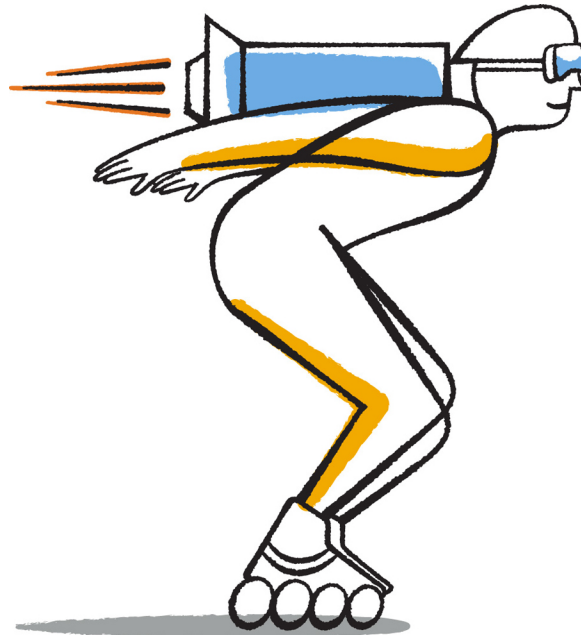




NetApp®

Clustered Data ONTAP® 8.3

EMS Configuration Express Guide



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Contents

Deciding whether to use this guide	4
EMS configuration workflow	5
Deciding where to send high-severity event notifications	5
Configuring high-severity EMS events to send email notifications	6
Configuring high-severity EMS events to forward notifications to a syslog server	7
Configuring SNMP traphosts to receive event notifications	8
Where to find additional information	10
Copyright information	11
Trademark information	12
How to send comments about documentation and receive update notification	13
Index	14

Deciding whether to use this guide

This guide describes how to quickly configure clustered Data ONTAP to send high-severity EMS (Event Management System) event notifications directly to an email address, a syslog server, or to an SNMP trap host so that you are immediately notified of system issues that require prompt attention.

To monitor the most important activities in your system, you must monitor the EMS high-severity events, which are generally those with severity level Critical, Alert, or Emergency, and a few selected other events that also signal high-severity activity.

Because high-severity event notifications are not enabled by default, you must configure the EMS to send notifications to either an email address, a syslog server, or an SNMP trap host.

Use this guide to configure EMS event notifications for high-severity events if the following is true:

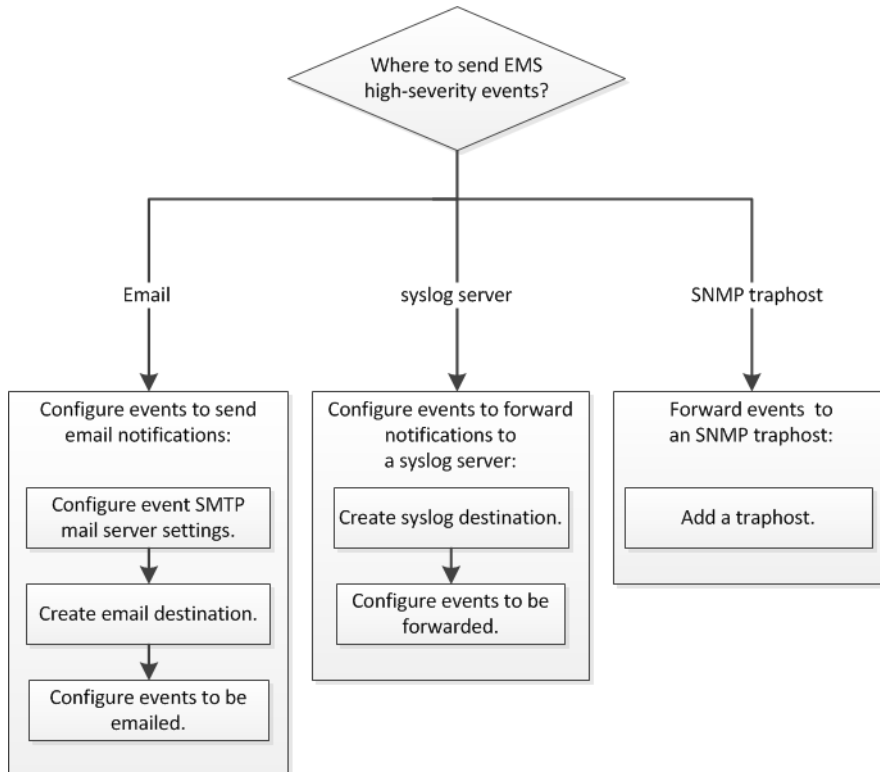
- You are implementing one of the following scenarios:
 - You are setting up a new system running Data ONTAP 8.3 or later.
 - You have an existing system running Data ONTAP 8.3 or later that does not have EMS configured.
 - You are upgrading to Data ONTAP 8.3 or later.
 - You have just completed a transition from Data ONTAP operating in 7-Mode to clustered Data ONTAP.
- You want to use best practices, not explore every available option.
- You do not want to read a lot of conceptual background.

If this guide is not suitable for your situation, you should see the following documentation instead:

- [*Clustered Data ONTAP 8.3 System Administration Guide for Cluster Administrators*](#)
Describes general system administration of a cluster, including the CLI interface, cluster access, node management, Storage Virtual Machine (SVM, formerly known as Vserver) setup, user account management, event monitoring, and performance evaluation.

EMS configuration workflow

You must configure high-severity EMS event notifications to be sent either as email, forwarded to a syslog server, or forwarded to an SNMP trap host. This helps you to avoid system disruptions by taking corrective actions in a timely manner.



Deciding where to send high-severity event notifications

Before you configure high-severity EMS event notifications, you need to decide whether to send the notifications to a email address, a syslog server, or an SNMP trap host.

About this task

If your environment already contains a syslog server for aggregating the logged events from other systems, such as servers and applications, then it is easier to use that syslog server also for high-severity event notifications from storage systems.

If your environment does not already contain a syslog server, then it is easier to use email for high-severity event notifications.

If you already forward event notifications to an SNMP traphost, then you might want to monitor that traphost for high-severity events.

Note: SNMP supports only a small subset of the high-severity events. The Technical Report [NetApp Technical Report 4220: SNMP Support in Data ONTAP 8.2.x and Data ONTAP 8.3.x](#) contains lists of all default events that are supported by SNMP.

Choices

- If you want the EMS to send high-severity event notifications to an email address, see [Configuring high-severity EMS events to send email notifications](#) on page 6.
- If you want the EMS to forward high-severity event notifications to a syslog server, see [Configuring high-severity EMS events to forward notifications to a syslog server](#) on page 7.
- If you want the EMS to forward event notifications to an SNMP traphost, see [Configuring SNMP traphosts to receive event notifications](#) on page 8

Configuring high-severity EMS events to send email notifications

To receive email notifications of the most severe events, you must configure the EMS to send email messages for the top three severity levels (Critical, Alert, Emergency) and a few additional events that signal high-severity activity.

Before you begin

DNS must be configured on the cluster to resolve the email addresses.

About this task

Before you configure the events, you must first create a dedicated email destination for the event notifications. Event email notifications are sent to configured email addresses using SMTP.

This task configures all events of severity level Critical, Alert, and Emergency. It also configures a selected group of additional events that also report high-severity activity. You must configure all these events to make sure you are notified of system issues that require prompt attention.

You can perform this task any time the cluster is running by entering the commands on the Data ONTAP command line.

Steps

1. Configure the event SMTP mail server settings:

```
event config modify -mailserver mailhost@your_domain
-mailfrom cluster_name@your_domain
```

2. Create an email destination for high-severity event notifications:

```
event destination create -name important_events
-mail your_email@your_domain
```

3. Configure all high-severity events to send email notifications.

- a. Configure all events of severity level Critical, Alert, and Emergency to send email notifications to the email address `important_events` that you just created:

```
event route add-destinations {-severity CRITICAL|ALERT|EMERGENCY}
-destinations important_events
```

- b. Configure additional high-severity events to send email notifications to `important_events`:

```
event route add-destinations {csm.sessionFailed| secd.dns*| secd.nis*|
secd.ldap*| callhome.aggr.restricted| callhome.c.fan*|
callhome.carrier.fault| callhome.ch.ps.*| callhome.chassis.*|
callhome.client.app.emerg| callhome.client.app.crit|
callhome.client.app.alert| callhome.cpu*| callhome.hm.alert.*|
callhome.netif.fatal.error| callhome.reboot*|
callhome.sblade.import.susp| callhome.sblade.unavailable|
callhome.sfo.giveback| callhome.sfo.takeover*| callhome.shlf.overtmp|
callhome.shlf.power.intr| callhome.spm.process.maxexit|
callhome.clus.vol.cre.fail | clam.takeover |
clam.heartbeat.state.change} -destinations important_events
```

Configuring high-severity EMS events to forward notifications to a syslog server

To log notifications of the most severe events on a syslog server, you must configure the EMS to forward notifications for the top three severity levels (Critical, Alert, Emergency) and a few additional events that signal high-severity activity.

Before you begin

DNS must be configured on the cluster to resolve the syslog server name.

About this task

If your environment does not already contain a syslog server for event notifications, you must first create one. If your environment already contains a syslog server for logging events from other systems, then you might want to use that one for high-severity event notifications.

This task configures all events of severity level Critical, Alert, and Emergency. It also configures a selected group of additional events that also report high-severity activity. You must configure all these events to make sure you are notified of system issues that require prompt attention.

You can perform this task any time the cluster is running by entering the commands on the Data ONTAP command line.

Steps

1. Create a syslog server destination for high-severity events:

```
event destination create -name syslog_ems -syslog ip_address
-syslog-facility default
```

2. Configure all high-severity events to forward notifications to the syslog server.

- a. Configure all events of severity level Critical, Alert, and Emergency to forward notifications to the syslog server that you just created or to your existing syslog server:

```
event route add-destinations {-severity CRITICAL|ALERT|EMERGENCY}
-destinations syslog_ems
```

- b. Configure additional high-severity events to forward notifications to the syslog server:

```
event route add-destinations {csm.sessionFailed| secd.dns*| secd.nis*|
secd.ldap*| callhome.aggr.restricted| callhome.c.fan*|
callhome.carrier.fault| callhome.ch.ps.*| callhome.chassis.*|
callhome.client.app.emerg| callhome.client.app.crit|
callhome.client.app.alert| callhome.cpu*| callhome.hm.alert.*|
callhome.netif.fatal.error| callhome.reboot*|
callhome.sblade.import.susp| callhome.sblade.unavailable|
callhome.sfo.giveback| callhome.sfo.takeover*| callhome.shlf.overtemp|
callhome.shlf.power.intr| callhome.spm.process.maxexit|
callhome.clus.vol.cre.fail | clam.takeover |
clam.heartbeat.state.change} -destinations syslog_ems
```

Configuring SNMP traphosts to receive event notifications

To receive event notifications on an SNMP traphost, you must configure a traphost. SNMP supports only a small subset of the top three severity level events (Critical, Alert, Emergency) and none of the additional events that signal high-severity activity.

Before you begin

- SNMP and SNMP traps must be enabled on the cluster.

Note: SNMP and SNMP traps are enabled by default.

- DNS must be configured on the cluster to resolve the traphost names.

About this task

If you do not already have an SNMP trap host configured to receive event notifications (SNMP traps), you must add one.

The Technical Report [NetApp Technical Report 4220: SNMP Support in Data ONTAP 8.2.x and Data ONTAP 8.3.x](#) contains lists of all default events that are supported by SNMP.

You can perform this task any time the cluster is running by entering the commands on the Data ONTAP command line.

Step

1. If your environment does not already have an SNMP trap host configured to receive event notifications, add one:

```
system snmp trap host add -peer-address snmp_trap host_name
```

All event notifications that are supported by SNMP by default are forwarded to the SNMP trap host, which includes both high-severity and low-severity event notifications.

Where to find additional information

There are other reference manuals to help you configure EMS events.

The following documentation provides more detailed information:

- [*Clustered Data ONTAP 8.3 System Administration Guide for Cluster Administrators*](#)
Describes general system administration of a cluster, including the CLI interface, cluster access, node management, Storage Virtual Machine (SVM, formerly known as Vserver) setup, user account management, event monitoring, and performance evaluation.
- [*Clustered Data ONTAP 8.3 SNMP Configuration Express Guide*](#)
Describes how to configure SNMP at the cluster management level, how to add communities, security users, and traphosts, and how to test the SNMP communication.
- [*NetApp Technical Report 4220: SNMP Support in Data ONTAP 8.2.x and Data ONTAP 8.3.x*](#)
Describes SNMP support in Data ONTAP, including a detailed comparison of SNMP support for Data ONTAP operating in 7-Mode and clustered Data ONTAP, and a list of all default events that are supported by SNMP traps.

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Index

- A**
 - additional information
 - where to find for configuring EMS event notifications [10](#)
 - alert events
 - configuring EMS to send email notifications [6](#)
 - configuring to forward notifications to syslog server [7](#)
- C**
 - comments
 - how to send feedback about documentation [13](#)
 - critical events
 - configuring EMS to send email notifications [6](#)
 - configuring to forward notifications to syslog server [7](#)
- D**
 - documentation
 - how to receive automatic notification of changes to [13](#)
 - how to send feedback about [13](#)
- E**
 - emergency events
 - configuring EMS to send email notifications [6](#)
 - configuring to forward notifications to syslog server [7](#)
 - EMS
 - configuration workflow [5](#)
 - configuring to forward notifications to syslog server [7](#)
 - configuring to send email notifications [6](#)
 - configuring to send SNMP traps [8](#)
 - deciding where to send high-severity event notifications [5](#)
 - requirements for using this guide to configure event notification [4](#)
 - event notifications
 - configuring EMS for email [6](#)
 - configuring for syslog server [7](#)
 - forwarding to SNMP traphosts [8](#)
 - events
 - deciding where to send high-severity notifications [5](#)
 - requirements for using this guide to configure notifications [4](#)
 - express guides
 - deciding where to send high-severity EMS event notifications [5](#)
 - EMS configuration workflow [5](#)
 - requirements for using this guide to configure EMS events [4](#)
 - where to find additional information for configuring EMS event notifications [10](#)
- F**
 - feedback
 - how to send comments about documentation [13](#)
- H**
 - high-severity events
 - configuring EMS for email notification [6](#)
 - configuring for syslog server [7](#)
 - forwarding to SNMP traphosts [8](#)
- I**
 - information
 - how to send feedback about improving documentation [13](#)
- S**
 - SNMP traphosts
 - configuring EMS for [8](#)
 - suggestions
 - how to send feedback about documentation [13](#)
- T**
 - traphosts, SNMP
 - configuring EMS for [8](#)
 - twitter
 - how to receive automatic notification of documentation changes [13](#)

V

Vservers
 See SVMs

W

workflows
 EMS configuration [5](#)