Troubleshoot AutoSupport

ONTAP 9

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Troubleshoot AutoSupport when messages are not received

If the system does not send the AutoSupport message, you can determine whether that is because AutoSupport cannot generate the message or cannot deliver the message.

Steps

1. Check delivery status of the messages by using the `system node autosupport history show` command.
2. Read the status.

This status	Means
initializing	The collection process is starting. If this state is temporary, all is well. However, if this state persists, there is an issue.
collection-failed	AutoSupport cannot create the AutoSupport content in the spool directory. You can view what AutoSupport is trying to collect by entering the `system node autosupport history show -detail` command.
collection-in-progress	AutoSupport is collecting AutoSupport content. You can view what AutoSupport is collecting by entering the `system node autosupport manifest show` command.
queued	AutoSupport messages are queued for delivery, but not yet delivered.
transmitting	AutoSupport is currently delivering messages.
sent-successful	AutoSupport successfully delivered the message. You can find out where AutoSupport delivered the message by entering the `system node autosupport history show -delivery` command.
ignore	AutoSupport has no destinations for the message. You can view the delivery details by entering the `system node autosupport history show -delivery` command.
re-queued	AutoSupport tried to deliver messages, but the attempt failed. As a result, AutoSupport placed the messages back in the delivery queue for another attempt. You can view the error by entering the `system node autosupport history show` command.
transmission-failed	AutoSupport failed to deliver the message the specified number of times and stopped trying to deliver the message. You can view the error by entering the `system node autosupport history show` command.

This status	Means
ondemand-ignore	The AutoSupport message was processed successfully, but the AutoSupport OnDemand service chose to ignore it.

3. Perform one of the following actions:

For this status	Do this
initializing or collection-failed	Contact NetApp Support, because AutoSupport cannot generate the message. Mention the following Knowledge Base article: AutoSupport is failing to deliver: status is stuck in initializing
ignore, re-queued, or transmission failed	Check that destinations are correctly configured for SMTP, HTTP, or HTTPS because AutoSupport cannot deliver the message.

Troubleshoot AutoSupport message delivery over HTTP or HTTPS

If the system does not send the expected AutoSupport message and you are using HTTP or HTTPS, or the Automatic Update feature is not working, you can check a number of settings to resolve the problem.

What you'll need

You should have confirmed basic network connectivity and DNS lookup:

- Your node management LIF must be up for operational and administrative status.
- You must be able to ping a functioning host on the same subnet from the cluster management LIF (not a LIF on any of the nodes).
- You must be able to ping a functioning host outside the subnet from the cluster management LIF.
- You must be able to ping a functioning host outside the subnet from the cluster management LIF using the name of the host (not the IP address).

About this task

These steps are for cases when you have determined that AutoSupport can generate the message, but cannot deliver the message over HTTP or HTTPS.

If you encounter errors or cannot complete a step in this procedure, determine and address the problem before proceeding to the next step.

Steps

1. Display the detailed status of the AutoSupport subsystem:

```
system node autosupport check show-details
```

This includes verifying connectivity to AutoSupport destinations by sending test messages and providing a list of possible errors in your AutoSupport configuration settings.

2. Verify the status of the node management LIF:

   ```
   network interface show -home-node local -role node-mgmt -fields
   vserver,lif,status-oper,status-admin,address,role
   ```

   The `status-oper` and `status-admin` fields should return “up”.

3. Record the SVM name, the LIF name, and the LIF IP address for later use.
4. Ensure that DNS is enabled and configured correctly:

   ```
   vserver services name-service dns show
   ```

5. Address any errors returned by the AutoSupport message:

   ```
   system node autosupport history show -node * -fields node,seq-
   num,destination,last-update,status,error
   ```

   For assistance troubleshooting any returned errors, see the ONTAP AutoSupport (Transport HTTPS and HTTP) Resolution Guide.

6. Confirm that the cluster can access both the servers it needs and the Internet successfully:

   a. `network traceroute -lif node-management_LIF -destination DNS server`

   b. `network traceroute -lif node_management_LIF -destination support.netapp.com`

      The address `support.netapp.com` itself does not respond to ping/traceroute, but the per-hop information is valuable.

   c. `system node autosupport show -fields proxy-url`

   d. `network traceroute -node node_management_LIF -destination proxy_url`

   If any of these routes are not functioning, try the same route from a functioning host on the same subnet as the cluster, using the “traceroute” or “tracert” utility found on most third-party network clients. This assists you in determining whether the issue is in your network configuration or your cluster configuration.

7. If you are using HTTPS for your AutoSupport transport protocol, ensure that HTTPS traffic can exit your network:

   a. Configure a web client on the same subnet as the cluster management LIF.

      Ensure that all configuration parameters are the same values as for the AutoSupport configuration, including using the same proxy server, user name, password, and port.

   b. Access `https://support.netapp.com` with the web client.

      The access should be successful. If not, ensure that all firewalls are configured correctly to allow HTTPS and DNS traffic, and that the proxy server is configured correctly. For more information on configuring static name resolution for support.netapp.com, see the Knowledge Base article How would a HOST entry be added in ONTAP for support.netapp.com?

8. Beginning with ONTAP 9.10.1, if you enabled the Automatic Update feature, ensure you have HTTPS connectivity to the following additional URLs:
    - https://support-sg-emea.netapp.com
    - https://support-sg-naeast.netapp.com
    - https://support-sg-nawest.netapp.com

Troubleshoot AutoSupport message delivery over SMTP

If the system cannot deliver AutoSupport messages over SMTP, you can check a number of settings to resolve the problem.

What you'll need

You should have confirmed basic network connectivity and DNS lookup:

- Your node management LIF must be up for operational and administrative status.
- You must be able to ping a functioning host on the same subnet from the cluster management LIF (not a LIF on any of the nodes).
- You must be able to ping a functioning host outside the subnet from the cluster management LIF.
- You must be able to ping a functioning host outside the subnet from the cluster management LIF using the name of the host (not the IP address).

About this task

These steps are for cases when you have determined that AutoSupport can generate the message, but cannot deliver the message over SMTP.

If you encounter errors or cannot complete a step in this procedure, determine and address the problem before proceeding to the next step.

All commands are entered at the ONTAP command-line interface, unless otherwise specified.

Steps

1. Verify the status of the node management LIF:

    ```
    network interface show -home-node local -role node-mgmt -fields
    vserver,lif,status-oper,status-admin,address,role
    ```

    The `status-oper` and `status-admin` fields should return `up`.

2. Record the SVM name, the LIF name, and the LIF IP address for later use.
3. Ensure that DNS is enabled and configured correctly:

    ```
    vserver services name-service dns show
    ```

4. Display all of the servers configured to be used by AutoSupport:

    ```
    system node autosupport show -fields mail-hosts
    ```

    Record all server names displayed.

5. For each server displayed by the previous step, and `support.netapp.com`, ensure that the server or URL can be reached by the node:

   network traceroute -node local -destination *server_name*

   If any of these routes is not functioning, try the same route from a functioning host on the same subnet as the cluster, using the “traceroute” or “tracert” utility found on most third-party network clients. This assists you in determining whether the issue is in your network configuration or your cluster configuration.

6. Log in to the host designated as the mail host, and ensure that it can serve SMTP requests:

   netstat -aAn|grep 25

   `25` is the listener SMTP port number.

   A message similar to the following text is displayed:

   ```
   ff64878c tcp        0      0  *.25    *.*    LISTEN.
   ```

7. From some other host, open a Telnet session with the SMTP port of the mail host:

   telnet *mailhost* 25

   A message similar to the following text is displayed:

   ```
   220 filer.yourco.com Sendmail 4.1/SMI-4.1 ready at Thu, 30 Nov 2014
   10:49:04 PST
   ```

8. At the telnet prompt, ensure that a message can be relayed from your mail host:

   HELO *domain_name*

   MAIL FROM: *your_email_address*

   RCPT TO: autosupport@netapp.com

   `domain_name` is the domain name of your network.

   If an error is returned saying that relaying is denied, relaying is not enabled on the mail host. Contact your system administrator.

9. At the telnet prompt, send a test message:

   DATA

   SUBJECT: TESTING THIS IS A TEST

   .

Ensure that you enter the last period (.) on a line by itself. The period indicates to the mail host that the message is complete.

If an error is returned, your mail host is not configured correctly. Contact your system administrator.

10. From the ONTAP command-line interface, send an AutoSupport test message to a trusted email address that you have access to:

    system node autosupport invoke -node local -type test

11. Find the sequence number of the attempt:

    system node autosupport history show -node local -destination smtp

    Find the sequence number for your attempt based on the timestamp. It is probably the most recent attempt.

12. Display the error for your test message attempt:

    system node autosupport history show -node local -seq-num seq_num -fields error

    If the error displayed is `Login denied`, your SMTP server is not accepting send requests from the cluster management LIF. If you do not want to change to using HTTPS as your transport protocol, contact your site network administrator to configure the SMTP gateways to address this issue.

    If this test succeeds but the same message sent to mailto:autosupport@netapp.com does not, ensure that SMTP relay is enabled on all of your SMTP mail hosts, or use HTTPS as a transport protocol.

    If even the message to the locally administered email account does not succeed, confirm that your SMTP servers are configured to forward attachments with both of these characteristics:

    - The “7z” suffix
    - The “application/x-7x-compressed” MIME type.

Troubleshoot the AutoSupport subsystem

The `system node check show` commands can be used to verify and troubleshoot any issues related to the AutoSupport configuration and delivery.

Step

1. Use the following commands to display the status of the AutoSupport subsystem.

Use this command…	To do this…
system node autosupport check show	Display overall status of the AutoSupport subsystem, such as the status of AutoSupport HTTP or HTTPS destination, AutoSupport SMTP destinations, AutoSupport OnDemand Server, and AutoSupport configuration

Use this command…	To do this…
system node autosupport check show-details	Display detailed status of the AutoSupport subsystem, such as detailed descriptions of errors and the corrective actions

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