## Contents

- Deciding whether to use this guide ............................................................. 4
- EMS configuration workflow ............................................................... 5
  - Deciding where to send important event notifications ........................ 5
  - Configuring important EMS events to send email notifications .......... 6
  - Configuring important EMS events to forward notifications to a syslog server 6
  - Configuring SNMP trap hosts to receive event notifications .......... 7
- Where to find additional information ................................................... 8
- Copyright .............................................................................................. 9
- Trademark ........................................................................................... 10
- How to send comments about documentation and receive update notifications ............................................. 11
- Index .................................................................................................... 12
Deciding whether to use the EMS Configuration Express Guide

This guide describes how to quickly configure ONTAP 9 to send important EMS (Event Management System) event notifications directly to an email address, a syslog server, or a Simple Management Network Protocol (SNMP) traphost 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 important EMS events.

Because important 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 traphost.

Use this guide to configure EMS event notifications for important events if the following are true:

- You are implementing one of the following scenarios:
  - You are setting up a new system running ONTAP 9 that does not have EMS configured.
  - You have an existing system running ONTAP 9 that does not have EMS configured.
  - You are upgrading to ONTAP 9 that does not have EMS configured.
  - You have just completed a transition from Data ONTAP operating in 7-Mode to ONTAP 9.
- 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:

- **System administration**
  Describes general system administration of a cluster, including the command-line interface (CLI), cluster access, node management, storage virtual machine (SVM) setup, user account management, event monitoring, and performance evaluation.

**Note:** If the AutoSupport `noteto` parameter is configured with email addresses, they are automatically copied into EMS notification destinations when upgrading to ONTAP 9. A new EMS notification is also created that maps the `important-events` filter to these addresses. As a result, you will start receiving two email notifications for each callhome event until you remove the email addresses from the AutoSupport `noteto` parameter. You will also start receiving email notifications about other important events, in addition to the AutoSupport events originally configured.
EMS configuration workflow

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

Deciding where to send important event notifications

Before you configure important EMS event notifications, you need to decide whether to send the notifications to an email address, a syslog server, or an SNMP traphost.

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 important event notifications from storage systems.

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

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

• Set EMS to send event notifications.
If you want... | Refer to this...
--- | ---
The EMS to send important event notifications to an email address | Configuring important EMS events to send email notifications on page 6
The EMS to forward important event notifications to a syslog server | Configuring important EMS events to forward notifications to a syslog server on page 6
If you want the EMS to forward event notifications to an SNMP trap host | Configuring SNMP trap hosts to receive event notifications on page 7

**Configuring important EMS events to send email notifications**

To receive email notifications of the most important events, you must configure the EMS to send email messages for events that signal important activity.

**Before you begin**

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

**About this task**

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

**Steps**

1. Configure the event SMTP mail server settings:
   
   ```
   event config modify -mail-server mailhost.your_domain -mail-from cluster_admin@your_domain
   ```

2. Create an email destination for event notifications:
   
   ```
   event notification destination create -name storage-admins -email your_email@your_domain
   ```

3. Configure the important events to send email notifications:
   
   ```
   event notification create -filter-name important-events -destinations storage_admins
   ```

**Configuring important 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 events that signal important 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 important event notifications.

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

Steps

1. Create a syslog server destination for important events:
   
   \texttt{event notification destination create -name syslog-ems -syslog syslog-server-address}

2. Configure the important events to forward notifications to the syslog server:
   
   \texttt{event notification create -filter-name important-events -destinations syslog-ems}

Configuring SNMP traphosts to receive event notifications

To receive event notifications on an SNMP traphost, you must configure a traphost.

Before you begin

- SNMP and SNMP traps must be enabled on the cluster.
  
  \textbf{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 traphost configured to receive event notifications (SNMP traps), you must add one.

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

Step

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

   \texttt{system snmp traphost add -peer-address snmp_traphost_name}

   All event notifications that are supported by SNMP by default are forwarded to the SNMP traphost.
Where to find additional information

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

The following documentation provides more detailed information:

- **System administration**
  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.

- **SNMP express configuration**
  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**
  Describes SNMP support in ONTAP, including a detailed comparison of SNMP support for Data ONTAP operating in 7-Mode and ONTAP, and a list of all default events that are supported by SNMP traps.

- **ONTAP concepts**
  Describes conceptual information about SNMP support in ONTAP, including a detailed comparison of SNMP support for Data ONTAP operating in 7-Mode and ONTAP, and a list of all default events that are supported by SNMP traps.

- **NetApp Documentation: ONTAP 9**
  Lists the ONTAP 9 product library where you can find the appropriate version of the ONTAP 9 EMS Event Catalog in the More Resources section. The EMS event catalog provides detailed information for all of the EMS messages for the specified version of ONTAP 9 software.
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• NetApp, Inc., 1395 Crossman Ave., Sunnyvale, CA 94089 U.S.
• Telephone: +1 (408) 822-6000
• Fax: +1 (408) 822-4501
• Support telephone: +1 (888) 463-8277
Index

A
additional information
  where to find for configuring EMS event notifications 8
alert events
  configuring EMS to send email notifications 6
    configuring to forward notifications to syslog server 6
AutoSupport
  note to configuration with email addresses 6

C
comments
  how to send feedback about documentation 11
critical events
  configuring EMS to send email notifications 6
    configuring to forward notifications to syslog server 6

D
documentation
  how to receive automatic notification of changes to 11
    how to send feedback about 11

E
emergency events
  configuring EMS to send email notifications 6
    configuring to forward notifications to syslog server 6
EMS
  configuration workflow 5
    configuring to forward notifications to syslog server 6
    configuring to send email notifications 6
    configuring to send SNMP traps 7
    deciding where to send important event notifications 5
EMS notifications
  deciding whether to use the EMS Configuration Express Guide to configure event notifications 4
event notifications
  configuring EMS for email 6
    configuring for syslog server 6
    forwarding to SNMP traphosts 7
events
  deciding where to send important notifications 5
express guides

F
feedback
  how to send comments about documentation 11

I
important events
  configuring EMS for email notifications 6
  configuring for syslog server 6
  forwarding to SNMP traphosts 7
information
  how to send feedback about improving documentation 11

S
SNMP
  deciding whether to use the EMS Configuration Express Guide 4
SNMP traphosts
  configuring EMS for 7
suggestions
  how to send feedback about documentation 11

T
traphosts, SNMP
  configuring EMS for 7
Twitter
  how to receive automatic notification of documentation changes 11

V
Vservers
  See SVMs

W
workflows
  EMS configuration 5