the VIB bundle*.

To guide you to run the utility, you can launch the help section for the utility from the following location:

```
<Extracted Path>/Veritas_IOFilter_Management_Utility/bin/vrts_iofilter_utils --help
```

## Deploying an I/O Filter solution to a cluster

### Prerequisites

Download the Veritas IOFilter Management Utility as described in the section Download and configure the Veritas IOFilter Management Utility.

Gather the following before you run the command(s) to install the I/O filter:

- vCenter host name to specify as server in the command parameters and its credentials for logon.
- VM Instance UUID of any VM from the cluster. This VM instance UUID requires to point out the cluster where the I/O filter is deployed. See the section: *Find a VM instance UUID using NetBackup web UI.*
- URL of the VIB bundle hosted on a web server. You can use any existing web server or use the in-build server. See the section: *Launch the web server to host the VIB bundle.*

### Procedure

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_Utility/bin/
```

2. Run the following command:

```
./vrts_iofilter_utils --operation InstallVIB --vm_instance_uuid <VM Instance UUID> --vCenter  
<VCenter Host name> --VIBUrl <VIB Bundle URL>
```

Ensure that you keep the web server always up, as the vCenter server may reuse the VIB URL on restart and when a new ESXi joins the cluster.

### Create a storage policy-based management policy of for the I/O filter

#### Prerequisites

1. Download the Veritas IOFilter Management Utility as described in the section Download and configure the Veritas IOFilter Management Utility.
2. vCenter host name to specify as server in the command parameters and its credentials for logon.
3. `Storage_policy_name`: This is an optional parameter. The default name is `vtstap`. If provided, the storage policy is created using this name.

#### Procedure

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_UTILITY/bin/
```

2. Run the following command:

```
./vrts_iofilter_utils --operation CreateStoragePolicy --vCenter <VCenter Host name> [--storage_policy_name <storage policy name>]
```

## Deploying the I/O filter to a cluster while creating a management policy based on storage-policy

You need to deploy the I/O filter in a cluster of VMs to be protected using NetBackup Continuous data protection. You can use this process for a fresh installation.

### Prerequisites

1. Download the Veritas IOFilter Management Utility as described in the section Download and configure the Veritas IOFilter Management Utility.
2. Gather the following before you start:
  - vCenter host name to specify as server in the command parameters and its credentials for logon.
  - VM Instance UUID of any VM from the cluster. This VM instance UUID requires to point out the cluster where the I/O filter is deployed. See the section: *Find a VM instance UUID using NetBackup web UI.*
  - URL of the VIB bundle hosted on a web server. You can use any existing web server or use the in-build server. See the section: *Launch the web server to host the VIB bundle.*
  - Storage\_policy\_name: This is an optional parameter. The default name is *vtstap*. If provided, the storage policy is created using this name.

### Procedure

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_Utility/bin/
```

2. Run the following command:

```
./vrts_iofilter_utils --operation InstallVIBAndCreateStoragePolicy --vm_instance_uuid  
<VM Instance UUID> --vCenter <VCenter Host name> --VIBUrl <VIB Bundle URL> [--  
storage_policy_name <storage policy name>]
```

Ensure that you keep the web server always up, as the vCenter server may reuse the VIB URL on restart and when a new ESXi joins the cluster.

## Attach and detach storage policy for VMDK(s)

You need to attach a storage policy to a VM, before you can subscribe a VM using NetBackup CDP. The storage policy is attached to the VM during subscription.

Detach the storage policy from the VM before un-subscribing the VM from NetBackup CDP protection. Note that you should detach the storage policy only when you no-longer want to protect the VM using CDP.

### Prerequisites

1. Download the Veritas IOFilter Management Utility as described in the section Download and configure the Veritas IOFilter Management Utility.
2. Gather the following before you start:
  - vCenter host name to specify as server in the command parameters and its credentials for logon.
  - UUID of the VM from the cluster, where you want to attach or detach the storage policy. This VM instance UUID requires to point out the cluster where the I/O filter is deployed. See the section: *Find a VM instance UUID using NetBackup web UI*.
  - URL of the VIB bundle hosted on a web server. You can use any existing web server or use the in-build server. See the section *Launch the web server to host the VIB bundle*.
  - Storage\_policy\_name: This is an optional parameter, required for attaching the storage policy. By default, the latest storage policy is attached. If provided, the storage policy of this name is attached.

### Procedure

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_Utility/bin/
```

2. Run the following command to attach the storage policy:

```
./vrts_iofilter_utils --operation AttachStoragePolicy --vm_instance_uuid <VM Instance UUID> --vCenter <VCenter Host name> [--storage_policy_name <storage policy name>]
```

Run the following command to detach the storage policy:



```
./vrts_iofilter_utils --operation DetachStoragePolicy --vm_instance_uuid <VM Instance  
UUID> --vCenter <VCenter Host name>
```

## Upgrading an I/O filter on a cluster

You can upgrade a previously installed I/O filter with a higher version.

### Prerequisites

1. Download the Veritas IOFilter Management Utility as described in the section Download and configure the Veritas IOFilter Management Utility.
2. Gather the following before you start:
  - vCenter host name to specify as server in the command parameters and its credentials for logon.
  - VM Instance UUID of any VM from the cluster. This VM instance UUID requires to point out the cluster where the I/O filter is deployed. See the section: *Find a VM instance UUID using NetBackup web UI*.
  - URL of the VIB bundle hosted on a web server. You can use any existing web server or use the in-build server. See the section: *Launch the web server to host the VIB bundle*.

### Procedure

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_Utility/bin/
```

2. Run the following command to attach the storage policy:

```
./vrts_iofilter_utils --operation UpgradeVIB --vm_instance_uuid <VM Instance UUID>--  
vCenter <VCenter Host name> --VIBUrl <VIB Bundle URL>
```

## Removing an I/O filter from a cluster

1. On the command prompt, change directory to the utility bin directory:

```
<Extracted_Path>/Veritas_IOFilter_Management_Utility/bin/
```

2. Run the following command to attach the storage policy:

```
./vrts_iofilter_utils --operation UnInstallVIB --vm_instance_uuid <VM Instance UUID>--  
vCenter <VCenter Host name>
```

## Launch the web server to host the VIB bundle

### Prerequisites

- On the NetBackup CDP gateway server, open the port for the web server. The default port is 14161. You can change the port as required. Ensure that the default port is open during the default configuration of the web server.
- For details of the commands, see the Readme file, at:

*<Extracted Path>/Veritas\_IOFilter\_Management\_Utility/README*

### Procedure

1. Launch the web server on the NetBackup CDP Gateway media server using the command:

***<Extracted Path>/Veritas\_IOFilter\_Management\_Utility/bin/vrts\_iofilter\_web\_server.py start***

2. On the command prompt, change the directory to *web-root*. By default, the *web-root* folder is located at: *<Extracted Path>/Veritas\_IOFilter\_Management\_Utility/webroot/*.

Or the *web-root* folder may be located as specified in the configuration, provided during the web server start.

3. Download or copy the VIB bundle to the *web-root* folder. It is recommended to create a directory as per the version of VIB Bundle. For example, 101 for 10.1.

4. Retrieve the VIB URL using the web server API. The URL is in the following format:  
`http://<CDP_Server_Hostname:<port>/list`

Enter the URL in your browser and copy the link of the VIB bundle. This link is used as the VIB URL.

The web server is not managed as NetBackup processes or services. You cannot use standard NetBackup commands to manage this web service.

## Find a VM instance UUID using NetBackup web UI

To find a VM instance UUID, you need to first add the VMware server in the web UI.

1. Navigate to: **Workloads > VMware > VMware servers**.

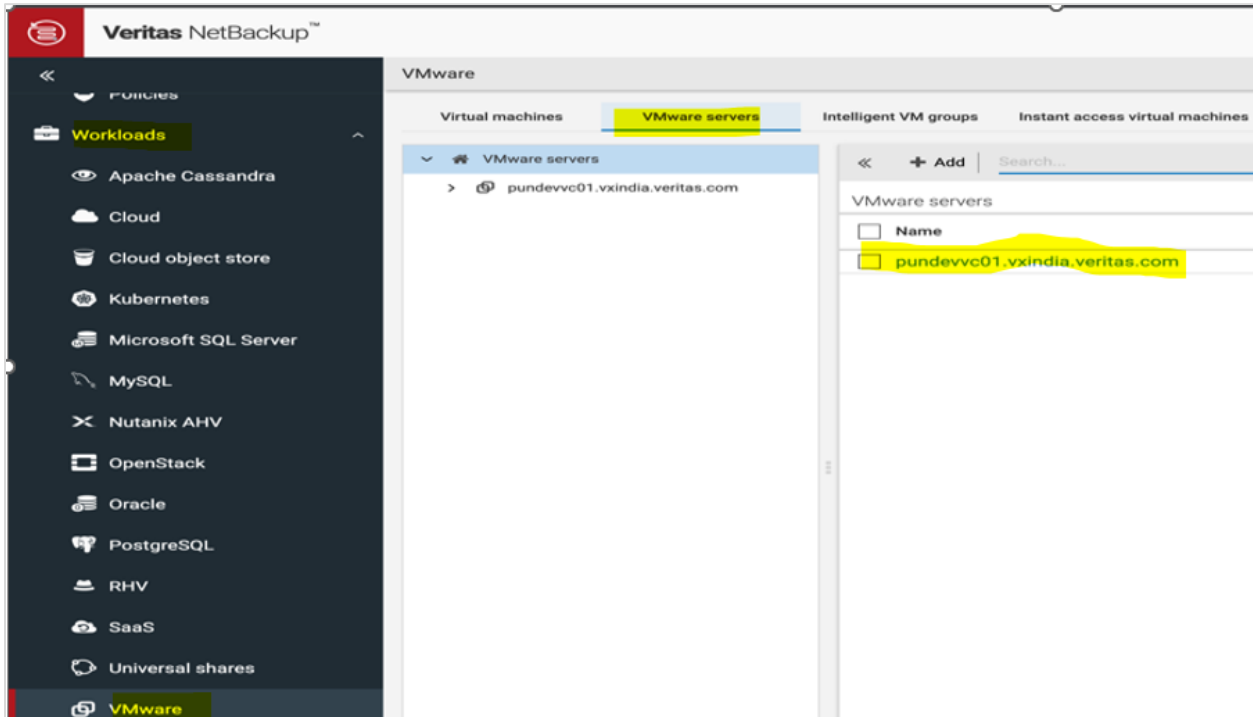


Figure 1. Adding VMware servers

2. After adding the VMware server, to view the VM Instance UUID, navigate to **Workloads > VMware > Virtual machines**.

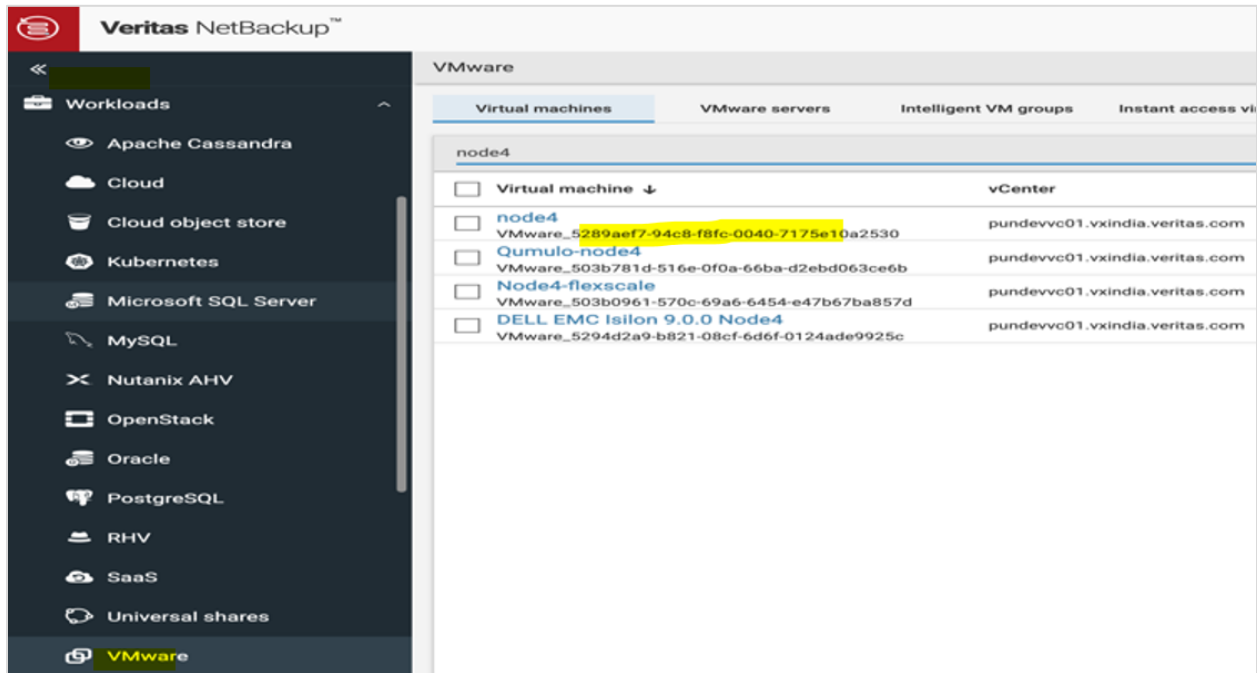


Figure 2. Viewing VM instance UUID

The Virtual machine column lists the virtual machine UUIDs in the format:

VMware\_<Instance\_UUID>

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## About Veritas

Veritas Technologies is a leader in multi-cloud data management. Over 80,000 customers—including 95 percent of the Fortune 100—rely on Veritas to help ensure the protection, recoverability, and compliance of their data. Veritas has a reputation for reliability at scale, which delivers the resilience its customers need against the disruptions threatened by cyberattacks, like ransomware. No other vendor is able to match the ability of Veritas to execute, with support for 800+ data sources, 100+ operating systems, 1,400+ storage targets, and 60+ clouds through a single, unified approach. Powered by Cloud Scale Technology, Veritas is delivering today on its strategy for Autonomous Data Management that reduces operational overhead while delivering greater value. Learn more at [veritas.com](https://veritas.com). Follow us on Twitter at @veritastechllc.

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The Veritas logo consists of the word "VERITAS" in a bold, red, sans-serif font. The letters are all uppercase and have a consistent weight and spacing.