



# **EMS configuration**

## **ONTAP 9**

NetApp  
January 13, 2022

# Table of Contents

- EMS configuration ..... 1
  - EMS configuration overview ..... 1
  - Configure EMS event notifications and filters with System Manager ..... 1
  - Configure EMS event notifications with the CLI ..... 4

# EMS configuration

## EMS configuration overview

You can 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) 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 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 trap host.

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.

You can find the EMS Event Catalog under More Resources on this page: [ONTAP 9 Product Library](#).

## Configure EMS event notifications and filters with System Manager

You can use System Manager to configure how the Event Management System (EMS) delivers event notifications so that you can be notified of system issues that require your prompt attention.

ONTAP version	With System Manager, you can...
ONTAP 9.10.1	Configure email addresses, syslog servers, and REST API clients (WebHooks), as well as SNMP trap hosts.
ONTAP 9.7 to 9.10.0	Configure only SNMP trap hosts. You can configure other EMS destination with the ONTAP CLI. See <a href="#">EMS configuration overview</a> .

You can perform the following procedures:

- [Add an EMS event notification destination](#)
- [Create a new EMS event notification filter](#)

- [Edit an EMS event notification destination](#)
- [Edit an EMS event notification filter](#)
- [Delete an EMS event notification destination](#)
- [Delete an EMS event notification filter](#)



#### Related information

- [EMS Event Catalog](#)
- [Using the CLI to configure SNMP traphosts to receive event notifications](#)

## Add an EMS event notification destination

You can use System Manager to specify to where you want EMS messages sent.

#### Steps

1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notification Management** page, select the **Events Destinations** tab.
4. Click  **Add**.
5. Specify a name, an EMS destination type, and filters.



If needed, you can add a new filter. Click **Add a New Event Filter**.



6. Depending on the EMS destination type you selected, specify the following:


To configure...	Specify or select...
SNMP traphost	<ul style="list-style-type: none"> <li>• Traphost name</li> </ul>
Email (Beginning with 9.10.1)	<ul style="list-style-type: none"> <li>• Destination email address</li> <li>• Mail server</li> <li>• From email address</li> </ul>
Syslog server (Beginning with 9.10.1)	<ul style="list-style-type: none"> <li>• Host name or IP address of the server</li> </ul>
Webhook (Beginning with 9.10.1)	<ul style="list-style-type: none"> <li>• Webhook URL</li> <li>• Client authentication (select this option to specify a client certificate)</li> </ul>

## Create a new EMS event notification filter

Beginning with ONTAP 9.10.1, you can use System Manager to define new customized filters that specify the rules for handling EMS notifications.

#### Steps



1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notification Management** page, select the **Event Filters** tab.
4. Click  **Add**.
5. Specify a name, and select whether you want to copy rules from an existing event filter or add new rules.
6. Depending on your choice, perform the following steps:

If you choose....	Then, perform these steps...
<b>Copy rules from existing event filter</b>	<ol style="list-style-type: none"> <li>1. Select an existing event filter.</li> <li>2. Modify the existing rules.</li> <li>3. Add other rules, if needed, by clicking  <b>Add</b>.</li> </ol>
<b>Add new rules</b>	Specify the type, name pattern, severities, and SNMP trap type for each new rule.

## Edit an EMS event notification destination

Beginning with ONTAP 9.10.1, you can use System Manager to change the event notification destination information.

### Steps

1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notifications Management** page, select the **Events Destinations** tab.
4. Next to the name of the event destination, click , then click **Edit**.
5. Modify the event destination information, then click **Save**.



## Edit an EMS event notification filter

Beginning with ONTAP 9.10.1, you can use System Manager to modify customized filters to change how event notifications are handled.



You cannot modify system-defined filters.

### Steps

1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notification Management** page, select the **Event Filters** tab.
4. Next to the name of the event filter, click , then click **Edit**.
5. Modify the event filter information, then click **Save**.



## Delete an EMS event notification destination

Beginning with ONTAP 9.10.1, you can use System Manager to delete an EMS event notification destination.



You cannot delete SNMP destinations.

### Steps

1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notification Management** page, select the **Events Destinations** tab.
4. Next to the name of the event destination, click , then click **Delete**.



## Delete an EMS event notification filter

Beginning with ONTAP 9.10.1, you can use System Manager to delete customized filters.



You cannot delete system-defined filters.

### Steps

1. Click **Cluster > Settings**.
2. In the **Notifications Management** section, click , then click **View Event Destinations**.
3. On the **Notification Management** page, select the **Event Filters** tab.
4. Next to the name of the event filter, click , then click **Delete**.

## Configure EMS event notifications with the CLI

### 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.



## Decide 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.

### Choices

- Set EMS to send event notifications.

If you want...	Refer to this...
The EMS to send important event notifications to an email address	<a href="#">Configuring important EMS events to send email notifications</a>
The EMS to forward important event notifications to a syslog server	<a href="#">Configuring important EMS events to forward notifications to a syslog server</a>
If you want the EMS to forward event notifications to an SNMP traphost	<a href="#">Configuring SNMP traphosts to receive event notifications</a>

## Configure 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.

### What you'll need

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.

### What you'll need

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:

```
event notification destination create -name syslog-ems -syslog syslog-server-address
```

2. Configure the important events to forward notifications to the syslog server:

```
event notification create -filter-name important-events -destinations syslog-ems
```

## Configure SNMP traphosts to receive event notifications

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

### What you'll need

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



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:

```
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.

## Copyright Information

Copyright © 2022 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system- without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.