# **■** NetApp

## **Troubleshooting**

**Cloud Insights** 

NetApp March 21, 2022

# **Table of Contents**

Troubleshooting	 	 	 	 	 	 	 . 1
Troubleshooting General Cloud Insights Problems	 	 	 	 	 	 	 . 1
Troubleshooting Acquisition Unit Problems on Linux	 	 	 	 	 	 	 . 2
Troubleshooting Acquisition Unit Problems on Windows	 	 	 	 	 	 	 . 5
Researching a failed data collector	 	 	 	 	 	 	 . 8

# **Troubleshooting**

### **Troubleshooting General Cloud Insights Problems**

Here you will find suggestions for troubleshooting Cloud insights.

See also Troubleshooting Linux Acquisition Unit Problems and Troubleshooting Windows Acquisition Unit Problems.

#### Login issues:

Problem:	Try this:
Cloud Insights logs out every 5 minutes	Enable 3rd party cookie acceptance from [*.]auth0.com in your browser settings. For example in Chrome's incognito mode, the default browser settings block third-party cookies. Try the following: Enter "chrome://settings/cookies" in browser URL. Select "Allow all cookies" option.
I have a Cloud Central account but am unable to login to Cloud Central.	Contact saas.support@netapp.com. This is specifically for Cloud Central issues or questions. For all other Cloud Insights issues, contact NetApp support.
I got invited to Cloud Insights but I get a "not authorized" message.	Verify that you have signed up for a Cloud Central account, or that your organization uses SSO login with Cloud Central.  Verify your Cloud Central profile email address matches email address shown in your Cloud Insights welcome email. If the email does not match, request a new invitation with the correct email address.
I logged out from Cloud Central or Cloud Secure and was automatically logged out from Cloud Insights.	Single Sign-On (SSO) across NetApp Cloud logs out all Cloud Insights, Cloud Secure, and Reporting sessions. If you have access to multiple Cloud Insights accounts, logging out from any one logs out all active sessions. Log back in to access your account.
I was automatically logged out after several days.	NetApp Cloud accounts require reauthentication every few days (current Cloud Central setting is 7 days). Log back in to access your account.
I receive an error message "no longer authorized to login".	Contact your account administrator to verify access to Cloud Insights. Verify your Cloud Central profile email address matches email address shown in your Cloud Insights welcome email

Other login errors	Try incognito mode in Chrome, or clear browser history, cookies, and cache.
	Try with a different browser profile (i.e. Chrome - add Person).

If you have an active Cloud Insights subscription you can use these support options:

#### Phone Support Ticket

For more information, see the Cloud Insights Support Documentation.

### **Troubleshooting Acquisition Unit Problems on Linux**

Here you will find suggestions for troubleshooting problems with Acquisition Units on a Linux server.

Problem:	Try this:
AU status on the <b>Admin &gt; Data Collectors</b> page in the <b>Acquisition Units</b> tab displays "Certificate Expired" or "Certificate Revoked".	Click on the menu to the right of the AU and select <b>Restore Connection</b> . Follow the instructions to restore your Acquisition Unit:  1. Stop the Acquisition Unit (AU) service. You can
	click the <i>Copy Stop Command</i> button to quickly copy the command to the clipboard, then paste this command into a command prompt on the acquisition unit machine.
	2. Create a file named "token" in the /var/lib/netapp/cloudinsights/acq/conf folder on the AU.
	3. Click the <i>Copy Token</i> button, and paste this token into the file you created.
	4. Restart the AU service. Click the <i>Copy Restart Command</i> button, and paste the command into a command prompt on the AU.
Installation fails on SELinux	When the AU is installed on SELinux, SE should be either disabled or set to permissive mode. Once the installation is complete, enforcing mode can be enabled.
Server Requirements not met	Ensure that your Acquisition Unit server or VM meets requirements

Network Requirements not met	Ensure that your Acquisition Unit server/VM can access your Cloud Insights environment ( <environment-name>.c01.cloudinsights.netapp.com) through SSL connection over port 443. Try the following commands:  ping <environment-name>.c01.cloudinsights.netapp.com traceroute <environment-name>.c01.cloudinsights.netapp.com curl https://<environment-name>.c01.cloudinsights.netapp.com wget https://<environment-name>.c01.cloudinsights.netapp.com</environment-name></environment-name></environment-name></environment-name></environment-name>
Proxy Server not configured properly	Verify your proxy settings, and uninstall/re-install the Acquisition Unit software if necessary to enter the correct proxy settings.  1. Try "curl". Refer to "man curl" information/documentation regarding proxies:preproxy,proxy-* (that's a wildcard "*" because curl supports many proxy settings).  2. Try "wget". Check documentation for proxy options.
Acquisition unit installation failed in Cloud insights with credential errors while starting acquisition service (and visible in the acq.log).	This can be caused by the inclusion of special characters in the proxy credentials. Uninstall the AU (sudo cloudinsights-uninstall.sh) and reinstall without using special characters.
Linux: missing library / file not found	Ensure that your Linux Acquisition Unit server/VM has all necessary libraries. For example, you must have the <i>unzip</i> library installed on the server. To install the <i>unzip</i> library, run the command *sudo yum install unzip* before running the Acquisition Unit install script
Permission issues	Be sure you are logged in as a user with <i>sudo</i> permissions
Acquisition Not Running:	Gather the acq.log from /opt/netapp/cloudinsights/acq/logs (Linux) Restart the Acquisition Service: sudo cloudinsights-service.sh restart acquisition
Data Collection Issues:	Send an Error Report from the Data Collector landing page by clicking the "Send Error Report" button

Status: Heartbeat Failed	The Acquisition Unit (AU) sends a heartbeat to Cloud Insights every 60 seconds to renew its lease. If the heartbeat call fails due to network issue or unresponsive Cloud Insights, the AU's lease time isn't updated. When the AU's lease time expires, Cloud Insights shows a status of "Heartbeat Failed".  Troubleshoot steps:  Check the network connection between the Acquisition Unit sever and CloudInsights. Check whether the Acquisition Unit service is running. If the service is not running, start the service. Check the Acquisition Unit log (/var/log/netapp/cloudinsights/acq/acq.log) to see whether there are any errors.
I'm seeing a "Heartbeat Error: message	This error can occur if there is a network interruption that causes communication between the Acquisition Unit and the Cloud Insights environment to be interrupted for more than one minute. Verify the connection between the AU and Cloud Insights is stable and active.

#### **Considerations about Proxies and Firewalls**

If your organization requires proxy usage for internet access, you may need to understand your organization's proxy behavior and seek certain exceptions for Cloud Insights to work. Keep the following in mind:

• First, does your organization block access by default, and only allow access to specific web sites/domains by exception? If so, you will need to get the following domain added to the exception list:

```
*.cloudinsights.netapp.com
```

Your Cloud Insights Acquisition Unit, as well as your interactions in a web browser with Cloud Insights, will all go to hosts with that domain name.

Second, some proxies attempt to perform TLS/SSL inspection by impersonating Cloud Insights web sites
with digital certificates not generated from NetApp. The Cloud Insights Acquisition Unit's security model is
fundamentally incompatible with these technologies. You would also need the above domain name
excepted from this functionality in order for the Cloud Insights Acquisition Unit to successfully login to
Cloud Insights and facilitate data discovery.

In case where the proxy is set up for traffic inspection, the Cloud Insights environment must be added to an exception list in the proxy configuration. The format and setup of this exception list varies according to your proxy environment and tools, but in general you must add the URLs of the Cloud Insights servers to this exception list in order to allow the AU to properly communicate with those servers.

The simplest way to do this is to add the Cloud Insights domain itself to the exception list:

```
*.cloudinsights.netapp.com
```

In the case where the proxy is not set up for traffic inspection, an exception list may or may not be required. If you are unsure whether you need to add Cloud Insights to an exception list, or if you experience difficulties installing or running Cloud Insights due to proxy and/or firewall configuration, talk to your proxy administration team to set up the proxy's handling of SSL interception.

#### **Viewing Proxy endpoints**

You can view your proxy endpoints by clicking the **Proxy Settings** link when choosing a data collector during onboarding, or the link under *Proxy Settings* on the **Help > Support** page. A table like the following is displayed. If you have Cloud Secure in your environment, the configured endpoint URLs will also be displayed in this list.



#### Resources

Additional troubleshooting tips may be found in the NetApp Knowledgebase (support sign-in required).

Additional support information may be found from the Cloud Insights Support page.

### **Troubleshooting Acquisition Unit Problems on Windows**

Here you will find suggestions for troubleshooting problems with Acquisition Units on a Windows server.

Problem:	Try this:

AU status on the Admin > Data Collectors page in the Acquisition Units tab displays "Certificate Expired" or "Certificate Revoked".	Click on the menu to the right of the AU and select <b>Restore Connection</b> . Follow the instructions to restore your Acquisition Unit:  1. Stop the Acquisition Unit (AU) service. You can click the <i>Copy Stop Command</i> button to quickly copy the command to the clipboard, then paste this command into a command prompt on the acquisition unit machine.  2. Create a file named "token" in the <i>c:\Program Files\Cloud Insights\Acquisition Unit\conf\</i> folder on the AU.  3. Click the <i>Copy Token</i> button, and paste this token into the file you created.  4. Restart the AU service. Click the <i>Copy Restart Command</i> button, and paste the command into a command prompt on the AU.
Server Requirements not met	Ensure that your Acquisition Unit server or VM meets requirements
Network Requirements not met	Ensure that your Acquisition Unit server/VM can access your Cloud Insights environment ( <environment-name>.c01.cloudinsights.netapp.com) through SSL connection over port 443. Try the following commands:  ping <environment-name>.c01.cloudinsights.netapp.com traceroute <environment-name>.c01.cloudinsights.netapp.com curl https://<environment-name>.c01.cloudinsights.netapp.com wget https://<environment-name>.c01.cloudinsights.netapp.com</environment-name></environment-name></environment-name></environment-name></environment-name>
Proxy Server not configured properly	Verify your proxy settings, and uninstall/re-install the Acquisition Unit software if necessary to enter the correct proxy settings.  1. Try "curl". Refer to "man curl" information/documentation regarding proxies:preproxy,proxy-* (that's a wildcard "*" because curl supports many proxy settings).  2. Try "wget". Check documentation for proxy options.
Acquisition unit installation failed in Cloud insights with credential errors while starting acquisition service (and visible in the acq.log).	
Permission issues	Be sure you are logged in as a user with administrator permissions

Acquisition Not Running	You can find information in the acq.log in the <install directory="">\Cloud Insights\Acquisition Unit\log folder. Restart the Acquisition via Windows Services</install>
Data Collection Issues	Send an Error Report from the Data Collector landing page by clicking the "Send Error Report" button
Status: Heartbeat Failed	The Acquisition Unit (AU) sends a heartbeat to Cloud Insights every 60 seconds to renew its lease. If the heartbeat call fails due to network issue or unresponsive Cloud Insights, the AU's lease time isn't updated. When the AU's lease time expires, Cloud Insights shows a status of "Heartbeat Failed".  Troubleshoot steps:
	* Check the network connection between the Acquisition Unit sever and CloudInsights.  * Check whether the Acquisition Unit service is running. If the service is not running, start the service.  * Check the Acquisition Unit log ( <install dir="">:\Program Files\Cloud Insights\Acquisition Unit\log\acq.log) to see whether there are any errors.</install>
I'm seeing a "Heartbeat Error: message	This error can occur if there is a network interruption that causes communication between the Acquisition Unit and the Cloud Insights environment to be interrupted for more than one minute. Verify the connection between the AU and Cloud Insights is stable and active.

#### **Considerations about Proxies and Firewalls**

If your organization requires proxy usage for internet access, you may need to understand your organization's proxy behavior and seek certain exceptions for Cloud Insights to work. Keep the following in mind:

• First, does your organization block access by default, and only allow access to specific web sites/domains by exception? If so, you will need to add the following domain to your exception list:

```
*.cloudinsights.netapp.com
```

Your Cloud Insights Acquisition Unit, as well as your interactions in a web browser with Cloud Insights, will all go to hosts with that domain name.

Second, some proxies attempt to perform TLS/SSL inspection by impersonating Cloud Insights web sites
with digital certificates not generated from NetApp. The Cloud Insights Acquisition Unit's security model is
fundamentally incompatible with these technologies. You would also need the above domain name
excepted from this functionality in order for the Cloud Insights Acquisition Unit to successfully login to
Cloud Insights and facilitate data discovery.

#### **Viewing Proxy endpoints**

You can view your proxy endpoints by clicking the Proxy Settings link when choosing a data collector during

onboarding, or the link under *Proxy Settings* on the **Help > Support** page. A table like the following is displayed. If you have Cloud Secure in your environment, the configured endpoint URLs will also be displayed in this list.



#### Resources

Additional troubleshooting tips may be found in the NetApp Knowledgebase (support sign-in required).

Additional support information may be found from the Cloud Insights Support page.

### Researching a failed data collector

If a data collector has failure message and a High or Medium Impact, you need to research this problem using the data collector summary page with its linked information.

Use the following steps to determine the cause of failed data collectors. Data collector failure messages are displayed on the **Admin** menu and on the **Installed Data Collectors** page.

#### **Steps**

- 1. Click Admin > Data Collectors > Installed Data Collectors.
- 2. Click the linked Name of the failing data collector to open the Summary page.
- 3. On the Summary page, check the Comments area to read any notes that might have been left by another engineer who might also be investigating this failure.
- 4. Note any performance messages.
- 5. Move your mouse pointer over the segments of the Event Timeline graph to display additional information.
- 6. Select an error message for a Device and displayed below the Event Timeline and click the Error details icon that displays to the right of the message.
  - The Error details include the text of the error message, most likely causes, information in use, and suggestions of what can be tried to correct the problem.
- 7. In the Devices Reported By This Data Collector area, you might filter the list to display only devices of interest, and you can click the linked **Name** of a device to display the asset page for that device.
- 8. When you return to the data collector summary page, check the **Show Recent Changes** area at the bottom of the page to see if recent changes could have caused the problem.

#### **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 <a href="http://www.netapp.com/TM">http://www.netapp.com/TM</a> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.