



# **Manage FPolicy configurations**

## **ONTAP 9**

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# Manage FPolicy configurations

## Modify FPolicy configurations

### Commands for modifying FPolicy configurations

You can modify FPolicy configurations by modifying the elements that make up the configuration. You can modify external engines, FPolicy events, FPolicy scopes, and FPolicy policies. You can also enable or disable FPolicy policies. When you disable the FPolicy policy, file monitoring is discontinued for that policy.

It is recommended to disable the FPolicy policy before modifying the configuration.

If you want to modify...	Use this command...
External engines	<code>vserver fpolicy policy external-engine modify</code>
Events	<code>vserver fpolicy policy event modify</code>
Scopes	<code>vserver fpolicy policy scope modify</code>
Policies	<code>vserver fpolicy policy modify</code>

See the man pages for the commands for more information.

### Enable or disable FPolicy policies

You can enable FPolicy policies after the configuration is complete. Enabling the policy sets its priority and starts file access monitoring for the policy. You can disable FPolicy policies if you want to stop file access monitoring for the policy.

#### What you'll need

Before enabling FPolicy policies, the FPolicy configuration must be completed.

#### About this task

- The priority is used when multiple policies are enabled on the storage virtual machine (SVM) and more than one policy has subscribed to the same file access event.
- Policies that use the native engine configuration have a higher priority than policies for any other engine, regardless of the sequence number assigned to them when enabling the policy.
- If you want to change the priority of an FPolicy policy, you must disable the policy and then reenable it using the new sequence number.

#### Step

1. Perform the appropriate action:

If you want to...	Enter the following command...
-------------------	--------------------------------

Enable an FPolicy policy	<code>vserver fpolicy enable -vserver-name vserver_name -policy-name policy_name -sequence-number integer</code>
Disable an FPolicy policy	<code>vserver fpolicy disable -vserver-name vserver_name -policy-name policy_name</code>

## Display information about FPolicy configurations

### How the show commands work

It is helpful when displaying information about the FPolicy configuration to understand how the `show` commands work.

A `show` command without additional parameters displays information in a summary form. Additionally, every `show` command has the same two mutually exclusive optional parameters, `-instance` and `-fields`.

When you use the `-instance` parameter with a `show` command, the command output displays detailed information in a list format. In some cases, the detailed output can be lengthy and include more information than you need. You can use the `-fields fieldname[,fieldname...]` parameter to customize the output so that it displays information only for the fields you specify. You can identify which fields that you can specify by entering `?` after the `-fields` parameter.



The output of a `show` command with the `-fields` parameter might display other relevant and necessary fields related to the requested fields.

Every `show` command has one or more optional parameters that filter that output and enable you to narrow the scope of information displayed in command output. You can identify which optional parameters are available for a command by entering `?` after the `show` command.

The `show` command supports UNIX-style patterns and wildcards to enable you to match multiple values in command-parameters arguments. For example, you can use the wildcard operator (`*`), the NOT operator (`!`), the OR operator (`()`), the range operator (`integer...integer`), the less-than operator (`<`), the greater-than operator (`>`), the less-than or equal to operator (`<=`), and the greater-than or equal to operator (`>=`) when specifying values.

For more information about using UNIX-style patterns and wildcards, see the [Using the ONTAP command-line interface](#).

### Commands for displaying information about FPolicy configurations

You use the `fpolicy show` commands to display information about the FPolicy configuration, including information about FPolicy external engines, events, scopes, and policies.

If you want to display information about FPolicy...	Use this command...
---	---------------------

External engines	<code>vserver fpolicy policy external-engine show</code>
Events	<code>vserver fpolicy policy event show</code>
Scopes	<code>vserver fpolicy policy scope show</code>
Policies	<code>vserver fpolicy policy show</code>

See the man pages for the commands for more information.

## Display information about FPolicy policy status

You can display information about the status for FPolicy policies to determine whether a policy is enabled, what external engine it is configured to use, what the sequence number is for the policy, and to which storage virtual machine (SVM) the FPolicy policy is associated.

### About this task

If you do not specify any parameters, the command displays the following information:

- SVM name
- Policy name
- Policy sequence number
- Policy status

In addition to displaying information about policy status for FPolicy policies configured on the cluster or a specific SVM, you can use command parameters to filter the command's output by other criteria.

You can specify the `-instance` parameter to display detailed information about listed policies. Alternatively, you can use the `-fields` parameter to display only the indicated fields in the command output, or `-fields ?` to determine what fields you can use.

### Step

1. Display filtered information about FPolicy policy status by using the appropriate command:

If you want to display status information about policies...	Enter the command...
On the cluster	<code>vserver fpolicy show</code>
That have the specified status	<code>vserver fpolicy show -status {on off}</code>
On a specified SVM	<code>vserver fpolicy show -vserver vserver_name</code>
With the specified policy name	<code>vserver fpolicy show -policy-name policy_name</code>

That use the specified external engine	<code>vserver fpolicy show -engine engine_name</code>
--	---

Example

The following example displays the information about FPolicy policies on the cluster:

```
cluster1::> vserver fpolicy show
```

Vserver	Policy Name	Sequence Number	Status	Engine
-----	-----	-----	-----	-----
FPolicy	cserver_policy	-	off	eng1
vs1.example.com	v1p1	-	off	eng2
vs1.example.com	v1p2	-	off	native
vs1.example.com	v1p3	-	off	native
vs1.example.com	cserver_policy	-	off	eng1
vs2.example.com	v1p1	3	on	native
vs2.example.com	v1p2	1	on	eng3
vs2.example.com	cserver_policy	2	on	eng1

Display information about enabled FPolicy policies

You can display information about enabled FPolicy policies to determine what FPolicy external engine it is configured to use, what the priority is for the policy, and to which storage virtual machine (SVM) the FPolicy policy is associated.

About this task

If you do not specify any parameters, the command displays the following information:

- SVM name
- Policy name
- Policy priority

You can use command parameters to filter the command's output by specified criteria.

Step

1. Display information about enabled FPolicy policies by using the appropriate command:

If you want to display information about enabled policies...	Enter the command...
On the cluster	<code>vserver fpolicy show-enabled</code>
On a specified SVM	<code>vserver fpolicy show-enabled -vserver vserver_name</code>

With the specified policy name	<code>vserver fpolicy show-enabled -policy-name policy_name</code>
With the specified sequence number	<code>vserver fpolicy show-enabled -priority integer</code>

### Example

The following example displays the information about enabled FPolicy policies on the cluster:

```
cluster1::> vserver fpolicy show-enabled
```

Vserver	Policy Name	Priority
vs1.example.com	pol_native	native
vs1.example.com	pol_native2	native
vs1.example.com	pol1	2
vs1.example.com	pol2	4

## Manage FPolicy server connections

### Connect to external FPolicy servers

To enable file processing, you might need to manually connect to an external FPolicy server if the connection has previously been terminated. A connection is terminated after the server timeout is reached or due to some error. Alternatively, the administrator might manually terminate a connection.

#### About this task

If a fatal error occurs, the connection to the FPolicy server can be terminated. After resolving the issue that caused the fatal error, you must manually reconnect to the FPolicy server.

#### Steps

1. Connect to the external FPolicy server by using the `vserver fpolicy engine-connect` command.

For more information about the command, see the man pages.

2. Verify that the external FPolicy server is connected by using the `vserver fpolicy show-engine` command.

For more information about the command, see the man pages.

### Disconnect from external FPolicy servers

You might need to manually disconnect from an external FPolicy server. This might be desirable if the FPolicy server has issues with notification request processing or if you

need to perform maintenance on the FPolicy server.

**Steps**

1. Disconnect from the external FPolicy server by using the `vserver fpolicy engine-disconnect` command.

For more information about the command, see the man pages.

2. Verify that the external FPolicy server is disconnected by using the `vserver fpolicy show-engine` command.

For more information about the command, see the man pages.

**Display information about connections to external FPolicy servers**

You can display status information about connections to external FPolicy servers (FPolicy servers) for the cluster or for a specified storage virtual machine (SVM). This information can help you determine which FPolicy servers are connected.

**About this task**

If you do not specify any parameters, the command displays the following information:

- SVM name
- Node name
- FPolicy policy name
- FPolicy server IP address
- FPolicy server status
- FPolicy server type

In addition to displaying information about FPolicy connections on the cluster or a specific SVM, you can use command parameters to filter the command’s output by other criteria.

You can specify the `-instance` parameter to display detailed information about listed policies. Alternatively, you can use the `-fields` parameter to display only the indicated fields in the command output. You can enter `?` after the `-fields` parameter to find out which fields you can use.

**Step**

1. Display filtered information about connection status between the node and the FPolicy server by using the appropriate command:

If you want to display connection status information about FPolicy servers...	Enter...
That you specify	<code>vserver fpolicy show-engine -server IP_address</code>
For a specified SVM	<code>vserver fpolicy show-engine -vserver vserver_name</code>



That are attached with a specified policy	<pre>vserver fpolicy show-engine -policy-name policy_name</pre>
With the server status that you specify	<pre>vserver fpolicy show-engine -server-status status</pre> <p>The server status can be one of the following:</p> <ul style="list-style-type: none"> <li>• connected</li> <li>• disconnected</li> <li>• connecting</li> <li>• disconnecting</li> </ul>
With the specified type	<pre>vserver fpolicy show-engine -server-type type</pre> <p>The FPolicy server type can be one of the following:</p> <ul style="list-style-type: none"> <li>• primary</li> <li>• secondary</li> </ul>
That were disconnected with the specified reason	<pre>vserver fpolicy show-engine -disconnect-reason text</pre> <p>Disconnect can be due to multiple reasons. The following are common reasons for disconnect:</p> <ul style="list-style-type: none"> <li>• Disconnect command received from CLI.</li> <li>• Error encountered while parsing notification response from FPolicy server.</li> <li>• FPolicy Handshake failed.</li> <li>• SSL handshake failed.</li> <li>• TCP Connection to FPolicy server failed.</li> <li>• The screen response message received from the FPolicy server is not valid.</li> </ul>

### Example

This example displays information about external engine connections to FPolicy servers on SVM vs1.example.com:

```
cluster1::> vserver fpolicy show-engine -vserver vs1.example.com
```

Vserver	Policy	Node	Server	Server-status	Server-type
vs1.example.com	policy1	node1	10.1.1.2	connected	primary
vs1.example.com	policy1	node1	10.1.1.3	disconnected	primary
vs1.example.com	policy1	node2	10.1.1.2	connected	primary
vs1.example.com	policy1	node2	10.1.1.3	disconnected	primary

This example displays information only about connected FPolicy servers:

```
cluster1::> vserver fpolicy show-engine -fields server -server-status connected
```

node	vserver	policy-name	server
node1	vs1.example.com	policy1	10.1.1.2
node2	vs1.example.com	policy1	10.1.1.2

## Display information about the FPolicy passthrough-read connection status

You can display information about FPolicy passthrough-read connection status to external FPolicy servers (FPolicy servers) for the cluster or for a specified storage virtual machine (SVM). This information can help you determine which FPolicy servers have passthrough-read data connections and for which FPolicy servers the passthrough-read connection is disconnected.

### About this task

If you do not specify any parameter, the command displays the following information:

- SVM name
- FPolicy policy name
- Node name
- FPolicy server IP address
- FPolicy passthrough-read connection status

In addition to displaying information about FPolicy connections on the cluster or a specific SVM, you can use command parameters to filter the command's output by other criteria.

You can specify the `-instance` parameter to display detailed information about listed policies. Alternatively, you can use the `-fields` parameter to display only the indicated fields in the command output. You can enter `?` after the `-fields` parameter to find out which fields you can use.

### Step

1. Display filtered information about connection status between the node and the FPolicy server by using the appropriate command:

If you want to display connection status information about...	Enter the command...
FPolicy passthrough-read connection status for the cluster	<code>vserver fpolicy show-passthrough-read-connection</code>
FPolicy passthrough-read connection status for a specified SVM	<code>vserver fpolicy show-passthrough-read-connection -vserver vserver_name</code>
FPolicy passthrough-read connection status for a specified policy	<code>vserver fpolicy show-passthrough-read-connection -policy-name policy_name</code>
Detailed FPolicy passthrough-read connection status for a specified policy	<code>vserver fpolicy show-passthrough-read-connection -policy-name policy_name -instance</code>
FPolicy passthrough-read connection status for the status that you specify	<code>vserver fpolicy show-passthrough-read-connection -policy-name policy_name -server-status status</code> <p>The server status can be one of the following:</p> <ul style="list-style-type: none"> <li>• connected</li> <li>• disconnected</li> </ul>

### Example

The following command displays information about passthrough-read connections from all FPolicy servers on the cluster:

```
cluster1::> vserver fpolicy show-passthrough-read-connection
```

Vserver	Policy Name	Node	FPolicy Server	Server Status
vs2.example.com	pol_cifs_2	FPolicy-01	2.2.2.2	disconnected
vs1.example.com	pol_cifs_1	FPolicy-01	1.1.1.1	connected

The following command displays detailed information about passthrough-read connections from FPolicy servers configured in the “pol\_cifs\_1” policy:

```
cluster1::> vserver fpolicy show-passthrough-read-connection -policy-name  
pol_cifs_1 -instance
```

Node: FPolicy-01

Vserver: vs1.example.com

Policy: pol\_cifs\_1

Server: 1.1.1.1

Session ID of the Control Channel: 8cef052e-2502-11e3-  
88d4-123478563412

Server Status: connected

Time Passthrough Read Channel was Connected: 9/24/2013 10:17:45

Time Passthrough Read Channel was Disconnected: -

Reason for Passthrough Read Channel Disconnection: none

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