



Use AutoSupport

StorageGRID 11.8

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Table of Contents

- Use AutoSupport 1
 - Use AutoSupport: Overview 1
 - Configure AutoSupport 7
 - Manually trigger an AutoSupport package 10
 - Troubleshoot AutoSupport packages 11
 - Send E-Series AutoSupport packages through StorageGRID 12

Use AutoSupport

Use AutoSupport: Overview

The AutoSupport feature enables StorageGRID to send health and status packages to NetApp technical support.

Using AutoSupport can significantly speed up problem determination and resolution. Technical support can also monitor the storage needs of your system and help you determine if you need to add new nodes or sites. Optionally, you can configure AutoSupport packages to be sent to one additional destination.

StorageGRID has two types of AutoSupport:

StorageGRID AutoSupport

Reports StorageGRID software issues. Enabled by default when you first install StorageGRID. You can [change the default AutoSupport configuration](#) if needed.



If StorageGRID AutoSupport is not enabled, a message appears on the Grid Manager dashboard. The message includes a link to the AutoSupport configuration page. If you close the message, it will not appear again until your browser cache is cleared, even if AutoSupport remains disabled.

Appliance hardware AutoSupport

Reports StorageGRID appliance issues. You must [configure hardware AutoSupport on each appliance](#).

What is Active IQ?

Active IQ is a cloud-based digital advisor that leverages predictive analytics and community wisdom from NetApp's installed base. Its continuous risk assessments, predictive alerts, prescriptive guidance, and automated actions help you prevent problems before they occur, leading to improved system health and higher system availability.

If you want to use the Active IQ dashboards and functionality on the NetApp Support Site, you must enable AutoSupport.

[Active IQ Digital Advisor Documentation](#)

Information included in AutoSupport package

An AutoSupport package contains the following XML files and details.

File name	Fields	Description
AUTOSUPPORT-HISTORY.XML	AutoSupport Sequence Number Destination for this AutoSupport Trigger Event Status of Delivery Delivery Attempts AutoSupport Subject Delivery URI Last error AutoSupport PUT Filename Time of Generation Autosupport Compressed Size Autosupport Decompressed Size Total Collection Time (ms)	AutoSupport history file
AUTOSUPPORT.XML	Node Protocol to contact support Support URL for HTTP/HTTPS Support Address AutoSupport OnDemand State AutoSupport OnDemand Server URL AutoSupport OnDemand Polling Interval	AutoSupport status file. Provides details of protocol used, technical support URL and address, polling interval, and OnDemand AutoSupport if enabled or disabled.

File name	Fields	Description
BUCKETS.XML	Bucket ID Account ID Build Version Location Constraint Configuration Compliance Enabled Compliance Configuration S3 Object Lock Enabled S3 Object Lock Configuration Consistency Configuration CORS Enabled CORS Configuration Last Access Time Enabled Policy Enabled Policy Configuration Notifications Enabled Notifications Configuration Cloud Mirror Enabled Cloud Mirror Configuration Search Enabled Search Configuration Swift Read ACL Enabled Swift Read ACL Configuration Swift Write ACL Enabled Swift Write ACL Configuration Bucket Tagging Enabled Bucket Tagging Configuration Versioning Configuration	Provides configuration details and statistics at the bucket level. Example of bucket configurations include platform services, compliance, and bucket consistency.
GRID-CONFIGURATIONS.XML	Attribute ID Attribute Name Value Index Table ID Table Name	Grid-wide configuration information file. Contains information about grid certificates, metadata reserved space, grid-wide configuration settings (compliance, S3 Object Lock, object compression, alerts, syslog, and ILM configuration), erasure-coding profile details, DNS name, NMS name , and more.
GRID-SPEC.XML	Grid specifications, raw XML	Used for configuring and deploying StorageGRID. Contains grid specifications, NTP server IP, DNS server IP, network topology, and hardware profiles of the nodes.
GRID-TASKS.XML	Node Service Path Attribute ID Attribute name Value Index Table ID Table name	Grid tasks (maintenance procedures) status file. Provides details of the grid's active, terminated, completed, failed, and pending tasks.

File name	Fields	Description
ILM-STATUS.XML	Node Service path Attribute ID Attribute name Value Index Table ID Table name	ILM metrics information file. Contains ILM evaluation rates for each node and grid-wide metrics.
ILM.XML	ILM raw XML	ILM active policy file. Contains details about the active ILM policies, such as storage pool ID, ingest behavior, filters, rules, and description.
LOG.TGZ	<i>n/a</i>	Downloadable log file. Contains <code>bycast-err.log</code> and <code>servermanager.log</code> from each node.
MANIFEST.XML	Collection order AutoSupport content filename for this data Description of this data item Number of bytes collected Time spent collecting Status of this data item Description of the error AutoSupport content type for this data	Contains AutoSupport metadata and brief descriptions of all AutoSupport XML files.
NMS-ENTITIES.XML	Attribute index Entity OID Node ID Device model ID Device model version Entity name	Group and service entities in the NMS tree . Provides grid topology details. The node can be determined based on the services running on the node.
OBJECTS-STATUS.XML	Node Service path Attribute ID Attribute name Value Index Table ID Table name	Object status, including background scan status, active transfer, transfer rate, total transfers, delete rate, corrupted fragments, lost objects, missing objects, repair attempted, scan rate, estimated scan period, repair completion status, and more.

File name	Fields	Description
SERVER-STATUS.XML	Node Service path Attribute ID Attribute name Value Index Table ID Table name	Server configurations and events file. Contains these details for each node: platform type, operating system, installed memory, available memory, storage connectivity, storage appliance chassis serial number, storage controller failed drive count, compute controller chassis temperature, compute hardware, compute controller serial number, power supply, drive size, drive type, and more.
SERVICE-STATUS.XML	Node Service path Attribute ID Attribute name Value Index Table ID Table name	Service node information file. Contains details such as allocated table space, free table space, Reaper metrics of the database, segment repair duration, repair job duration, auto job restarts, auto job termination, and more.
STORAGE-GRADES.XML	Storage grade ID Storage grade name Storage node ID Storage node path	Storage grade definitions file for each Storage Node.
SUMMARY-ATTRIBUTES.XML	Group OID Group Path Summary attribute ID Summary attribute name Value Index Table ID Table name	High-level system status data that summarizes StorageGRID usage information. Provides details such as name of grid, names of sites, number of Storage Nodes per grid and per site, license type, license capacity and usage, software support terms, and details of S3 and Swift operations.
SYSTEM-ALARMS.XML	Node Service path Severity Alarmed attribute Attribute name Status Value Trigger time Acknowledge time	System level alarms (deprecated) and status data used to indicate abnormal activities or potential problems.

File name	Fields	Description
SYSTEM-ALERTS.XML	Name Severity Node name Alert Status Site name Alert triggered time Alert resolved time Rule ID Node ID Site ID Silenced Other annotations Other labels	Current system alerts that indicate potential problems in the StorageGRID system.
USERAGENTS.XML	User agent Number of days Total HTTP requests Total bytes ingested Total bytes retrieved PUT requests GET requests DELETE requests HEAD requests POST requests OPTIONS requests Average request time (ms) Average PUT request time (ms) Average GET request time (ms) Average DELETE request time (ms) Average HEAD request time (ms) Average POST request time (ms) Average OPTIONS request time (ms)	Statistics based on the application user agents. For example, the number of PUT/GET/DELETE/HEAD operations per user agent and total bytes size of each operation.
X-HEADER-DATA	X-Netapp-asup-generated-on X-Netapp-asup-hostname X-Netapp-asup-os-version X-Netapp-asup-serial-num X-Netapp-asup-subject X-Netapp-asup-system-id X-Netapp-asup-model-name	AutoSupport header data.

Configure AutoSupport

By default, the StorageGRID AutoSupport feature is enabled when you first install StorageGRID. However, you must configure hardware AutoSupport on each appliance. As needed, you can change the AutoSupport configuration.

If you want to change the configuration of StorageGRID AutoSupport, make your changes only on the primary Admin Node. You must [configure hardware AutoSupport](#) on each appliance.

Before you begin

- You are signed in to the Grid Manager using a [supported web browser](#).
- You have the [Root access permission](#).
- If you will use HTTPS for sending AutoSupport packages, you have provided outbound internet access to the primary Admin Node, either directly or [using a proxy server](#) (inbound connections not required).
- If HTTP is selected on the StorageGRID AutoSupport page, you have configured a proxy server to forward AutoSupport packages as HTTPS. NetApp's AutoSupport servers will reject packages sent using HTTP.

[Learn about configuring admin proxy settings.](#)

- If you will use SMTP as the protocol for AutoSupport packages, you have configured an SMTP mail server. The same mail server configuration is used for alarm email notifications (legacy system).

About this task

You can use any combination of the following options to send AutoSupport packages to technical support:

- **Weekly:** Automatically send AutoSupport packages once per week. Default setting: Enabled.
- **Event-triggered:** Automatically send AutoSupport packages every hour or when significant system events occur. Default setting: Enabled.
- **On Demand:** Allow technical support to request that your StorageGRID system send AutoSupport packages automatically, which is useful when they are actively working an issue (requires HTTPS AutoSupport transmission protocol). Default setting: Disabled.
- **User-triggered:** Manually send AutoSupport packages at any time.

Specify the protocol for AutoSupport packages

You can use any of the following protocols for sending AutoSupport packages:

- **HTTPS:** This is the default and recommended setting for new installations. This protocol uses port 443. If you want to [enable the AutoSupport on Demand feature](#), you must use HTTPS.
- **HTTP:** If you select HTTP, you must configure a proxy server to forward AutoSupport packages as HTTPS. NetApp's AutoSupport servers reject packages sent using HTTP. This protocol uses port 80.
- **SMTP:** Use this option if you want AutoSupport packages to be emailed. If you use SMTP as the protocol for AutoSupport packages, you must configure an SMTP mail server on the Legacy Email Setup page (**SUPPORT > Alarms (legacy) > Legacy email setup**).

The protocol you set is used for sending all types of AutoSupport packages.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.

2. Select the protocol you want to use to send AutoSupport packages.
3. If you selected **HTTPS**, select whether to use a NetApp support certificate (TLS certificate) to secure the connection to the technical support server.
 - **Verify certificate** (default): Ensures that the transmission of AutoSupport packages is secure. The NetApp support certificate is already installed with the StorageGRID software.
 - **Do not verify certificate**: Select this option only when you have a good reason not to use certificate validation, such as when there is a temporary problem with a certificate.
4. Select **Save**. All weekly, user-triggered, and event-triggered packages are sent using the selected protocol.

Disable weekly AutoSupport

By default, the StorageGRID system is configured to send an AutoSupport package to technical support once a week.

To determine when the weekly AutoSupport package will be sent, go to the **AutoSupport > Results** tab. In the **Weekly AutoSupport** section, look at the value for **Next Scheduled Time**.

You can disable the automatic sending of weekly AutoSupport packages at any time.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.
2. Clear the **Enable Weekly AutoSupport** checkbox.
3. Select **Save**.

Disable event-triggered AutoSupport

By default, the StorageGRID system is configured to send an AutoSupport package to technical support every hour or when an important alert or other significant system event occurs.

You can disable event-triggered AutoSupport at any time.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.
2. Clear the **Enable Event-Triggered AutoSupport** checkbox.
3. Select **Save**.

Enable AutoSupport on Demand

AutoSupport on Demand can assist in solving issues that technical support is actively working on.

By default, AutoSupport on Demand is disabled. Enabling this feature allows technical support to request that your StorageGRID system send AutoSupport packages automatically. Technical support can also set the polling time interval for AutoSupport on Demand queries.

Technical support can't enable or disable AutoSupport on Demand.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.
2. Select the **HTTPS** for the protocol.

3. Select the **Enable Weekly AutoSupport** checkbox.
4. Select the **Enable AutoSupport on Demand** checkbox.
5. Select **Save**.

AutoSupport on Demand is enabled, and technical support can send AutoSupport on Demand requests to StorageGRID.

Disable checks for software updates

By default, StorageGRID contacts NetApp to determine if software updates are available for your system. If a StorageGRID hotfix or new version is available, the new version is shown on the StorageGRID Upgrade page.

As required, you can optionally disable the check for software updates. For example, if your system does not have WAN access, you should disable the check to avoid download errors.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.
2. Clear the **Check for software updates** checkbox.
3. Select **Save**.

Add an additional AutoSupport destination

When you enable AutoSupport, health and status packages are sent to technical support. You can specify one additional destination for all AutoSupport packages.

To verify or change the protocol used to send AutoSupport packages, see the instructions to [specify the protocol for AutoSupport packages](#).



You can't use the SMTP protocol to send AutoSupport packages to an additional destination.

Steps

1. Select **SUPPORT > Tools > AutoSupport > Settings**.
2. Select **Enable Additional AutoSupport Destination**.
3. Specify the following:

Hostname

The server hostname or IP address of an additional AutoSupport destination server.



You can enter only one additional destination.

Port

The port used to connect to an additional AutoSupport destination server. The default is port 80 for HTTP or port 443 for HTTPS.

Certificate validation

Whether a TLS certificate is used to secure the connection to the additional destination.

- Select **Verify certificate** to use certificate validation.

- Select **Do not verify certificate** to send your AutoSupport packages without certificate validation.

Select this choice only when you have a good reason not to use certificate validation, such as when there is a temporary problem with a certificate.

4. If you selected **Verify certificate**, do the following:

- a. Browse to the location of the CA certificate.
- b. Upload the CA certificate file.

The CA certificate metadata appears.

5. Select **Save**.

All future weekly, event-triggered, and user-triggered AutoSupport packages will be sent to the additional destination.

Configure AutoSupport for appliances

AutoSupport for appliances reports StorageGRID hardware issues, and StorageGRID AutoSupport reports StorageGRID software issues, with one exception: for the SGF6112, StorageGRID AutoSupport reports both hardware and software issues. You must configure AutoSupport on each appliance except the SGF6112, which does not require additional configuration. AutoSupport is implemented differently for services appliances and storage appliances.

You use SANtricity to enable AutoSupport for each storage appliance. You can configure SANtricity AutoSupport during initial appliance setup or after an appliance has been installed:

- For SG6000 and SG5700 appliances, [configure AutoSupport in SANtricity System Manager](#)

AutoSupport packages from E-Series appliances can be included in StorageGRID AutoSupport if you configure AutoSupport delivery by proxy in [SANtricity System Manager](#).

StorageGRID AutoSupport does not report hardware issues, such as DIMM or host interface card (HIC) faults. However, some component failures might trigger [hardware alerts](#). For StorageGRID appliances with a baseboard management controller (BMC), such as the SG100, SG1000, SG6060, or SGF6024, you can configure email and SNMP traps to report hardware failures:

- [Set up email notifications for BMC alerts](#)
- [Configure SNMP settings for BMC](#) for the SG6000-CN controller or the SG100 and SG1000 services appliances

Related information

[NetApp Support](#)

Manually trigger an AutoSupport package

To assist technical support in troubleshooting issues with your StorageGRID system, you can manually trigger an AutoSupport package to be sent.

Before you begin

- You must be signed in to the Grid Manager using a [supported web browser](#).

- You must have the Root access or Other grid configuration permission.

Steps

1. Select **SUPPORT > Tools > AutoSupport**.
2. On the **Actions** tab, select **Send User-Triggered AutoSupport**.

StorageGRID attempts to send an AutoSupport package to the NetApp Support Site. If the attempt is successful, the **Most Recent Result** and **Last Successful Time** values on the **Results** tab are updated. If there is a problem, the **Most Recent Result** value updates to "Failed," and StorageGRID does not try to send the AutoSupport package again.



After sending an User-triggered AutoSupport package, refresh the AutoSupport page in your browser after 1 minute to access the most recent results.

Troubleshoot AutoSupport packages

If an attempt to send an AutoSupport package fails, the StorageGRID system takes different actions depending on the type of AutoSupport package. You can check the status of AutoSupport packages by selecting **SUPPORT > Tools > AutoSupport > Results**.

When the AutoSupport package fails to send, "Failed" appears on the **Results** tab of the **AutoSupport** page.



If you configured a proxy server to forward AutoSupport packages to NetApp, you should [verify that the proxy server configuration settings are correct](#).

Weekly AutoSupport package failure

If a weekly AutoSupport package fails to send, the StorageGRID system takes the following actions:

1. Updates the Most Recent Result attribute to Retrying.
2. Attempts to resend the AutoSupport package 15 times every four minutes for one hour.
3. After one hour of send failures, updates the Most Recent Result attribute to Failed.
4. Attempts to send an AutoSupport package again at the next scheduled time.
5. Maintains the regular AutoSupport schedule if the package fails because the NMS service is unavailable, and if a package is sent before seven days pass.
6. When the NMS service is available again, sends an AutoSupport package immediately if a package has not been sent for seven days or more.

User-triggered or event-triggered AutoSupport package failure

If a user-triggered or an event-triggered AutoSupport package fails to send, the StorageGRID system takes the following actions:

1. Displays an error message if the error is known. For example, if a user selects the SMTP protocol without providing correct email configuration settings, the following error is displayed: AutoSupport packages cannot be sent using SMTP protocol due to incorrect settings on the E-mail Server page.

2. Does not attempt to send the package again.
3. Logs the error in `nms.log`.

If a failure occurs and SMTP is the selected protocol, verify that the StorageGRID system's email server is correctly configured and that your email server is running (**SUPPORT > Alarms (legacy) >> Legacy Email Setup**). The following error message might appear on the AutoSupport page: `AutoSupport packages cannot be sent using SMTP protocol due to incorrect settings on the E-mail Server page.`

Learn how to [configure email server settings](#).

Correct an AutoSupport package failure

If a failure occurs and SMTP is the selected protocol, verify that the StorageGRID system's email server is correctly configured and that your email server is running. The following error message might appear on the AutoSupport page: `AutoSupport packages cannot be sent using SMTP protocol due to incorrect settings on the E-mail Server page.`

Send E-Series AutoSupport packages through StorageGRID

You can send E-Series SANtricity System Manager AutoSupport packages to technical support through a StorageGRID Admin Node rather than the storage appliance management port.

See [E-Series hardware AutoSupport](#) for more information about using AutoSupport with E-Series appliances.

Before you begin

- You are signed into the Grid Manager using a [supported web browser](#).
- You have the [Storage appliance administrator or Root access permission](#).
- You have configured SANtricity AutoSupport:
 - For SG6000 and SG5700 appliances, [configure AutoSupport in SANtricity System Manager](#)



You must have SANtricity firmware 8.70 or higher to access SANtricity System Manager using the Grid Manager.

About this task

E-Series AutoSupport packages contain details of the storage hardware and are more specific than other AutoSupport packages sent by the StorageGRID system.

You can configure a special proxy server address in SANtricity System Manager to transmit AutoSupport packages through a StorageGRID Admin Node without the use of the appliance's management port. AutoSupport packages transmitted in this way are sent by the [preferred sender Admin Node](#), and they use any [admin proxy settings](#) that have been configured in the Grid Manager.

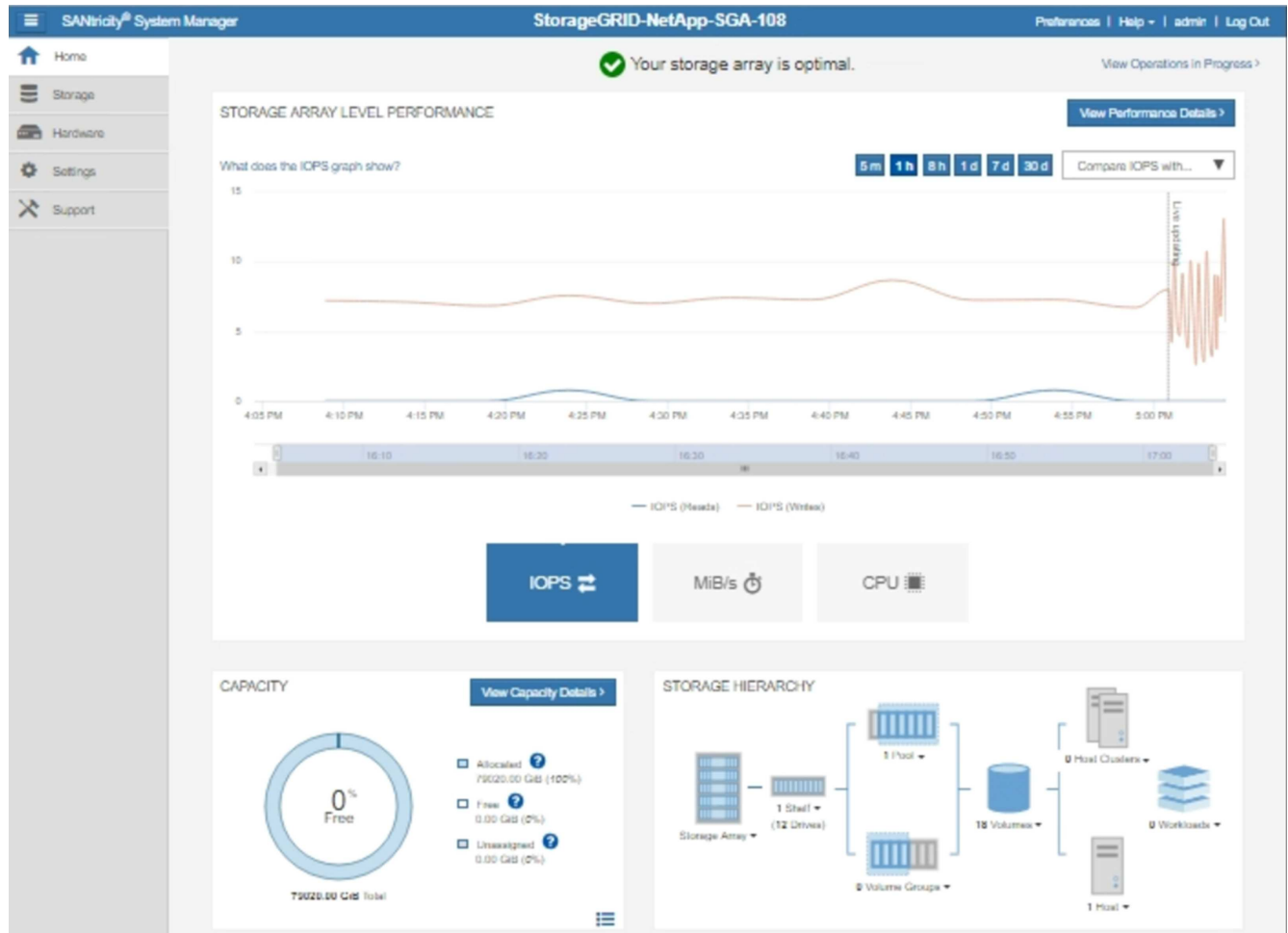


This procedure is only for configuring a StorageGRID proxy server for E-Series AutoSupport packages. For additional details on E-Series AutoSupport configuration, see the [NetApp E-Series and SANtricity Documentation](#).

Steps

1. In the Grid Manager, select **NODES**.
2. From the list of nodes on the left, select the storage appliance node you want to configure.
3. Select **SANtricity System Manager**.

The SANtricity System Manager home page appears.



4. Select **SUPPORT > Support center > AutoSupport**.

The AutoSupport operations page appears.

Support Resources

Diagnostics

AutoSupport

AutoSupport operations

AutoSupport status: Enabled 

[Enable/Disable AutoSupport Features](#)

AutoSupport proactively monitors the health of your storage array and automatically sends support data ("dispatches") to the support team.

[Configure AutoSupport Delivery Method](#)

Connect to the support team via HTTPS, HTTP or Mail (SMTP) server delivery methods.

[Schedule AutoSupport Dispatches](#)

AutoSupport dispatches are sent daily at 03:06 PM UTC and weekly at 07:39 AM UTC on Thursday.

[Send AutoSupport Dispatch](#)

Automatically sends the support team a dispatch to troubleshoot system issues without waiting for periodic dispatches.

[View AutoSupport Log](#)

The AutoSupport log provides information about status, dispatch history, and errors encountered during delivery of AutoSupport dispatches.

[Enable AutoSupport Maintenance Window](#)

Enable AutoSupport Maintenance window to allow maintenance activities to be performed on the storage array without generating support cases.

[Disable AutoSupport Maintenance Window](#)

Disable AutoSupport Maintenance window to allow the storage array to generate support cases on component failures and other destructive actions.

5. Select **Configure AutoSupport Delivery Method**.

The Configure AutoSupport Delivery Method page appears.

Configure AutoSupport Delivery Method

Select AutoSupport dispatch delivery method...

HTTPS

HTTP

Email

HTTPS delivery settings [Show destination address](#)

Connect to support team...

Directly ?

via Proxy server ?

Host address ?

tunnel-host

Port number ?

10225

My proxy server requires authentication

via Proxy auto-configuration script (PAC) ?

Save Test Configuration Cancel

6. Select **HTTPS** for the delivery method.



The certificate that enables HTTPS is pre-installed.

7. Select **via Proxy server**.

8. Enter `tunnel-host` for the **Host address**.

`tunnel-host` is the special address to use an Admin Node to send E-Series AutoSupport packages.

9. Enter `10225` for the **Port number**.

`10225` is the port number on the StorageGRID proxy server that receives AutoSupport packages from the E-Series controller in the appliance.

10. Select **Test Configuration** to test the routing and configuration of your AutoSupport proxy server.

If correct, a message in a green banner appears: "Your AutoSupport configuration has been verified."

If the test fails, an error message appears in a red banner. Check your StorageGRID DNS settings and

networking, ensure the [preferred sender Admin Node](#) can connect to the NetApp Support Site, and try the test again.

11. Select **Save**.

The configuration is saved, and a confirmation message appears: "AutoSupport delivery method has been configured."

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