



What's New with Cloud Insights

Cloud Insights

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What's New with Cloud Insights

NetApp is continually improving and enhancing its products and services. Here are some of the latest features and functionalities available with Cloud Insights.

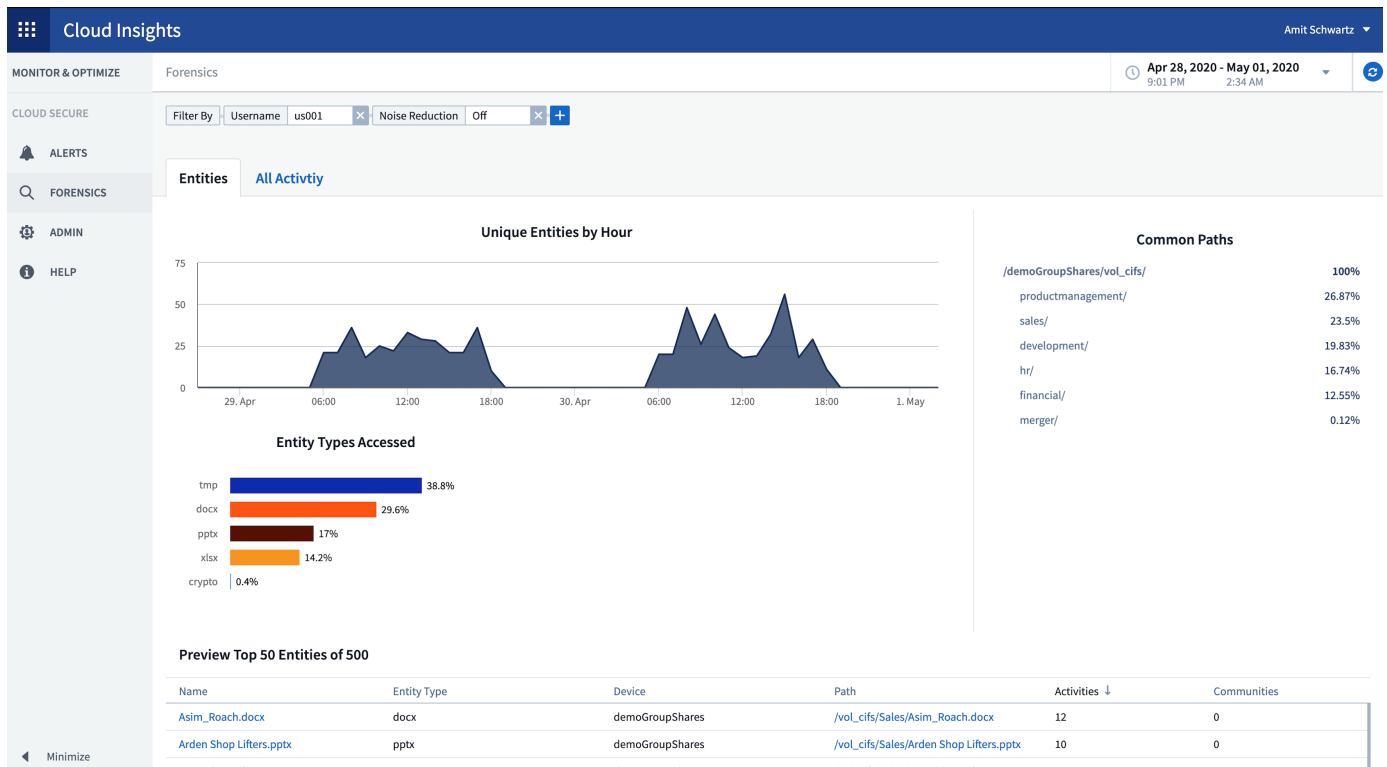
May 2020

Cloud Secure Updates

Cloud Insights includes the following recent Cloud Secure changes.

In the Forensics > Activity Forensics page, we provide two views to analyze and investigate user activity:

- Activity view, focused on user activity (What operation? Where performed?)
- Entities view, focused on what files the user accessed.



Additionally, the Alert email notification now contains a direct link to the alert page.

Dashboard Grouping

Dashboard grouping allows better [management of dashboards](#) that are relevant to you. You can add related dashboards to a group for "one-stop" management of, for example, your storage or virtual machines.

Groups are customized per user, so one person's groups can be different from someone else's. You can

have as many groups as you need, with as few or as many dashboards in each group as you like.

Dashboard Groups (3)

+

◀

Search groups..

All Dashboards (60)

My Dashboards (11)

Storage Group (7)

⋮

Dashboard (7)

Name ↑

Dashboard - Storage Cost

Dashboard - Storage IO Detail

Dashboard - Storage Overview

Gauges Storage Performance

Storage Admin - Which nodes are in high demand?

Storage Admin - Which pools are in high demand?

Storage IOPs

Dashboard Pinning

You can pin dashboards so favorites always appear at the top of the list.

Dashboard (7)

Name ↑

✦

Dashboard - Storage Overview

✦

Storage Admin - Which nodes are in high demand?

✦

Storage IOPs

Dashboard - Storage Cost

Dashboard - Storage IO Detail

Gauges Storage Performance

Storage Admin - Which pools are in high demand?

TV Mode and Auto-Refresh

TV Mode and Auto-Refresh allow for near-real-time display of data on a dashboard or asset page:

- **TV Mode** provides an uncluttered display; the navigation menu is hidden, providing more screen real estate for your data display.

- Data in widgets on Dashboards and Asset Landing Pages **Auto-Refresh** according a refresh interval (as little as every 10 seconds) determined by the Dashboard Time Range selected (or widget time range, if set to override the dashboard time).

Combined, TV Mode and Auto-Refresh provide a live view of your Cloud Insights data, perfect for seamless demonstrations or in-house monitoring.

April 2020

New Dashboard Time Range Choices

Time range choices for dashboards and other Cloud insights pages now include *Last 1 Hour* and *Last 15 Minutes*.

Cloud Secure Updates

Cloud Insights includes the following recent Cloud Secure changes.

- Better file and folder metadata change recognition to detect if the user changed Permission, Owner, or Group Ownership.
- Export user activity report to CSV.

Cloud Secure monitors and audits all user access operations on files and folders. Activity auditing allows you to comply with internal security policies, meet external compliance requirements such as PCI, GDPR, and HIPAA, and conduct data breach and security incident investigations.

Default Dashboard Time

The default time range for dashboards is now 3 Hours instead of 24 hours.

Optimized Aggregation Times

Optimized [time aggregation](#) intervals in time-series widgets (Line, Spline, Area, and Stacked Area charts) are more frequent for 3-hour and 24-hour dashboard/widget time ranges, allowing for faster charting of data.

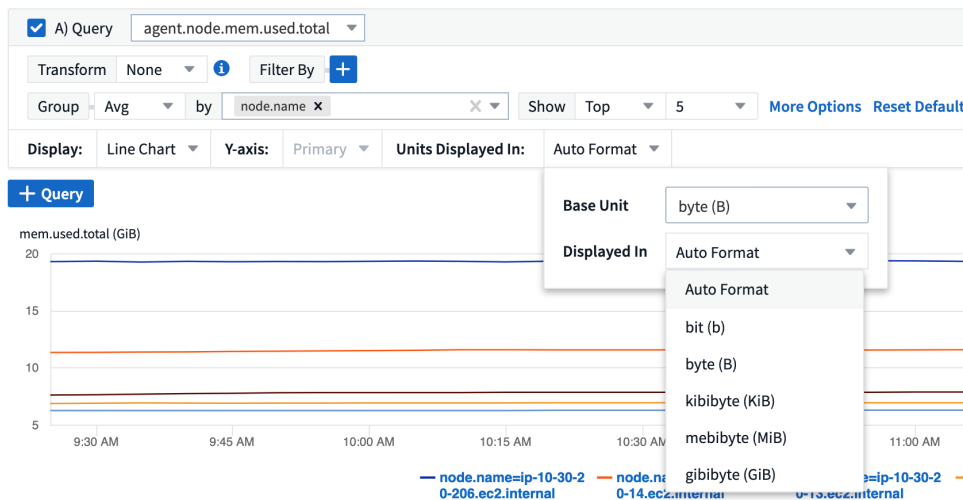
- 3 hour time range optimizes to a 1 minute aggregation interval. Previously this was 5 minutes.
- 24 hour time range optimizes to a 30 minute aggregation interval. Previously this was 1 hour.

You can still override the optimized aggregation by setting a custom interval.

Display Unit Auto-Format

In most widgets, Cloud Insights knows the base unit in which to display values, for example *Megabytes*, *Thousands*, *Percentage*, *Milliseconds (ms)*, etc., and now [automatically formats](#) the widget to the most readable unit. For example, a data value of 1,234,567,890 bytes would be auto formatted to 1.23bn

(billion). In many cases, Cloud Insights knows the best format for the data being acquired. In cases where the best format is not known, or in widgets where you want to override the automatic formatting, you can choose the format you want.



Import Annotations Using API

With Cloud Insights Premium Edition’s powerful API, you can now [import annotations](#) and assign them to objects using a .CSV file. You can also import applications and assign business entities in the same way.

ASSETS.import

PUT /assets/import

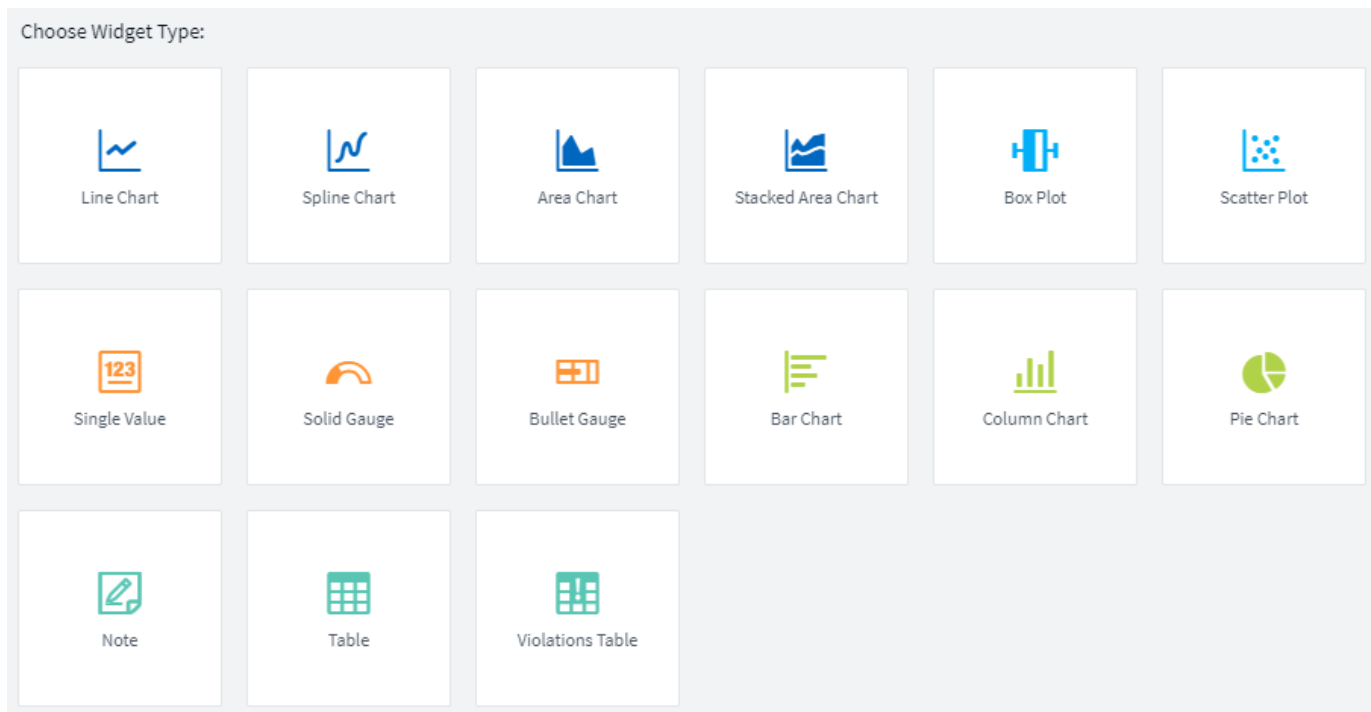
Import assets from a CSV file.

Import annotations and applications from the given CSV file. The format of the CSV file is following:

```
Project
, <Annotation Type> [, <Annotation Type> ...] [, Application] [, Tenant] [, Line_Of_Business] [, Business_Unit] [,
<Object Type Value 1>, <Object Name or Key 1>, <Annotation Value> [, <Annotation Value> ...] [, <Application>] [, <Tenant>] [, <Line_Of_Business>] [, <Business_Unit>] [,
<Project>]
<Object Type Value 2>, <Object Name or Key 2>, <Annotation Value> [, <Annotation Value> ...] [, <Application>] [, <Tenant>] [, <Line_Of_Business>] [, <Business_Unit>] [,
<Project>]
<Object Type Value 3>, <Object Name or Key 3>, <Annotation Value> [, <Annotation Value> ...] [, <Application>] [, <Tenant>] [, <Line_Of_Business>] [, <Business_Unit>] [,
<Project>]
...
<Object Type Value N>, <Object Name or Key N>, <Annotation Value> [, <Annotation Value> ...] [, <Application>] [, <Tenant>] [, <Line_Of_Business>] [, <Business_Unit>] [,
<Project>]
```

Simpler Widget Selector

Adding widgets to dashboards and asset landing pages is easier with a new widget selector that shows all widget types in a single all-at-once view, so the user no longer needs to scroll through a list of widget types to find the one they want to add. Related widgets are color-coordinated and grouped by proximity in the new selector.



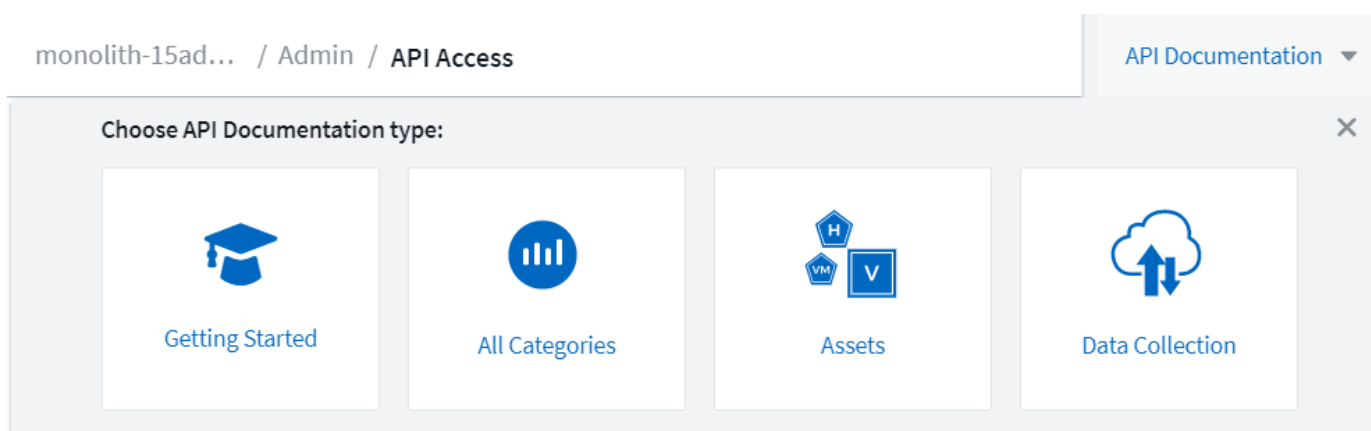
February 2020

API with Premium Edition

Cloud Insights Premium Edition comes with a [powerful API](#) that can be used to integrate Cloud Insights with other applications, such as CMDB's or other ticketing systems.

Detailed, Swagger-based information is found in **Admin > API Access**, under the **API Documentation** link. Swagger provides a brief description and usage information for the API, and allows you to try each API out in your environment.

The Cloud Insights API uses Access Tokens to provide permission-based access to categories of API, such as ASSETS or COLLECTION.



Initial Polling After Adding A Data Collector

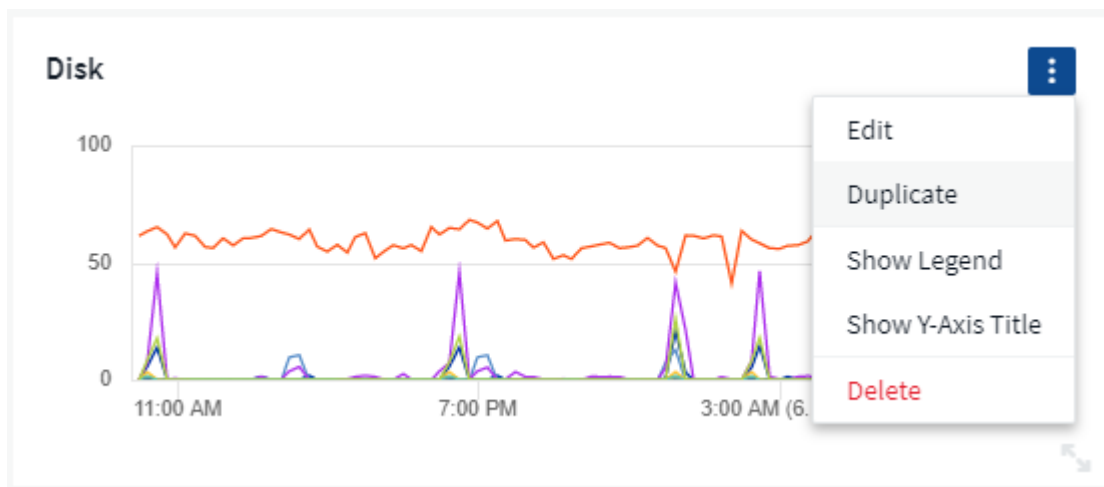
Previously, after configuring a new data collector, Cloud Insights would poll the data collector immediately to gather *inventory* data, but would wait until the configured performance poll interval (typically 15 minutes) to gather initial *performance* data. It would then wait for another interval before initiating the second performance poll, which meant it would take up to *30 minutes* before meaningful data was acquired from a new data collector.

Data collector [polling](#) has been greatly improved, such that the initial performance poll occurs immediately after the inventory poll, with the second performance poll occurring within a few seconds after completion of the first performance poll. This allows Cloud Insights to begin showing useful data on dashboards and graphs within a very short time.

This poll behavior also occurs after editing the configuration of an existing data collector.

Easier Widget Duplication

It is easier than ever to create a copy of a widget on a dashboard or landing page. In dashboard Edit mode, click the menu on the widget and select **Duplicate**. The widget editor is launched, pre-filled with the original widget's configuration and with a "copy" suffix in the widget name. You can easily make any necessary changes and Save the new widget. The widget will be placed at the bottom of your dashboard, and you can position it as needed. Remember to Save your dashboard when all changes are complete.



Single Sign-On (SSO)

With Cloud Insights Premium Edition, administrators can enable [Single Sign-On](#) (SSO) access to Cloud Insights for all users in their corporate domain, without having to invite them individually. With SSO enabled, any user with the same domain email address can log into Cloud Insights using their corporate credentials.



SSO is only available in Cloud Insights Premium Edition, and must be configured before it can be enabled for Cloud Insights. SSO configuration includes [Identity Federation](#) through NetApp Cloud Central. Federation allows single sign-on users to access your NetApp Cloud Central accounts using credentials from your corporate directory.

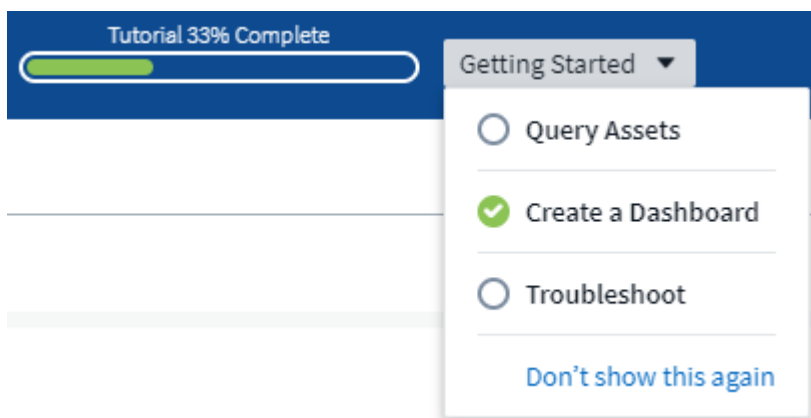
January 2020

Swagger documentation for REST API

Swagger explains each available REST API in Cloud Insights, as well as its usage and syntax. Information on Cloud Insights APIs is available in [documentation](#).

Feature Tutorials Progress Bar

The feature tutorials checklist has been moved to the top banner and now features a progress indicator. Tutorials are available for each user until dismissed, and are always available in Cloud Insights [documentation](#).



Acquisition Unit Changes

When installing an Acquisition Unit (AU) on a host or VM that has the same name as an already-installed AU, Cloud Insights assures a unique name by appending the AU name with "_1", "_2", etc. This is also the case when uninstalling and reinstalling an AU from the same VM without first removing it from Cloud Insights. Want a different AU name altogether? No problem; AU's can be renamed after installation.

Optimized Time Aggregation in Widgets

In widgets, you can choose between an *Optimized* time aggregation interval or a *Custom* interval that you set. Optimized aggregation automatically selects the right time interval based on the selected dashboard time range (or widget time range, if overriding the dashboard time). The interval dynamically changes as the dashboard or widget time range is changed.

Simplified "Getting Started with Cloud Insights" process

The process for getting started using Cloud Insights has been simplified to make your first-time setup smoother and easier. Simply select an initial data collector and follow the instructions. Cloud Insights will walk you through configuring the data collector and any agent or acquisition unit required. In most cases it will even import one or more initial dashboards so you can start gaining insight into your environment quickly (but please allow up to 30 minutes for Cloud Insights to collect meaningful data).

Additional improvements:

- Acquisition Unit installation is simpler and runs faster.
- Alphabetical Data Collectors choices make it easier to find the one you're looking for.
- Improved Data Collector setup instructions are easier to follow.
- Experienced users can skip the getting started process with the click of a button.
- A new Progress bar shows you where you are in the process.



December 2019

Business Entity can be used in filters

Business Entity annotations can be used in filters for queries, widgets, performance policies, and landing pages.

Drill-down available for Single-Value and Gauge widgets, and any widgets rolled to by "All"

Clicking the value in a single-value or gauge widget opens a query page showing the results of the first query used in the widget. Additionally, clicking the legend for any widget whose data is rolled up by "All" will also open a query page showing the results of the first query used in the widget.

Trial period extended

New users who sign up for a free trial of Cloud Insights now have 30 days to evaluate the product. This is an increase from the previous 14-day trial period.

Managed Unit calculation

The calculation of Managed Units (MUs) in Cloud Insights has been changed to the following:

- 1 Managed Unit = 2 hosts (any virtual or physical machine)
- 1 Managed Unit = 4 TB of unformatted capacity of physical or virtual disks

This change effectively doubles the environment capacity that you can monitor using your existing Cloud Insights subscription.

November 2019

Editions Feature Comparison Table

The **Admin > Subscription** page [comparison table](#) has been updated to list the feature sets available in Basic, Standard, and Premium Editions of Cloud Insights. NetApp is constantly improving its Cloud Services, so check this page often to find the Edition that's right for your evolving business needs.

October 2019

Reporting

Cloud Insights Reporting is a business intelligence tool that enables you to view pre-defined reports or create custom reports. With Reporting you can perform the following tasks:

- Run a pre-defined report
- Create a custom report
- Customize the report format and delivery method
- Schedule reports to run automatically
- Email reports
- Use colors to represent thresholds on data

Cloud Insights Reporting can generate custom reports for areas like chargeback, consumption analysis, and forecasting, and can help answer questions such as the following:

- What inventory do I have?
- Where is my inventory?
- Who is using our assets?
- What is the chargeback for allocated storage for a business unit?
- How long until I need to acquire additional storage capacity?
- Are business units aligned along the proper storage tiers?
- How is storage allocation changing over a month, quarter, or year?

Reporting is available with Cloud Insights **Premium Edition**.

Active IQ Enhancements

Active IQ Risks are now available as objects that can be queried as well as used in dashboard table widgets. The following Risks object attributes are included:

- * Category
- * Mitigation Category
- * Potential Impact
- * Risk Detail
- * Severity
- * Source
- * Storage
- * Storage Node
- * UI Category

September 2019

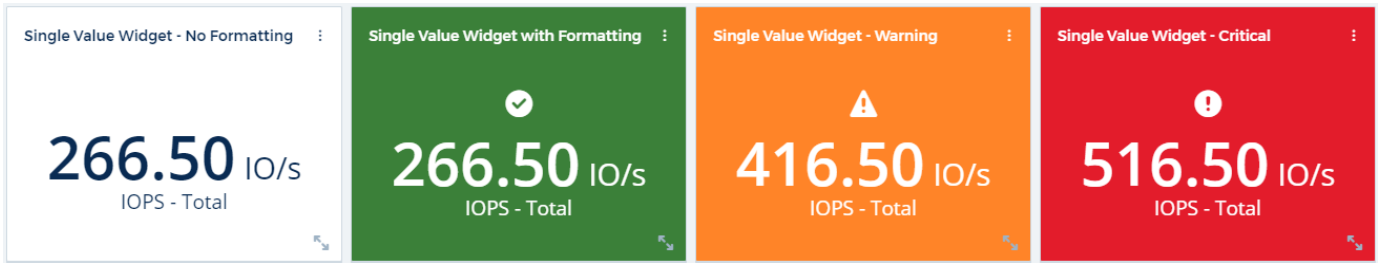
New Gauge Widgets

Two new widgets are available for displaying single-value data on your dashboards in eye-catching colors based on thresholds you specify. You can display values using either a **Solid Gauge** or **Bullet Gauge**. Values that land inside the Warning range are displayed in orange. Values in the Critical range are displayed in red. Values below the Warning threshold are displayed in green.



Conditional Color Formatting for Single Value Widget

You can now display the Single-Value widget with a colored background based on thresholds you set.



Invite Users During Onboarding

At any point during the onboarding process, you can click on Admin > User Management > +User to invite additional users to your Cloud Insights environment. Be aware that users with *Guest* or *User* roles will see greater benefit once onboarding is complete and data has been collected.

Data Collector Detail Page improvement

The data collector detail page has been improved to display errors in a more readable format. Errors are now displayed in a separate table on the page, with each error displayed on a separate line in the case of multiple errors for the data collector.

August 2019

All vs. Available Data Collectors

When adding data collectors to your environment, you can set a filter to show only the data collectors available to you based on your subscription level, or all data collectors.

ActiveIQ Integration

Cloud Insights collects data from NetApp ActiveIQ, which provides a series of visualizations, analytics, and other support related services to NetApp customers and their hardware / software systems. Cloud Insights integrates with ONTAP Data Management systems. See [Active IQ](#) for more information.

July 2019

Dashboard Improvements

Dashboards and Widgets have been improved with the following changes:

- In addition to Sum, Min, Max, and Avg, **Count** is now an option for roll up in Single-Value widgets. When rolling up by “Count”, Cloud Insights checks if an object is active or not, and only adds the active ones to the count. The resulting number is subject to aggregation and filters.
- In the Single-Value widget, you now have a choice to display the resulting number with 0, 1, 2, 3, or 4 decimal places.
- Line charts show an axis label and units when a single counter is being plotted.
- **Transform** option is available for Services integration data now in all time-series widgets for all

metrics. For any services integration (Telegraf) counter or metric in time-series widgets (Line, Spline, Area, Stacked Area), you are given a choice of how you want to [Transform the values](#). None (display value as-is), Sum, Delta, Cumulative, etc.

Downgrading to Basic Edition

Downgrade to Basic Edition fails with an error message if there is no available NetApp device configured that has successfully completed a poll in the last 7 days.

Collecting Kube-State-Metrics

The [Kubernetes Data Collector](#) now collects objects and counters from the kube-state-metrics plugin, greatly expanding the number and scope of metrics available for monitoring in Cloud Insights.

June 2019

Cloud Insights Editions

Cloud Insights is available in different Editions to fit your budget and business needs. Existing NetApp customers with an active NetApp support account can enjoy 7 days of data retention and access to NetApp data collectors with the free **Basic Edition**, or get increased data retention, access to all supported data collectors, expert technical support and more with **Standard Edition**. For more information on available features, see NetApp's [Cloud Insights](#) site.

New Infrastructure Data Collector: NetApp HCI

- [NetApp HCI Virtual Center](#) has been added as an Infrastructure data collector. The HCI Virtual Center data collector collects NetApp HCI Host information and requires read-only privileges on all objects within the Virtual Center.

Note that the HCI data collector acquires from the HCI Virtual Center only. To collect data from the storage system, you must also configure the NetApp [SolidFire](#) data collector.

May 2019

New Service Data Collector: Kapacitor

- [Kapacitor](#) has been added as a data collector for services.

Integration with Services via Telegraf

In addition to acquisition of data from infrastructure devices such as switches and storage, Cloud Insights now collects data from a variety of Operating Systems and Services, using [Telegraf as its agent](#) for collection of integration data. Telegraf is a plugin-driven agent that can be used to collect and report metrics. Input plugins are used to collect the desired information into the agent by accessing the system/OS directly, by calling third-party APIs, or by listening to configured streams.

Documentation for currently supported integrations can be found in the menu to the left under **Services Data Collector Reference**.

Storage Virtual Machine Assets

- Storage Virtual Machines (SVMs) are available as assets in Cloud Insights. SVMs have their own Asset Landing Pages, and can be displayed and used in searches, queries, and filters. SVMs can also be used in dashboard widgets as well as associated with annotations.

Reduced Acquisition Unit System Requirements

- The system CPU and memory requirements for the Acquisition Unit (AU) software have been reduced. The new requirements are:

Component	Old Requirement	New Requirement
CPU Cores	4	2
Memory	16 GB	8 GB

Additional Platforms Supported

- The following platforms have been added to those currently [supported for Cloud Insights](#):

Linux	Windows
CentOS 7.3 64-bit CentOS 7.4 64-bit CentOS 7.6 64-bit Debian 9 64-bit Red Hat Enterprise Linux 7.3 64-bit Red Hat Enterprise Linux 7.4 64-bit Red Hat Enterprise Linux 7.6 64-bit Ubuntu Server 18.04 LTS	Microsoft Windows 10 64-bit Microsoft Windows Server 2008 R2 Microsoft Windows Server 2019

April 2019

Filter Virtual Machines by Tags

When configuring the following data collectors, you can filter to include or exclude virtual machines from data collection according to their Tags or Labels.

- [Amazon EC2](#)
- [Azure](#)
- [Google Cloud Platform](#)

March 2019

Email Notifications for Subscription-related Events

- You can select recipients for email [notifications](#) when subscription-related events occur, such as upcoming trial expiration or subscribed account changes. You can choose recipients for these notifications from among following:
 - All Account Owners
 - All Administrators
 - Additional Email Addresses that you specify

Additional Dashboards

- The following new AWS-focused [dashboards](#) have been added to the gallery and are available for import:
 - AWS Admin - Which EC2 are in high demand?
 - AWS EC2 Instance Performance by Region

February 2019

Collecting from AWS Child Accounts

- Cloud Insights supports [collection from AWS child accounts](#) within a single data collector. Your AWS environment must be configured to allow Cloud Insights to collect from child accounts.

Data Collector Naming

- Data Collector names can now include periods (.), hyphens (-), and spaces () in addition to letters, numbers, and underscores. Names may not begin or end with a space, period, or hyphen.

Acquisition Unit for Windows

- You can configure a Cloud Insights Acquisition Unit on a Windows server/VM. Review the Windows [pre-requisites](#) before installing the [Acquisition Unit software](#).

January 2019

"Owner" field is more readable

- In Dashboard and Query lists, the data for the "Owner" field was previously an authorization ID string, instead of a user-friendly owner name. The "Owner" field now shows a simpler and more readable owner name.

Managed Unit Breakdown on Subscription Page

- For each data collector listed on the **Admin > Subscription** page, you can now see a breakdown of Managed Unit (MU) counts for hosts and storage, as well as the total.

December 2018

Improvement of UI Load Time

- The initial loading time for the Cloud Insights user interface (UI) has been significantly improved. Refresh time for the UI also benefits from this improvement in circumstances where metadata is loaded.

Bulk Edit Data Collectors

- You can edit information for multiple data collectors at the same time. On the **Admin > Data Collectors** page, select the data collectors to modify by checking the box to the left of each and click the **Bulk Actions** button. Choose **Edit** and modify the necessary fields.

The data collectors selected must be the same vendor and model, and reside on the same Acquisition Unit.

Support and Subscription pages are Available During Onboarding

- During the onboarding workflow, you can navigate to the **Help > Support** and **Admin > Subscription** pages. Returning from those pages returns you to the onboarding workflow, providing you have not closed the browser tab.

November 2018

Subscribe through NetApp Sales or AWS Marketplace

- Cloud Insights subscription and billing is now available directly through NetApp. This is in addition to the self-serve subscription available through AWS Marketplace. A new **Contact Sales** link is presented on the **Admin > Subscription** page. For customers whose environments have or are expected to have 1,000 or more Managed Units (MUs), it is recommended to contact NetApp sales via the Contact Sales link.

Text Annotation Hyperlinks

- Text-type annotations can now include hyperlinks.

Onboarding Walkthrough

- Cloud Insights now features an onboarding walkthrough for the first user (administrator or account owner) to log in to a new environment. The walkthrough takes you through installing an Acquisition Unit, configuring an initial data collector, and selecting one or more useful dashboards.

Import Dashboards from the Gallery

- In addition to selecting dashboards during onboarding, you can import dashboards via **Dashboards > Show All Dashboards** and clicking **+From Gallery**.

Duplicating Dashboards

- The ability to duplicate a dashboard has been added to the dashboard list page as a choice in the options menu for each dashboard, and on a dashboard's main page itself from the *Save* menu.

Cloud Central products menu

- The menu allowing you to switch to other NetApp Cloud Central products has moved to the upper right corner of the screen.

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