



Monitoring your Environment

Cloud Insights

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Auditing

To identify changes both expected (for tracking) or unexpected (for troubleshooting), you can view an audit trail of the Cloud Insights system events and user activities.

Viewing Audited Events

To View the Audit page, click **Admin > Audit** in the menu. The Audit page is displayed, providing the following details for each audit entry:

- **Time** - Date and time of the event or activity
- **User** - The User who initiated the activity
- **Role** - The user's role in Cloud Insights (guest, user, administrator)
- **IP** - The IP address associated with the event
- **Action** - Type of activity, for example Login, Create, Update
- **Category** - The category of activity
- **Details** - Details of the activity

Displaying audit entries

There are a number of different ways to view audit entries:

- You can display audit entries by choosing a particular time period (1 hour, 24 hours, 3 days, etc.).
- You can change the sort order of entries to either ascending (up arrow) or descending (down arrow) by clicking the arrow in the column header.

By default, the table displays the entries in descending time order.

- You can use the filter fields to show only the entries you want in the table. Click the [+] button to add additional filters.

Filter By

Category

Management

X

User

Tony

X

Action

Any

X

+

Audit (15)

Time ↓	User	Role	IP
12/09/2020 10:16:42 AM	Tony Lavoie	admin	216.240.1
12/09/2020 10:16:42 AM	Tony Lavoie	admin	216.240.200.25

✓ Create

✓ Delete

✓ Update

☐ Enable

☐ Disable

☐ Accept

More on Filtering

You can use any of the following to refine your filter:

Filter	What it does	Example	Result
* (Asterisk)	enables you to search for everything	vol*rhel	returns all resources that start with "vol" and end with "rhel"
? (question mark)	enables you to search for a specific number of characters	BOS-PRD??-S12	returns BOS-PRD 12 -S12, BOS-PRD 23 -S12, and so on
OR	enables you to specify multiple entities	FAS2240 OR CX600 OR FAS3270	returns any of FAS2440, CX600, or FAS3270
NOT	allows you to exclude text from the search results	NOT EMC*	returns everything that does not start with "EMC"
None	searches for blank/NULL/None in any field where selected	None	returns results where the target field is not empty
Not *	as with <i>None</i> above, but you can also use this form to search for NULL values in <i>text-only</i> fields	Not *	returns results where the target field is not empty.
""	searches for an exact match	"NetApp*"	returns results containing the exact literal string <i>NetApp*</i>

If you enclose a filter string in double quotes, Insight treats everything between the first and last quote as an exact match. Any special characters or operators inside the quotes will be treated as literals. For example, filtering for ""*"" will return results that are a literal asterisk; the asterisk will not be treated as a wildcard in this case. The operators OR and NOT will also be treated as literal strings when enclosed in double quotes.

Audited Events and Actions

The events and actions audited by Cloud insights can be categorized in the following broad areas:

- **User account:** Log in, log out, role change, etc.

Example: User **Tony Lavoie** logged in from **10.1.120.15**, user agent **Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/85.0.4183.121 Safari/537.36**, login method(s) **Cloud Central Portal Login**

- **Acquisition Unit:** create, delete, etc.

Example: Acquisition unit **AU-Boston-1** removed.

- **Data Collector:** add, remove, modify, postpone/resume, change acquisition unit, start/stop, etc.

Example: Datasource **FlexPod Lab** removed, vendor **NetApp**, model **ONTAP Data Management Software**, ip **192.168.106.5**.

- **Application:** add, assign to object, remove, etc.

Example: *Internal Volume **ocisedev:t1appSVM01:t1appFlexVol01** added to application **Test App**.*

- **Annotation:** add, assign, remove, annotation rule actions, annotation value changes, etc.

Example: *Annotation value **Boston** added to annotation type **SalesOffice**.*

- **Query:** add, remove, etc.

Example: *Query **TL Sales Query** is added.*

- **Monitor:** add, remove, etc.

Example: *Monitor **Aggr Size - CI Alerts Notifications Dev** updated*

- **Notification:** change email, etc.

Example: *Recipient **ci-alerts-notifications-dl** created*

Exporting Audit Events

You can export the results of your Audit display to a .CSV file, which will allow you to analyze the data or import it into another application.

Steps

1. On the Audit page, set the desired time range and any filters you want. Cloud Insights will export only the Audit entries that match the filtering and time range you have set.
2. Click the *Export* button  in the upper right of the table.

The displayed Audit events will be exported to a .CSV file, up to a maximum of 10,000 rows.

Retention of Audit Data

The amount of time Cloud Insights retains Audit data is based on your Edition:

- Basic Edition: Audit data is retained for 30 days
- Standard and Premium Editions: Audit data is retained for 1 year plus 1 day

Audit entries older than the retention time are automatically purged. No user interaction is needed.

Troubleshooting

Here you will find suggestions for troubleshooting problems with Audit.

Problem:	Try this:
I see Audit messages telling me that a monitor has been exported.	Export of a custom monitor configuration is typically used by NetApp engineers during development and testing of new features. If you did not expect to see this message, please consider exploring the actions of the user named in the audited action or contact support.

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