



# Reporting User Guide

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# Preface

## Revision History

Revision	Description	Date
1.0	Initial release of document for Release 2022.1.0	June 2022
2.0	Updated release of document for release 2022.1.0 FP2 Beta	November 2022

## About this Guide

This guide describes AppViewX's Build Your Own Report (BYOR) tool and provides step by step instructions on creating customized reports using preexisting hooks and query builder, sharing and scheduling reports, performing actions on reports (pin, share, clone, delete), associating workflows to reports and more.

## Audience

This guide aims to allow users to self-serve, build reports around certificate lifecycle management and application delivery and security automation. It is intended for the following audience:

- Chief Information Security Officer (CISO)
- PKI Security
- Security Operations (SecOps)
- IT Director
- Network and Automation Engineers
- Application Delivery and Traffic Management
- Director of Automation and Security Services
- Network Operations (NetOps)
- Network Engineering and Service Delivery

## Text Conventions

The following text conventions are used in this document:

Convention	Description
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in the text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>codeblock</code>	Indicates commands with a paragraph, URLs, codes in examples, text that appears on the screen, or text that you enter.

# Chapter 1: Module Overview

AppViewX's Build Your Own Report (BYOR) report builder is a low-code reporting and product usage analytics tool that empowers non-technical users to build best-in-class reports and eliminates dependence on development teams. AppViewX's Reporting platform showcases interactive dashboards that display compelling report data, thereby assisting in smarter decision making.

With AppViewX's BYOR you can:

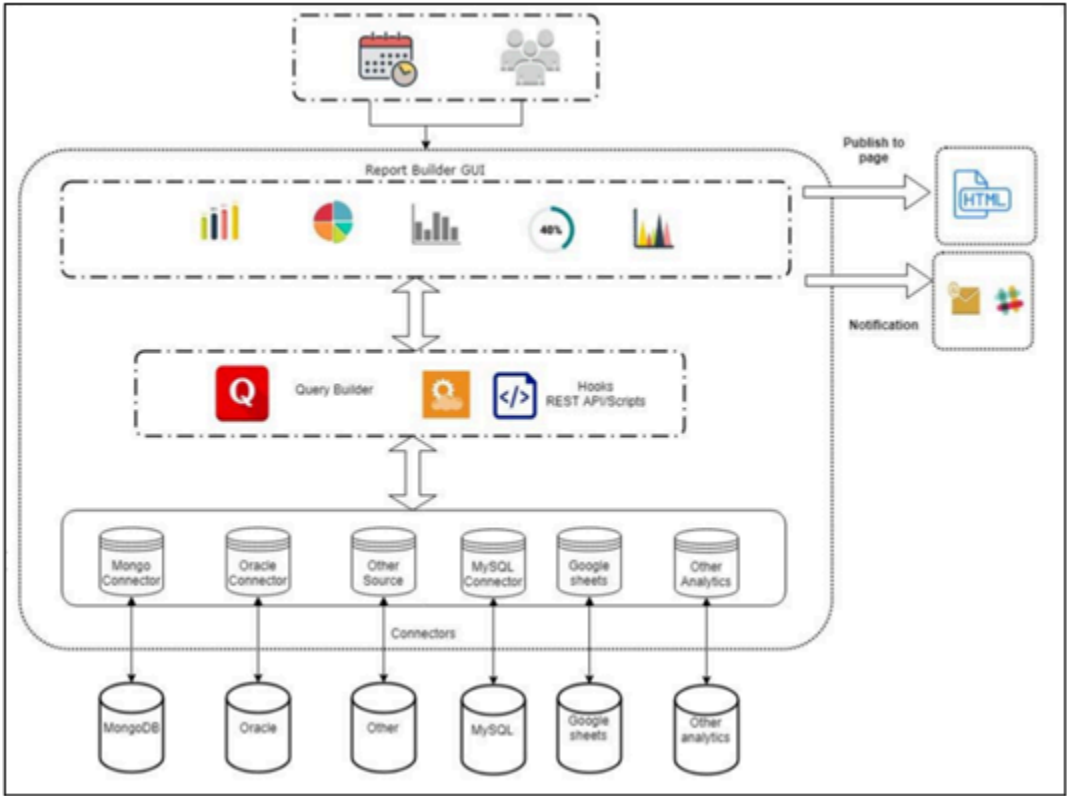
- **Explore pre-shipped reports:** Application Delivery, Security, Certificate, and Automation
- **Build your own reports (BYOR):** Build customizable reports using Low Code report builder/
- **Access multiple data sources:** Query explorer, REST API, Script
- **WYSIWYG:** What you see is what you get, preview reports as you build them.
- **Configure chart drilldowns:** Add detailed levels of data to your reports.
- **Visualize your data:** Pin reports to a self-service dashboard for quick access and insights.
- **Schedule reports:** Schedule and share reports as email attachments (PDF, xls, csv).
- **Build actionable reports:** Integrate with visual workflow for actionable reports and auto remediation.
- **Connect to your data:** Study data quickly and easily through product & feature usage report metrics.
- **Reduce turnaround time:** Increased efficiency with automation of the reporting process

# Chapter 2: Prerequisites

## Web Browser Requirement

Browsers	Version
Internet Explorer	v11.0.9600.18817 or later
Firefox	v74.0.1 (64-bit) or later
Google Chrome	v85.0.4183.83 (64-bit) or later

# Chapter 3: Reference Architecture



The plug-in as part of the above architecture is **avx-commons**.

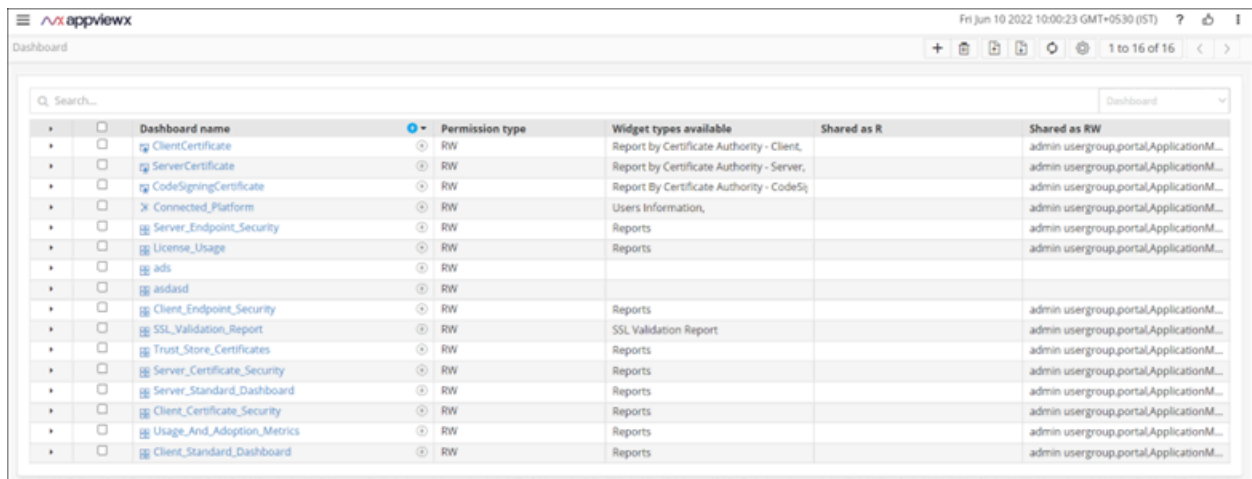
# Chapter 4: Getting Started with Dashboard

- [Overview](#)
- [Getting Started with the Prebuilt Dashboard for Reports](#)
- [How to Search for a Dashboard](#)
- [How to View a Dashboard](#)
- [How to Pin Reports to a Dashboard](#)
- [How to Build a Custom Dashboard](#)
- [How to Download a Dashboard](#)

## Overview

The Dashboard enables you to manage, monitor, and interpret all configured applications and their objects. Widgets on the dashboard display reports that provide consolidated statistics of all accessible certificates, devices, and objects by extracting data from the respective inventories and recording the key value indicators.







- **Default dashboards** - Display predefined widgets to provide AppViewX metric usage reports and up-to-the-minute reports. It contains the status and statistics of devices and certificates managed within the AppViewX platform.
- **Custom dashboards** - Display widgets created by the user. Widgets and dashboards can be added, removed, or modified as necessary and can also be shared among multiple roles.




The screenshot shows the AppViewX Dashboard interface. At the top, there is a search bar and a dropdown menu for 'Dashboard'. Below this is a table with the following columns: Dashboard name, Permission type, Widget types available, Shared as R, and Shared as RW. The table lists various dashboards such as ClientCertificate, ServerCertificate, CodeSigningCertificate, Connected\_Platform, Server\_Endpoint\_Security, License\_Usage, ads, asdasd, Client\_Endpoint\_Security, SSL\_Validation\_Report, Trust\_Store\_Certificates, Server\_Certificate\_Security, Server\_Standard\_Dashboard, Client\_Certificate\_Security, Usage\_And\_Adoption\_Metrics, and Client\_Standard\_Dashboard. Each row includes a star icon, a checkbox, and a lock icon.

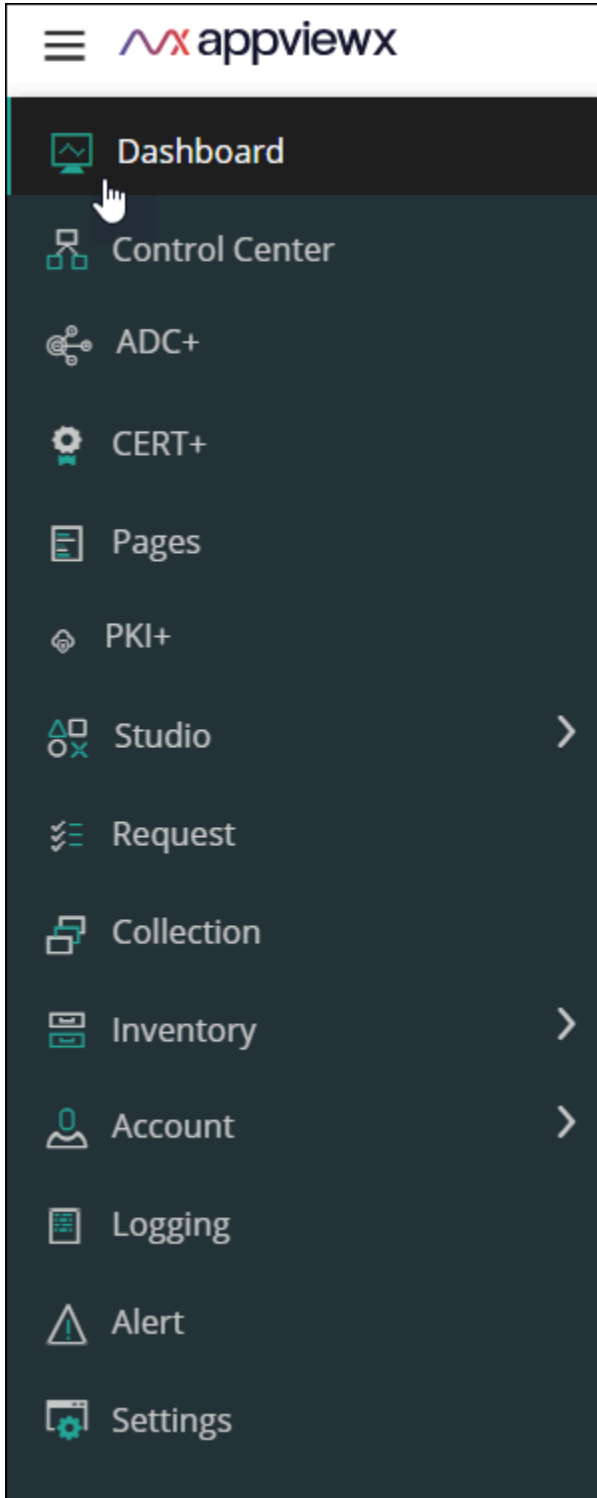
Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup.portal.ApplicationM...
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup.portal.ApplicationM...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeSi		admin usergroup.portal.ApplicationM...
Connected_Platform	RW	Users Information,		admin usergroup.portal.ApplicationM...
Server_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
License_Usage	RW	Reports		admin usergroup.portal.ApplicationM...
ads	RW			
asdasd	RW			
Client_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
SSL_Validation_Report	RW	SSL Validation Report		admin usergroup.portal.ApplicationM...
Trust_Store_Certificates	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Usage_And_Adoption_Metrics	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...

The following table describes the various options on the **Dashboard** inventory page:


Options	Description
<b>Search bar</b>	Searches for the given keyword(s) in the field and shows a list of results that match the searched keyword(s).
	Allows users to create a new dashboard.
	Allows users to delete a dashboard from the list.
	Allows users to export a dashboard from the list.
	Allows users to import a file to create a dashboard.
	Refreshes the page by clicking on the refresh button.
	Allows users to auto-sort the dashboards alphabetically.

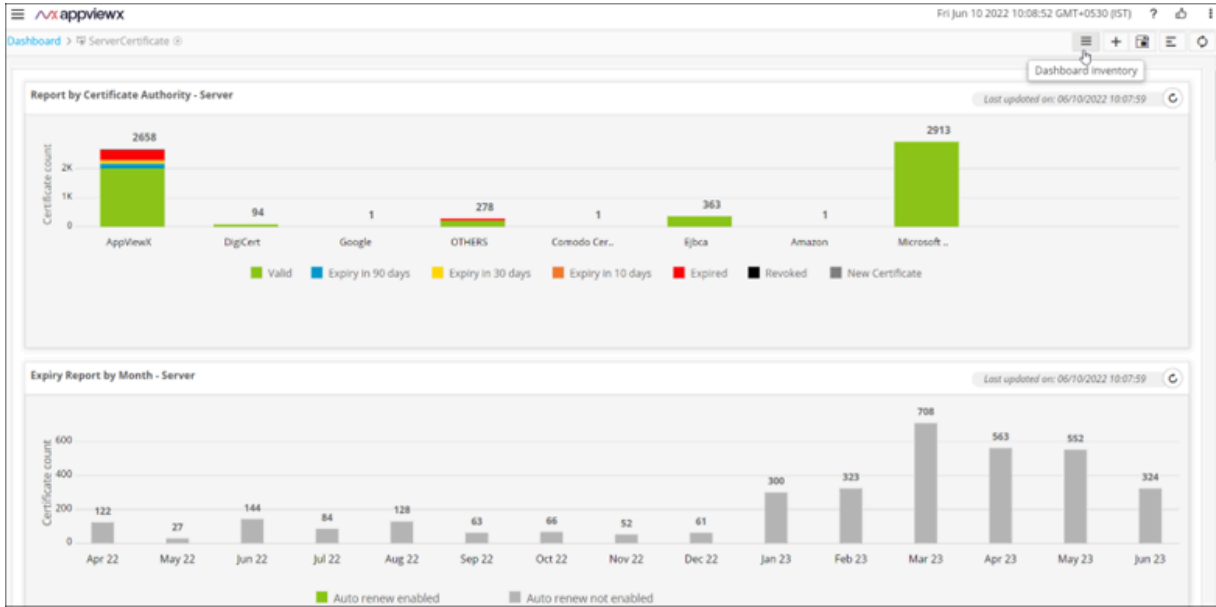
## Getting Started with the Prebuilt Dashboard for Reports

1. From the top left corner of the screen, click .
2. From the menu displayed, select **Dashboard**.



The last opened or pinned **Dashboard** is displayed.

3. To view the **Dashboard** inventory, from the top right corner of the screen, click .



The **Dashboard** inventory page is displayed.

The screenshot shows a table listing various dashboards available in the AppViewX system. The table includes columns for dashboard name, permission type, widget types available, and shared status.

Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup.portal.ApplicationM...
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup.portal.ApplicationM...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeS...		admin usergroup.portal.ApplicationM...
Connected_Platform	RW	Users Information,		admin usergroup.portal.ApplicationM...
Server_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
License_Usage	RW	Reports		admin usergroup.portal.ApplicationM...
ads	RW			
asdasd	RW			
Client_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
SSL_Validation_Report	RW	SSL Validation Report		admin usergroup.portal.ApplicationM...
Trust_Store_Certificates	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Usage_And_Adoption_Metrics	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...

4. To access the prebuilt dashboard for Reports, under **Dashboard name**, click **Usage\_And\_Adoption\_Metrics**.

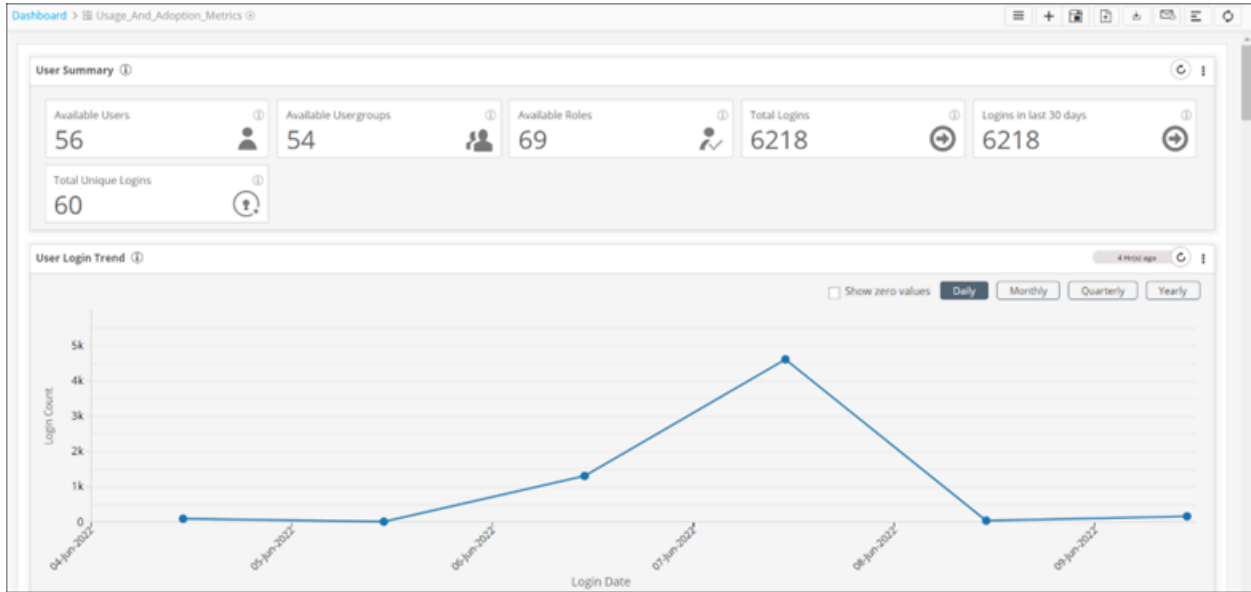
Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup.portal.ApplicationM...
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup.portal.ApplicationM...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeSi		admin usergroup.portal.ApplicationM...
Connected_Platform	RW	Users Information,		admin usergroup.portal.ApplicationM...
Server_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
License_Usage	RW	Reports		admin usergroup.portal.ApplicationM...
ads	RW			
android	RW			
Client_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
SSL_Validation_Report	RW	SSL Validation Report		admin usergroup.portal.ApplicationM...
Trust_Store_Certificates	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Usage_And_Adoption_Metrics	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Start	RW	Reports		admin usergroup.portal.ApplicationM...

- [Usage and Adoption Metrics Dashboard](#)

## Usage and Adoption Metrics Dashboard

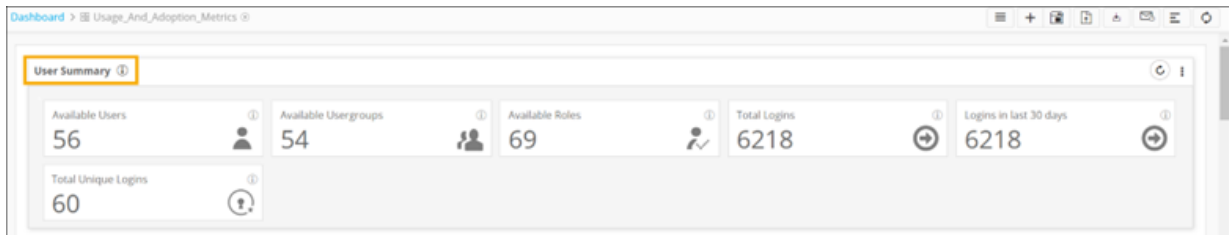
Product Usage and Metrics is a useful tool for understanding the interactions between the customer and your product/service. It helps capture day to day information on how the product or service is being used by customers. Moreover, it can help capture the duration, frequency, feature usage, activity logs. Analyzing this data empowers you to provide an improved customer experience.

The **Usage and Adoption Metrics** dashboard displays predefined widgets to provide the AppViewX metric usage reports and up-to-the-minute reports. It contains the status and statistics of devices and certificates managed within the AppViewX platform. It displays reports related to user summary, logins, user activity, asset inventory and more.



Following are the various reports and metrics that are available on this dashboard:

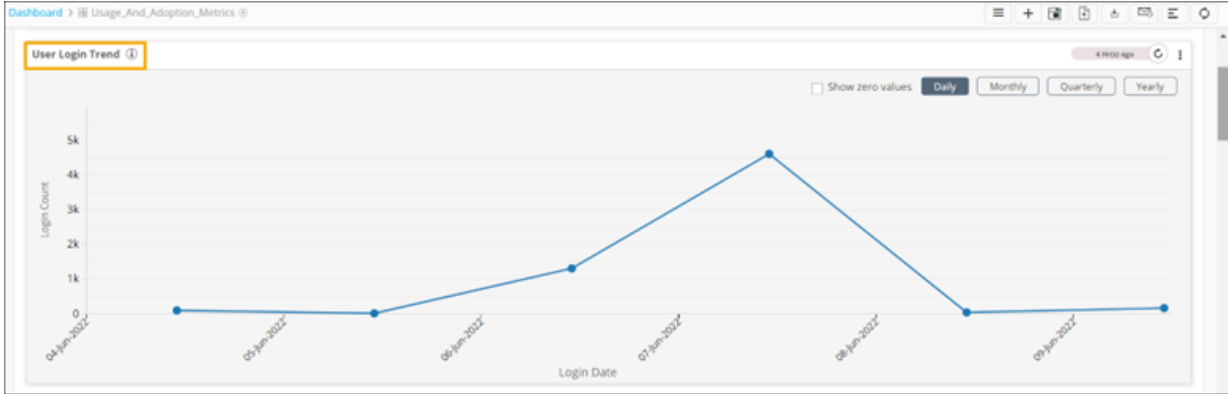
- The **User Summary** report gives a snapshot of user login, summary, and trends.




The following table describes the metrics displayed in this widget:

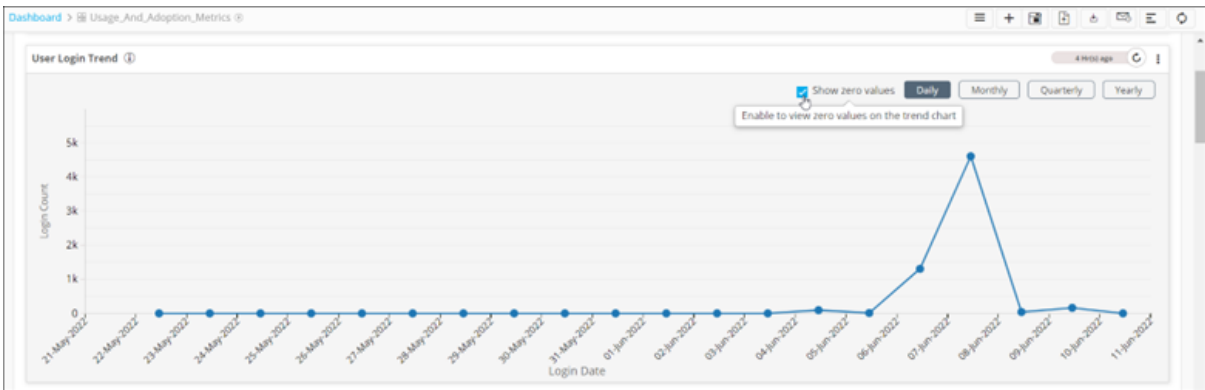
Metric	Description
<b>Available Users</b>	This metric displays available users in AppViewX.
<b>Available User Groups</b>	This metric displays available user groups in AppViewX.
<b>Available Roles</b>	This metric displays the available roles in AppViewX.
<b>Total Logins</b>	This metric displays the total number of logins in AppViewX.
<b>Logins in last 30 days</b>	This metric displays the number of logins in the last 30 days.
<b>Total Unique Logins</b>	This metric displays the total unique logins from different IDs.

- The **User Login Trend** report displays the date-wise count of logins in AppViewX.

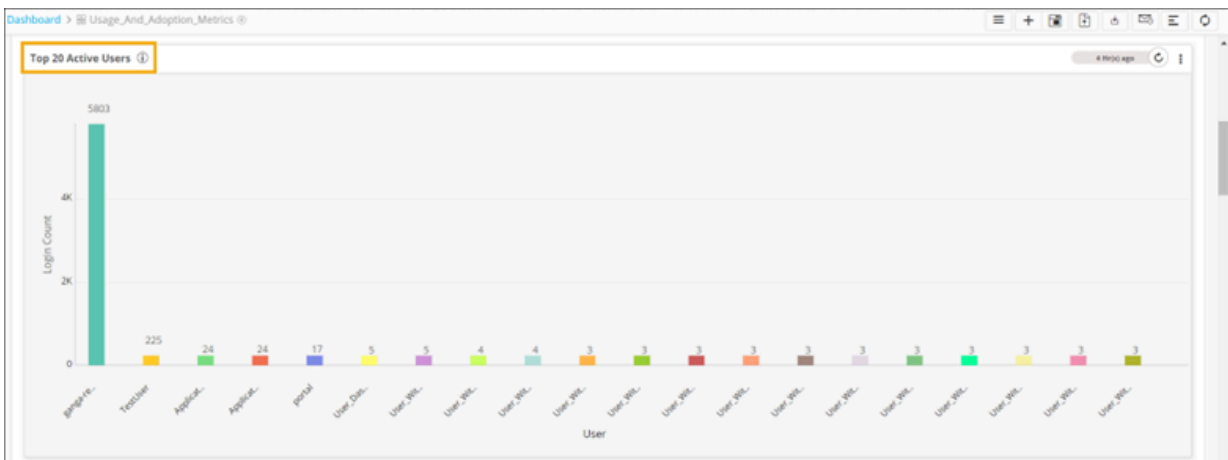


 **Note:** The default selection is set to **Daily**.

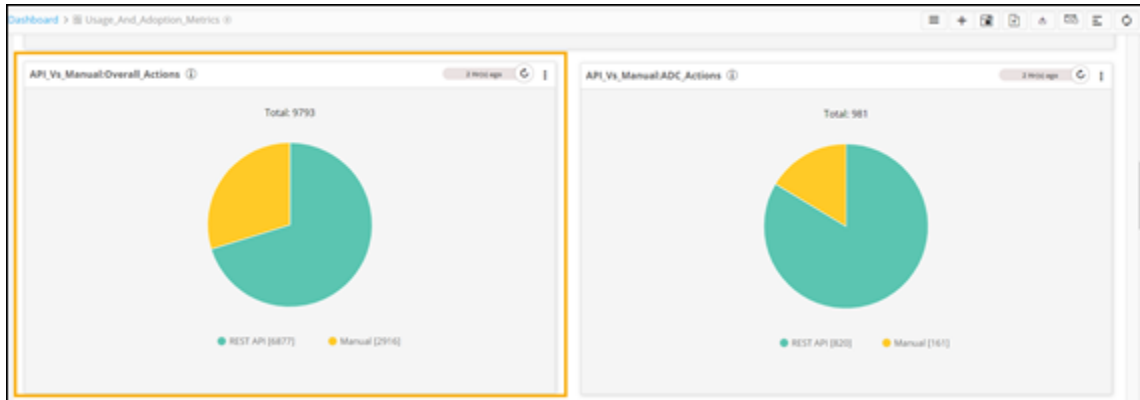
- To display dates on which there were zero logins into AppviewX, select the **Show zero values** checkbox.



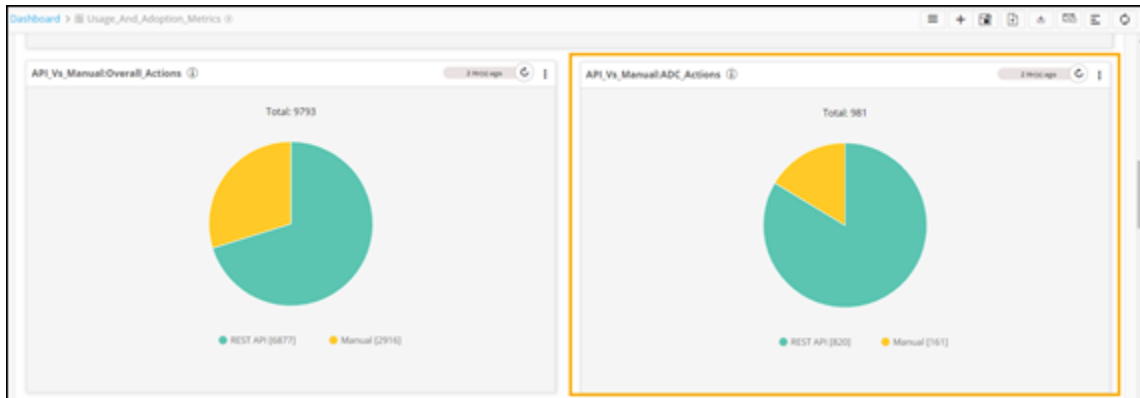
- Select **Monthly**, **Quarterly**, and **Yearly** options to get data based on the respective timelines.
- The **Top 20 Active Users** chart displays the top 20 active users by login count.



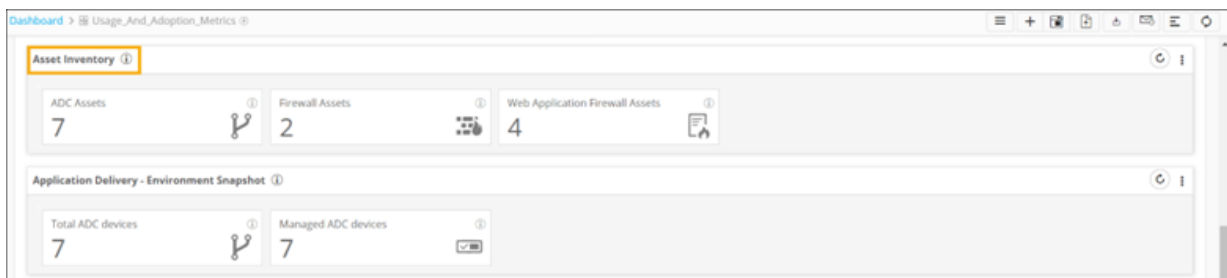
- The **API\_vs\_Manual:Overall\_Actions** pie chart shows the list of actions triggered either manually or via API.



- The **API\_vs\_Manual:ADC\_Actions** pie chart shows the list of ADC actions triggered either manually or via API.



- The **Asset Inventory** widget displays the inventory of different types of assets such as ADC, firewall, and WAF.

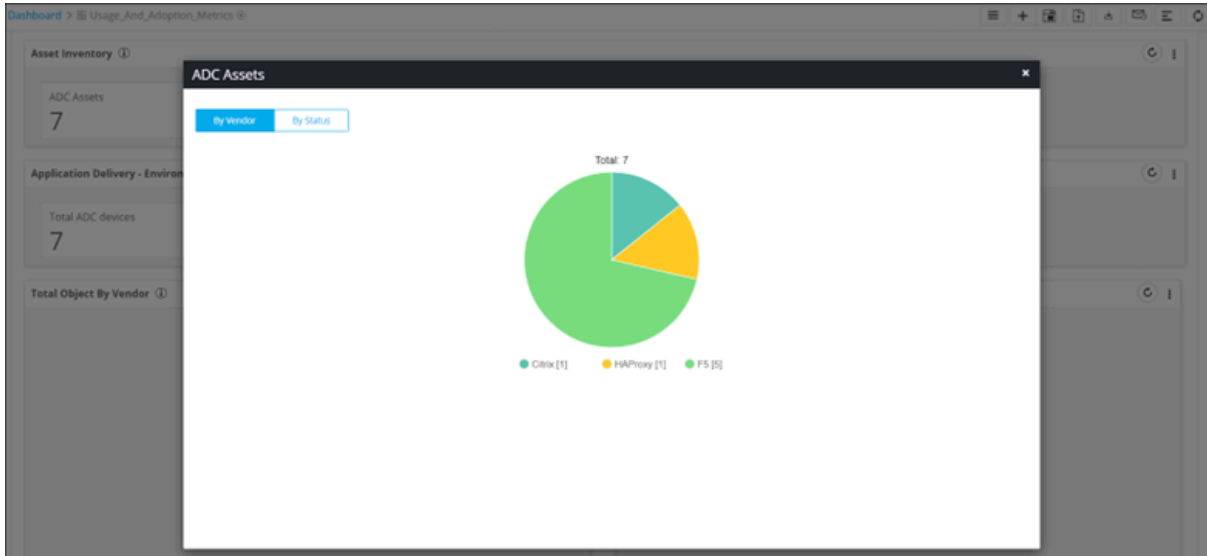


The following table describes the metrics displayed on this widget:

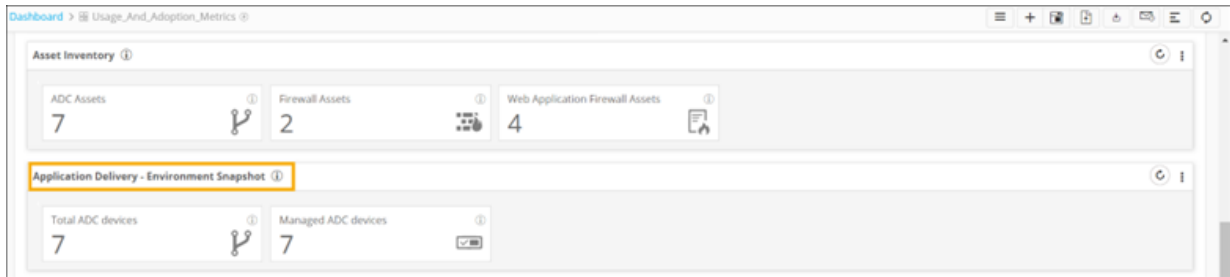
Metric	Description
<b>ADC Assets</b>	This metric displays the total count of all available ADC devices.

Metric	Description
<b>Firewall Assets</b>	This metric displays the total count of all available Firewall devices.
<b>Web Application Firewall Assets</b>	This metric displays the total count of all available WAF devices.

- To drill down a chart to display more levels of information, click any metric.



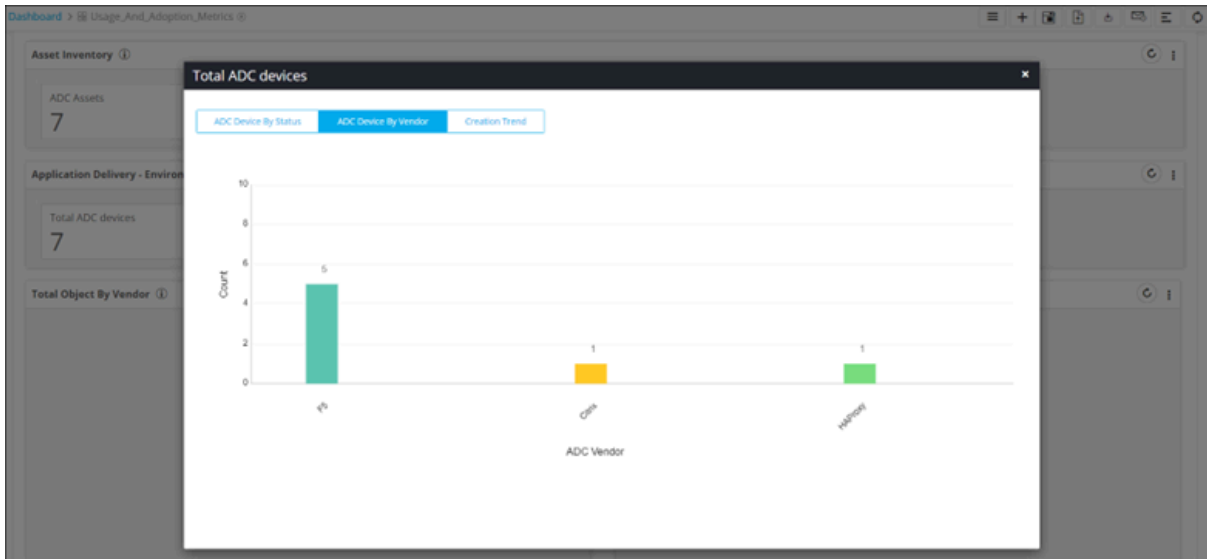
- The **Application Delivery - Environment Snapshot** widget displays a snapshot of application delivery. Each metric displays the total count of respective devices.



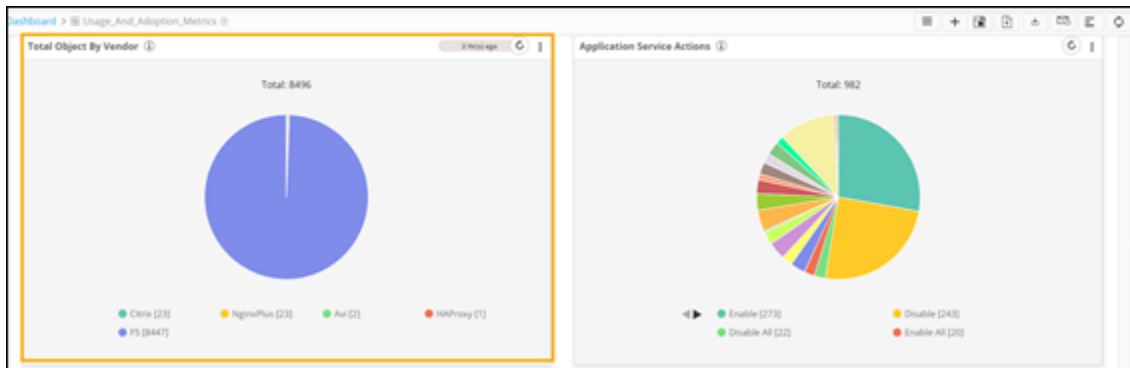
The following table describes the metrics displayed on this widget:

Metric	Description
<b>Total ADC devices</b>	This metric displays the total count of all available ADC devices.
<b>Total Application Service Objects</b>	This metric displays the total application service objects.
<b>Managed ADC devices</b>	This metric displays all the managed ADC devices.

- To drill down a chart to display more levels of information, click any metric.



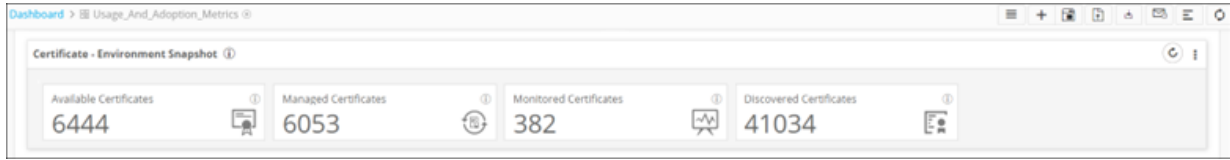
- The **Total Object by Vendor** pie chart displays the count of all ADC objects by vendor.



- The **Application Service Actions** pie chart shows a snapshot of application services performed.



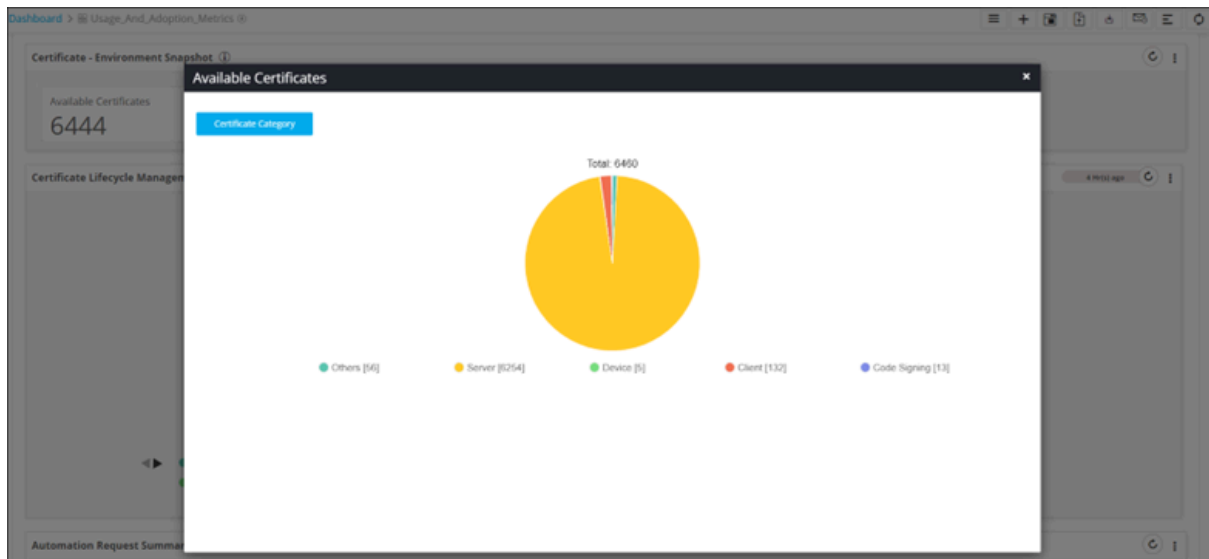
- The **Certificate - Environment Snapshot** widget displays a snapshot of managed and monitored certificates.



The following table describes the metrics displayed on this widget:

Metric	Description
<b>Available Certificates</b>	This metric displays the total count of all available certificates.
<b>Managed Certificates</b>	This metric displays the total count of all managed certificates.
<b>Discovered Certificates</b>	This metric displays the total count of all discovered certificates.

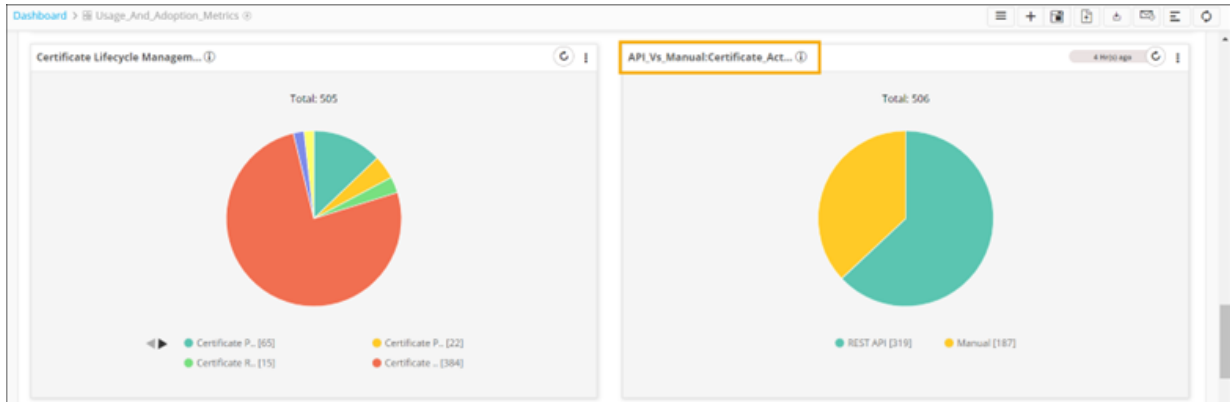
- To drill down a chart to display more levels of information, click any metric.



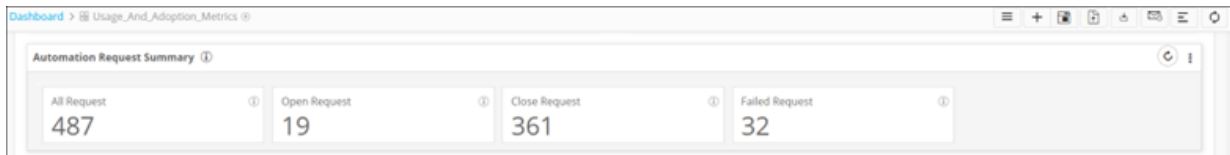
- The **Certificate Lifecycle Management** pie chart displays a snapshot of certificate actions performed, such as certificate push, certificate rollback, certificate push and bind and so on.



- The **API\_vs\_Manual:Certificate\_Actions** pie chart shows a list of certificate actions triggered either manually or via API.



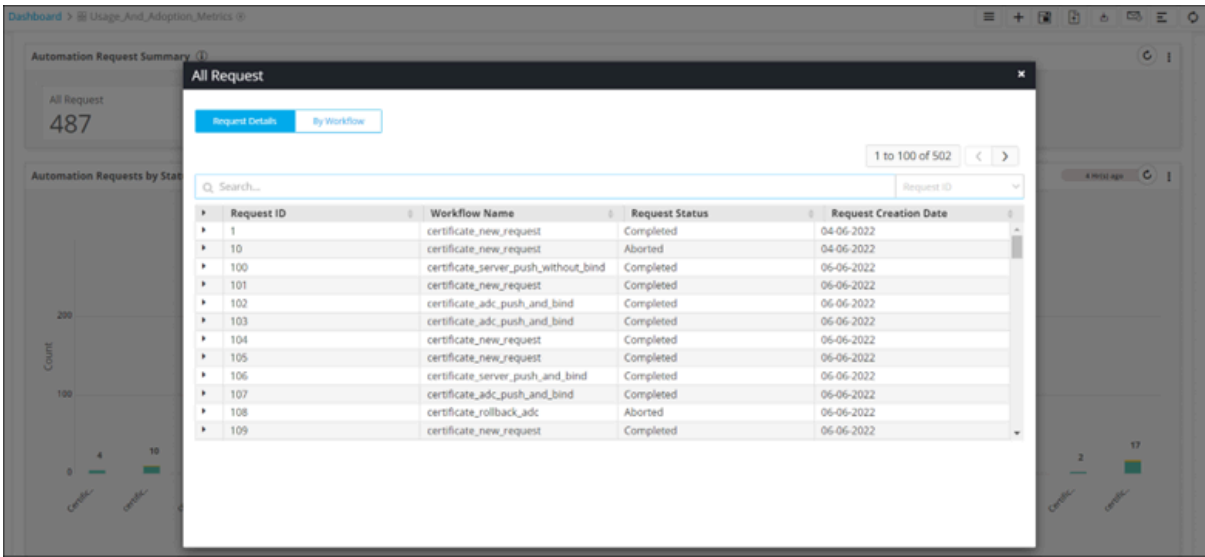
- The **Automation Request Summary** widget displays a snapshot of automation request status and trend.



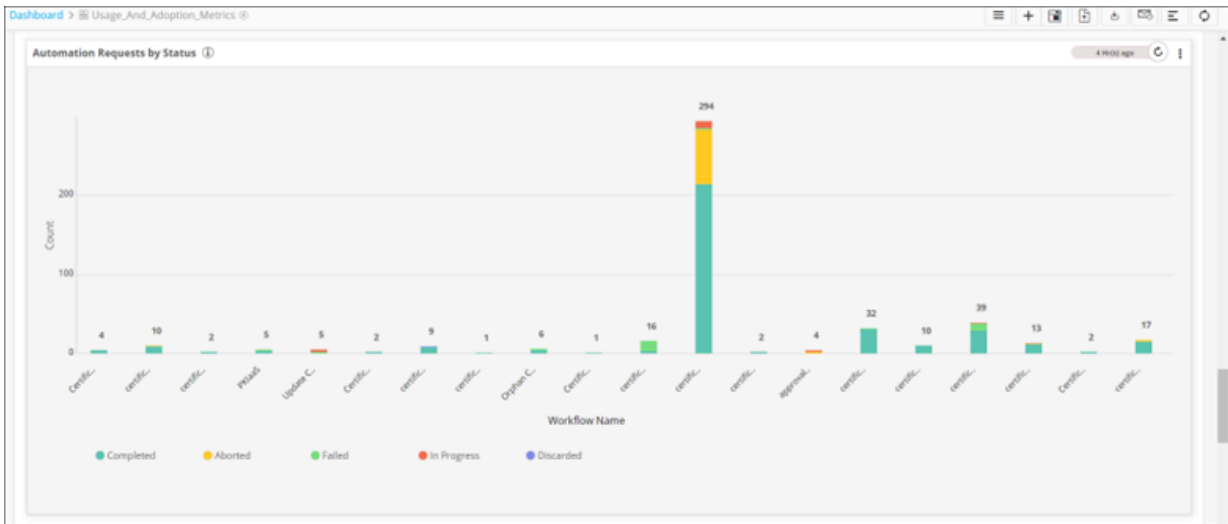
The following table describes the metrics displayed in this widget:

Metric	Description
<b>All Request</b>	This metric displays the count of total workflow automation requests.
<b>Open Request</b>	This metric displays the count of open workflow automation requests.
<b>Close Request</b>	This metric displays the count of closed workflow automation requests.
<b>Failed Request</b>	This metric displays the count of failed workflow automation requests.

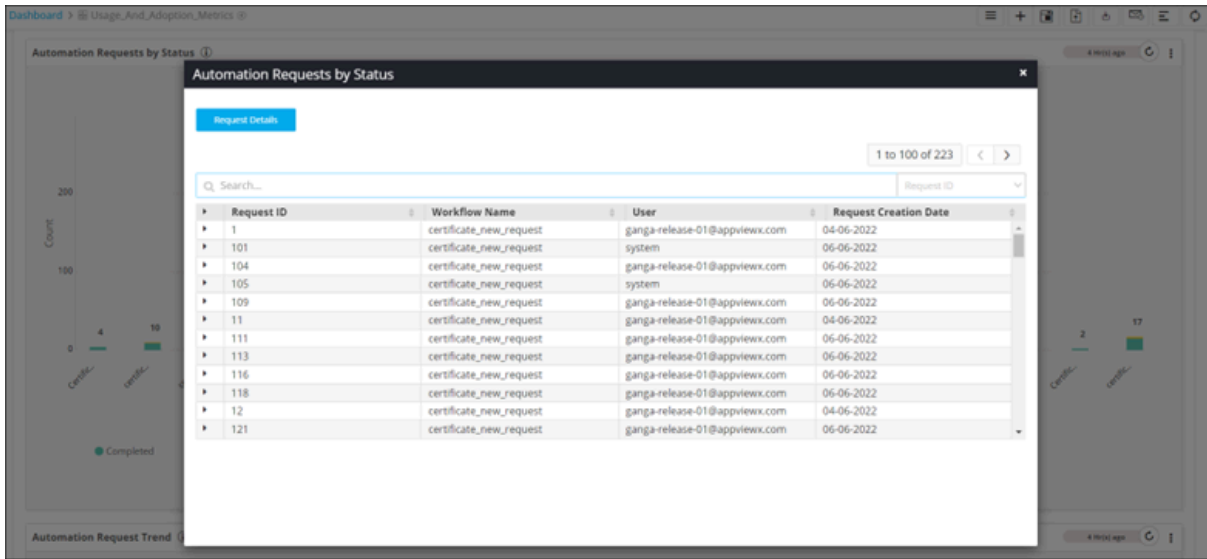
- To drill down a chart to display more levels of information, click any metric.



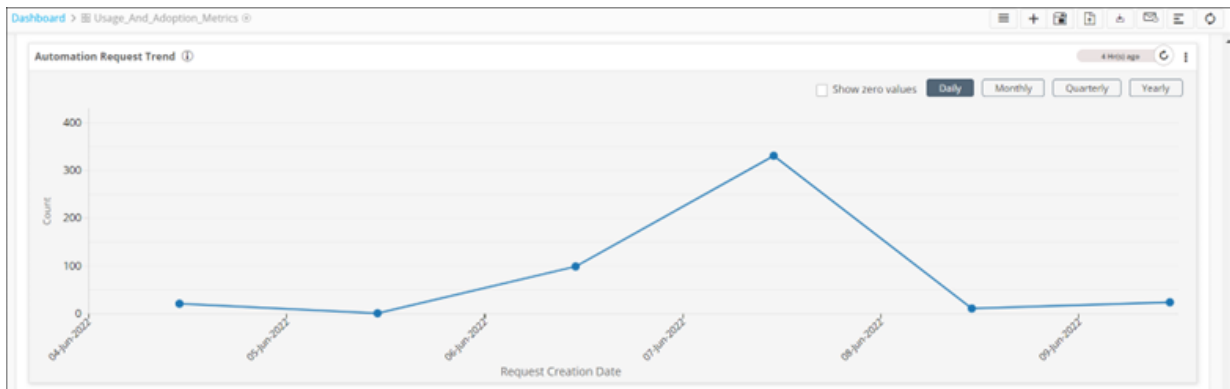
- The **Automation Request by Status** stacked bar graph displays the request status by workflow.



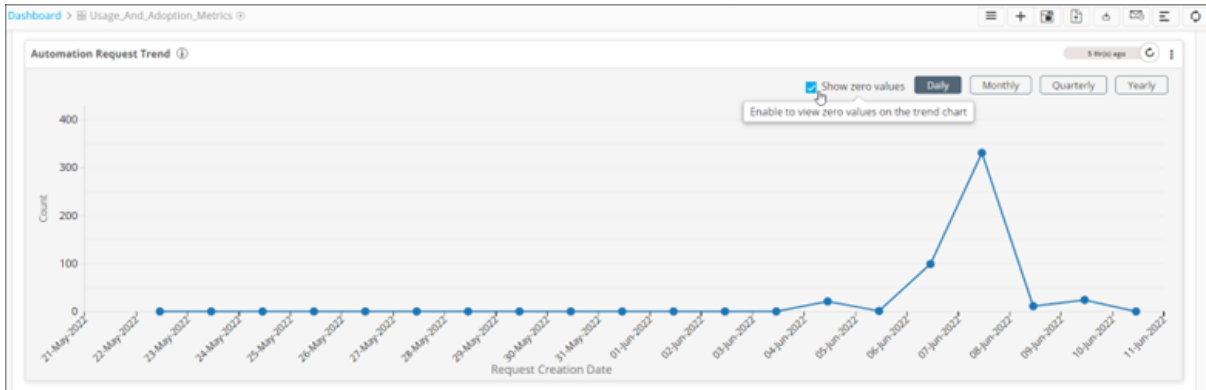
- To drill down a chart to display more levels of information, click any metric.



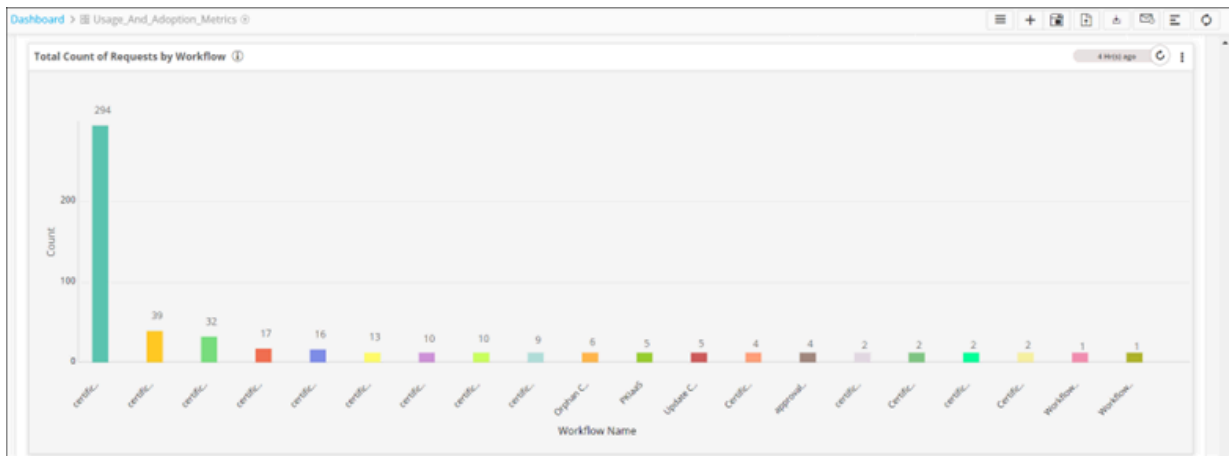
- The **Automation Request Trend** line chart displays the trend of all automation requests.



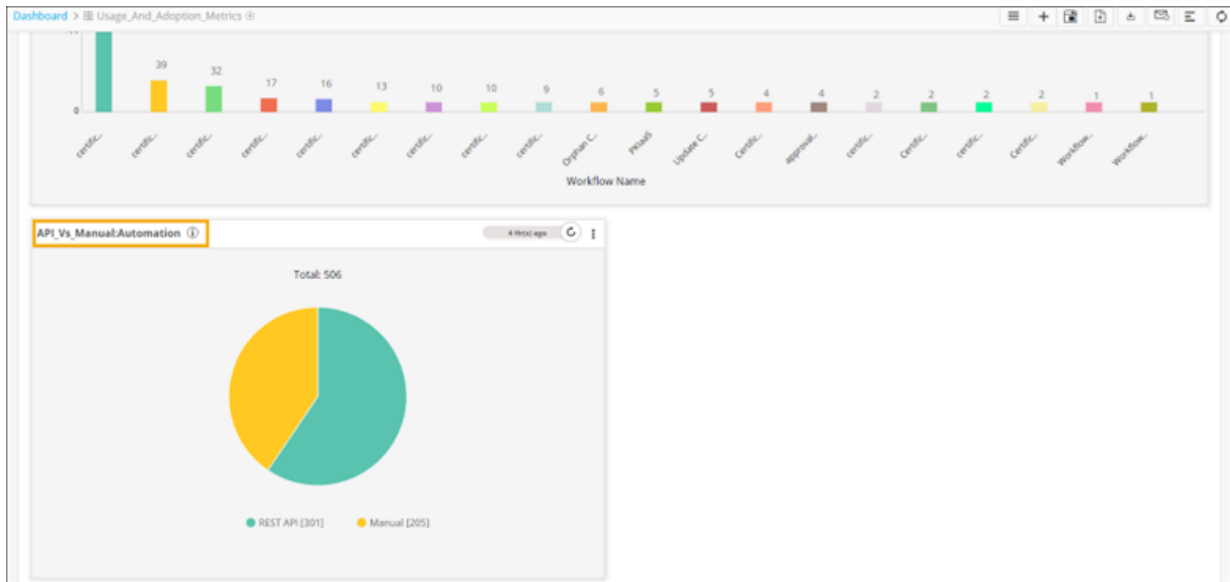
- To display dates on which there were zero logins into AppviewX, select the **Show zero values** checkbox.




- To get data based on the respective timelines, click **Monthly**, **Quarterly**, and **Yearly** buttons.
- The **Total Count of Requests by Workflow** bar graph displays the total count of requests by workflow.

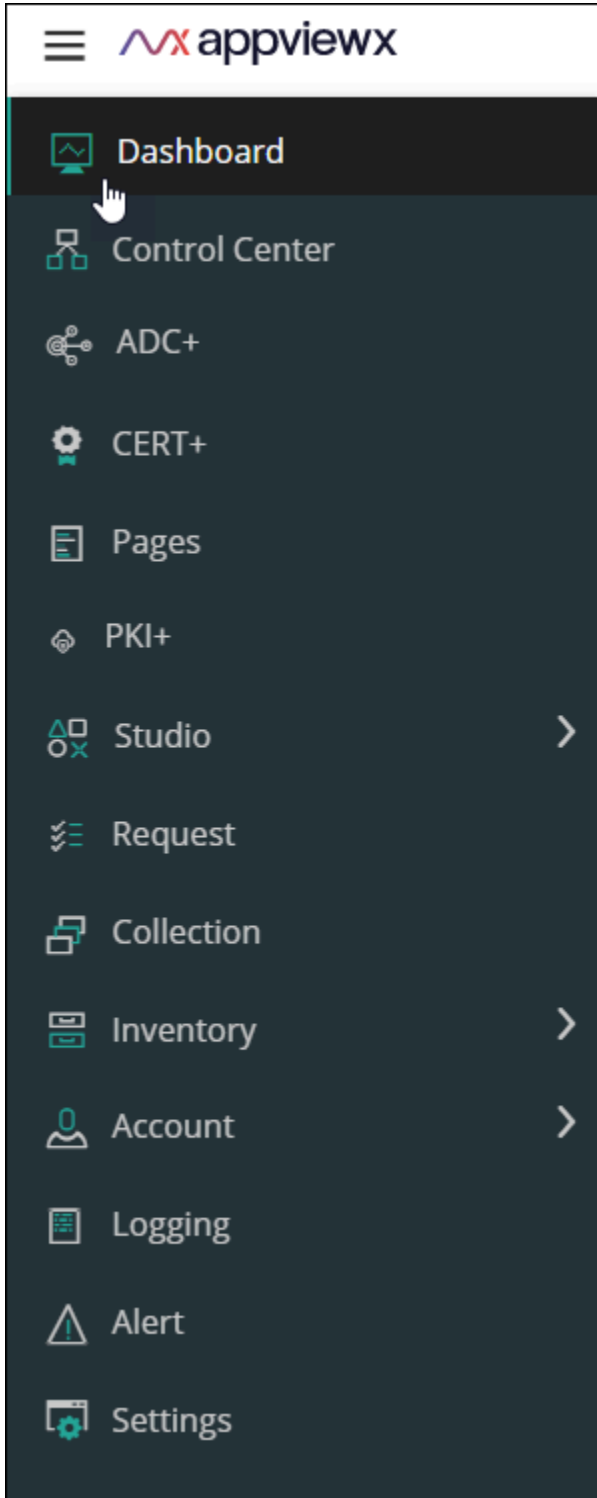


- The **API\_vs\_Manual:Automation** pie chart displays a list of automation requests triggered either manually or via API.




## How to Search for a Dashboard

1. From the top left corner of the screen, click .
2. From the menu displayed, select **Dashboard**.



The last opened or pinned dashboard is displayed.

3. To view the **Dashboard** inventory, from the top right corner of the screen, click  .

The **Dashboard** inventory page is displayed.



Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup.portal.ApplicationM...
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup.portal.ApplicationM...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeSi		admin usergroup.portal.ApplicationM...
Connected_Platform	RW	Users Information,		admin usergroup.portal.ApplicationM...
Server_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
License_Usage	RW	Reports		admin usergroup.portal.ApplicationM...
ads	RW			
asdasd	RW			
Client_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
SSL_Validation_Report	RW	SSL Validation Report		admin usergroup.portal.ApplicationM...
Trust_Store_Certificates	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Usage_And_Adoption_Metrics	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...

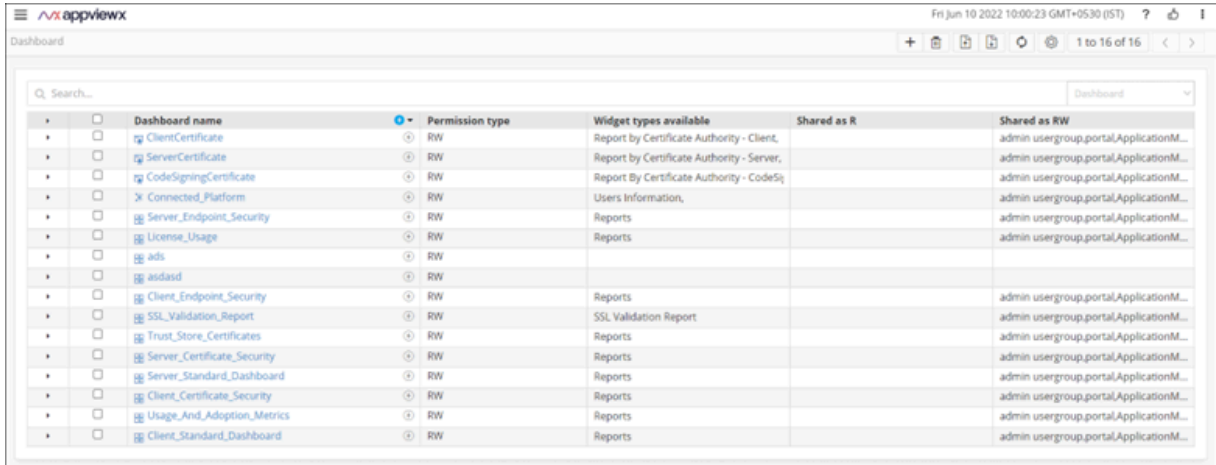
4. To search for a dashboard, on the **Dashboard** inventory page, enter the search keyword(s) in the **Search** field.

Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup.portal.ApplicationM...
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup.portal.ApplicationM...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeSi		admin usergroup.portal.ApplicationM...
Connected_Platform	RW	Users Information,		admin usergroup.portal.ApplicationM...
Server_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
License_Usage	RW	Reports		admin usergroup.portal.ApplicationM...
ads	RW			
asdasd	RW			
Client_Endpoint_Security	RW	Reports		admin usergroup.portal.ApplicationM...
SSL_Validation_Report	RW	SSL Validation Report		admin usergroup.portal.ApplicationM...
Trust_Store_Certificates	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Server_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Certificate_Security	RW	Reports		admin usergroup.portal.ApplicationM...
Usage_And_Adoption_Metrics	RW	Reports		admin usergroup.portal.ApplicationM...
Client_Standard_Dashboard	RW	Reports		admin usergroup.portal.ApplicationM...

The dashboards, objects, or widgets that match the keyword(s) are displayed.

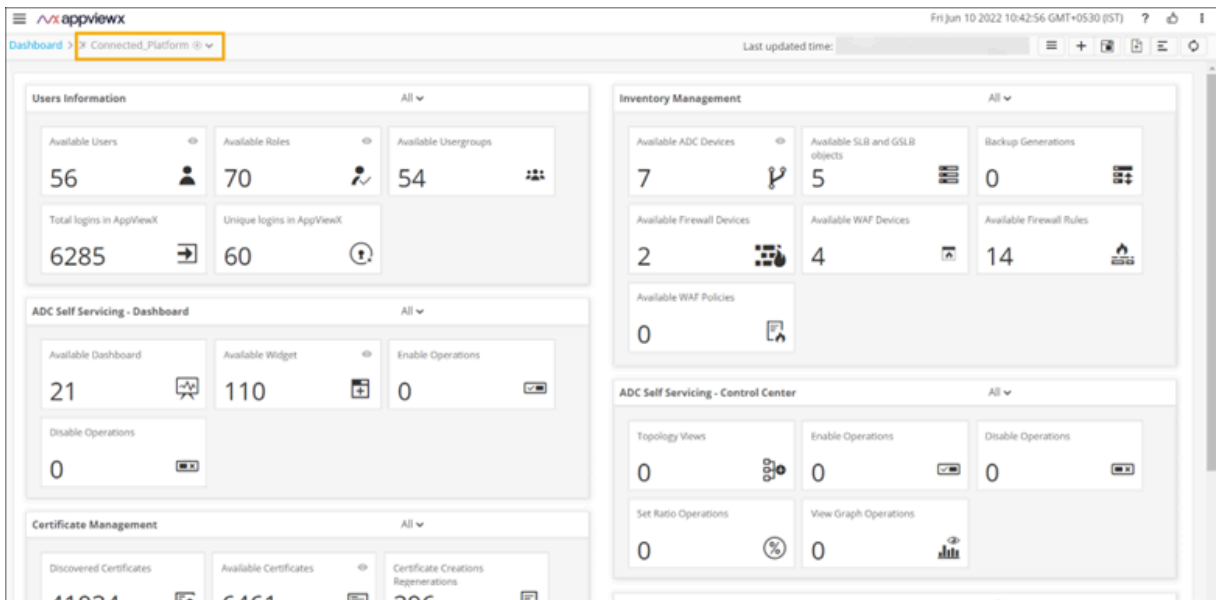
## How to View a Dashboard

- From the top left corner of the screen, click .
  - From the menu displayed, click **Dashboard**.  
The last opened or pinned **Dashboard** is displayed.
  - To view the **Dashboard** inventory, from the top right corner of the screen, click .
- The **Dashboard** inventory page is displayed.










4. Click on any Dashboard name. For example: Connected Platform.

The selected dashboard is displayed on the screen.



The following table describes the options available on the **Dashboard** page:

Options	Description
<b>Dashboard name</b>	Displays the name of the current dashboard.
	Allows you to navigate to the Dashboard inventory.
	Allows you to create a dashboard/widget.

Options	Description
	Allows you to save the changes to the widget.
	Allows you to download the entire dashboard as a PDF.
	Allows you to schedule and email reports from the dashboard.
	Allows you to align the widgets on the dashboard.
	Refreshes the dashboard.

## How to Pin Reports to a Dashboard

You can pin customized reports to an existing dashboard or a new dashboard. A maximum of 20 reports can be pinned to a dashboard. Pinning a report to the dashboard allows users to visualize different reports in the same place.



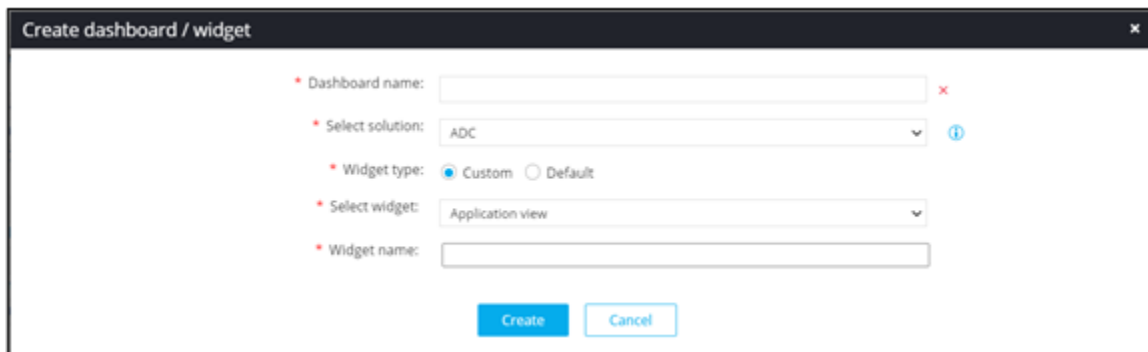
**Note:** For more information on how to pin a report to the dashboard, click [here](#).

## How to Build a Custom Dashboard

You can build a custom dashboard to display a specific set of reports.

1. On the **Dashboard** inventory page, from the top right corner of the screen, click  in the command bar.

The **Create dashboard/widget** popup window is displayed.



Create dashboard / widget

\* Dashboard name:

\* Select solution: ADC

\* Widget type:  Custom  Default

\* Select widget: Application view

\* Widget name:

Create Cancel

2. Enter or select the field information.



The following table describes the field description to create a custom dashboard:

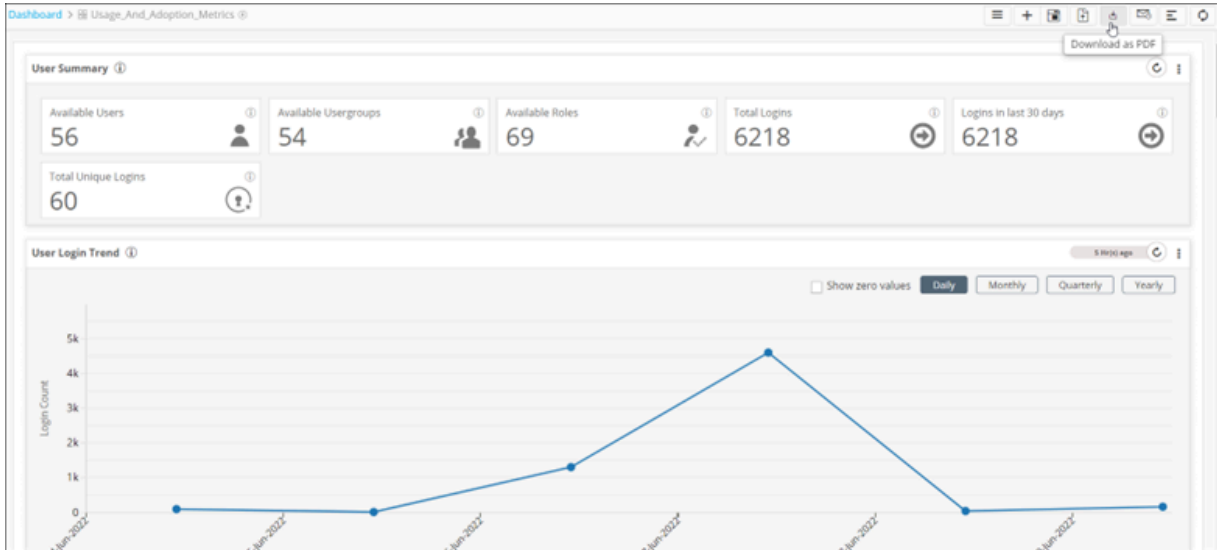
Field	Description
<b>*Dashboard name</b>	Enter the name of the dashboard.
<b>*Select solution</b>	ADC is the default selection.
<b>*Widget type</b>	Select the type of widget. The possible widget types are: <ul style="list-style-type: none"> <li>• <b>Custom</b>: Choose this option to build a customized widget.</li> <li>• <b>Default</b>: Choose this option to select the default widget.</li> </ul>
<b>*Select widget</b>	Select an appropriate widget from the customized widgets in the dropdown list.
<b>*Widget name</b>	Enter the name of the widget.
The asterisk (*) symbol indicates mandatory fields.	

3. Click **Create**.

## How to Download a Dashboard

You can also download entire dashboards as a PDF to your device.

1. From the top left corner of the screen, click .
2. From the menu displayed, select **Dashboard**.
3. On the **Dashboard** inventory page, click on a dashboard name.  
The selected dashboard is displayed on the screen.
4. To download the dashboard as a PDF file, from the top right corner of the screen, click .



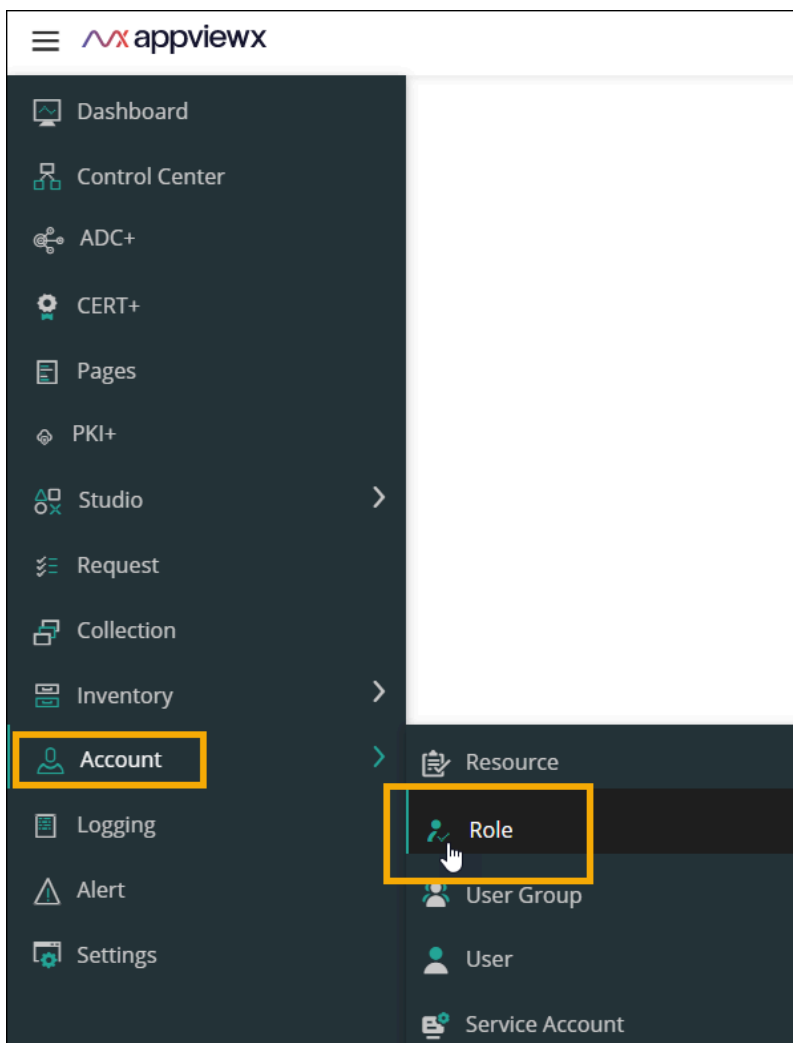
The dashboard is downloaded to your device as a PDF.

# Chapter 5: Role Based Access Control

Role based access control (RBAC) implies restricting authorized users to access certain aspects of the system. With RBAC, users can be granted access to only certain aspects of a system or platform and prevent them from accessing other information or systems.

To get an overview of the actions authorized for a particular user:

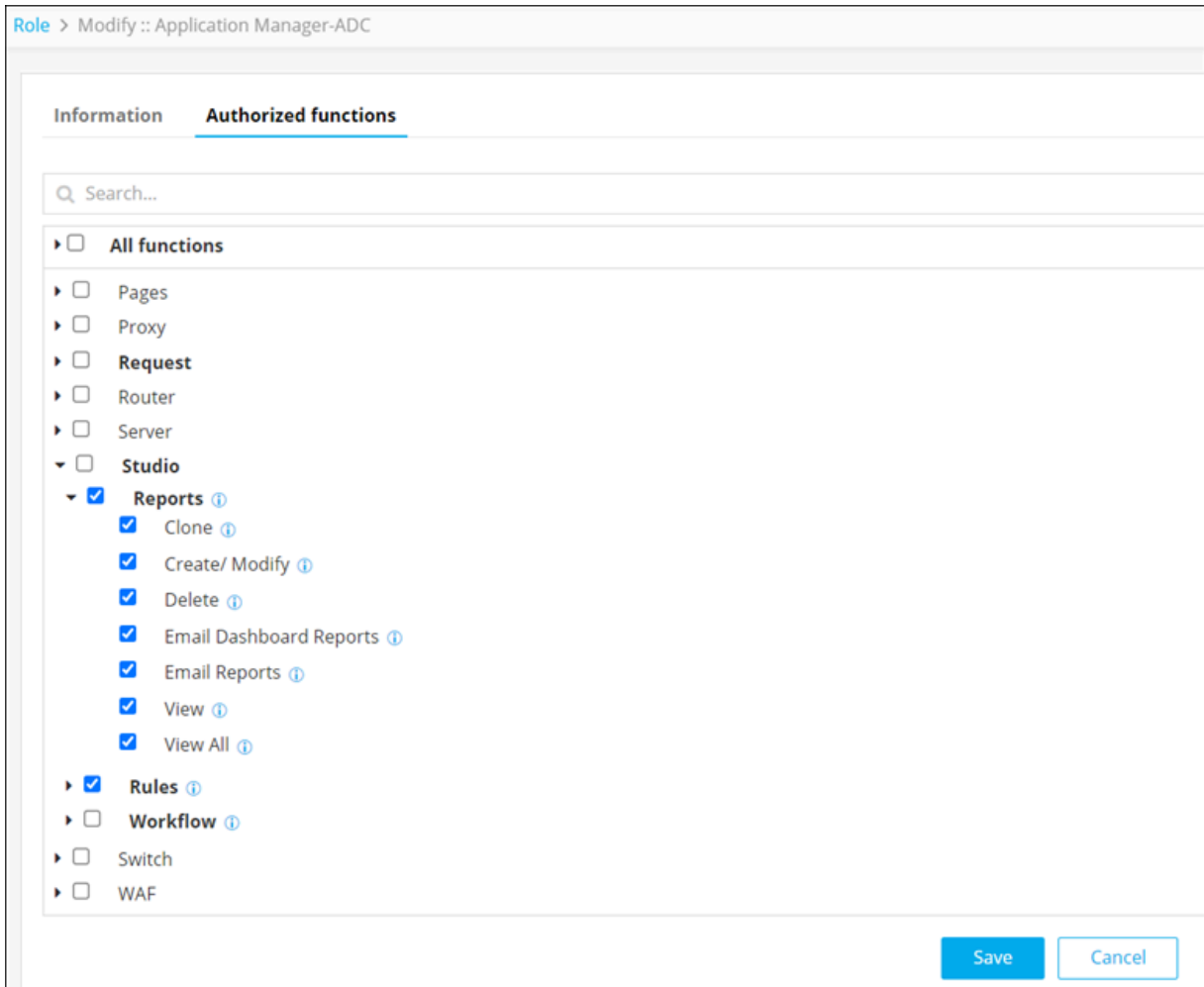
1. From the top left corner of the screen, click ☰ .
2. From the menu displayed, select **Account > Role**.



The **Role** page is displayed.

Name	Description	Status
Application Manager-ADC	Responsible for managing technical aspects of one or more major LOB applications.	Enabled
Application Manager-Cert	Responsible to manage the application specific certificates and devices, setup aler...	Enabled
Application User	Responsible to monitor the application specific certificates, setup alerts for expiry ...	Enabled
Auditor-ADC	Responsible for monitoring, analysing logs and reporting out on actions	Enabled
Auditor-Cert	Responsible for monitoring, analysing logs and reporting out on actions	Enabled
CA Manager	Responsible to manage CA related request and operations in AppViewX	Enabled
CA Manager Read Only	Responsible to view CA related request and operations in AppViewX	Enabled
CLM Manager	Responsible to manage AppViewX CLM Platform functions	Enabled
DevOps Manager	Responsible for managing a DevOp team; they may write applications, and respon...	Enabled
DevOps-ADC	Responsible for DevOps strategies, automation strategies and code sign	Enabled
DevOps-Automation	Responsible for DevOps strategies, automation strategies, code sign	Enabled
Executive Director-ADC	AppViewX provides organisations with holistic, business-level visibility across clou...	Enabled
Executive Director-Automation	AppViewX provides organisations with holistic, business-level visibility across clou...	Enabled
Executive Director-Cert	AppViewX provides organizations with holistic, business-level visibility across clou...	Enabled
Executive Director-Security	AppViewX provides organisations with holistic, business-level visibility across clou...	Enabled
Network Manager	Responsible for managing and monitoring network infrastructure	Enabled
Portal User	Responsible for Self-servicing and accessing automation flows via Catalogue	Enabled
Role_For_User_With_ADC_BR_Backup_now_P	User Persona	Enabled
Role_For_User_With_ADC_BR_Object_compare_P	User Persona	Enabled
Role_For_User_With_ADC_Backup_and_Restore_FP	User Persona	Enabled
Role_For_User_With_ADC_FP	User Persona	Enabled
Role_For_User_With_ADC_Inv_AddModify_Import	User Persona	Enabled
Role_For_User_With_ADC_Inv_View_P	User Persona	Enabled
Role_For_User_With_ADC_Inventory_FP	User Persona	Enabled
Role_For_User_With_FP_Except_ADC	User Persona	Enabled
Role_For_User_With_FP_Except_ADC_Backup_and_Restore	User Persona	Enabled
Role_For_User_With_FP_Expt_ADC_BR_Backup_now	User Persona	Enabled

- On the **Role** page, under the **Name** column, click on the name for which you want to see the permissions.
- To see the list of actions defined for the selected user, click **Authorized functions**.
- Under the **Authorized functions** tab, expand **Studio** and click **Reports**. A selected checkbox indicates that the corresponding action has been authorized for the user.



The following table describes the various actions that can be authorized or restricted for a user in the **Reports** module:

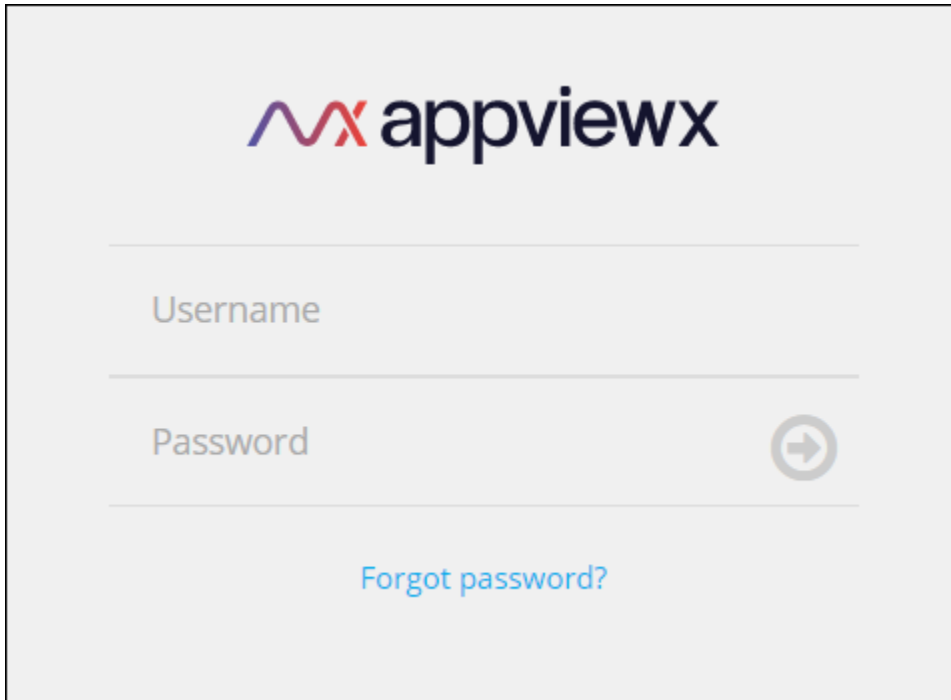
Action	Description
<b>Clone</b>	Provision to allow or restrict a user to clone a report.
<b>Create/Modify</b>	Provision to allow or restrict a user to create or modify a report.
<b>Delete</b>	Provision to allow or restrict a user to delete an existing report.
<b>Email Dashboard Reports</b>	Provision to allow or restrict user access to email dashboards in PDF format.
<b>Email Reports</b>	Provision to allow or restrict user access to email reports in My Reports, Store, Widget in PDF format and manage scheduling.


Action	Description
<b>View</b>	Provision to allow or restrict a user to view detailed information on existing reports created by the user who is logged in.
<b>View All</b>	Provision to allow or restrict a user to view detailed information on existing reports created for all the users.

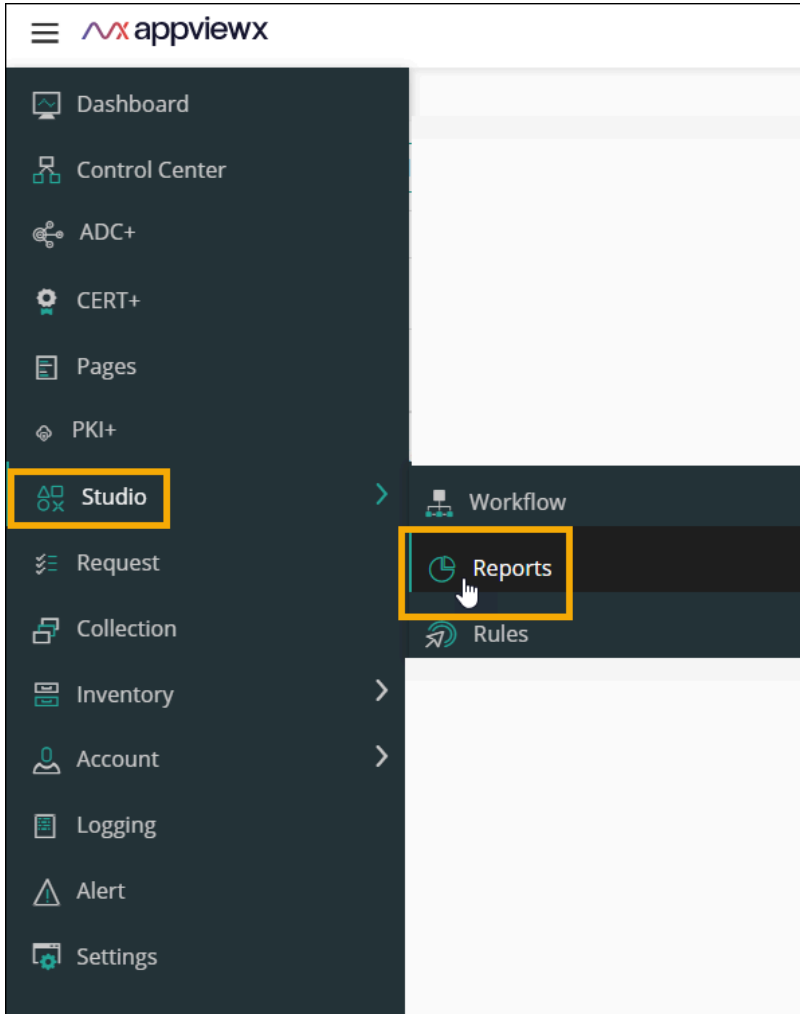
## Chapter 6: Accessing the Report Builder

To access the **Report Builder** tool:

1. Log into **AppViewX**.

The image shows the AppViewX login interface. At the top center is the AppViewX logo, which consists of a stylized 'VX' icon in red and blue followed by the text 'appviewx' in a dark blue, lowercase sans-serif font. Below the logo are two input fields: the first is labeled 'Username' and the second is labeled 'Password'. To the right of the password field is a circular button with a right-pointing arrow. Below the password field is a blue link that says 'Forgot password?'. The entire login area is enclosed in a thin black border.

2. From the top left corner of the screen, click  .
3. From the menu displayed, select **Studio > Reports**.



The **Reports : My Reports** page is displayed, with the **My Reports** tab open by default. This page is the Reports inventory page.

Reports :: My reports

My reports | Store | Scheduled jobs | Widget

Search... | Select... | Create new report | Actions | Refresh | 1 to 18 of 18

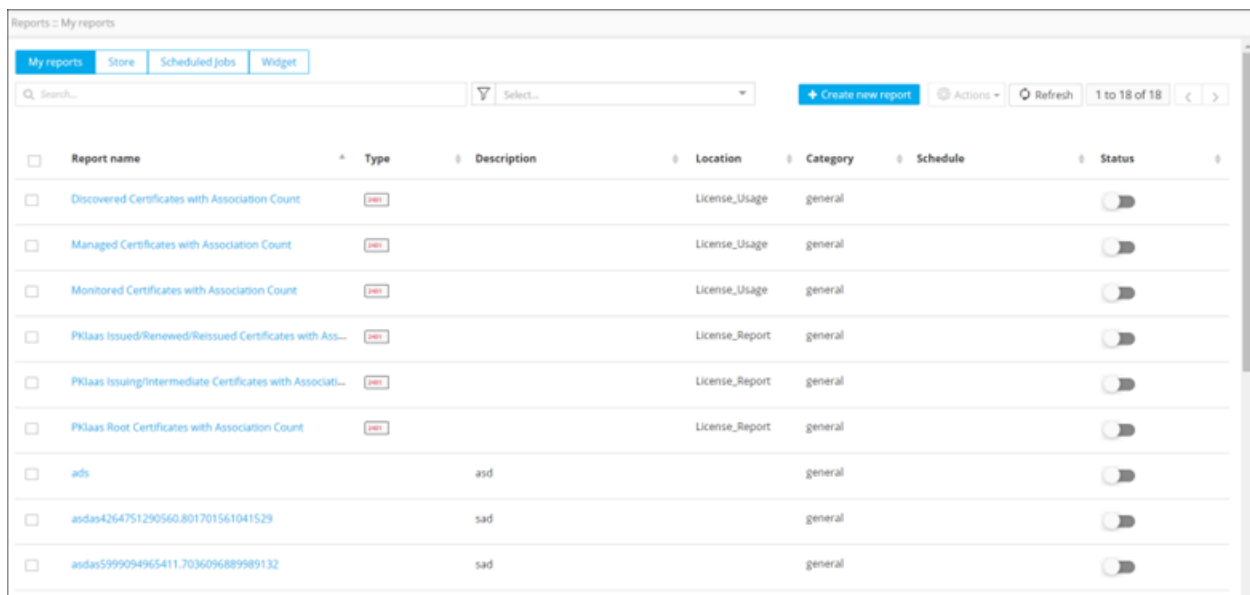
<input type="checkbox"/>	Report name	Type	Description	Location	Category	Schedule	Status
<input type="checkbox"/>	Discovered Certificates with Association Count	PKIaaS		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	Managed Certificates with Association Count	PKIaaS		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	Monitored Certificates with Association Count	PKIaaS		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issued/Renewed/Reissued Certificates with Ass...	PKIaaS		License_Report	general		<input type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issuing/Intermediate Certificates with Associati...	PKIaaS		License_Report	general		<input type="checkbox"/>
<input type="checkbox"/>	PKIaaS Root Certificates with Association Count	PKIaaS		License_Report	general		<input type="checkbox"/>
<input type="checkbox"/>	ads		asd		general		<input type="checkbox"/>
<input type="checkbox"/>	asdas4264751290560.801701561041529		sad		general		<input type="checkbox"/>
<input type="checkbox"/>	asdas5999054965411.7036096889989132		sad		general		<input type="checkbox"/>

# Chapter 7: Reports Inventory

- Overview
- My Reports
- Store
- Scheduled jobs
- Widget

## Overview

The **Reports :: My Reports** page gives a consolidated view of all the aspects of the Report builder. The **My Reports** tab is open on this page by default.

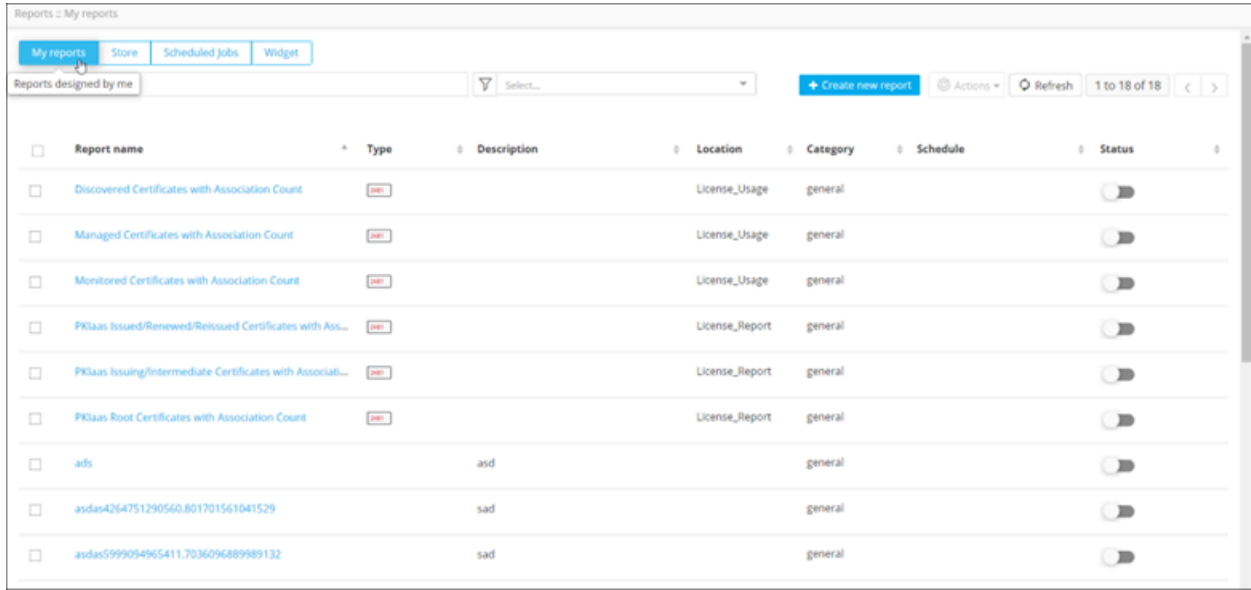


The screenshot shows the 'Reports :: My reports' interface. At the top, there are tabs for 'My reports', 'Store', 'Scheduled jobs', and 'Widget'. Below the tabs is a search bar and a dropdown menu. A blue button labeled '+ Create new report' is visible. The main content is a table with the following columns: Report name, Type, Description, Location, Category, Schedule, and Status. The table contains several rows of reports, including 'Discovered Certificates with Association Count', 'Managed Certificates with Association Count', 'Monitored Certificates with Association Count', and several 'PKIaaS' reports. Each row has a checkbox on the left and a toggle switch on the right.



<input type="checkbox"/>	Report name	Type	Description	Location	Category	Schedule	Status
<input type="checkbox"/>	Discovered Certificates with Association Count	...		License_Usage	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Managed Certificates with Association Count	...		License_Usage	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Monitored Certificates with Association Count	...		License_Usage	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issued/Renewed/Reissued Certificates with Ass...	...		License_Report	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issuing/Intermediate Certificates with Associati...	...		License_Report	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	PKIaaS Root Certificates with Association Count	...		License_Report	general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	ads		asd		general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	asdas4264751290560.801701561041529		sad		general		<input checked="" type="checkbox"/>
<input type="checkbox"/>	asdas5999094965411.7036096889989132		sad		general		<input checked="" type="checkbox"/>

## My Reports

The **Reports :: My reports** page shows the list of reports created by the user using the report builder.



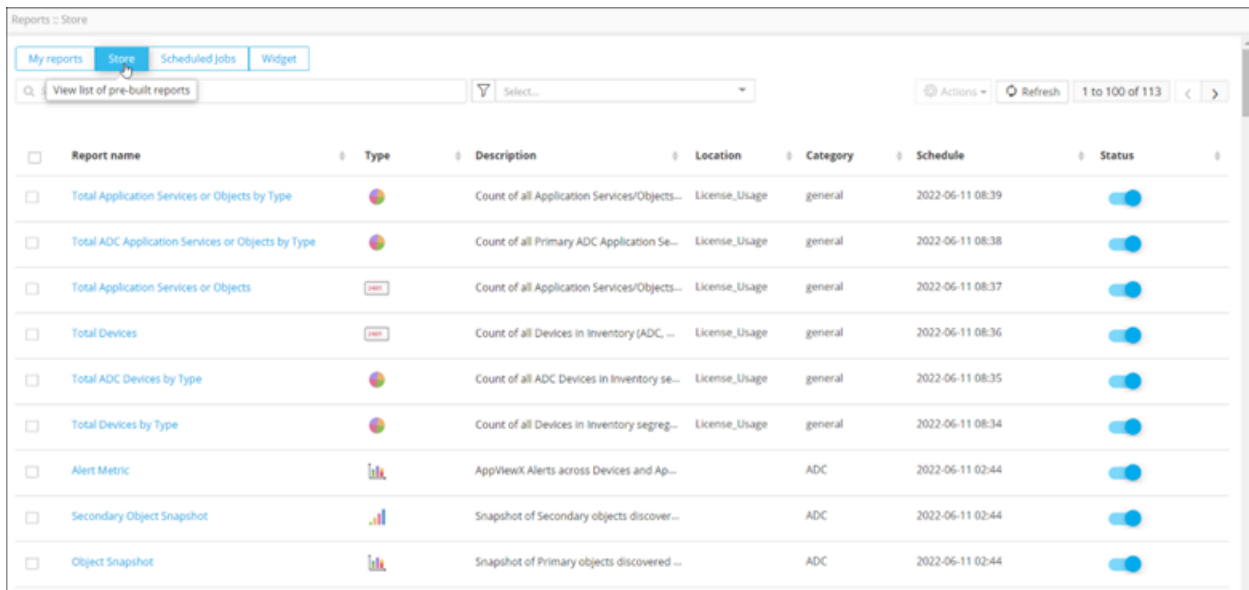
The following table describes the options available under the **My reports** page:

Options	Description
<b>Search bar</b>	Searches for the given keyword(s) in the field and produces results featuring the searched keyword(s).
	Allows you to filter reports according to different categories.
<b>Create new report</b>	Allows you to create a new custom report.
<b>Actions</b>	Allows you to perform actions (pin, bulk, clone, delete) on the reports. <div style="border: 1px solid #00a0e3; border-radius: 10px; padding: 5px; margin-top: 10px;">  <b>Note:</b> This option is enabled only when a report(s) is selected.                 </div>
<b>Refresh</b>	Refreshes the page.
<b>Report name</b>	Displays the names of the reports in alphabetical order (A to Z and Z to A).
<b>Type</b>	Displays reports according to the type - pie, donut, bar, stacked bar, grid, line metric.
<b>Description</b>	Displays a brief description of the report.
<b>Location</b>	Displays the location of the report on the dashboard.
<b>Category</b>	Displays the category of the report -

Options	Description
	<ul style="list-style-type: none"> <li>• <b>General:</b> This is a default category.</li> <li>• <b>Certificate:</b> This relates to Certificate reports specifically.</li> <li>• <b>ADC:</b> This relates specifically to ADC reports.</li> </ul>
<b>Schedule</b>	Displays the date and time of a scheduled report.
<b>Status</b>	Displays whether a report has been enabled or is disabled.


## Store

The **Reports :: Store** page shows a list of ready-to-use reports made available to users.



The following table describes the options available under the **Store** page:

Options	Description
<b>Search bar</b>	Searches for the given keyword(s) in the field and produces results featuring the searched keyword(s).
	Allows you to filter reports according to different categories.
<b>Actions</b>	Allows you to perform actions (pin, bulk, clone, delete) on the reports.

Options	Description
	<div style="border: 1px solid #add8e6; border-radius: 10px; padding: 5px;">  <b>Note:</b> This option is enabled only when a report(s) is selected.         </div>
<b>Refresh</b>	Refreshes the page.
<b>Report name</b>	Displays the names of the reports in alphabetical order (A to Z and Z to A).
<b>Type</b>	Displays reports according to the type - pie, donut, bar, stacked bar, grid, line metric.
<b>Description</b>	Displays a brief description of the report.
<b>Location</b>	Displays the location of the report on the dashboard.
<b>Category</b>	Displays the category of the report - <ul style="list-style-type: none"> <li>• <b>General:</b> This is a default category.</li> <li>• <b>Certificate:</b> This relates to Certificate reports specifically.</li> <li>• <b>ADC:</b> This relates specifically to ADC reports.</li> </ul>
<b>Schedule</b>	Displays the date and time of a scheduled report.
<b>Status</b>	Displays whether a report has been enabled or is disabled.

## Scheduled jobs

The **Reports :: Schedule** page shows a list of all the scheduled jobs or the emails that have been scheduled by a user to trigger at pre-set time intervals.

Job ID	Job name	Source	Trigger	Last executed time	Next execution time	Status	Scheduled by
136	hello	Dashboard	Minutes	2022-06-06 11:37		Completed	ganga-release-01
135	genreport	Report Inventory	Minutes	2022-06-04 17:37		Completed	ganga-release-01
134	finaltest	Dashboard	Minutes	2022-06-04 17:36		Completed	ganga-release-01
133	newtest	Dashboard	Minutes	2022-06-04 17:22		Completed	ganga-release-01
132	test1">xyz	Dashboard">xyz	Minutes	2022-06-04 16:59		Completed	ganga-release-01
131	test1">xyz	Dashboard	Minutes	2022-06-04 16:59		Completed	ganga-release-01
130	test	Dashboard	Minutes	2022-06-04 16:59		Completed	ganga-release-01
129	asdsd	Dashboard	Minutes	2022-06-04 16:38		Completed	ganga-release-01
128	asdsds	Dashboard	Minutes	2022-06-04 16:33		Completed	ganga-release-01
127	asdsds	Dashboard	Minutes	2022-06-04 16:33		Completed	ganga-release-01
126	asdsds	Dashboard	Minutes	2022-06-04 16:33		Completed	ganga-release-01

The following table describes the options available under the **Scheduled Jobs** tab:

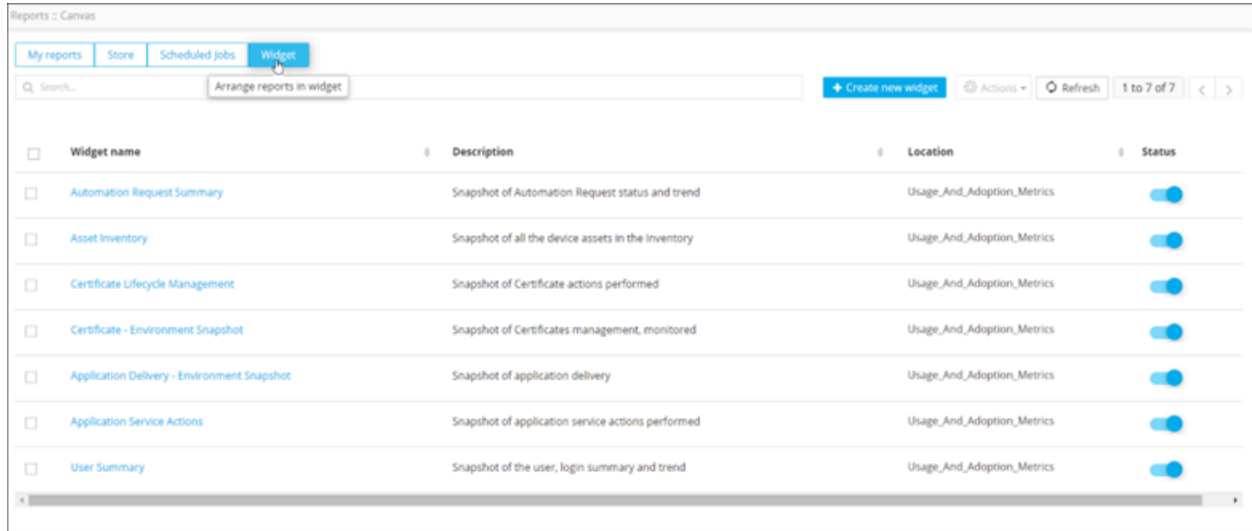
Options	Description
<b>Search bar</b>	Searches for the given keyword(s) in the field and produces results featuring the searched keyword(s).
<b>Refresh</b>	Refreshes the page.
<b>Job ID</b>	Displays the Job ID.
<b>Job name</b>	Displays the Job name.
<b>Source</b>	Displays the source of the scheduled job.
<b>Trigger</b>	Displays the frequency at which the job is scheduled to be triggered.
<b>Last executed time</b>	Displays the time when the job was last executed.
<b>Next execution time</b>	Displays the time when the job will be executed next.
<b>Status</b>	Displays the status (pause/resume) of the job. You can click on the green arrow to change the status.
<b>Scheduled by</b>	Displays the name of the user who scheduled the job.




**Note:** For more information on scheduling reports, click [here](#).

## Widget

A widget allows you to arrange data in a visually striking display. Only metric charts can be used to create widgets. The **Reports :: Canvas** page shows the list of pre-built widgets available for the user.



This table describes the options available under the **Widget** page:

Options	Description
<b>Search bar</b>	Searches for the given keyword(s) in the field and produces results featuring the searched keyword(s).
<b>Create new widget</b>	Allows you to create a new widget.
<b>Actions</b>	Allows you to perform actions (pin, bulk, clone, delete) on the reports. <div style="border: 1px solid #007bff; border-radius: 10px; padding: 5px; margin-top: 10px;">  <b>Note:</b> This option is enabled only when a report(s) is selected.                 </div>
<b>Refresh</b>	Refreshes the page.
<b>Widget name</b>	Displays the names of the widget.
<b>Description</b>	Displays a brief description of the widget.
<b>Location</b>	Displays the location of the widget on the dashboard.
<b>Status</b>	Displays whether a widget has been enabled or is disabled.

# Chapter 8: Creating a Report/BYOR

- Overview
- Build
- Chart Configuration
- Chart Drilldown

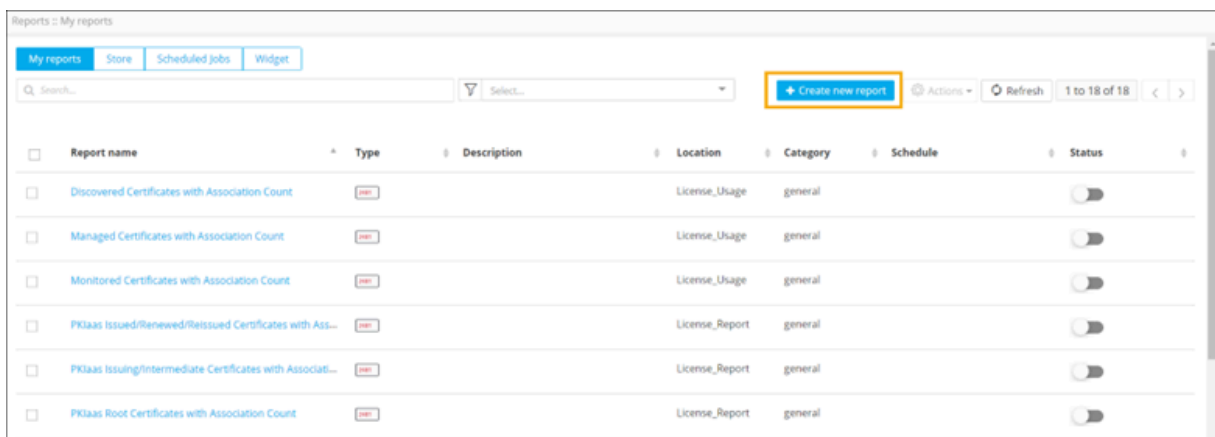
## Overview

There are three steps involved in creating a report using AppViewX's report builder tool.

- Build
- Chart Configuration
- Chart Drilldown

## Build

1. To create a customized report, on the **My Reports** page, click **Create New Report**.




2. On the **Reports :: My reports > Create :: basicinfo** page, under the **BUILD** section, enter or select the required field information.

The following table describes the field information in this section:

Field	Description
<b>*Report name</b>	Enter a valid report name.  For example: <b>Devices based on vendors.</b>
<b>Description</b>	Enter a valid description of the report.  For example: <b>Display devices by vendor.</b>
<b>*Select category</b>	Select category from the options available in the drop down menu or click + to add a new category. <ul style="list-style-type: none"> <li>• <b>Certificate</b> - Select category as certificate for creating certificate related reports specifically.</li> <li>• <b>ADC</b> - Select category as ADC for building ADC related reports specifically.</li> <li>• <b>General</b> - Select category as general for all reports.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

3. To query certificates based on role permissions, select the **ACL Restricted** check box.

A screenshot of a form element showing a checked checkbox labeled "ACL Restricted" and an information icon (a lowercase 'i' inside a circle) to its right.


 **Note:** Check this box specifically for creating certificate related reports.

4. To query report data, either select a preexisting hook or click **Create new Hook**.

A screenshot of a hook selection interface. At the top, there is a search input field containing the text "devices", a dropdown menu set to "All", and a "+ Create new hook" button. Below this is a list of hooks with checkboxes:
 

- Get list of all devices (checked)
- Get others device name list
- Get list of managed devices for FS v11,12 and type LTM
- Get managed devices for vendor type FS
- Get all managed firewall devices
- Get list of Infoblox devices
- Get all ADC devices
- Get all Firewall devices

 At the bottom of the interface, there is a "Next" button with a right-pointing arrow, a "Save" button, and a "Cancel" button.

 **Note:** For more information on creating hooks, click [here](#).

5. To save this basic information on the report, click **Save**.

6. To go to the next stage of report building, click **Next**.

The **CHART CONFIGURATION** section is displayed.

## Chart Configuration

- [Overview](#)
- [How to Design a Custom Pie Chart](#)

- [How to Design a Custom Donut Chart](#)
- [How to Design a Custom Bar Chart](#)
- [How to Design a Custom Stacked Bar Chart](#)
- [How to Design a Custom Grid Chart](#)
- [How to Design a Custom Line Chart](#)
- [How to Design a Custom Metric Chart](#)

## Overview

The chart configuration page lists seven types of chart options that can be selected for creating reports. These options are:

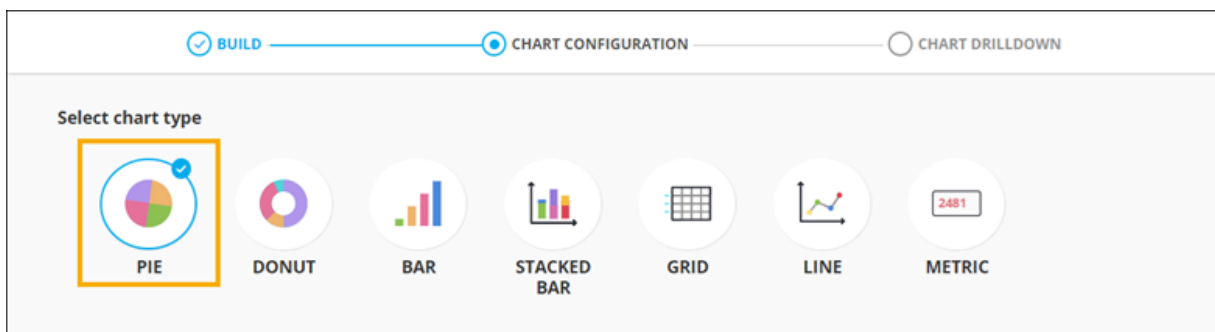
- Pie Chart
- Donut
- Bar
- Stacked Bar
- Grid
- Line
- Metric

## How to Design a Custom Pie Chart

Creating a report using a pie chart allows you to display multiple classes of data and their proportions. It helps to summarize a large data set visually. It is easy to understand and requires minimal explanation.

To design a custom pie chart:

1. [Build](#) a report.
2. Under the **CHART CONFIGURATION** section, **Select chart type as PIE.**



3. Enter or select the information required in each of the fields.

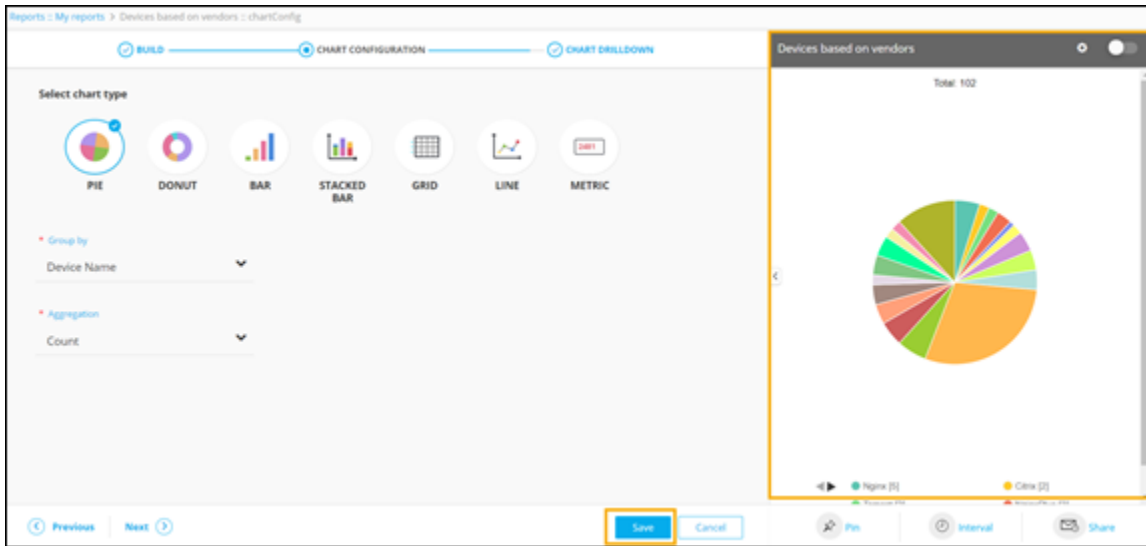
The screenshot shows a configuration interface with two sections. The first section is labeled '\* Group by' and contains a dropdown menu with 'Device Name' selected. The second section is labeled '\* Aggregation' and contains a dropdown menu with 'Count' selected. Both sections are separated by horizontal lines.


The following table describes the field information in this section:

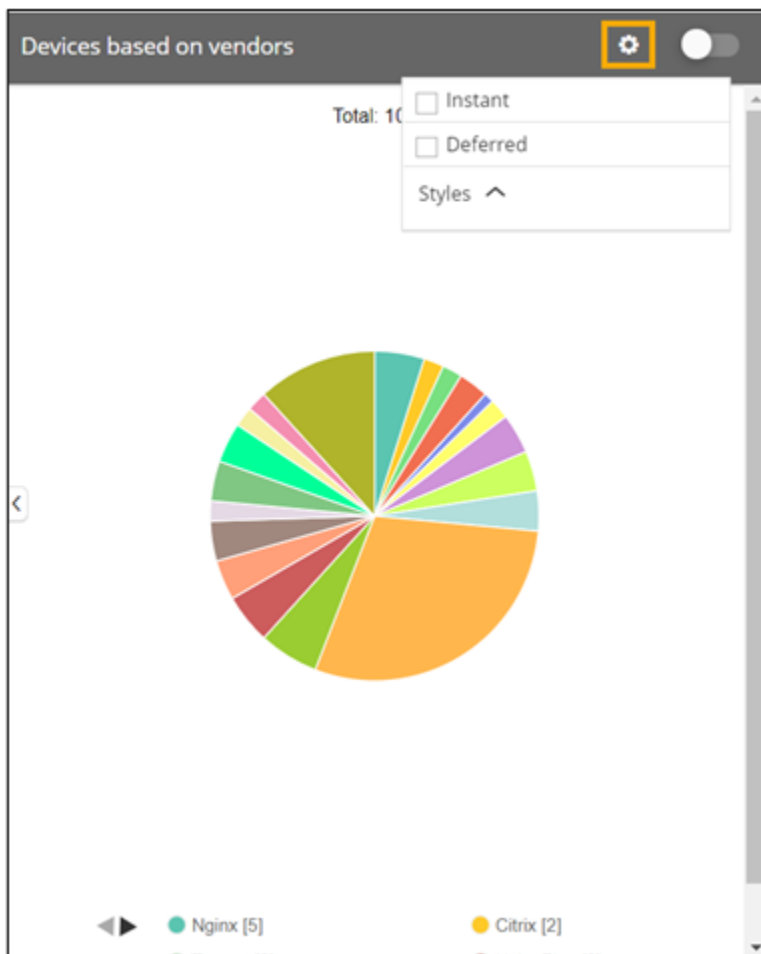
Field	Description
<b>*Group by</b>	Select a value from the dropdown menu on the basis of which report data will be grouped. For example: <b>Device Name</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

A preview of the pie chart is generated on the right side of the screen.

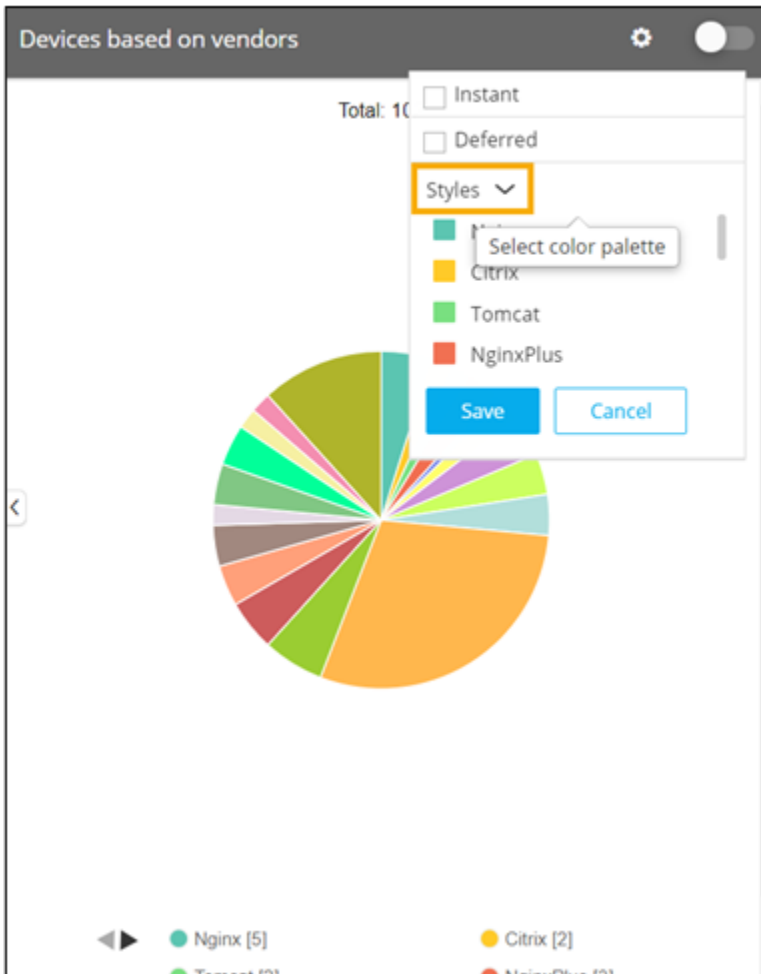


5. To select the data loading pattern, click .

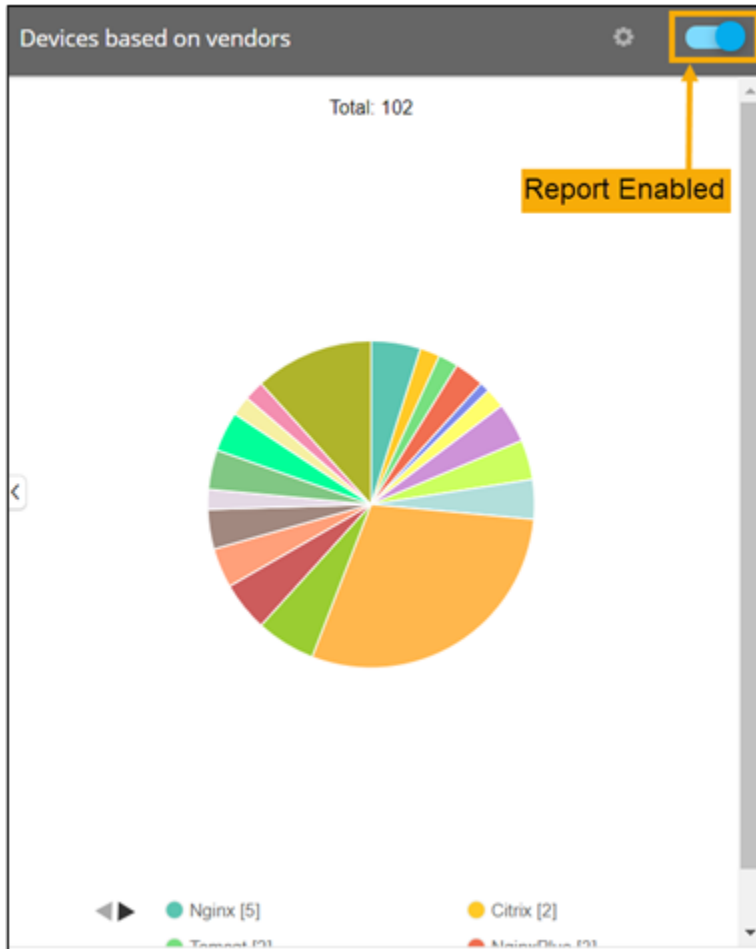


- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

6. To change the style/font color of their pie chart, click **Styles**.



7. To enable the report, turn on the toggle.



8. Click **Next**.

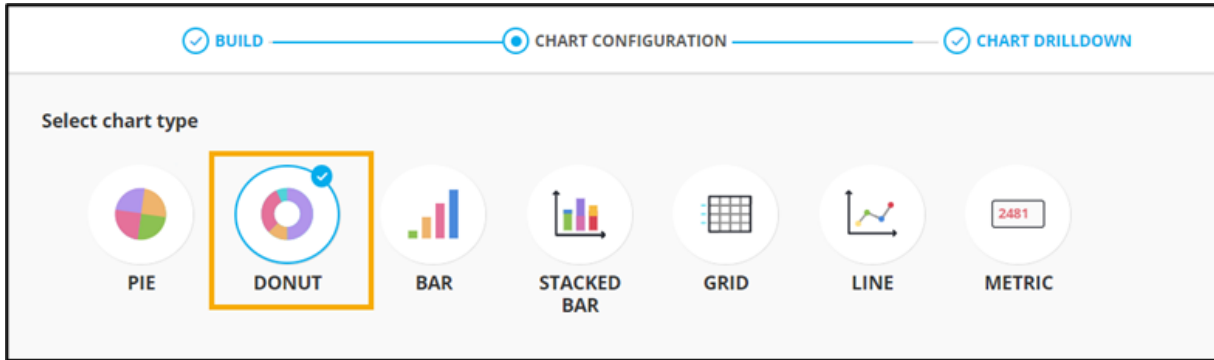
The **CHART DRILLDOWN** section is displayed.

## How to Design a Custom Donut Chart

A donut chart, similar to a pie chart, allows you to compare between categories and visualize part to whole relationships. A donut chart has the added advantage of having a blank space in the middle where extra information can be supplemented.

To design a custom donut chart:

1. **Build** a report.
2. Under the **CHART CONFIGURATION** section, select the **DONUT** chart.



3. Enter or select the information required in each of the fields.

\* Group by

Device Name

---

\* Aggregation

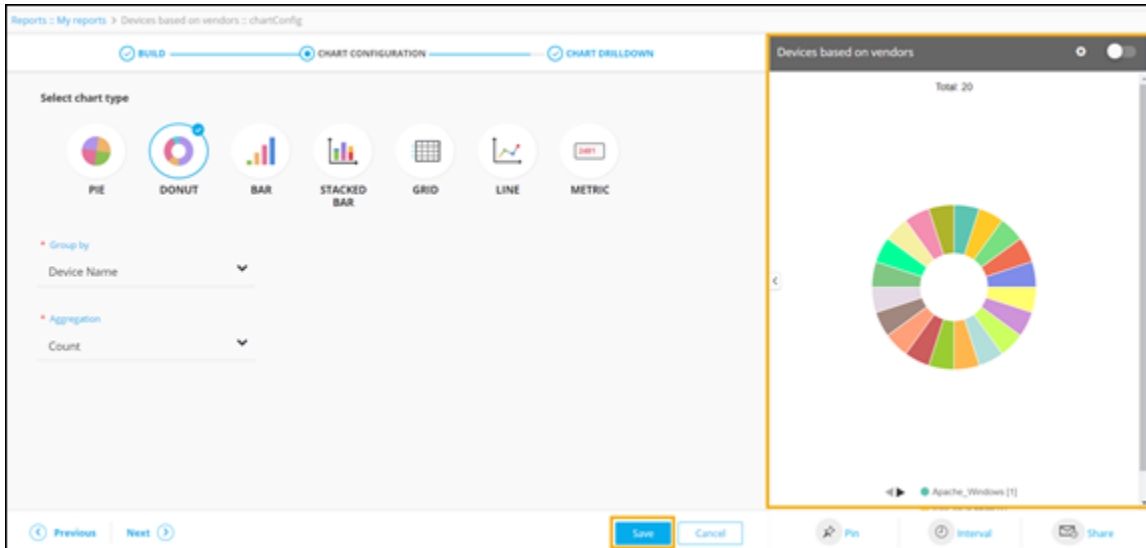
Count


The following table describes the field information in this section:

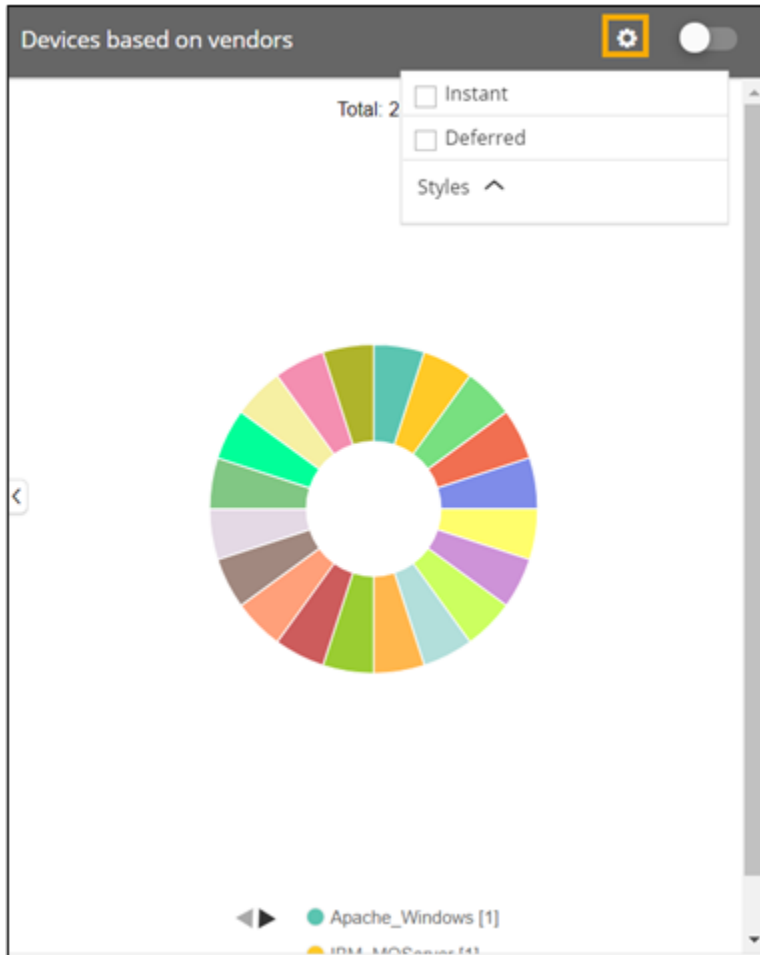
Field	Description
*Group by	Select a value from the dropdown menu on the basis of which report data will be grouped. For example: <b>Device Name</b> .
*Aggregation	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

A preview of the donut is generated on the right side of the screen.

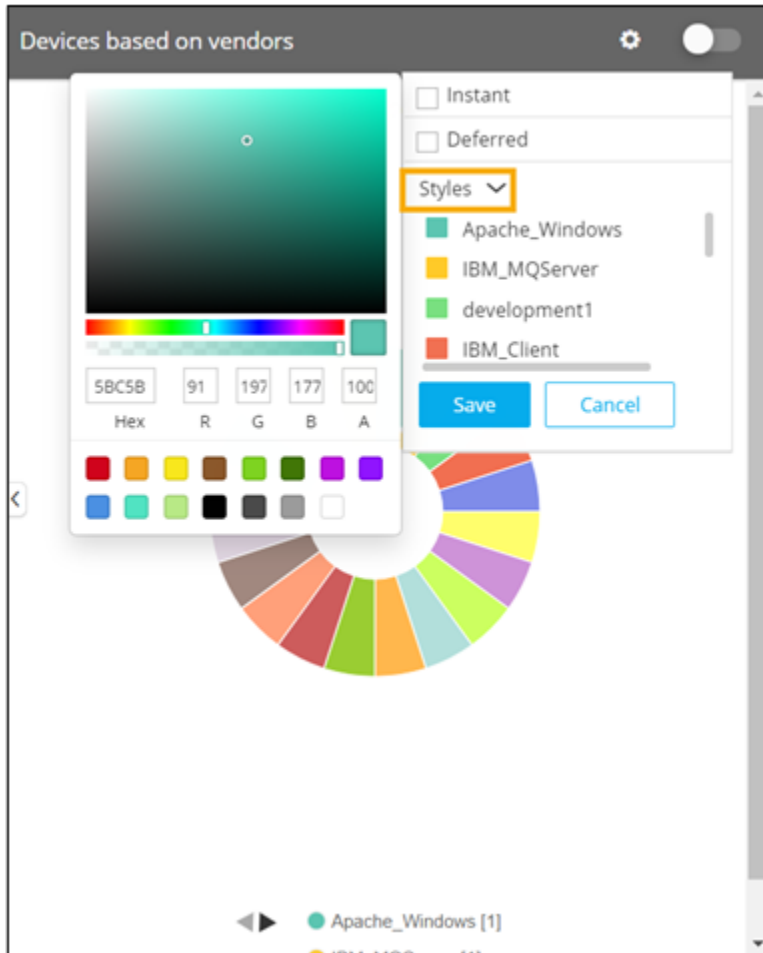


5. To select the data loading pattern, click .

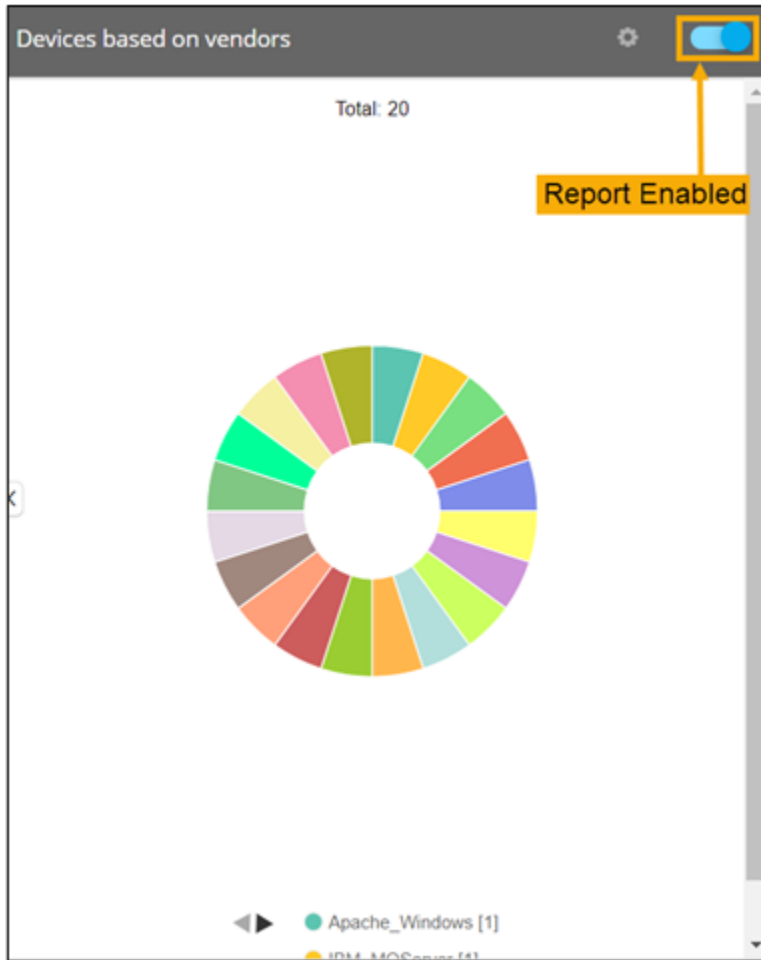


- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

6. To change the style/font color of the donut, click **Styles**.



7. To enable the report, turn on the toggle.



8. Click **Next**.

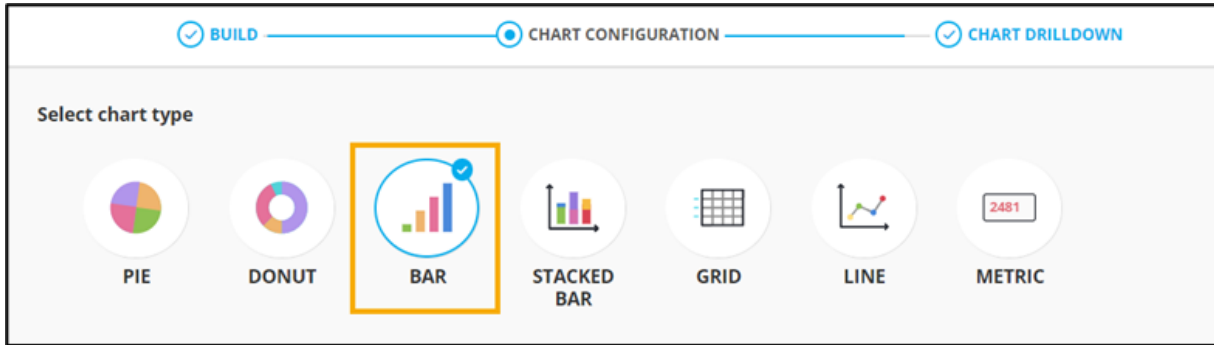
The **CHART DRILLDOWN** section is displayed.

## How to Design a Custom Bar Chart

A bar chart allows you to compare data across different categories. It is especially useful for measuring changes in data over longer periods of time or measuring larger changes in data.

To design a custom bar Chart:

1. **Build** a report.
2. Under the **CHART CONFIGURATION** section, select the **BAR** chart.



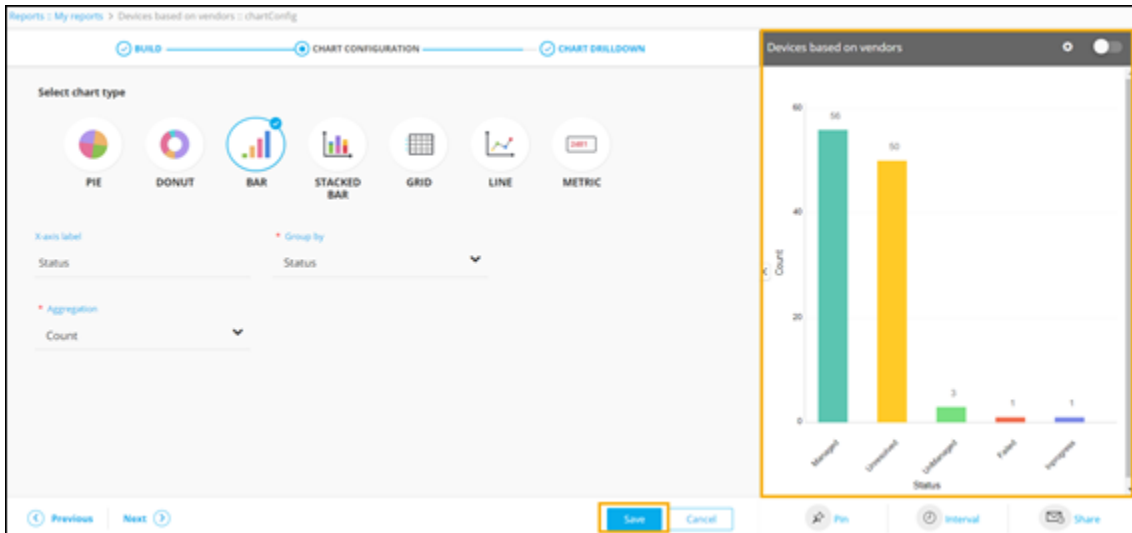
3. Enter or select the information required in each of the fields.


The following table describes the field information in this section:

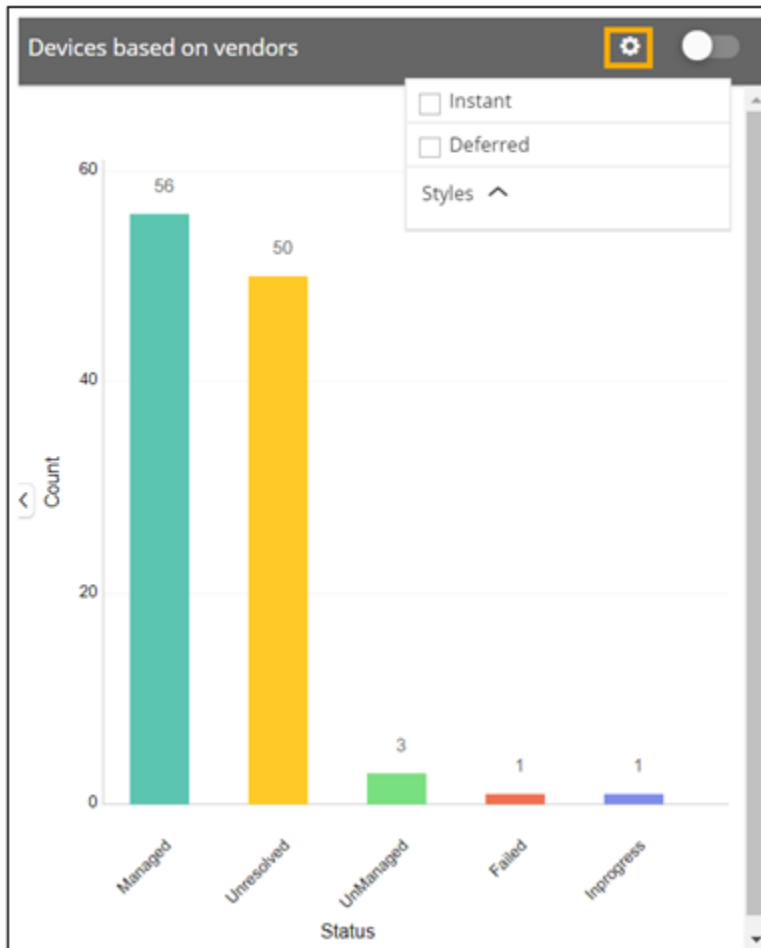
Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label. For example: <b>Status</b> .
<b>*Group by</b>	Select a value from the drop down menu on the basis of which data will be grouped. For example: <b>Status</b> . This will generate a report that shows the status of devices as managed, unmanaged and so on.
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

A preview of the bar chart is generated on the right side of the screen.

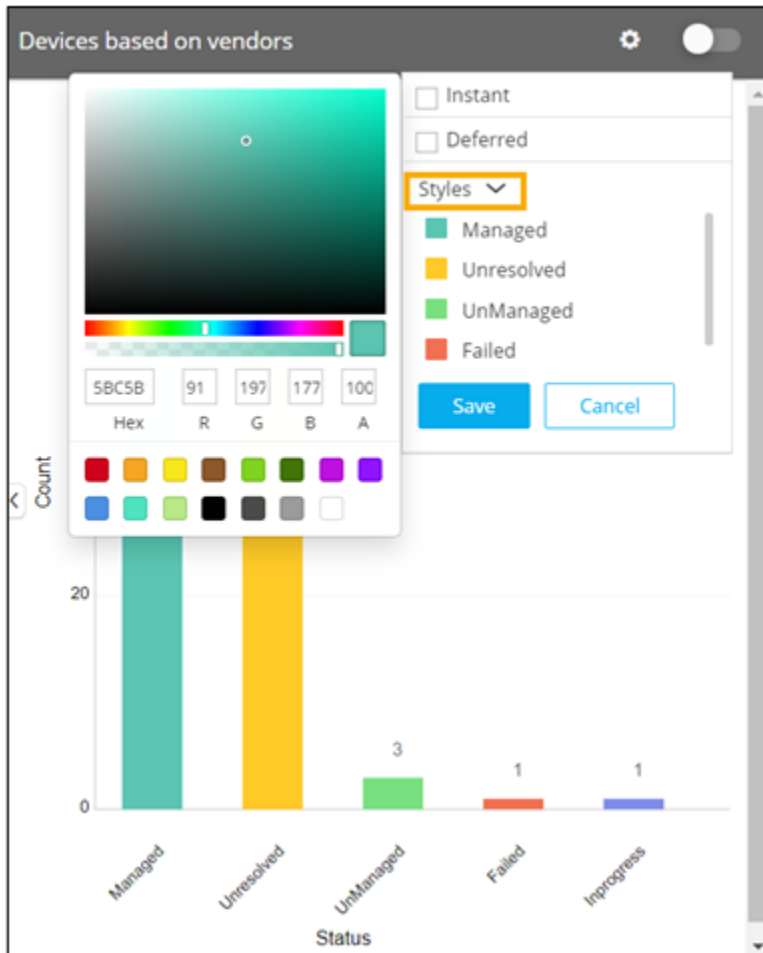


5. To select the data loading pattern, click .



- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

6. To change the style/font color of the bar chart, click **Styles**.



7. To enable the report, turn on the toggle.



8. Click **Next**.

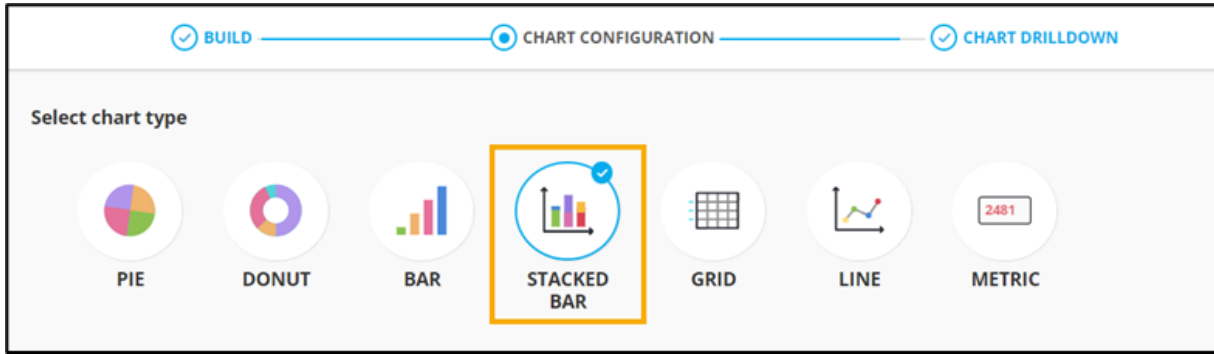
The **CHART DRILLDOWN** section is displayed.

## How to Design a Custom Stacked Bar Chart

A stacked bar chart is useful for comparing data across several categories as well as analysing the relation between sub-categories. In a stacked bar, each bar is divided into segments which represent different categories within that single bar category.

To design a custom stacked bar chart:

1. **Build** a report.
2. Under the **CHART CONFIGURATION** section, select the **STACKED BAR** chart.



3. Enter or select the information required in each of the fields.

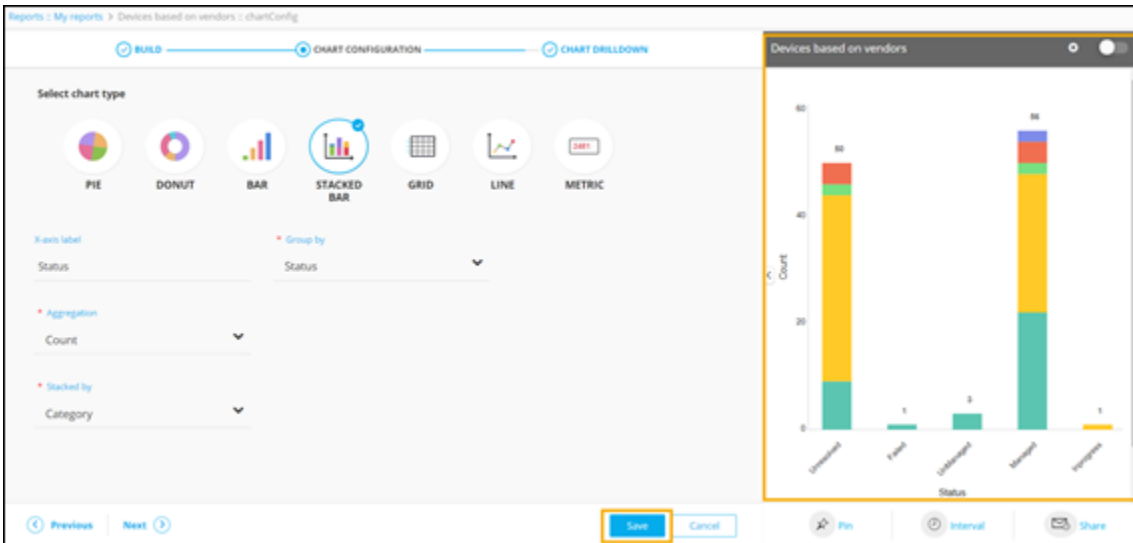
The following table describes the field information in this section:

Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label. For example: <b>Status</b> .
<b>*Group by</b>	Select a value from the drop down menu on the basis of which report data will be grouped. For example: <b>Status</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>

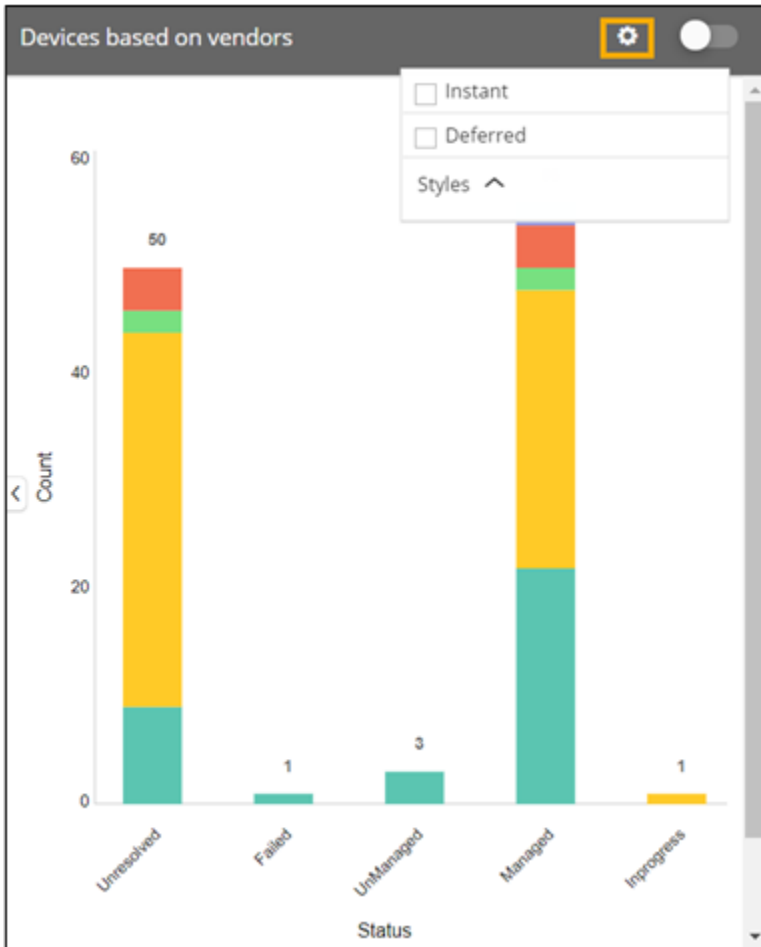
Field	Description
* <b>Stacked by</b>	Select the parameter from the drop down menu on the basis of which the data will be stacked in the chart. For example: <b>Category</b> of device.
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

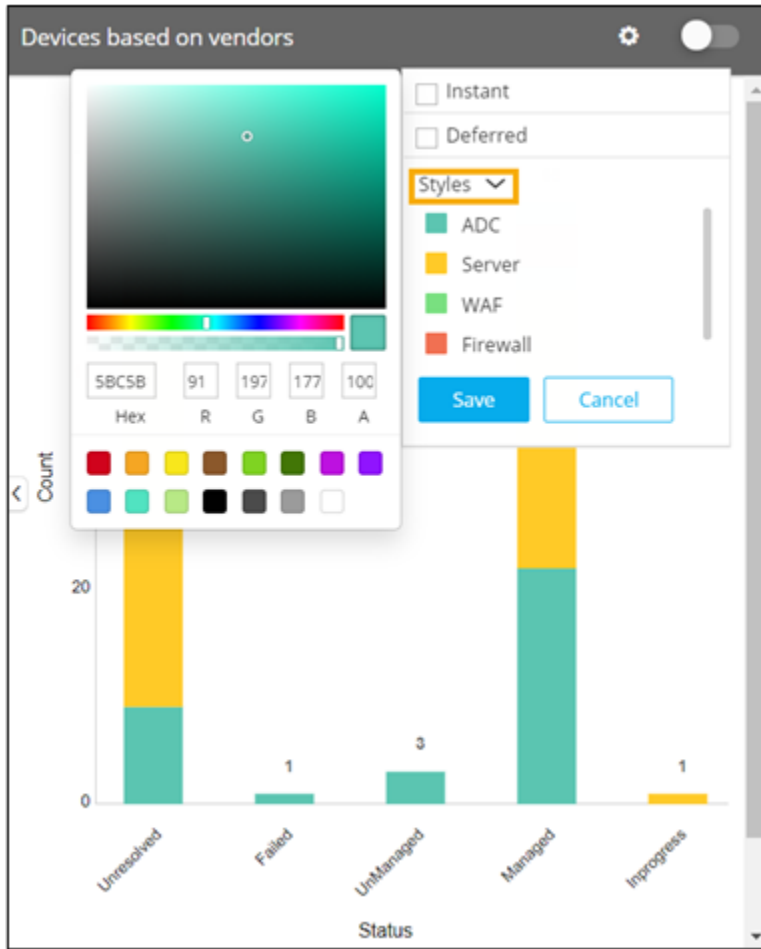
A preview of the stacked bar chart is generated on the right side of the screen.



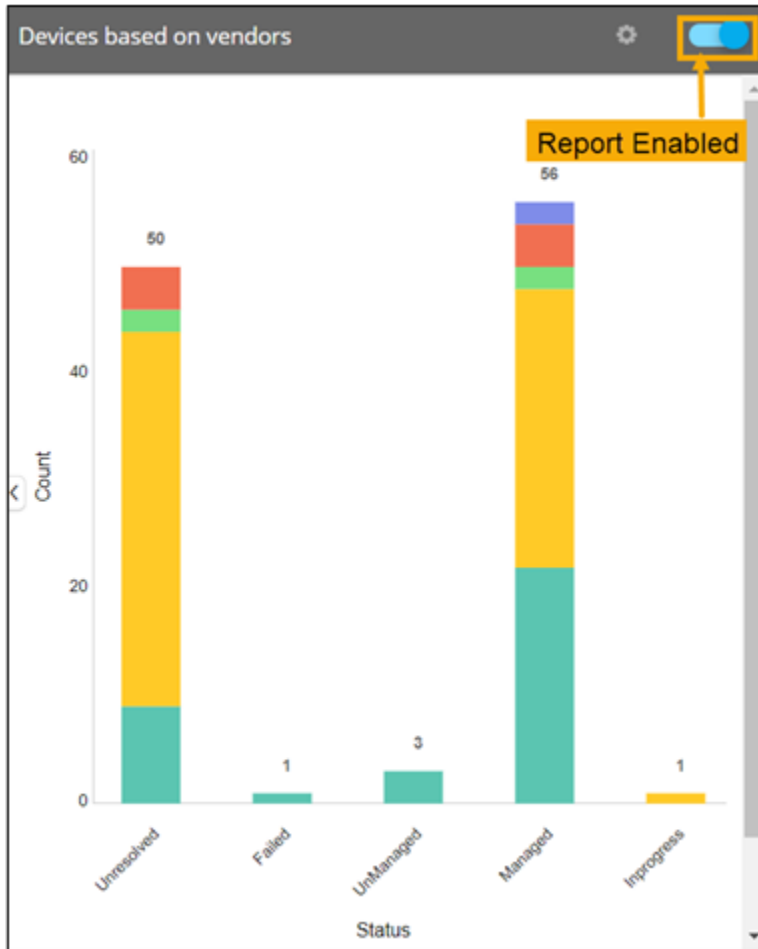
5. To select the data loading pattern, click .



- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
  - **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.
6. To change the style/font color of the stacked bar chart, click **Styles**.



7. To enable the report, turn on the toggle.



8. Click **Next**.

The **CHART DRILLDOWN** section is displayed.

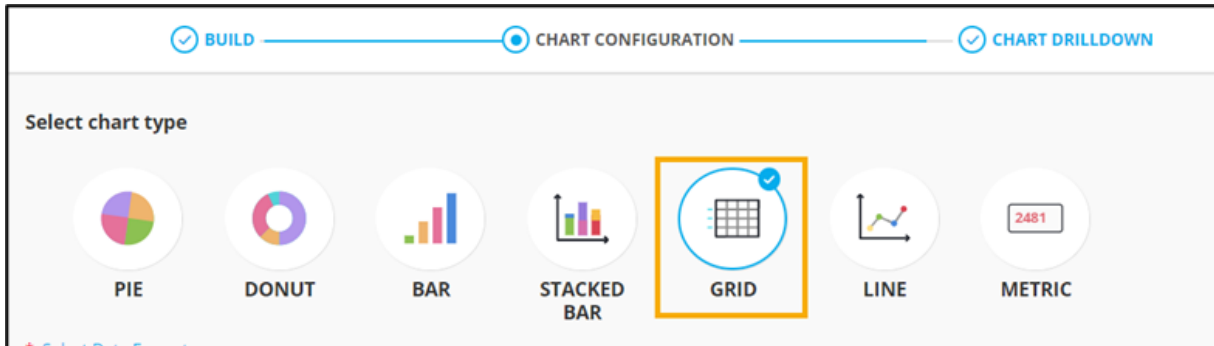
## How to Design a Custom Grid Chart

A grid is a tabular representation of data with each row displaying specific information pertaining to selected fields in the columns.

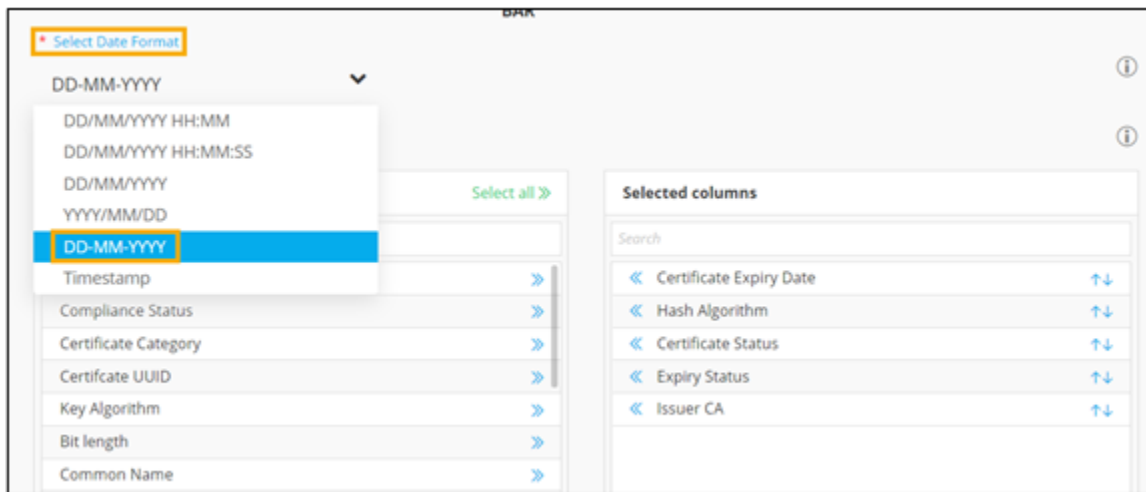
- The grid chart supports server side search functionality.
- It also supports server side sorting, where you can sort the report data in ascending or descending order.
- Grid chart also has provision for downloading high volumes of data in Excel or CSV formats.
- Date formats are customizable for grid charts as per user needs. You can select the specific date format from the dropdown.


To design a custom grid chart:

1. **Build** a report.
2. Under the **CHART CONFIGURATION** section, select the **GRID** chart.



3. **Select Date Format** from the dropdown.



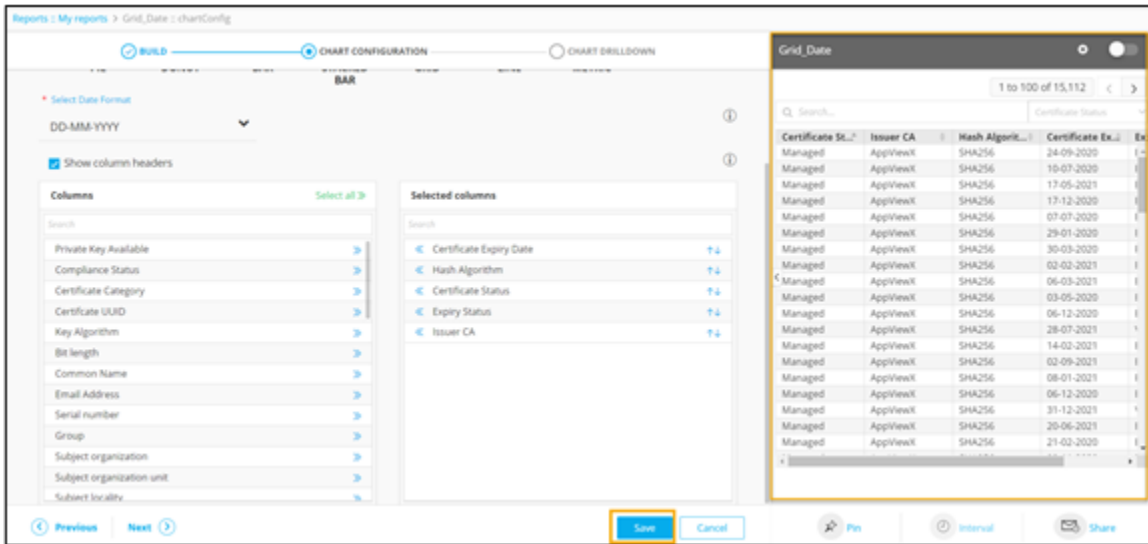
4. To configure the column headers to be displayed within the grid, click .



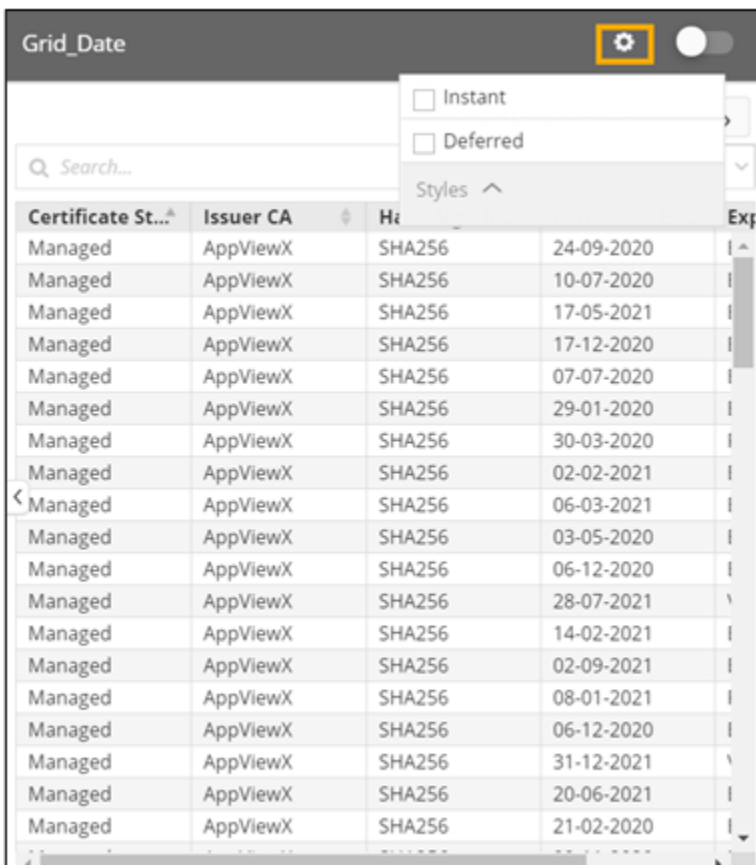
**Tip:** To arrange the order in which **Selected columns** are displayed in the grid, click .

5. Click **Save**.

A preview of the grid chart is generated on the right side of the screen.

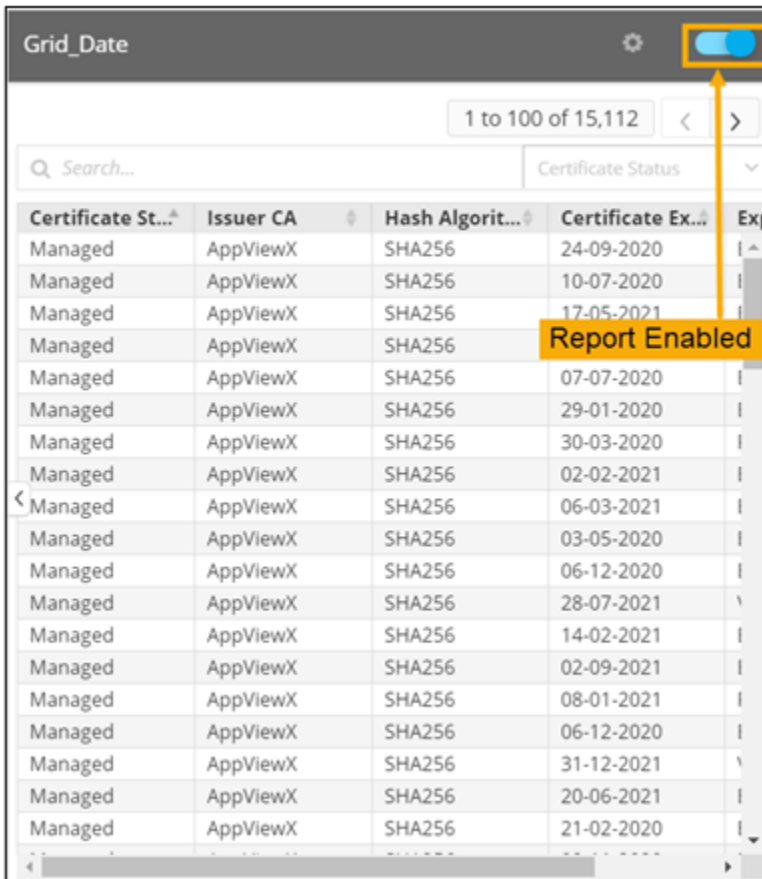


6. To select the data loading pattern, click .



- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

7. To enable the report, turn on the toggle.



The screenshot shows a window titled "Grid\_Date" with a settings gear icon and a toggle switch in the top right corner. Below the window title is a pagination control showing "1 to 100 of 15,112" and navigation arrows. A search bar with the placeholder "Search..." and a dropdown menu for "Certificate Status" are also visible. The main content is a table with the following columns: "Certificate St...", "Issuer CA", "Hash Algorit...", "Certificate Ex...", and "Exp". The table contains 20 rows of data, all with "Managed" as the status and "AppViewX" as the issuer. The hash algorithm for all entries is "SHA256". The expiration dates range from 24-09-2020 to 21-02-2020. A yellow callout box with the text "Report Enabled" and an arrow points to the toggle switch.

Certificate St...	Issuer CA	Hash Algorit...	Certificate Ex...	Exp
Managed	AppViewX	SHA256	24-09-2020	
Managed	AppViewX	SHA256	10-07-2020	
Managed	AppViewX	SHA256	17-05-2021	
Managed	AppViewX	SHA256	07-07-2020	
Managed	AppViewX	SHA256	29-01-2020	
Managed	AppViewX	SHA256	30-03-2020	
Managed	AppViewX	SHA256	02-02-2021	
Managed	AppViewX	SHA256	06-03-2021	
Managed	AppViewX	SHA256	03-05-2020	
Managed	AppViewX	SHA256	06-12-2020	
Managed	AppViewX	SHA256	28-07-2021	
Managed	AppViewX	SHA256	14-02-2021	
Managed	AppViewX	SHA256	02-09-2021	
Managed	AppViewX	SHA256	08-01-2021	
Managed	AppViewX	SHA256	06-12-2020	
Managed	AppViewX	SHA256	31-12-2021	
Managed	AppViewX	SHA256	20-06-2021	
Managed	AppViewX	SHA256	21-02-2020	



**Note:** Color code mapping is not applicable to the grid chart.

8. Click **Next**.

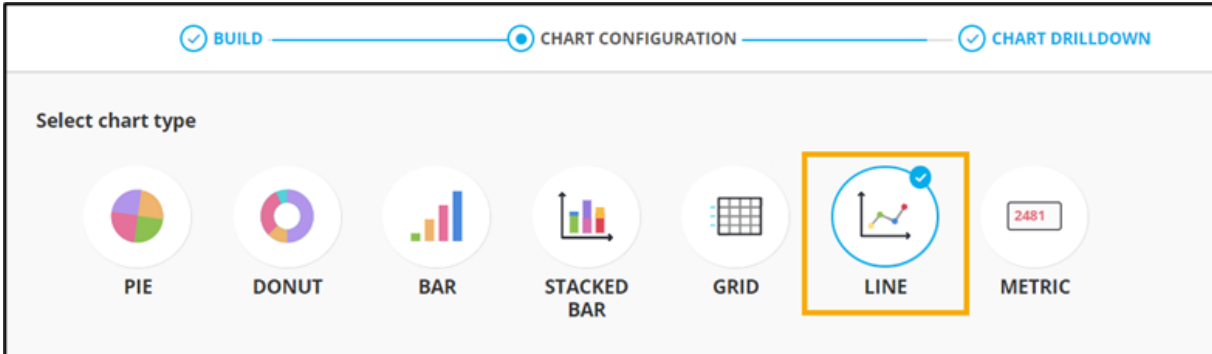
The **CHART DRILLDOWN** section is displayed.

## How to Design a Custom Line Chart

Line charts are a simple and quick way of tracking changes over a period of time. They are a better choice for tracking changes over a short period of time. A line chart can also be used to compare changes for multiple groups over the same period of time.

To design a custom line chart:

1. **Build** a report.
2. Under the **CHART CONFIGURATION** section, select the **LINE** chart.



3. Enter or select the information required in each of the fields.

The screenshot shows a configuration form for the chart. It contains four fields, each with a red asterisk indicating it is mandatory:
 

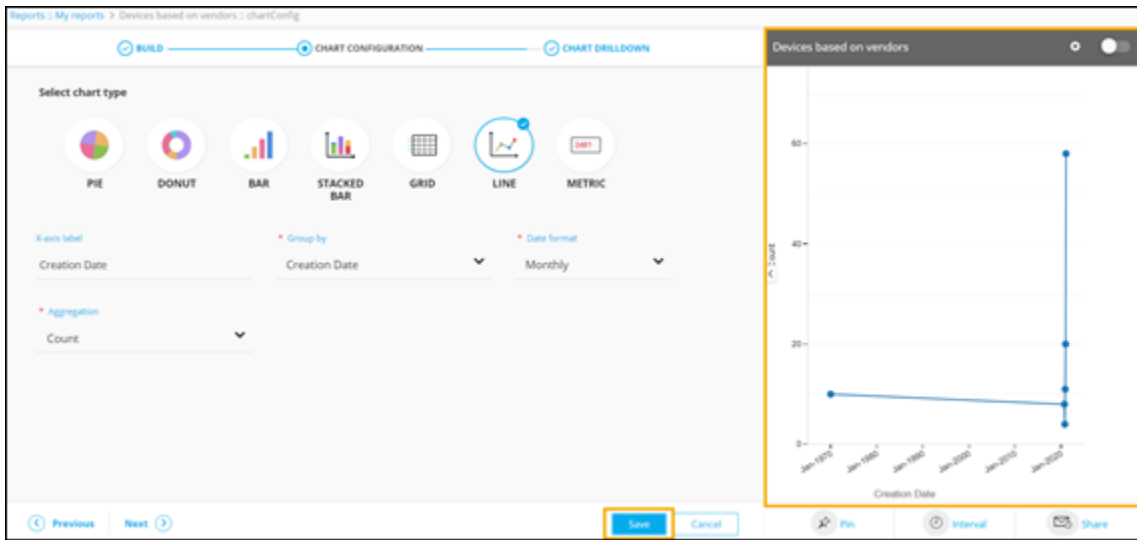
- X-axis label:** A text input field containing 'Creation Date'.
- \* Group by:** A dropdown menu with 'Creation Date' selected.
- \* Date format:** A dropdown menu with 'Monthly' selected.
- \* Aggregation:** A dropdown menu with 'Count' selected.


The following table describes the field information in this section:

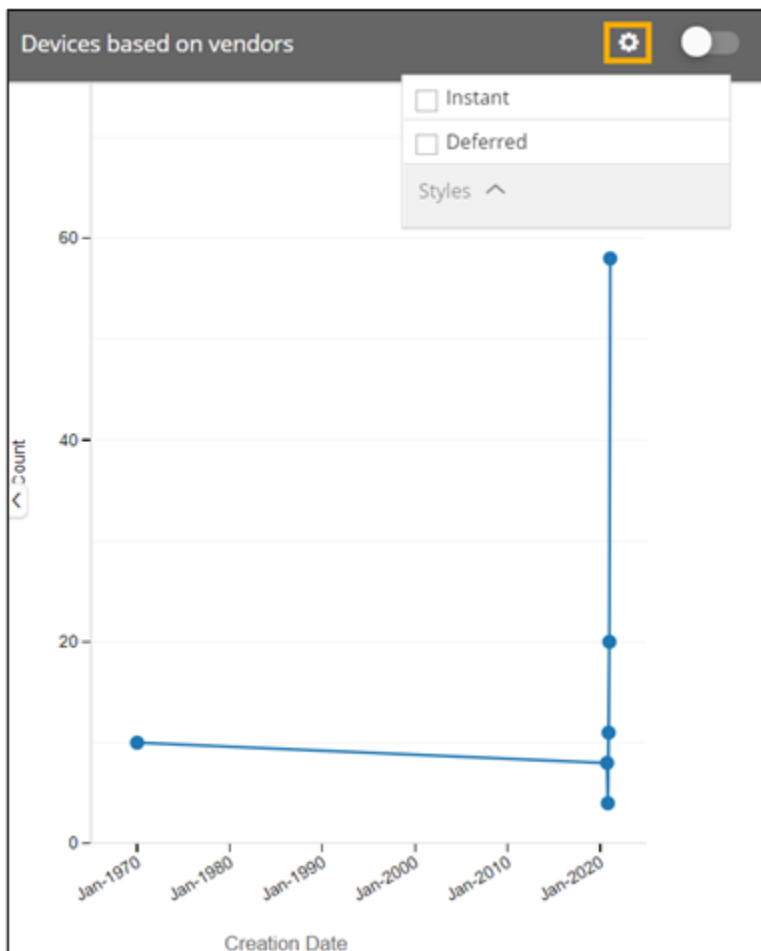
Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label. For example: <b>Creation Date</b> .
<b>*Group by</b>	Select a value from the dropdown on the basis of which report data will be grouped. For example: <b>Creation Date</b> .
<b>*Date format</b>	Select a valid date format from the dropdown menu. For example: <b>Monthly</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average:</b> Calculates the average value of a given set of data.</li> <li>• <b>Sum:</b> Calculates the sum of all values in a given set of data.</li> <li>• <b>Count:</b> Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum:</b> Displays the maximum value in a given set of data.</li> <li>• <b>Minimum:</b> Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

A preview of the line chart is generated on the right side of the screen.

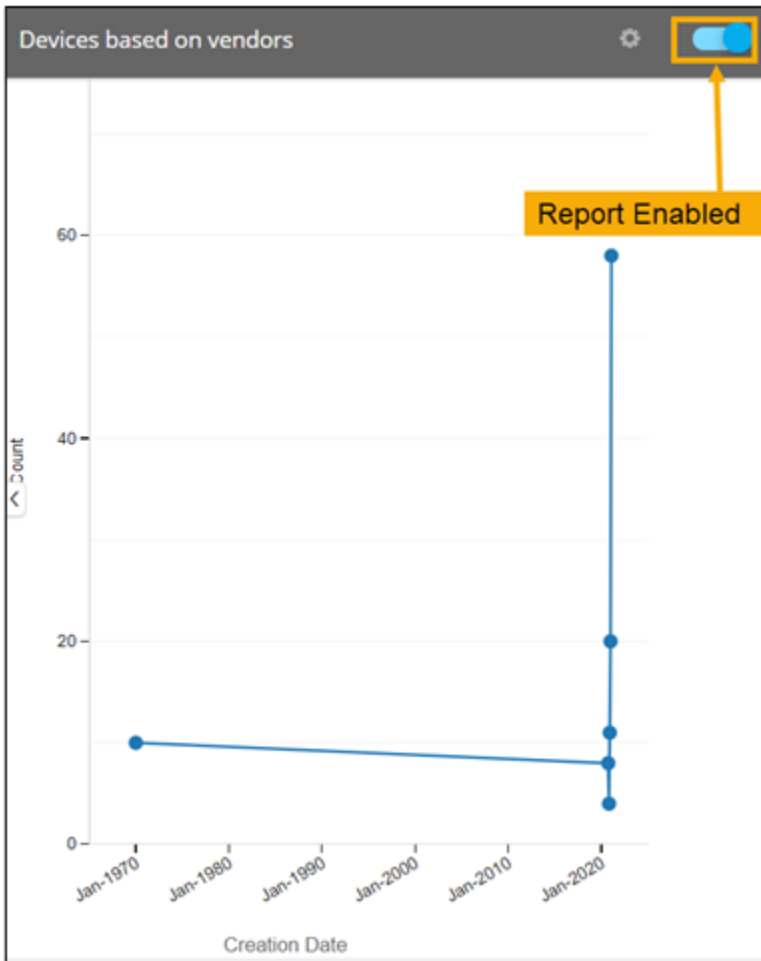


5. To select the data loading pattern, click .



- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

6. To enable the report, turn on the toggle.



**Note:** Color code mapping is not applicable to the line chart.

7. Click **Next**.

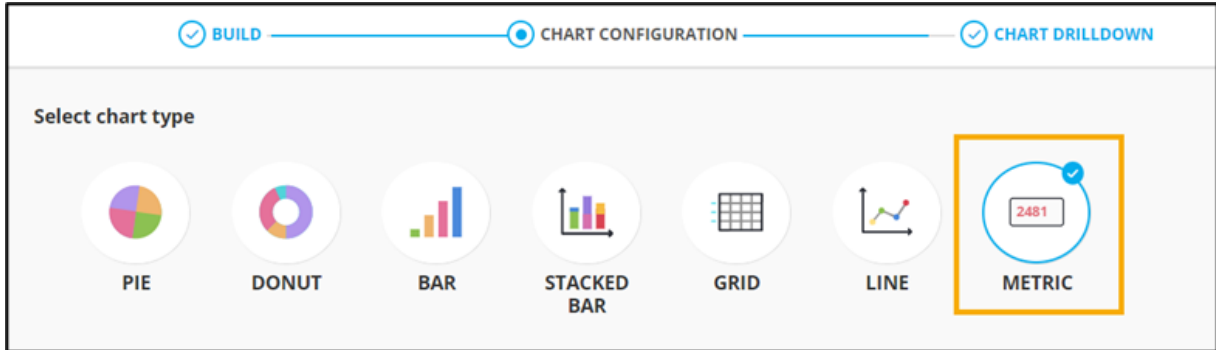
The **CHART DRILLDOWN** section is displayed.

## How to Design a Custom Metric Chart

A metric chart displays specific information about a process and its functioning. It allows you to highlight a metric on the dashboard, giving instant information about the data and helps in tracking progress.

To design a custom metric chart:

1. [Build](#) a report.
2. Under the **CHART CONFIGURATION** section, select the **METRIC** chart.



3. Enter or select the information required in each of the fields.

The screenshot shows the configuration form for the METRIC chart. It includes the following fields and options:

- Chart title:** A text input field containing 'Devices based on vendors'.
- \* Aggregation:** A dropdown menu currently set to 'Count'.
- Chart formatting:**
  - \* Select chart size:** Radio buttons for Small (selected), Medium, and Large.
  - \* Select alignment:** Radio buttons for Left (selected) and Center.
  - \* Select font colour:** A color selection box currently showing a dark grey color.
  - Select icon:** A dropdown menu with a list icon and a downward arrow.

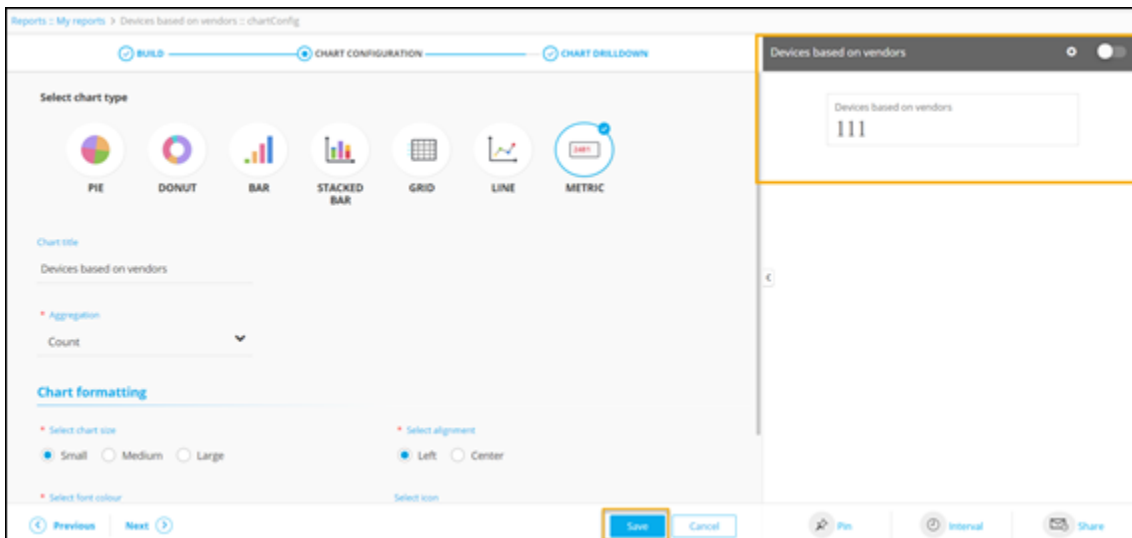
The following table describes the field information in this section:

Field	Description
<b>Chart Title</b>	Enter the chart title. For example: <b>Devices based on vendors</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available:

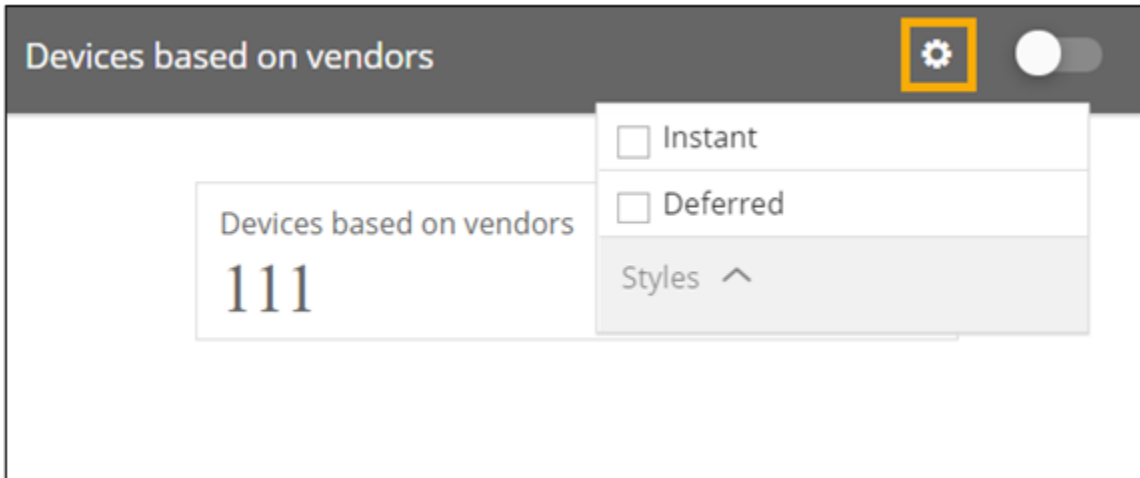
Field	Description
	<ul style="list-style-type: none"> <li>• <b>Average:</b> Calculates the average value of a given set of data.</li> <li>• <b>Sum:</b> Calculates the sum of all values in a given set of data.</li> <li>• <b>Count:</b> Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum:</b> Displays the maximum value in a given set of data.</li> <li>• <b>Minimum:</b> Displays the minimum value in a given set of data.</li> </ul>
<b>*Select chart size</b>	Select the metric size. For example, Small.
<b>*Select alignment</b>	Select the placement of the metric on the screen. For example: <b>Left</b> .
<b>*Select font color</b>	Select the color of the font on the metric.
<b>Select icon</b>	Select an icon for the metric chart from the dropdown menu.
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save**.

A preview of the metric chart is generated on the right side of the screen.

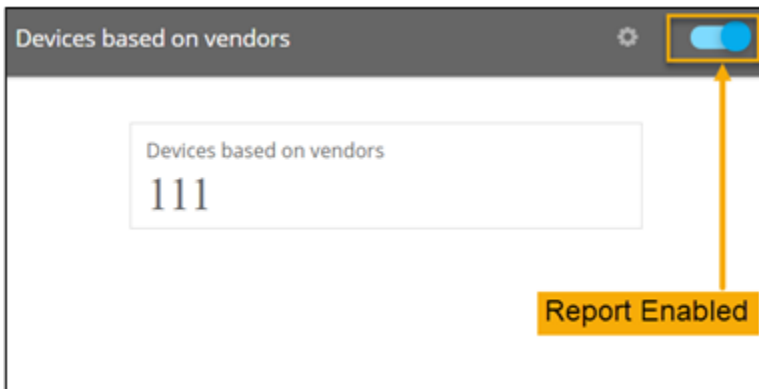


5. To select the data loading pattern, click .



- **Instant:** This option allows you to enable live data loading and see changes in data immediately. This can be used in the case of small databases.
- **Deferred:** This option allows you to enable lazy data loading and is useful in the case of larger databases. The default time interval for this is set at 30 minutes.

6. To enable the report, turn on the toggle.



**Note:** Color code mapping is not applicable to the metric chart.

7. Click **Next**.

The **CHART DRILLDOWN** section is displayed.

## Chart Drilldown

This section of the report builder allows you to make reporting more interactive and engaging by supplementing additional details within a chart. Adding a drilldown to your report helps in visualizing specific data pertaining to information displayed in the chart with a single click of the mouse. Drilldown

also lightens the load on the server by presenting only a single layer of data at a time, which also significantly enhances the reporting performance.

- [How to Set a Redirect URL](#)
- [How to Add a Drilldown Chart](#)

## How to Set a Redirect URL

You can enter a URL to redirect to any webpage or another existing report directly from the chart (within AppViewX pages).

To add a redirect URL:

1. [Build](#) a report.
2. [Design](#) a custom chart.
3. Under the **CHART DRILLDOWN** section, enter or select the field information.

The following table describes the field information required in this section:

Field	Description
<b>Do you want to add a drill down to the chart?</b>	To add a drilldown to the chart, select this checkbox.
<b>*Select drill down type</b>	Select <b>Set redirect URL</b> .
<b>*Page URL</b>	Enter a valid URL.
The asterisk (*) symbol indicates mandatory fields.	

4. Click **Save & Enable**.

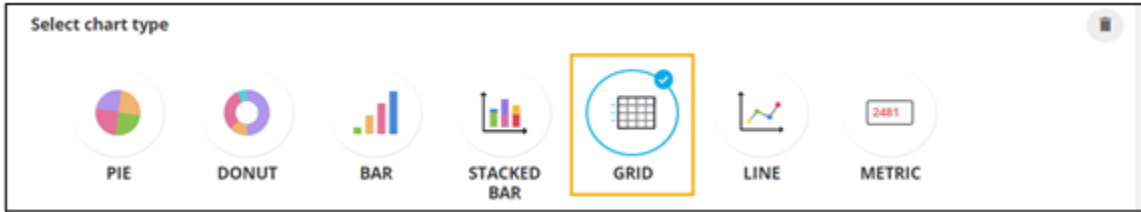
## How to Add a Drilldown Chart

1. Under the **CHART DRILLDOWN** section, enter or select the field information.

The following table describes the field information required in this section:


Field	Description
<b>Do you want to add a drill down to the chart?</b>	Check this box to add a drilldown to the chart.
<b>*Select drill down type</b>	Select <b>Chart</b> as the drilldown type.
The asterisk (*) symbol indicates mandatory fields.	

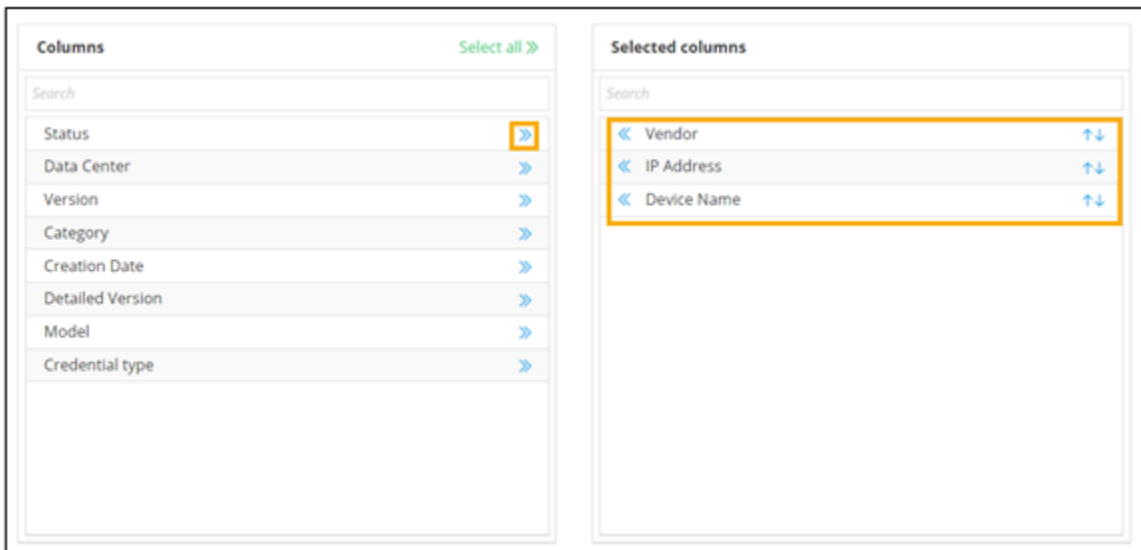
2. Select the **GRID** chart.




3. Enter a suitable **Chart title**.

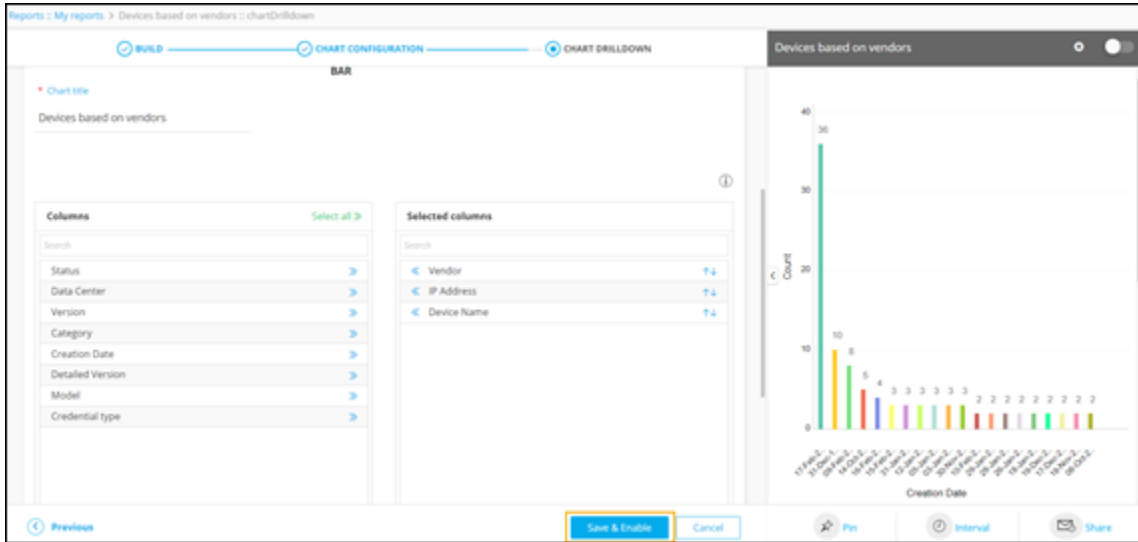


4. To configure the column headers to be displayed within the grid, click . Selected columns are displayed on the right side.



**Note:** To remove a column, click .

5. To enable the chart, click **Save & Enable**.



6. To get more information on the devices in the drilldown, click on any of the bars on the bar chart.

The screenshot shows the drilldown view of the "Devices based on vendors" report. The view displays a table with columns for "Vendor", "IP Address", and "Device Name". The table contains four rows of data, with the first row being expanded to show details for the "IIS" vendor.

Vendor	IP Address	Device Name
IIS	192.168.41.251	PTPLD180
FS	192.168.41.251	gs-fs-pe15.lab.appviewx.net
FS	192.168.41.233	APPVIEWXDC01
IIS		



**Note:** You can add up to five levels of drilldown charts to a report.

# Chapter 9: Sharing your Reports

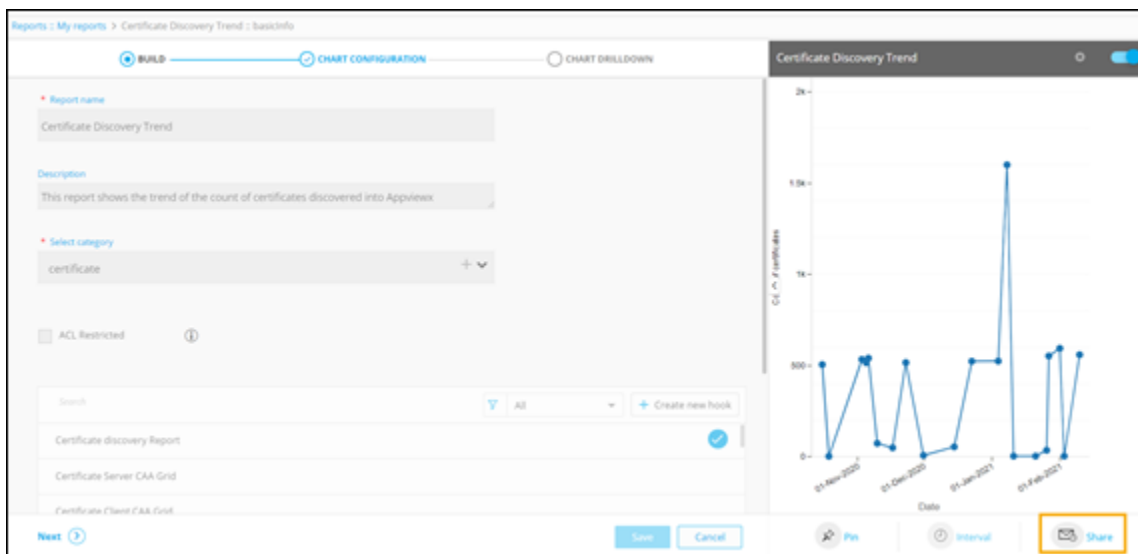
- [Overview](#)
- [How to Email reports as PDF](#)
- [How to Schedule reports](#)

## Overview

Once a report is generated, it can be emailed either as inline content or as a PDF attachment. You can also schedule reports to be generated on a recurring basis.

## How to Email reports as PDF

1. Under the **BUILD** section, from the bottom right corner of the screen, click **Share**.



A popup window to **Schedule reports** is displayed.

**Schedule reports** [Close]

**General** [Not filled] [Minus]

\* Subject ⓘ  
Enter subject

\* To [CC] [Add Recipient]

Add Recipients

Normal [Bold] [Italic] [Underline] [Bulleted List] [Numbered List] [Text Color] [Background Color] [Link] [Unlink]

Compose email...

**Schedule** [Not filled] [Plus]

[Save] [Cancel]

2. In the **Schedule reports** window, under the **General** section, enter all the required field information. The following table describes all the fields in the **General** section:

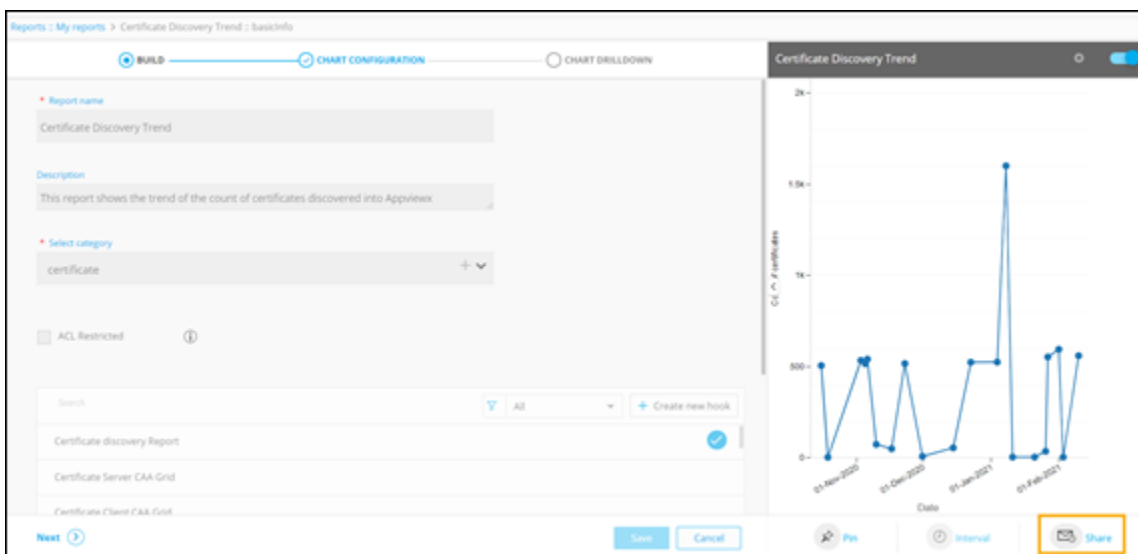
Field	Description
*Subject	Enter a subject for the email which will also be populated under <b>Scheduled Jobs</b> on the <b>Reports :: Schedule</b> page.
*To	Enter the names of the recipients of the email.  Two options are available here: <ul style="list-style-type: none"><li>• Add single/multiple email addresses.</li><li>• Add user groups(s).</li></ul>

Field	Description
<b>Email body/text</b>	Compose the email.
The asterisk (*) symbol indicates mandatory fields.	

## How to Schedule reports

Reports can be scheduled to be generated on a recurring basis.

1. Under the **BUILD** section, from the bottom right corner of the screen, click **Share**.



A popup window to **Schedule reports** is displayed.

The screenshot shows a window titled "Schedule reports" with a close button (x) in the top right corner. The window is divided into two main sections: "General" and "Schedule".

**General Section:** This section has a "Not filled" status indicator with a minus sign (-) on the right. It contains the following fields:

- \* Subject** (with an information icon ⓘ): A text input field with the placeholder text "Enter subject".
- \* To** (with a "CC" icon and a person icon): A text input field with the placeholder text "Add Recipients".
- Rich Text Editor:** A toolbar with icons for "Normal", bold (B), italic (I), underline (U), bulleted list, numbered list, text color (A), background color, and link (Tx). Below the toolbar is a large text area with the placeholder text "Compose email...".

**Schedule Section:** This section has a "Not filled" status indicator with a plus sign (+) on the right. It is currently empty.

At the bottom of the window, there are two buttons: a blue "Save" button and a white "Cancel" button with a blue border.

2. In the **Schedule reports** window, under the **Schedule** section, enter/select the field information.

**Schedule**Completed

\* Starts on

\* Repeat every  Minute(s)

\* Ends

Never

On

After

The following table describes the fields in the **Schedule** section:

Field	Description
*Starts on	Select the date on which report is to be scheduled.
*Repeat every	Select the numeric value and the frequency of recurrence as minutes, hours, days, weeks, months, or years.
*Ends	Select when the report should stop recurring. The options available are: <ul style="list-style-type: none"><li>• <b>Never</b></li><li>• <b>On</b> a specific date.</li><li>• <b>After</b> a set number of occurrences.</li></ul>
The asterisk (*) symbol indicates mandatory fields.	

3. Click **Save**.


The scheduled report will be displayed on the **Reports :: Schedule** page.

Reports : Schedule

My reports Store Scheduled jobs Widget

Q Search... Refresh 1 to 6 of 6 < >

Job ID	Job name	Source	Trigger	Last executed time	Next execution time	Status	Scheduled by
181	Test Report	Report Inventory	Minutes	2021-02-18 05:39	2021-02-18 05:41	Paused	admin
179	Email ReportTest	Report Inventory	Minutes	2021-02-18 05:40	2021-02-18 05:42	Paused	admin
178	Test_Report_Email	Report Inventory	Minutes	2021-02-18 03:29		Completed	admin
177	Report check	Report Inventory	Daily		2021-02-19 02:30	Paused	admin
176	Test Report	Report Inventory	Minutes	2021-02-18 02:19		Completed	admin
147	Checking Email	Report Inventory	Minutes	2021-01-18 07:35	2021-01-18 07:36	Scheduled	admin

4. To disable/pause the scheduled job, click  .


The scheduled job is paused.

Reports : Schedule

My reports Store Scheduled jobs Widget

Q Search... Refresh 1 to 6 of 6 < >

Job ID	Job name	Source	Trigger	Last executed time	Next execution time	Status	Scheduled by
181	Test Report	Report Inventory	Minutes	2021-02-18 05:39	2021-02-18 05:41	Paused	admin
179	Email ReportTest	Report Inventory	Minutes	2021-02-18 05:40	2021-02-18 05:42	Paused	admin
178	Test_Report_Email	Report Inventory	Minutes	2021-02-18 03:29		Completed	admin
177	Report check	Report Inventory	Daily		2021-02-19 02:30	Paused	admin
176	Test Report	Report Inventory	Minutes	2021-02-18 02:19		Completed	admin
147	Checking Email	Report Inventory	Minutes	2021-01-18 07:35	2021-01-18 07:36	Paused	admin

5. To resume the scheduled job, click  .

# Chapter 10: Hooks

- [Overview](#)
- [Using Preexisting Hooks to Build Reports](#)
- [Using Query Explorer to build Reports](#)
- [Using Scripts to build Reports](#)
- [Using REST API to build Reports](#)
- [How to Create a New Hook](#)
- [How to Reuse Hooks](#)

## Overview

A hook is a mechanism used to query and retrieve data from different sources such as database, device, or external vendors, and leverage them as part of the report building process.

The mode of query can be one of the following:

- Query Explorer (GUI based)
- Script (Python)
- REST API

## Using Preexisting Hooks to Build Reports

You can build customized reports by using preexisting hooks from the **Hooks Inventory**.



**Note:** For more information on the **Hooks Inventory**, refer to the [Visual Workflow User Guide](#).

- [Example 1](#)
- [Example 2](#)

### Example 1

The report builder can be used to build a report to get a list of devices based on vendors using a preexisting hook.

1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the required field information.

Reports :: My reports > Create :: basicInfo

BUILD  CHART CONFIGURATION  CHART DRILLDOWN

\* Report name  
Devices based on vendors

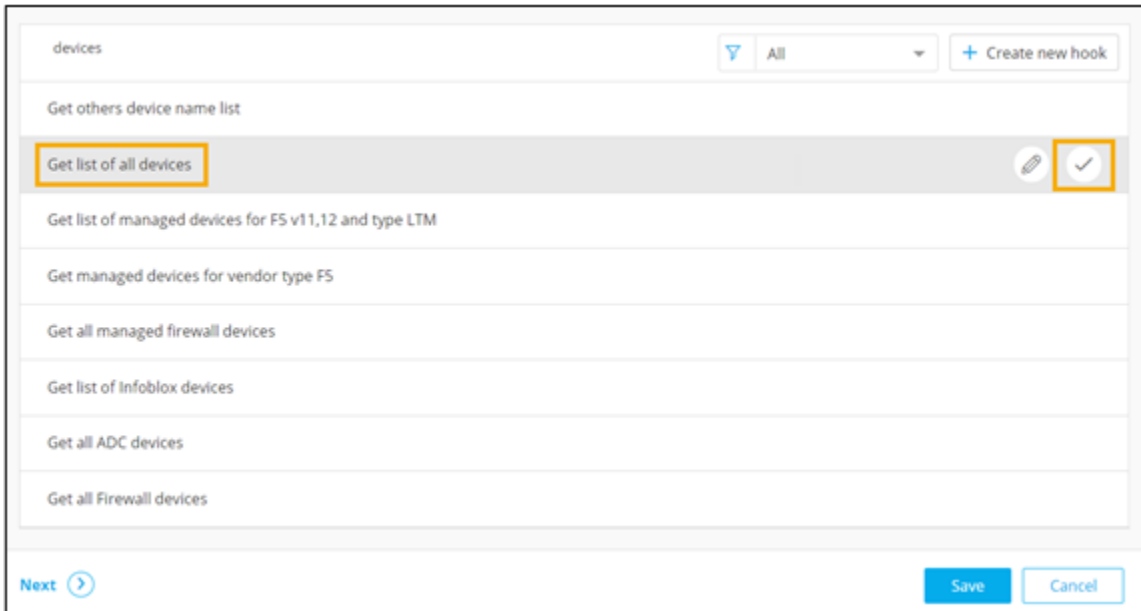
Description  
Devices based on the vendor names

\* Select category  
general + v

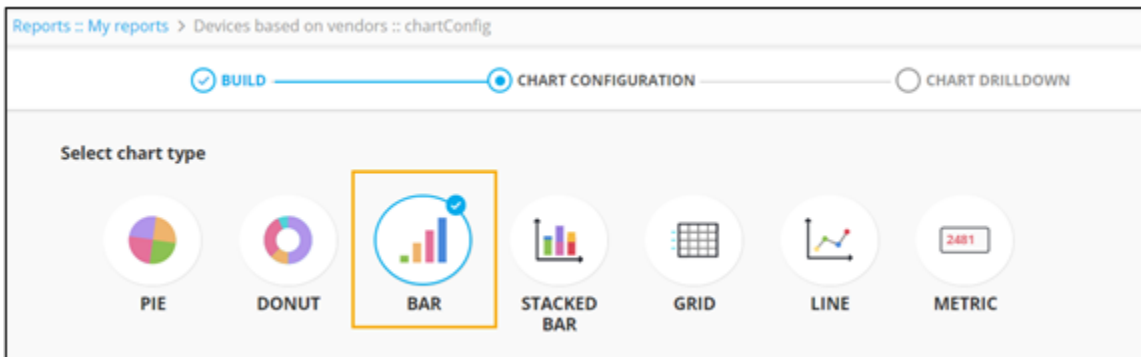
The following table describes the various fields in this section:

Field	Description
*Report name	Enter a valid report name. For example: <b>Devices based on vendors</b> .
Description	Enter a valid description. For example: <b>Devices based on the vendor names</b> .
*Select category	Select the category as <b>general</b> from the dropdown list.
The asterisk (*) symbol indicates mandatory fields.	

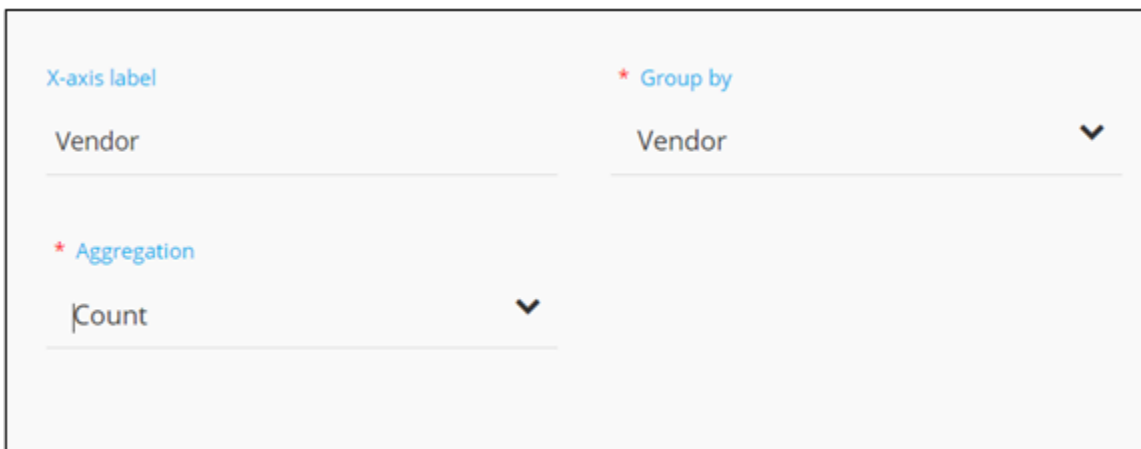
3. To search for and select the appropriate hook from the preexisting inventory, type the keyword in the search bar.
4. To select the hook, click .



5. To save your selections, click **Next**.
6. Under the **CHART CONFIGURATION** section, select the **BAR** chart.



7. Enter or select the field information.

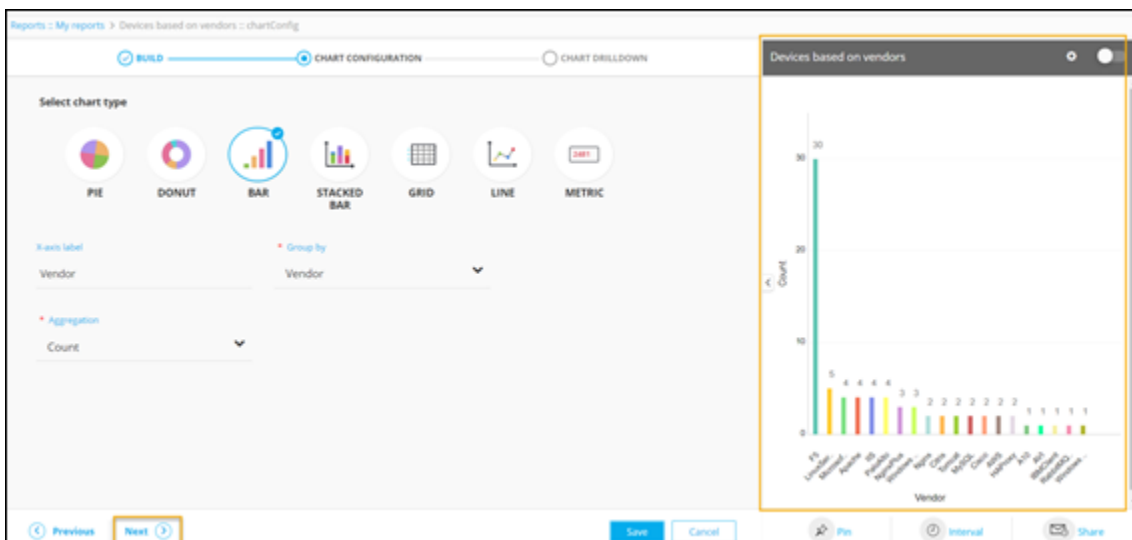


The following table describes the various fields in this section:

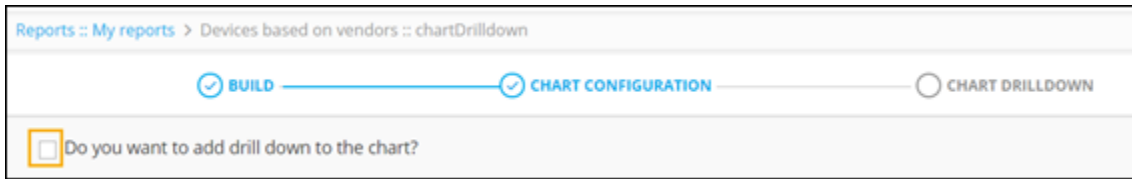
Field	Description
<b>X-axis label</b>	Enter criteria for the X-axis label.  For example: <b>Vendor</b> .
<b>*Group by</b>	Select a value from the drop down menu on the basis of which report data will be grouped.  For example: <b>Vendor</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. For example, count to get the number of devices by name.  The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

8. To save chart configuration, click **Next**.

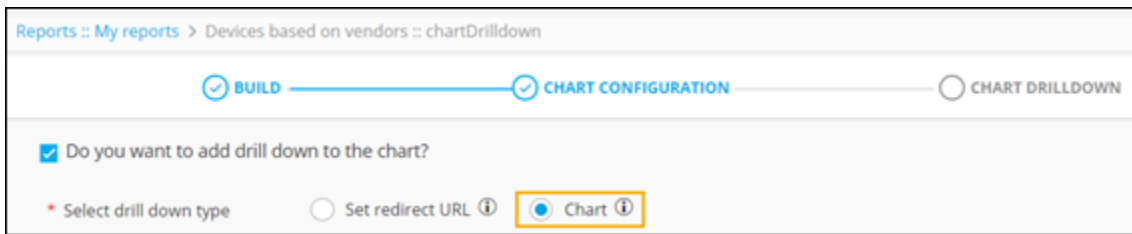
A preview of the bar chart is displayed on the right side of the screen.



9. To add a drill down to the chart, select the check box as shown in the following image.



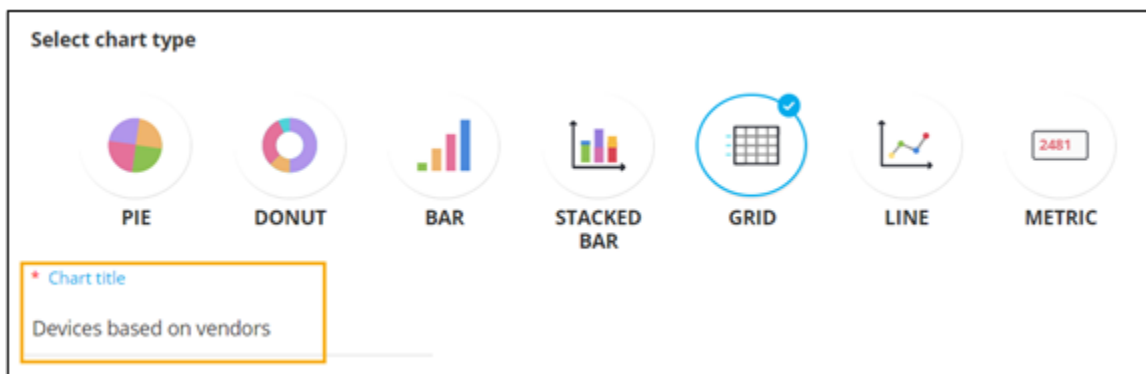
10. Select drill down type as **Chart**.




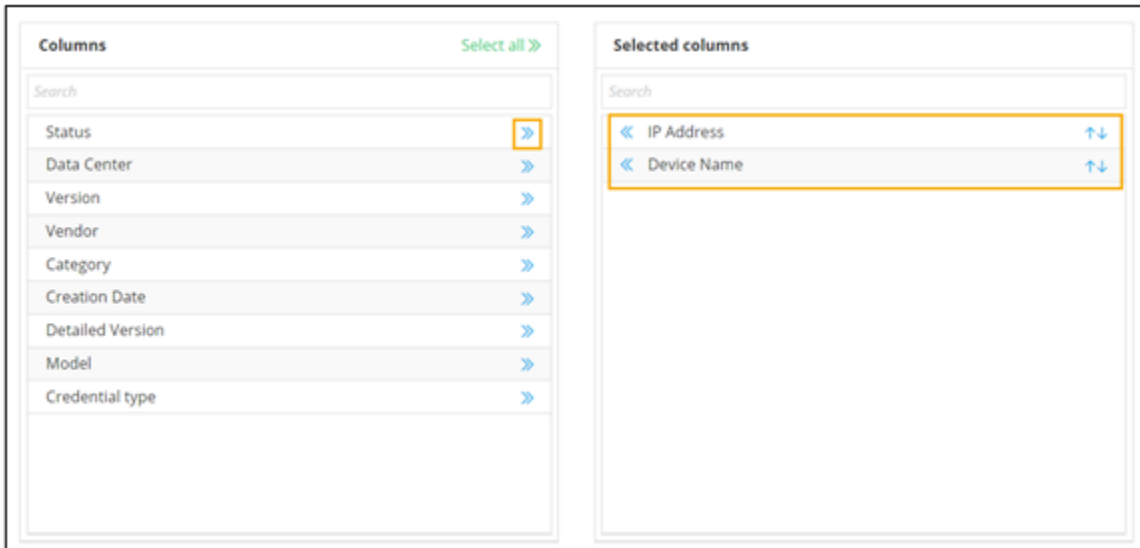
11. Select chart type as **GRID**.



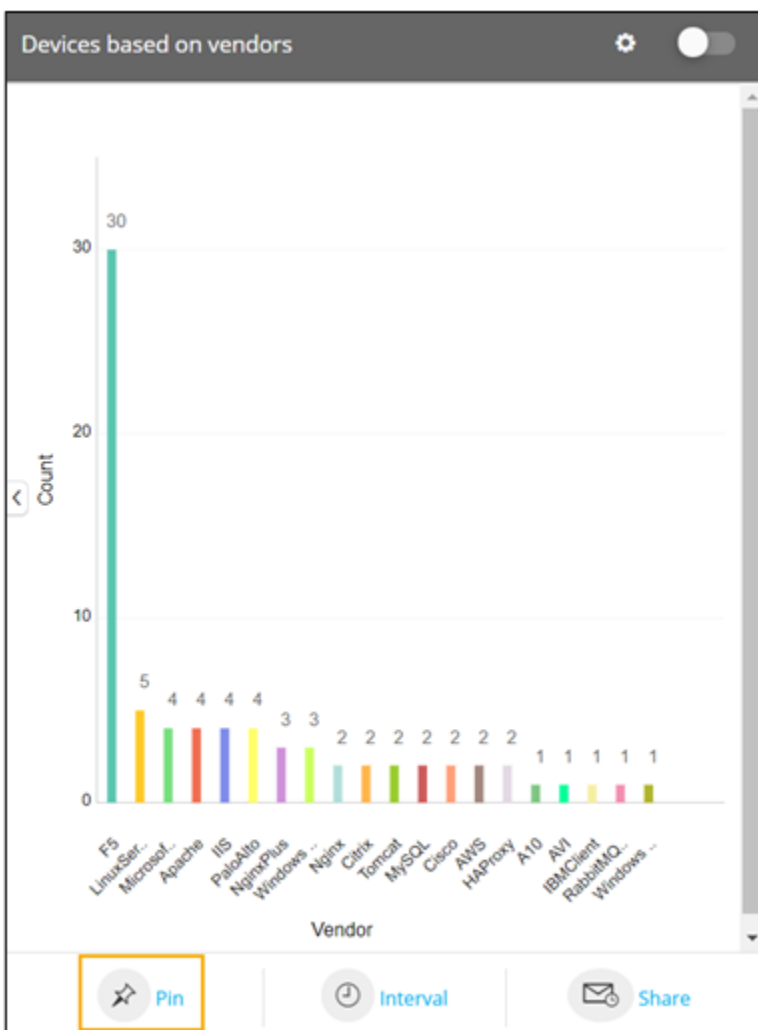
12. Enter an appropriate **Chart title**.



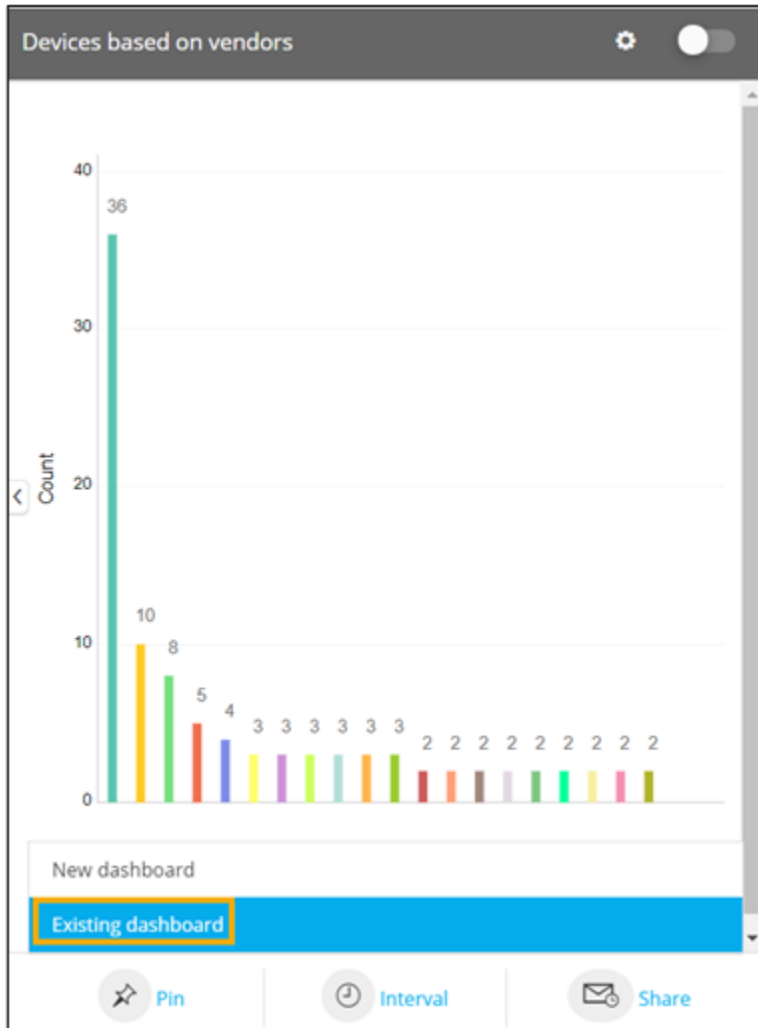
13. To configure the column headers to be displayed within the grid, click . **Selected columns** are displayed on the right side.



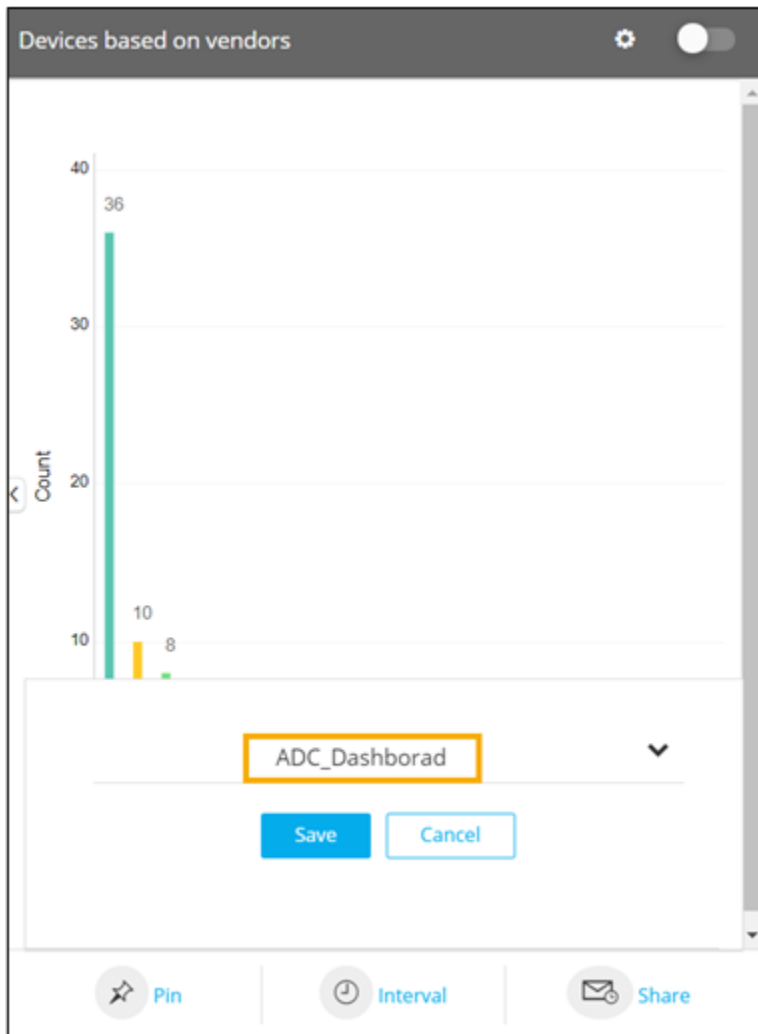
14. To pin the report to a dashboard, click **Pin**.



15. To pin the report to an existing dashboard, select **Existing dashboard** from the options.

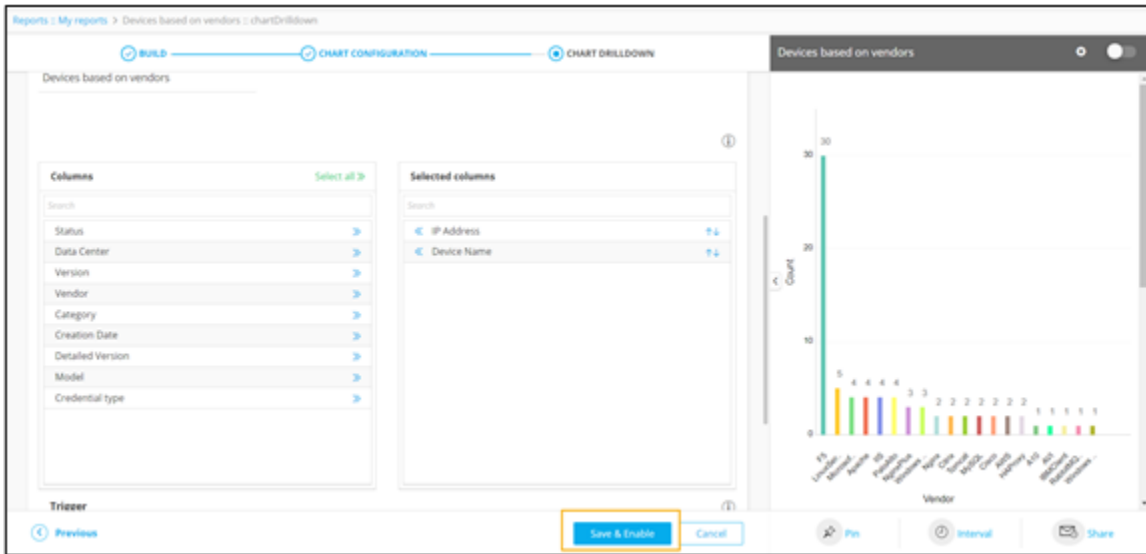


16. Select a dashboard from the list.



17. Click **Save**.

18. To enable the report, click **Save & Enable**.

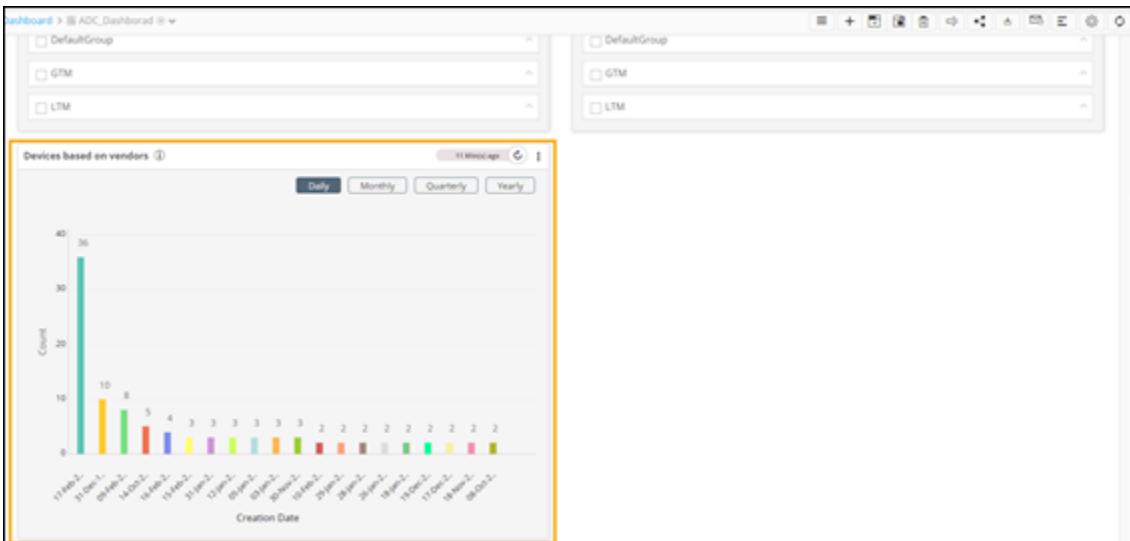


19. To view this report on the dashboard, search for the dashboard in the dashboard inventory.

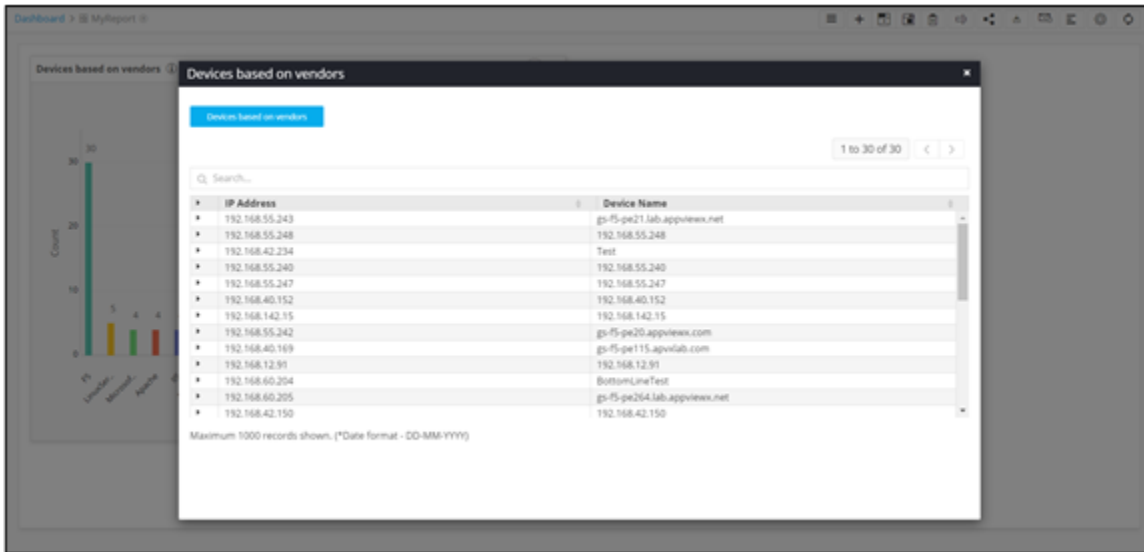


**Note:** For more information on how to search for a dashboard, click [here](#).

The **Devices based on vendors** report can be seen on the selected dashboard.



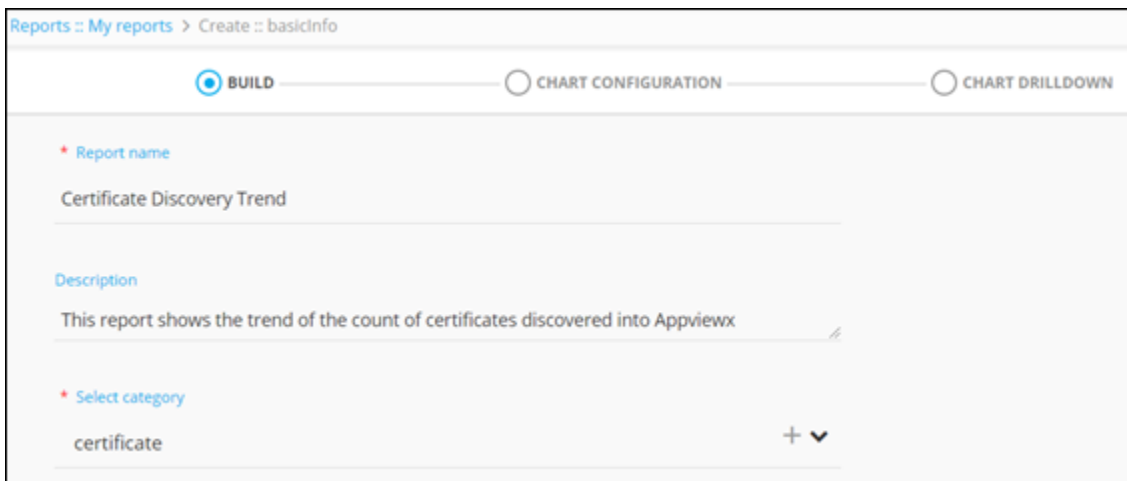
20. To display specific data on each of the vendors, click on any of the bars for the chart drilldown.



## Example 2

To create a report for getting the **Certificate Discovery Trend** for all certificate types using a preexisting hook:


1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the required field information.

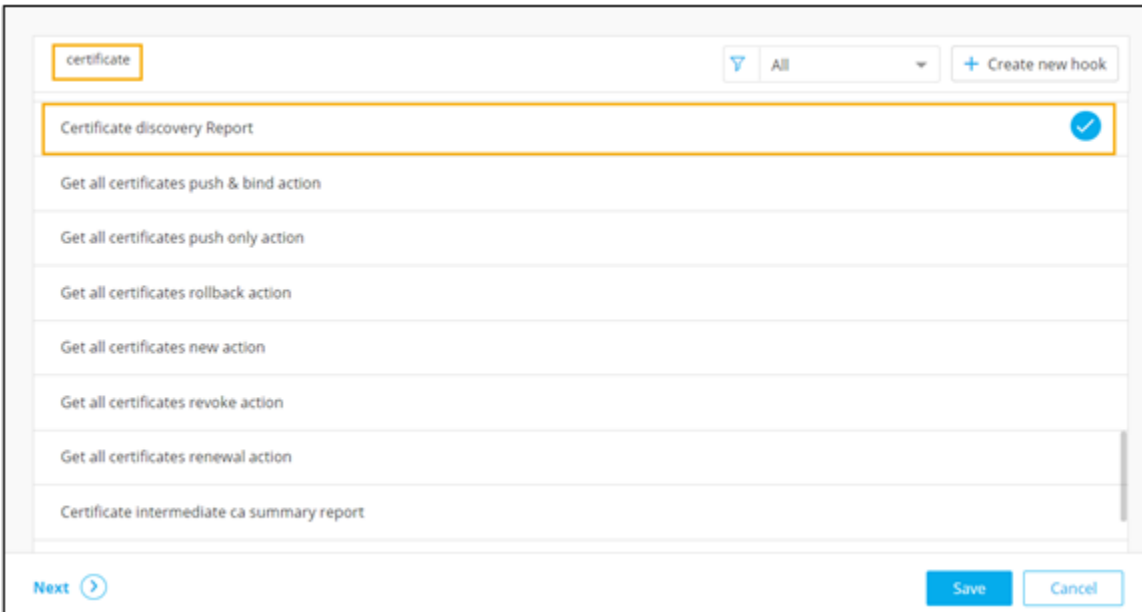


The following table describes the various fields in this section:

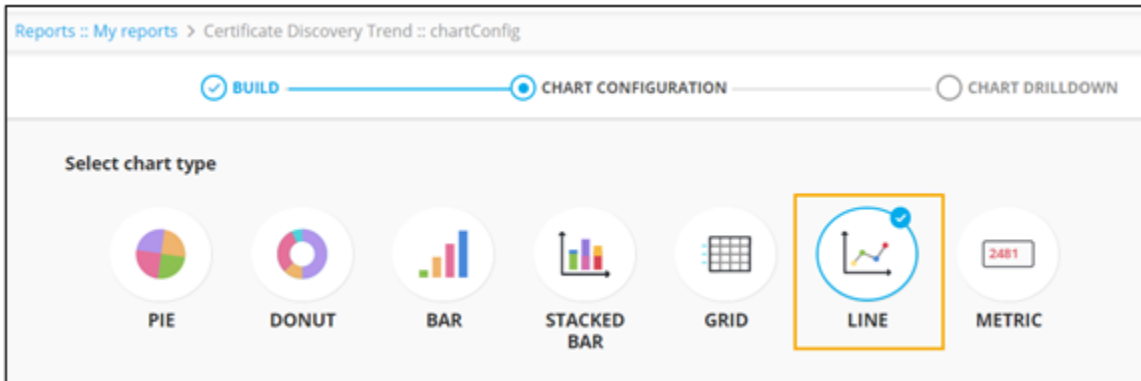
Field	Description
*Report name	Enter a valid report name.

Field	Description
	For example: <b>Certificate Discovery Trend.</b>
<b>Description</b>	Enter a valid description.  For example: <b>This report shows the trend of the count of certificates discovered into Appviewx.</b>
<b>*Select category</b>	Select the category as <b>certificate</b> from the dropdown list.
The asterisk (*) symbol indicates mandatory fields.	

- To search and select the appropriate hook from the preexisting inventory, type the keyword in the search bar.
- To select the hook, click .



- To save your selections, click **Next**.
- Under the **CHART CONFIGURATION** section, select the **LINE** chart.



7. Enter or select the field information.

X-axis label \* Group by \* Date format  
 Date Date ▼ Daily ▼  


---

\* Aggregation  
 Sum ▼  


---

Y-axis label \* Y-axis  
 Count of certificates Count ▼

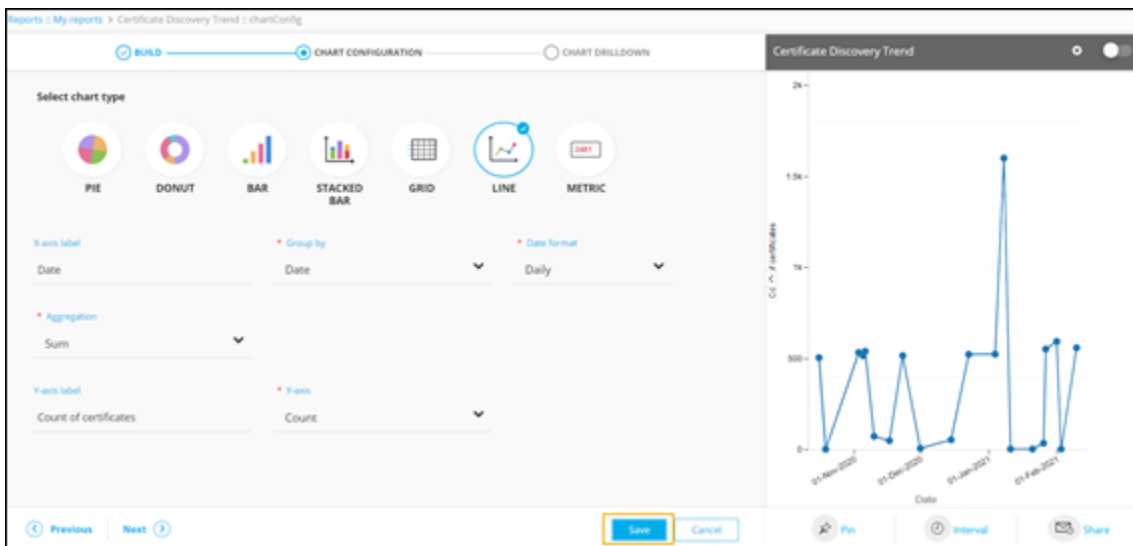
The following table describes the various fields in this section:

Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label.  For example: <b>Date</b> .
<b>*Group by</b>	Enter the value on which data will be grouped.  For example: <b>Date</b> .
<b>*Date format</b>	Select a valid date format from the dropdown.  For example: <b>Daily</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. For example, count to get the number of devices by name.  The following options are available:

Field	Description
	<ul style="list-style-type: none"> <li>• <b>Average:</b> Calculates the average value of a given set of data.</li> <li>• <b>Sum:</b> Calculates the sum of all values in a given set of data.</li> <li>• <b>Count:</b> Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum:</b> Displays the maximum value in a given set of data.</li> <li>• <b>Minimum:</b> Displays the minimum value in a given set of data.</li> </ul>
<b>Y-axis label</b>	Enter the criteria for the Y-axis label.  For example: <b>Count of certificates.</b>
<b>*Y-axis</b>	Select value from the dropdown.  For example: <b>Count.</b>
The asterisk (*) symbol indicates mandatory fields.	

8. To save chart configuration details, click **Save**.

A preview of the line chart is displayed on the right side of the screen.



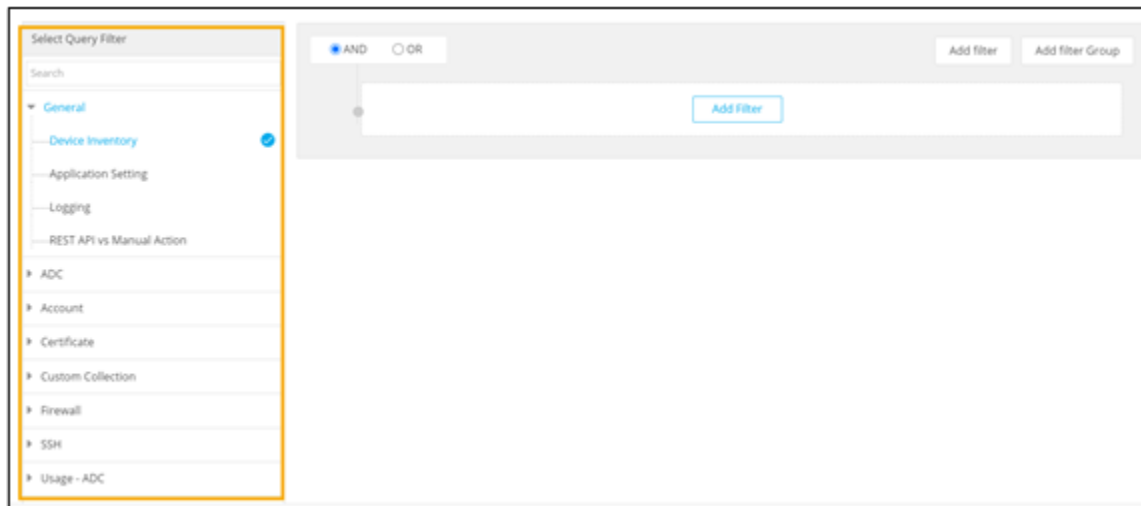
## Using Query Explorer to build Reports

- [Overview](#)
- [Conditional Operators](#)
- [Create a CERT Expiry Report using Query Explorer](#)

- [Create an ADC Usage Report using Query Explorer](#)
- [Importing Custom Data in Query Explorer](#)

## Overview

AppViewX's Report builder has an enhanced, intuitive **Query Explorer**. The GUI-based query explorer maps all major database collections in AppViewX and helps you build your own customized reports. Over 40 out of the box (OOB) queries are pre-shipped to the end-user. It also comes with advanced conditional operators to build complex queries.



Each query filter has a set of predefined fields associated with it. Query actions will differ according to the data in the query fields. The query builder also comes equipped with an auto-suggestion feature that aids you in selecting appropriate values from the suggested entries.

Query explorer also exhibits improved performance with query optimization by supporting four million to 50 million records. Its performance optimized search inventory enables higher volumes of data to be balanced and reduces load time.

## Conditional Operators

Query Explorer has ten conditional operators that allow users to build complex queries. All of these operators support dynamic values. The dynamic values can be passed at runtime by using payload to perform queries.

The conditional operators are categorized based on field types: String, Integer, Date, and Boolean Variable.

- Field Type: String
- Field Type: Integer
- Field Type: Date
- Field Type: Boolean Variable

## Field Type: String

When you choose the field type as **String**, the values for the conditional operators are auto-populated from the database. The following conditional operators are available when you choose the field type as **String**:

- **Is** - This operator is used if the query is for a particular value.

For example, Status is Managed.

The screenshot shows a query builder interface with the title "(Status is Managed)". At the top, there are radio buttons for "AND" (selected) and "OR". To the right are buttons for "Add filter" and "Add filter Group". Below this, a filter is defined: the field "Status" is followed by the operator "is" (highlighted with a yellow box), and the value "Managed". There is a clear button (X) and a dropdown arrow on the right side of the filter.

The report will display data specific to this query and show the list of devices only with **Managed** status.

- **Is not** - This operator generates results where the condition is not matched.

For example, Vendor is not Citrix.

The screenshot shows a query builder interface with the title "(Vendor is not Citrix)". At the top, there are radio buttons for "AND" (selected) and "OR". To the right are buttons for "Add filter" and "Add filter Group". Below this, a filter is defined: the field "Vendor" is followed by the operator "is not" (highlighted with a yellow box), and the value "Citrix". There is a clear button (X) and a dropdown arrow on the right side of the filter.

The report will display data that matches all criteria except the one that is selected and show the list of devices of all vendors except Citrix.

- **Is one of** - This operator allows multiple values to be selected and matches all conditions. For example, Category is one of Server, Firewall, WAF.

(Category is one of Server,Firewall,WAF)

AND OR

Add filter Add filter Group

Category is one of Server Firewall WAF

The report will display data where all the three conditions are matched and show a list of devices that belong to the three selected categories.

- **Is not one of** - This operator allows multiple values to be selected and gives results where the conditions are not matched.

For example, Category is not one of ADC, Firewall.

(Category is not one of )

AND OR

Add filter Add filter Group

Category is not one of ADC Firewall

The report will display data that matches all criteria except the ones that are selected and show a list of all devices except ADC and Firewall.

- **Exists** - A boolean operator is provided for narrowing down the search parameters so that the result is either True or False.

(Category exists True)

AND OR

Add filter Add filter Group

Category exists True

The report will display data after confirming if the selected field is available in the database (True) or not (False).

- **Regex** - Regular expression (Regex) is a sequence of characters defining a search pattern specifying a set of strings for a particular purpose.

For example, Device name regex .\*

The screenshot shows a search filter configuration interface. At the top, it says "(Device Name regex .\*)". Below this, there are two radio buttons: "AND" (selected) and "OR". To the right are two buttons: "Add filter" and "Add filter Group". The main configuration area shows a field labeled "Device Name" followed by a dropdown menu set to "regex" (highlighted with a yellow box) and a text input field containing ".\*".

The period (.) means match any character and the asterisk (\*) means any number of times. So .\* means match anything and the report will display all the device names.

- **Starts with** - This operator allows users to enter the first three letters/numbers of the search criteria.

The screenshot shows a search filter configuration interface. At the top, it says "(Hash Algorithm starts with SHA)". Below this, there are two radio buttons: "AND" (selected) and "OR". To the right are two buttons: "Add filter" and "Add filter Group". The main configuration area shows a field labeled "Hash Algorithm" followed by a dropdown menu set to "starts with" (highlighted with a yellow box) and a text input field containing "SHA".

The report will display results matching hash algorithms that start with 'SHA'.

- **Ends with** - This operator allows users to enter the last three letters/numbers of the search criteria.

The screenshot shows a search filter configuration interface. At the top, it says "(Hash Algorithm ends with 256)". Below this, there are two radio buttons: "AND" (selected) and "OR". To the right are two buttons: "Add filter" and "Add filter Group". The main configuration area shows a field labeled "Hash Algorithm" followed by a dropdown menu set to "ends with" (highlighted with a yellow box) and a text input field containing "256".

The report will display results matching hash algorithms that end with '256'.

- **Contains** - This operator allows users to enter some values for the search criteria and generates results that contain those values.

The screenshot shows a search filter configuration interface. At the top, it says "(Hash Algorithm contains 256)". Below this, there are two radio buttons: "AND" (selected) and "OR". To the right are two buttons: "Add filter" and "Add filter Group". The main configuration area shows a field labeled "Hash Algorithm" followed by a dropdown menu set to "contains" (highlighted with a yellow box) and a text input field containing "256".

The report will display results with hash algorithms that contain the value '256'.

- **Does not contain** - This operator allows users to enter some values for the search criteria and generates results that do not contain those values.

The report will display results with hash algorithms that do not contain the value '256'.

## Field Type: Integer

When you choose the field type as Integer, the values for the conditional operator are auto-populated from the database. The following conditional operators are available when you choose the field type as Integer:

- **Is:** This operator is used if the query is for a particular value. For example, version is 1.

The report generated will display data specific to this query and show the certificates with Version equal to 1.

- **Is not:** This operator generates results if the condition is not matched. For example, version is not 1.

The report generated will display data that matches all criteria except the one that is selected and show certificates with Version not equal to 1.

- **Exists:** A boolean operator is provided for narrowing down the search parameters so that the result is either True or False.

(Version exists False)

AND OR

Add filter Add filter Group

Version exists False

False True

The report will display data after confirming if the selected field is available in the database or not. If the field is available, the result is True. If the field is not available, the result is False.

- **Greater than:** This operator is used to display records that match values greater than the selected value. For example, Version greater than 1.

(Version greater than )

AND OR

Add filter Add filter Group

Version greater than select...

1 3

The report generated will display certificates with version greater than 1.

- **Less than:** This operator is used to display records that match values less than the selected value. For example, Version less than 1.

(Version less than )

AND OR

Add filter Add filter Group

Version less than select...

1 3

The report generated will display certificates with version less than 1.

- **Greater than or is:** This operator is used to display records that match values greater than or equal to the selected value. For example, Version greater than or is 1.

(Version greater than or is )

AND OR

Add filter Add filter Group

Version greater than or is Select...

1 3

The report generated will display certificates with version greater than or equal to 1.

- **Less than or is:** This operator is used to display records that match values less than or equal to the selected value. For example, Version less than or is 1.

(Version less than or is )

AND OR

Add filter Add filter Group

Version less than or is Select...

1  
3

The report generated will display certificates with version less than or equal to 1.

## Field Type: Date

When you choose the field type as Date, the values for the conditional operators are predefined and need to be selected from the dropdown list. The following conditional operators are available when you choose the field type as Date:

- **Between** - This operator allows users to select the duration for which reports will be generated.

(Certificate Expiry Date between )

AND OR

Add filter Add filter Group

Certificate Expiry Date between

Last Week  
Last month  
Last 7 days  
Last 30 days  
Last N days  
Next Week  
Next month  
Next 7 days  
Next 30 days  
Next N days  
Custom Date

The following table describes the date values supported by the **between** operator:

Date Type	Description	Example
<b>Last Week</b>	Returns records within the previous selected time period, starting with the beginning of that time frame.	For example, a filter run on July 27, 2021 will return any records with a date range of July 18 to July 24, 2021.
<b>Last Month</b>		For example, a filter run on July 27, 2021 will return any records with a date range of 1 June to 30 June 2021.
<b>Last 7 days</b>		For example, a filter run on July 27, 2021 will return any records with a date range of July 21 to July 27, 2021.
<b>Last 30 days</b>		For example, a filter run on July 27, 2021 will return any records with a date range of 27 June to 26 July, 2021.
<b>Last N days</b>		For example, a filter run on July 27, 2021 will return any records with a date range of Nth day to July 27, 2021.
<b>Next Week</b>	Returns records within the next selected time period, including records with values up to the end of that time frame.	For example, a filter run on July 27, 2021 will return any records with a date range of August 1 to August 7, 2021.
<b>Next Month</b>		For example, a filter run on July 27, 2021 will return any records with a date range of August 1 to August 31, 2021.
<b>Next 7 days</b>		For example, a filter run on July 27, 2021 will return any records with a date range of July 27 to August 2, 2021.
<b>Next 30 days</b>		For example, on July 27, 2021 will return any records with a date range of July 27 to August 30, 2021.
<b>Next N days</b>		For example, a filter run on July 27, 2021 will return any records with a date range of July 27, 2021 to the Nth day.

Date Type	Description	Example
<b>Custom Date</b>	Returns records within the defined custom date.	

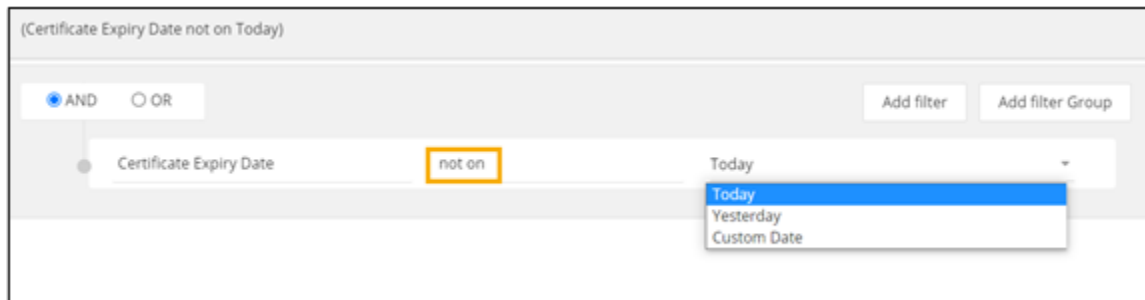
- **On** - This operator allows users to select a specific day for which the records will be generated.



The following table describes the date values supported by the **On** operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the selected time period, including records with values up to the end of that time frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring on July 27, 2021.
<b>Yesterday</b>		For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring on July 26, 2021.
<b>Custom Date</b>	Returns records within the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates expiring on August 1, 2021.

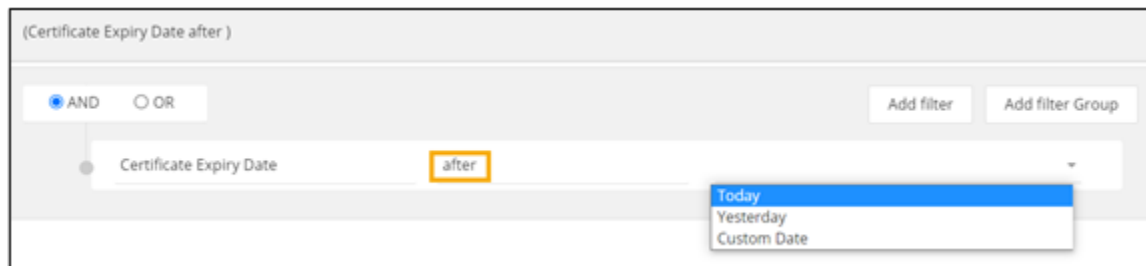
- **Not on** - This operator allows users to select the time period for which the records should not be generated.



The following table describes the date values supported by the **not on** operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the time period other than the selected time period, including records with values up to the end of that time frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates not expiring on July 27, 2021.
<b>Yesterday</b>		For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates not expiring on July 26, 2021.
<b>Custom Date</b>	Returns records for the time period other than the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates not expiring on August 1, 2021.

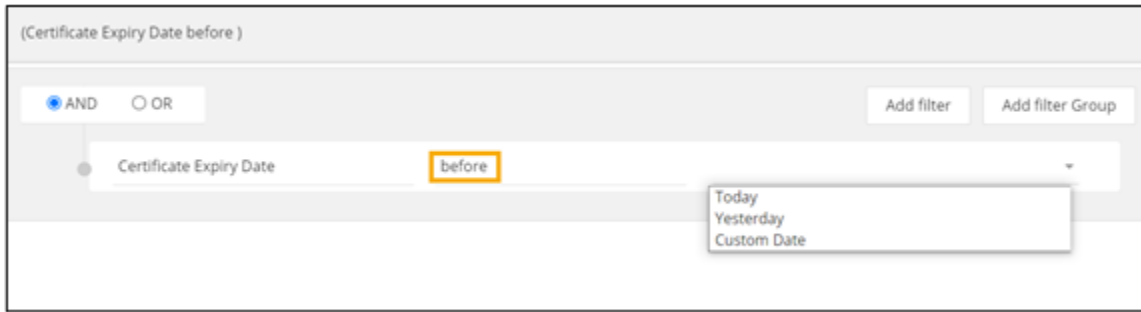
- **After** - This operator allows users to generate records of dates after the selected time period.



The following table describes the date values supported by the **after** operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the selected time period, including records with values up to the end of that time frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring after July 27, 2021.
<b>Yesterday</b>		For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring after July 26, 2021.
<b>Custom Date</b>	Returns records within the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates expiring after August 1, 2021.

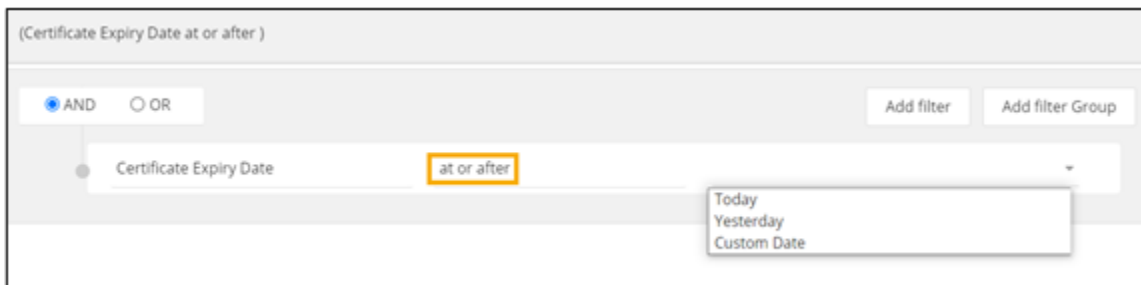
- **Before** - This operator allows users to generate records before the selected time period.



The following table describes the date values supported by the **before** operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the selected time period, including records with values up to the end of that time frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring before July 27, 2021.
<b>Yesterday</b>		For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring before July 26, 2021.
<b>Custom Date</b>	Returns records within the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates expiring before August 1, 2021.

- **At or after** - This operator allows users to generate records at or after the selected time period.

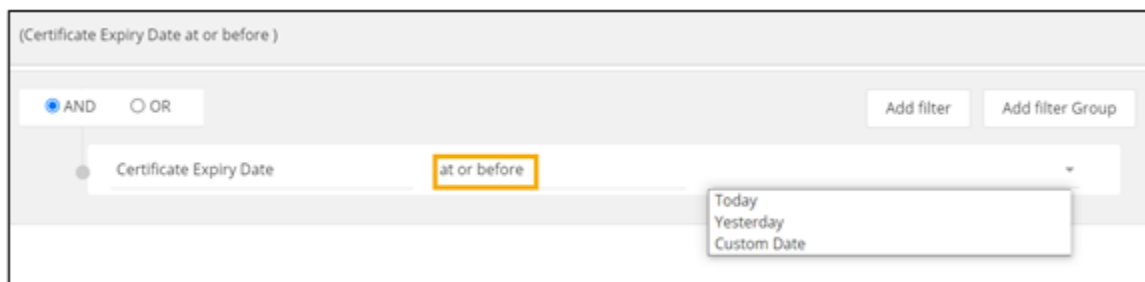


The following table describes the date values supported by the on operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the selected time period, including records with	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring at or after July 27, 2021.

Date Type	Description	Example
<b>Yesterday</b>	values up to the end of that time frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring at or after July 26, 2021.
<b>Custom Date</b>	Returns records within the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates expiring at or after August 1, 2021.

- **At or before** - This operator allows users to generate records at or before the selected time period.



The following table describes the date values supported by the on operator:

Date Type	Description	Example
<b>Today</b>	Returns records for the selected time period, including records with values up to the end of that time	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring at or before July 27, 2021.
<b>Yesterday</b>	frame.	For example, a <b>Certificate Expiry Date</b> filter run on July 27, 2021 will return records for certificates expiring at or before July 26, 2021.
<b>Custom Date</b>	Returns records within the defined custom date.	For example, a <b>Certificate Expiry Date</b> filter run on a custom date, say August 1, will return records for certificates expiring at or before August 1, 2021.

### Field Type: Boolean Variable

When you choose the field type as **Boolean**, the values for the conditional operator are either **true** or **false**. The conditional operator available when choosing the field type as Boolean is:

- **Is** - The report will display data after confirming if the selected field is available in the database (**True**) or not (**False**).

(Private Key Available is )

AND OR

Add filter Add filter Group

Private Key Available is Select...

False

True

## Create a CERT Expiry Report using Query Explorer

1. On the [My Reports](#) page, click **Create new Report**.
2. Under the **BUILD** section, enter or select the basic information on the report.

Reports :: My reports > Cert Expiry Report :: basicInfo

BUILD CHART CONFIGURATION CHART DRILLDOWN

Report name


Cert Expiry Report

Description

E.g: Generate Top 20 Unused FS VIP



Select category

general +

3. To modify a hook, select a hook from the pre-populated list and click .

expired All + Create new hook

Certificates - Fetch list of expired certificates

Expired Certificate  

Get list of Certificates to be expired on 30 days

Get list of Certificates to be expired on 60 days

Get list of Certificates to be expired on 90 days

4. In the **Hooks Inventory::Modify** pop-up window, under **Hooks Type**, enter or select the field information.

This table describes the field information in this section:

Field	Description
<b>Select type</b>	Select hook type as <b>Query Explorer</b> .
<b>Description</b>	Enter a description of the hook.

5. In the **Query Explorer Details** section, enter or select the field information.

The following table describes the various fields in this section:

Field	Description
<b>*Query name</b>	Enter a valid Query name.

Field	Description
	For example: <b>Get list of certificates expiring in 10 days.</b>
<b>Select Query Filter</b>	Select an appropriate query filter.  For example: <b>Certificate Inventory under Certificate</b> , since this report is to get data on certificates.
<b>Add filter</b>	Add a filter and select appropriate fields from the predefined values.  For example: <b>Expiry status is Expiry in 10 days.</b>
<b>AND/OR</b>	Select the appropriate conditional parameters depending on the type of output required in the report.  <b>AND:</b> Report will reflect data satisfying all the filter conditions.  <b>OR:</b> Report will reflect data satisfying either of the filter conditions.
The asterisk (*) symbol indicates mandatory fields.	

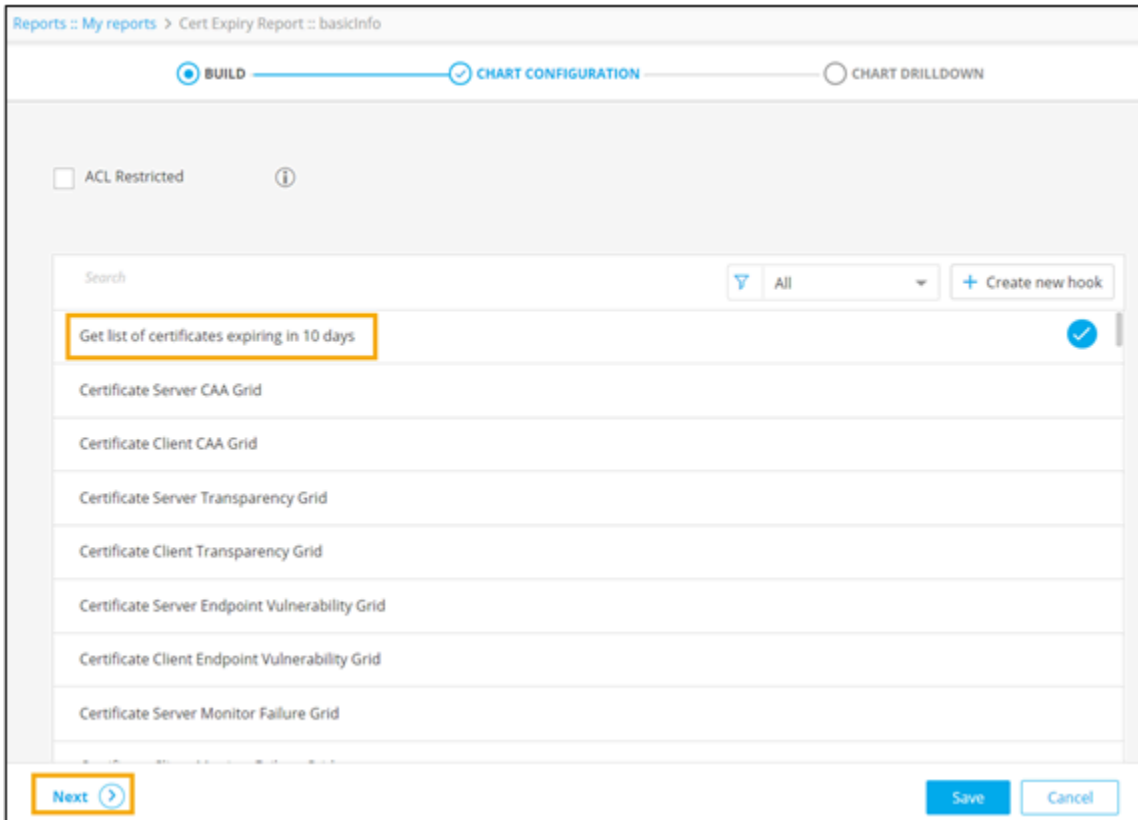
**Note:**

- Users can add more filters and apply conditional operators to generate different kinds of data in their reports. For example, add another filter to get data on **Compliance Status** of the certificates that are expiring in 10 days.
- Set the conditional parameter to **AND** to generate a report that satisfies both the defined conditions and display certificates that are both compliant and are expiring in 10 days. Setting the conditional parameter to **OR** will generate a report that reflects data satisfying either of the two defined conditions.

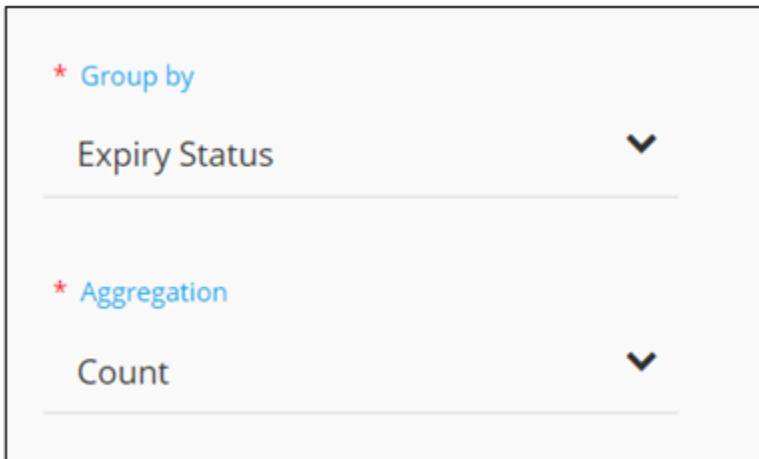
6. To create this new hook, click **Save**.

7. To save the basic information, click **Next**.

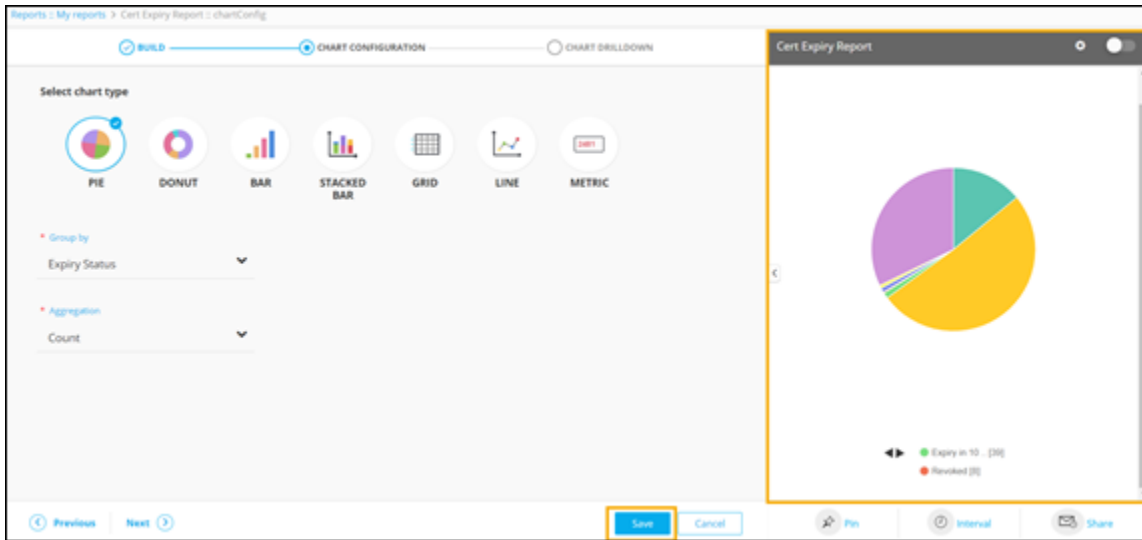
The new hook is displayed in the list of hooks.



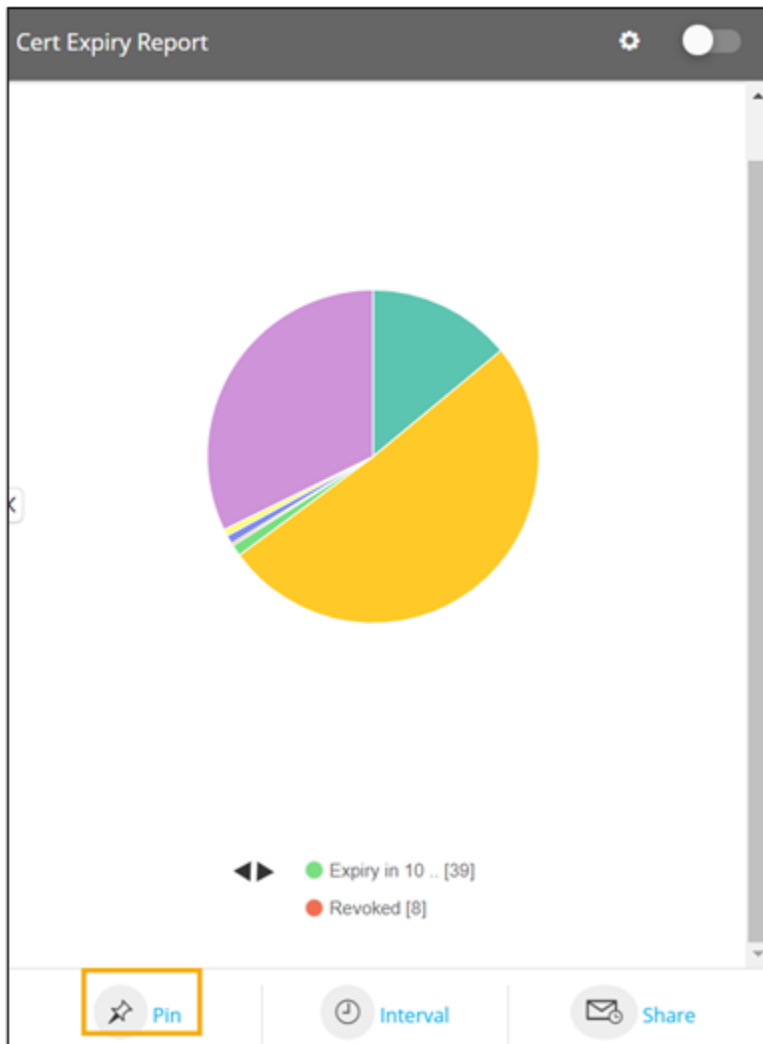
8. Under the **CHART CONFIGURATION** section, select the **PIE** chart.
9. Select the appropriate values for the various fields.



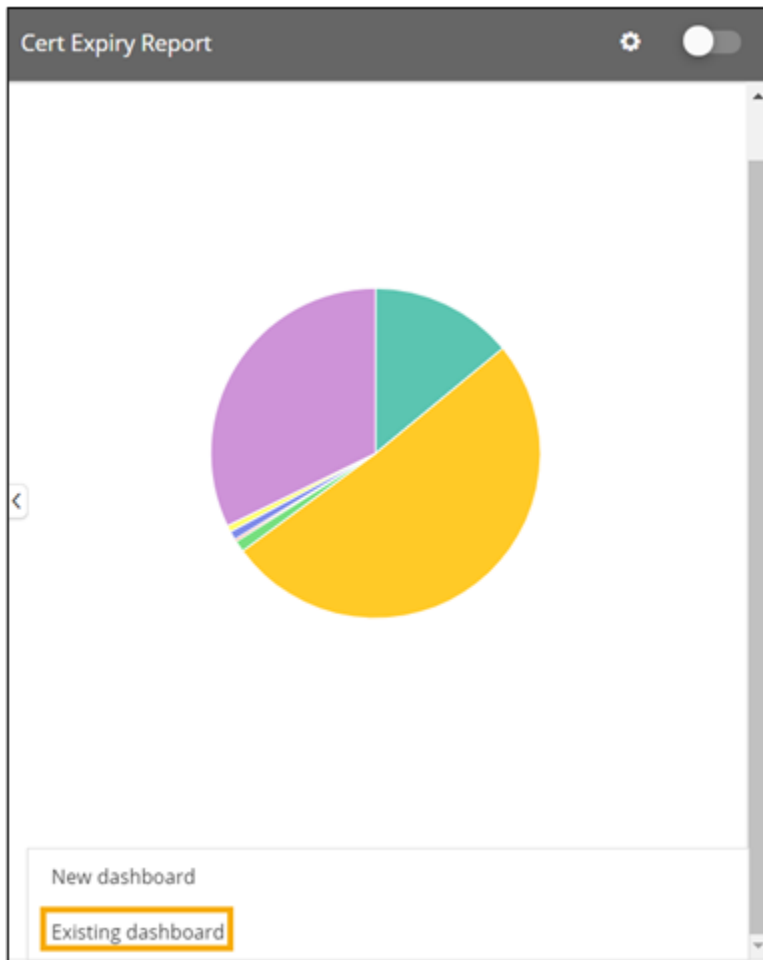
10. Click **Save**.  
A preview of the pie chart is displayed on the right side of the screen.



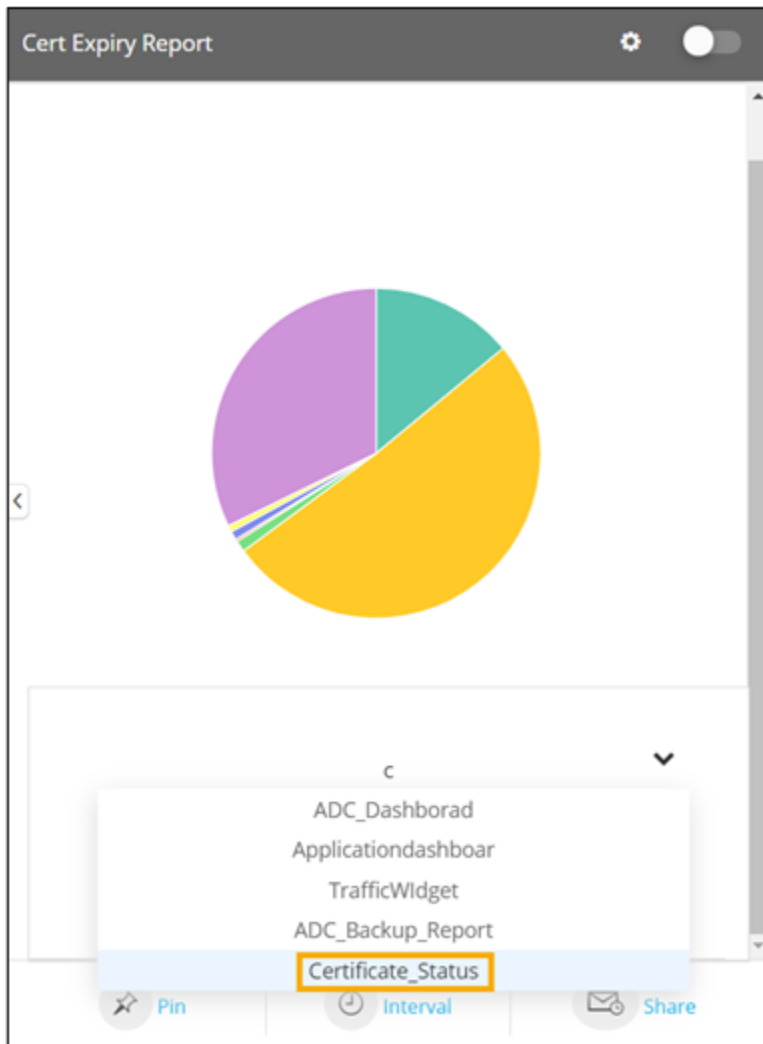
11. To pin the report to the dashboard, click **Pin**.



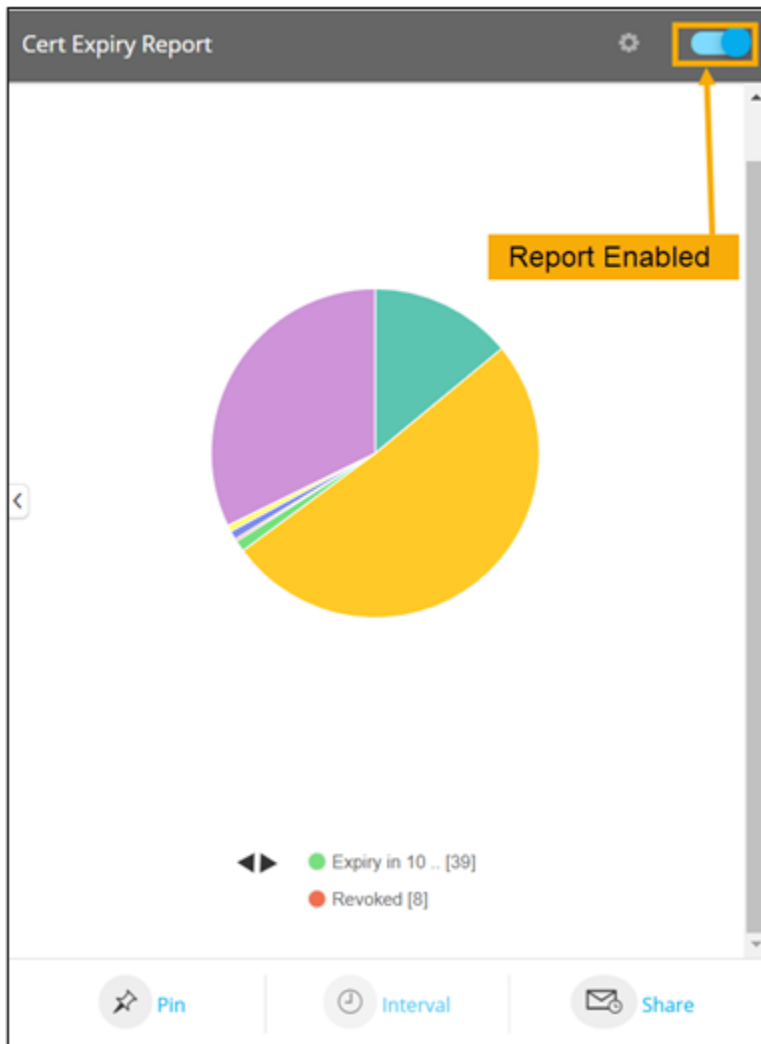
12. From the options displayed, select **Existing dashboard**.



13. From the list of available dashboards, select the required dashboard.



14. To pin this report to the new dashboard, click **Save**.
15. To enable the report, turn on the toggle.

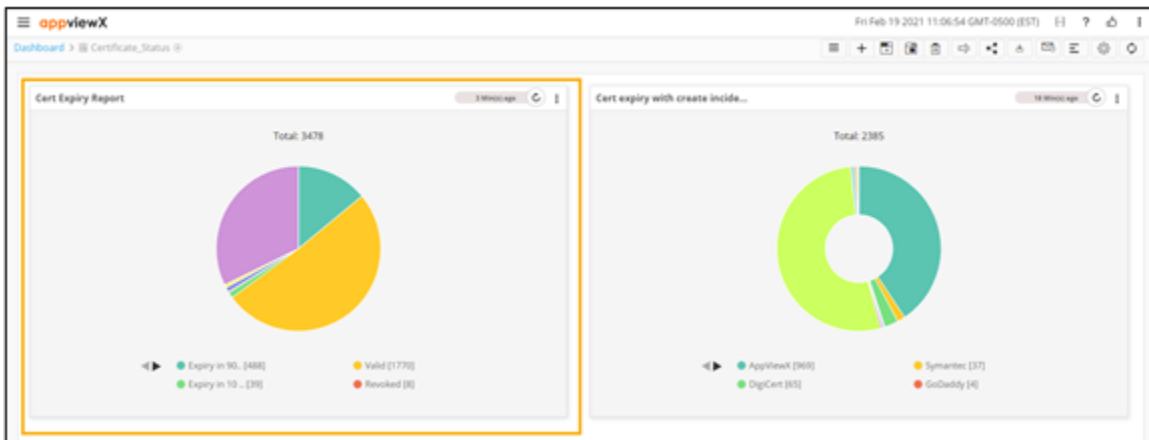


16. To view this report on the dashboard, search for the dashboard in the dashboard inventory.



**Note:** For more information on how to search for a dashboard, click [here](#).

The **Cert Expiry Report** can be seen on the dashboard.



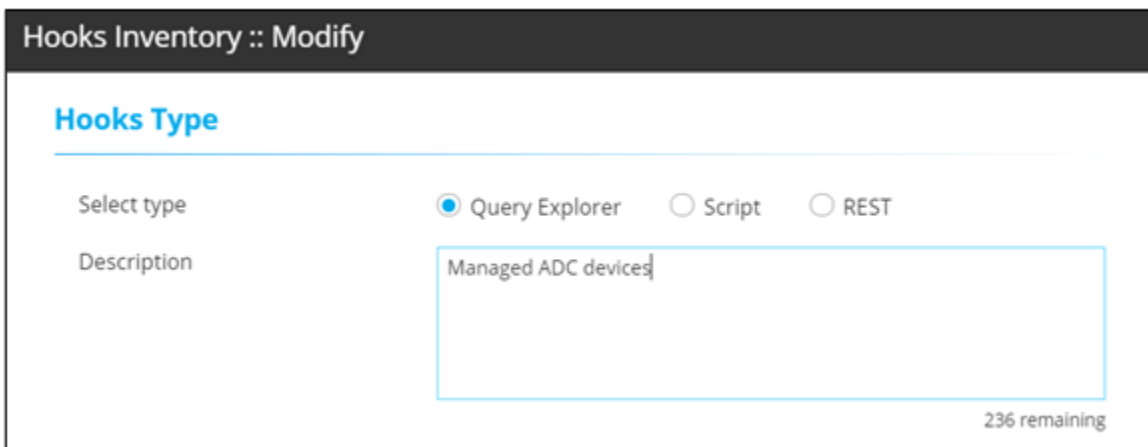
## Create an ADC Usage Report using Query Explorer

1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the basic information on the report.

3. To modify the hook, select a hook from the pre-populated list and click .



4. In the **Hooks Inventory::Modify** window, under **Hooks Type**, enter or select the field information.



This table describes the field information in this section:

Field	Description
<b>Select type</b>	Select hook type as <b>Query Explorer</b> .
<b>Description</b>	Enter a description of the hook.

5. In the **Query Explorer Details** section, enter or select the field information.

The following table describes the various fields in this section:

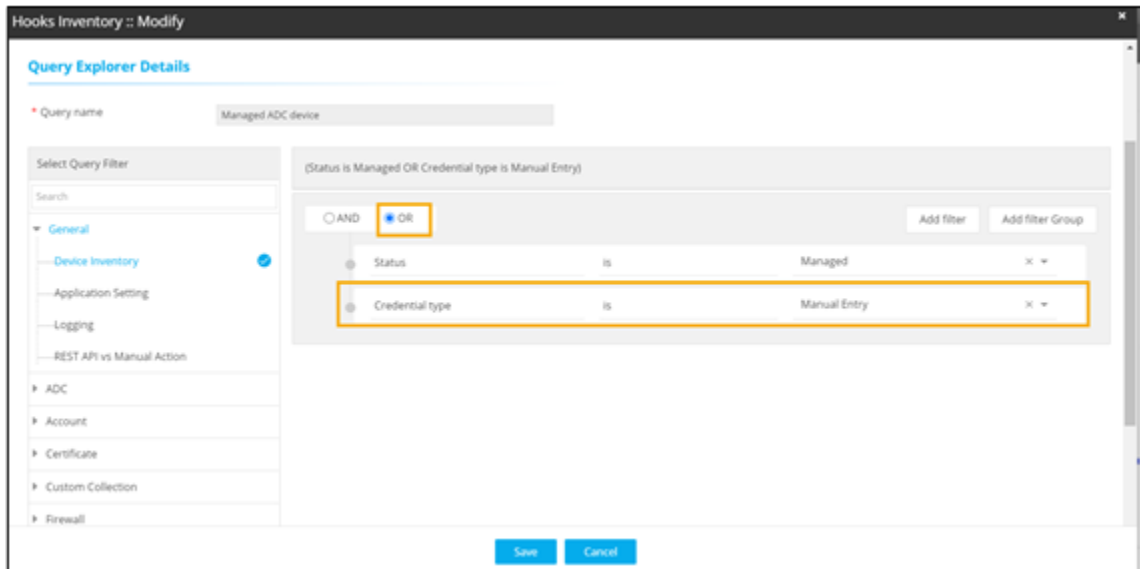
Field	Description
<b>Query name</b>	Enter a valid Query name.  For example: <b>Managed ADC devices</b> .
<b>Select Query Filter</b>	Select an appropriate query filter.  For example: <b>Device Inventory under General</b> , since this report is to get data on devices.
<b>Add filter</b>	Select appropriate fields from the pre-defined values.  For example: <b>Status is Managed</b> .
<b>AND/OR</b>	Select the appropriate conditional parameters depending on the type of output required in the report.  <b>AND:</b> Report will reflect data satisfying all the filter conditions.  <b>OR:</b> Report will reflect data satisfying either of the filter conditions.



**Note:**



- Users can add more filters and apply conditional operators to generate different kinds of data in their reports. For example, adding another filter to get data on credential type of the ADC devices that are managed.
- Set the conditional parameter to **AND** to generate a report that satisfies both the conditions and display devices that are both managed and required manual credentials entry. Setting it to **OR** will generate a report that reflects data satisfying either of these two defined conditions.



6. To create this new hook, click **Save**.

7. To save the basic information, click **Next**.

The new hook can be seen in the list of hooks.

Reports :: My reports > Usage report - Managed ADC devices :: basicInfo

BUILD —  **CHART CONFIGURATION** —  CHART DRILLDOWN

ACL Restricted ⓘ

Search ▼ All ▼ [+ Create new hook](#)

Managed ADC device	<input checked="" type="checkbox"/>
Certificate Server CAA Grid	<input type="checkbox"/>
Certificate Client CAA Grid	<input type="checkbox"/>
Certificate Server Transparency Grid	<input type="checkbox"/>
Certificate Client Transparency Grid	<input type="checkbox"/>
Certificate Server Endpoint Vulnerability Grid	<input type="checkbox"/>
Certificate Client Endpoint Vulnerability Grid	<input type="checkbox"/>
Certificate Server Monitor Failure Grid	<input type="checkbox"/>

[Next >](#) [Save](#) [Cancel](#)

- Under the **CHART CONFIGURATION** section, select the chart type as **METRIC**.
- Enter or select the appropriate values for the various fields.

Chart title  
Managed ADC devices

\* Aggregation  
Count

**Chart formatting**

\* Select chart size  
 Small  Medium  Large

\* Select alignment  
 Left  Center

\* Select font colour

Select icon

Previous Next Save Cancel

10. To save the basic information on the chart, click **Save**.

A preview of the metric is displayed on the right side of the screen.

reports - My reports > Usage report - Managed ADC devices - chartConfig

BUILD CHART CONFIGURATION CHART DRILLDOWN

PIE DONUT BAR STACKED BAR GRID LINE METRIC

Chart title  
Managed ADC devices

\* Aggregation  
Count

**Chart formatting**

\* Select chart size  
 Small  Medium  Large

\* Select alignment  
 Left  Center

\* Select font colour

Select icon


Previous Next Save Cancel Pin Internal Share

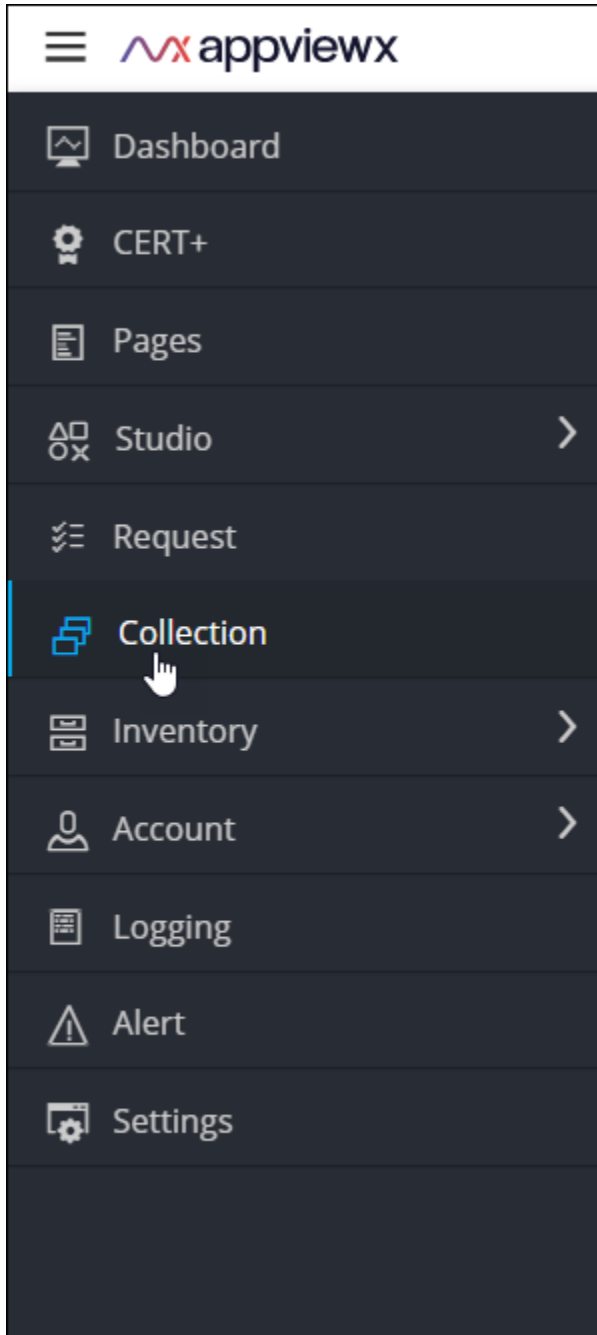
Usage report - Managed ADC de...  
 Managed ADC devices  
 104


## Importing Custom Data in Query Explorer

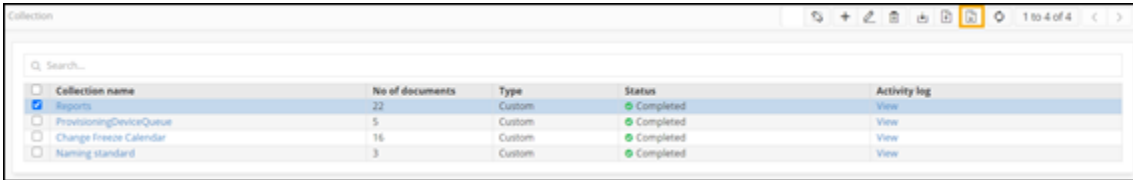
You can import devices data and upload it into the **Collection** module of the AppViewX platform and enable it to build custom queries to create reports.

To import a collection into the Query Explorer:

1. From the top left corner of the screen, click .
2. From the menu displayed, click **Collection**.

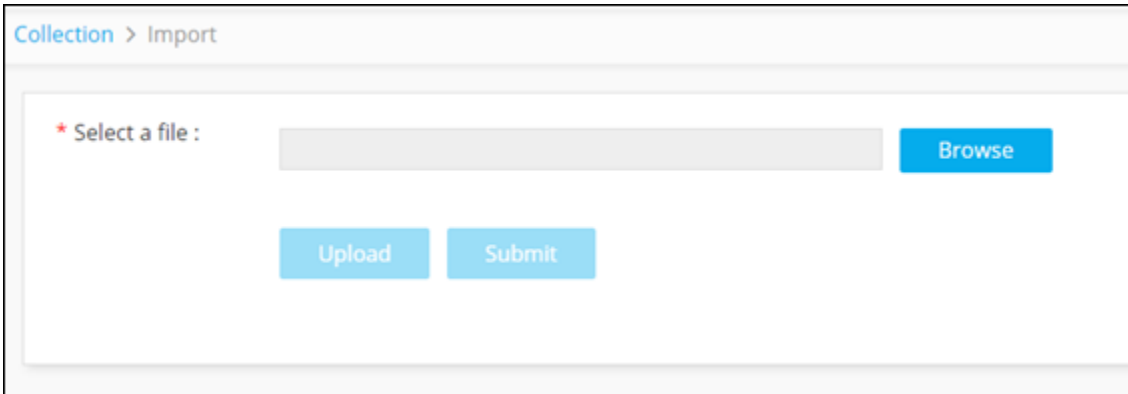


3. To import a collection, from the top right corner of the page, click .



Collection name	No of documents	Type	Status	Activity log
<input checked="" type="checkbox"/> Reports	22	Custom	Completed	View
<input type="checkbox"/> ProvisioningDeviceQueue	5	Custom	Completed	View
<input type="checkbox"/> Change Freeze Calendar	16	Custom	Completed	View
<input type="checkbox"/> Naming standard	3	Custom	Completed	View

4. To select a file to be uploaded to the **Collection** module, click **Browse**.



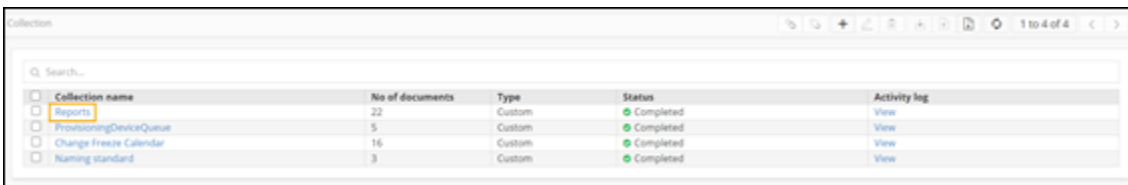
Collection > Import

\* Select a file :


5. Click **Upload** once the file is selected.

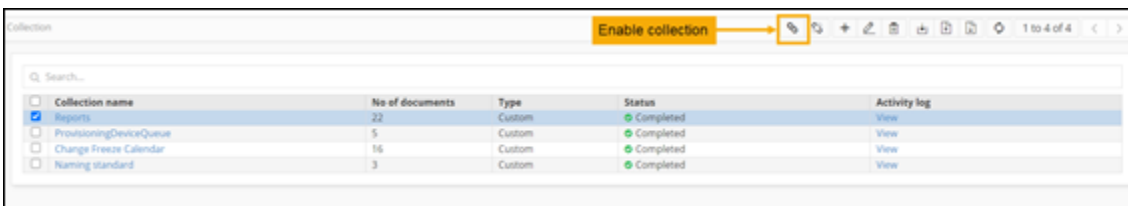
6. Select the collection and click **Submit**.


The newly created collection can be seen on the **Collection** page under **Collection Name**.



Collection name	No of documents	Type	Status	Activity log
<input checked="" type="checkbox"/> Reports	22	Custom	Completed	View
<input type="checkbox"/> ProvisioningDeviceQueue	5	Custom	Completed	View
<input type="checkbox"/> Change Freeze Calendar	16	Custom	Completed	View
<input type="checkbox"/> Naming standard	3	Custom	Completed	View

7. To enable the collection to build a custom query, select the collection and click .

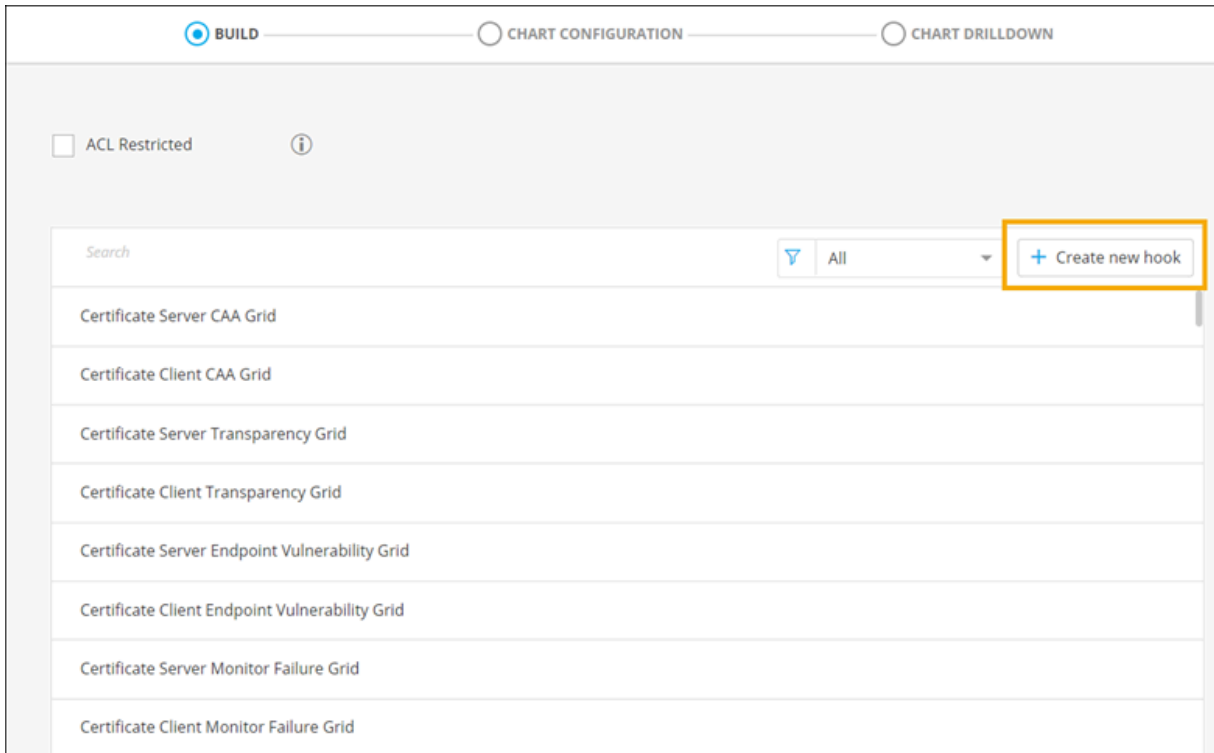


Enable collection 

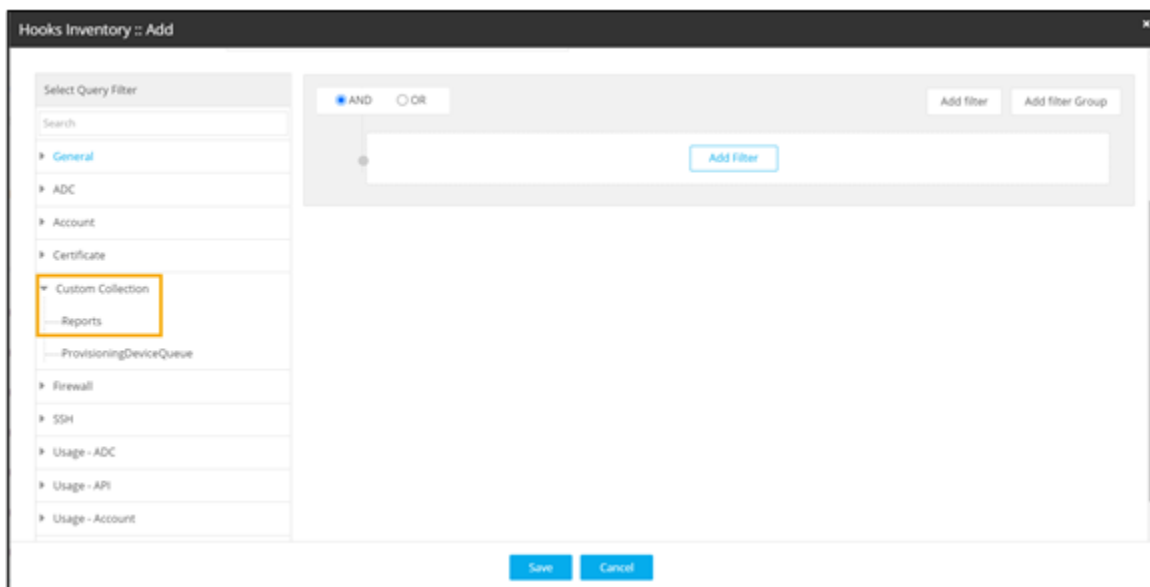
Collection name	No of documents	Type	Status	Activity log
<input checked="" type="checkbox"/> Reports	22	Custom	Completed	View
<input type="checkbox"/> ProvisioningDeviceQueue	5	Custom	Completed	View
<input type="checkbox"/> Change Freeze Calendar	16	Custom	Completed	View
<input type="checkbox"/> Naming standard	3	Custom	Completed	View

8. On the [My Reports](#) page, click **Create new report**.

9. Under the **BUILD** section, click **Create new hook**.



The newly created collection is displayed on the **Hooks Inventory** page under **Custom Collection**.



## Using Scripts to build Reports

The report builder allows you to create reports using preexisting and custom scripts. You can add your own custom code to generate reports that meet your requirements.

- [Example 1](#)
- [Example 2](#)

## Example 1

1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the field information.

This table describes the field information under this section:

Field	Description
<b>*Report name</b>	Enter a valid report name. For example, <b>Hash Algorithm-Server</b> .
<b>Description</b>	Enter a description of the report. For example: <b>This report shows the count of certificates with respect to the hash algorithm available in the server inventory.</b>
<b>*Select category</b>	Select category as <b>certificate</b> .
The asterisk (*) symbol indicates mandatory fields.	

3. Select the **ACL restricted** check box.

\* Report name

Hash Algorithm-Server

Description

This report shows the count of certificates with respect to the hash algorithm available in the server inventory.

\* Select category

certificate

ACL Restricted

4. Select a sample script from the list of available hooks.

sample

sample\_report\_grid

Test

test

new

TestNewPentest

Test1234

Pent Test new

SampleHashAlgorithmScript

Next

Save Cancel

5. To save your selections, click **Next**.
6. Under the **CHART CONFIGURATION** section, select the **BAR** chart.
7. Enter or select all the field information on this page.

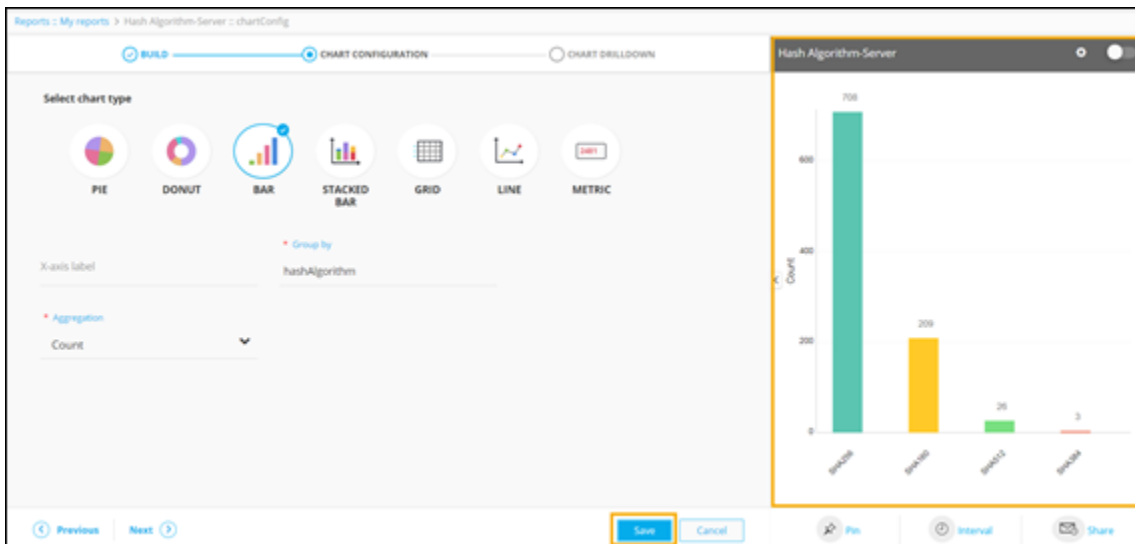
X-axis label	* Group by
Hash Algorithm	hashAlgorithm
* Aggregation	
Count	▼

This table describes the field information under this section:

Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label.  For example, Hash algorithm.
<b>*Group by</b>	Select a value from the dropdown menu on the basis of which report data will be grouped.  For example, hashAlgorithm.
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average:</b> Calculates the average value of a given set of data.</li> <li>• <b>Sum:</b> Calculates the sum of all values in a given set of data.</li> <li>• <b>Count:</b> Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum:</b> Displays the maximum value in a given set of data.</li> <li>• <b>Minimum:</b> Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

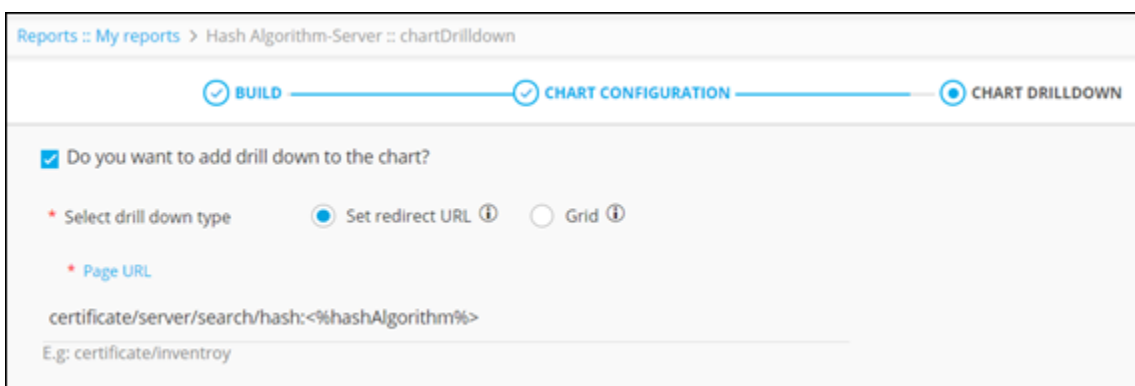
8. Click **Save**.

A preview of the bar chart is displayed on the right side of the screen.



9. To add drill down to the report, click **Next**.

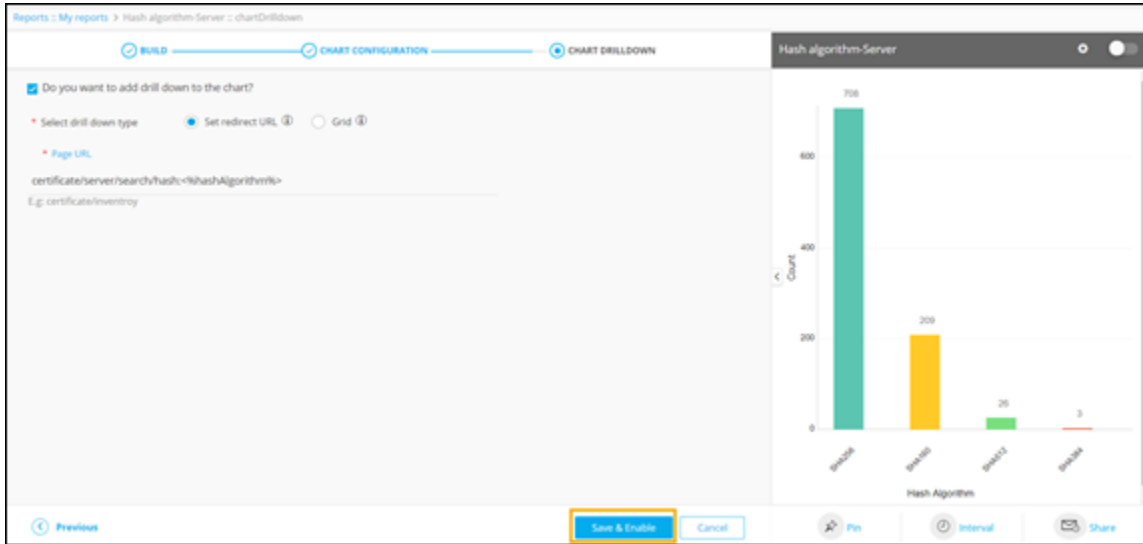
10. Under the **CHART DRILLDOWN** section, enter or select the field information.



The following table describes the field information on this page:

Field	Description
<b>*Select drill down type</b>	Select drill down type as redirect URL.
<b>*Page URL</b>	Enter a valid URL.
The asterisk (*) symbol indicates mandatory fields.	

11. To enable drill down, click **Save & Enable**.



12. To be redirected to the drill down URL, click on any of the bars on the bar chart.


## Example 2

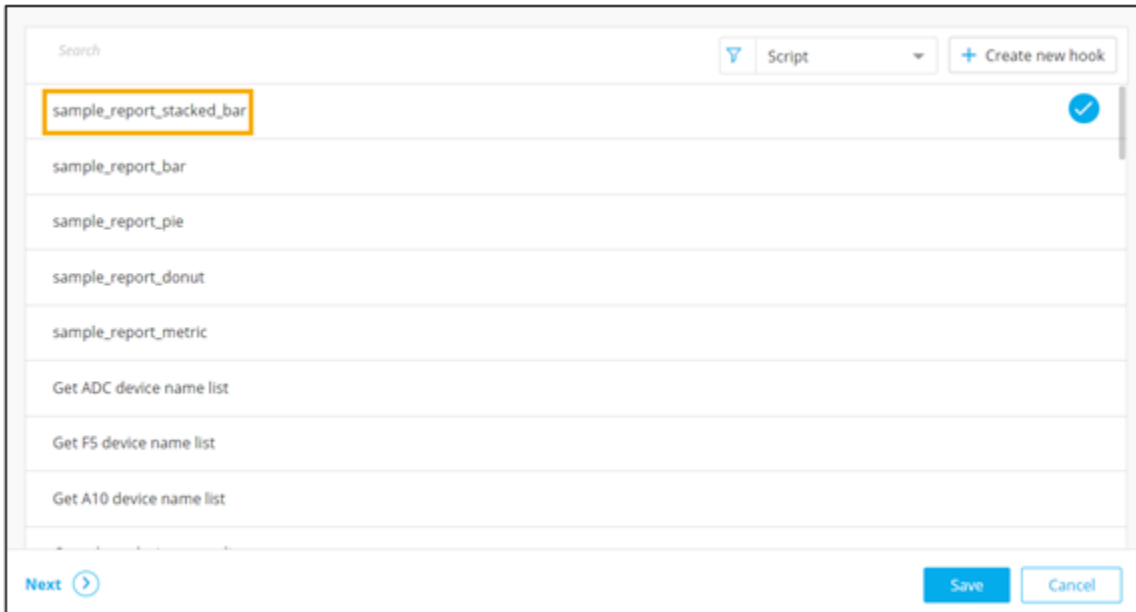
1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the field information.

This table describes the field information under this section:

Field	Description
<b>*Report name</b>	Enter a valid report name.
<b>Description</b>	Enter a valid description of the report.

Field	Description
*Select category	Select category as general.
The asterisk (*) symbol indicates mandatory fields.	

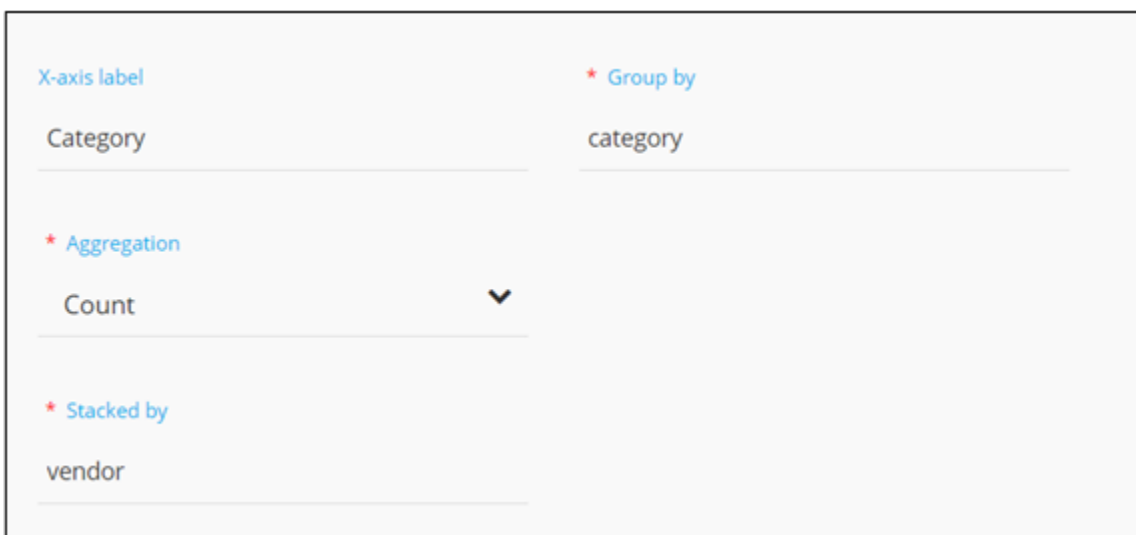
3. Select an appropriate hook from the list and click .



4. To save your selections, click **Next**.

5. Under the **CHART CONFIGURATION** section, select the **STACKED BAR** chart.

6. Enter or select the field information on this page.

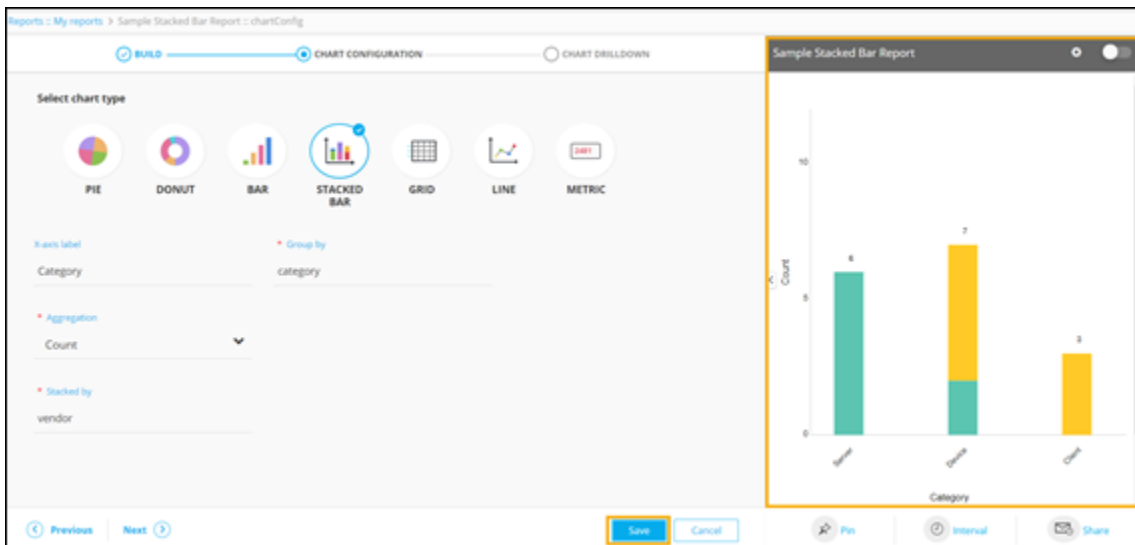


This table describes the field information under this section:

Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label.
<b>*Group by</b>	Enter the criteria on the basis of which report data will be grouped.  For example, <b>category</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
<b>*Stacked by</b>	Enter the criteria on the basis of which report data will be stacked.  For example, <b>vendor</b> .
The asterisk (*) symbol indicates mandatory fields.	

7. Click **Save**.

A preview of the stacked bar chart is displayed on the right side of the screen.



## Using REST API to build Reports

You can also use the report builder to create reports using preexisting or custom APIs. You can integrate your internal APIs into this platform to generate customized reports.

- [How to Create a Report using Sample REST API](#)

### How to Create a Report using Sample REST API

1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, enter or select the field information.

Reports :: My reports > Create :: basicinfo

**BUILD** | CHART CONFIGURATION | CHART DRILLDOWN

\* Report name  
Cert Auto Push - Server

Description  
This report shows the count of certificates with respect to enabled / disabled push automatically.

\* Select category  
certificate

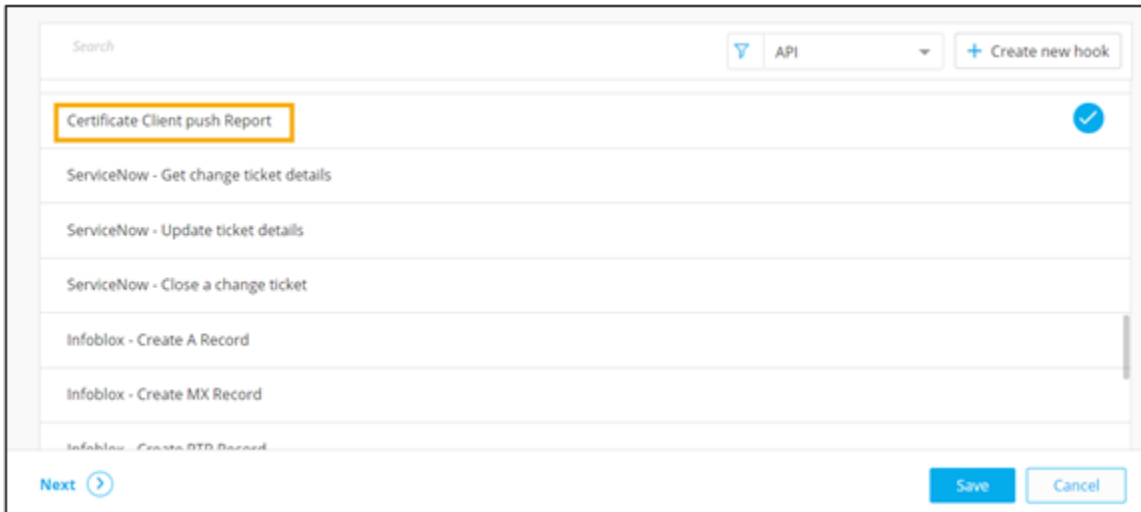
ACL Restricted

This table describes the field information under this section:

Field	Description
<b>*Report name</b>	Enter a valid report name. For example, <b>Cert Auto Push server</b> .
<b>Description</b>	Enter a valid description for the report. For example: <b>This report shows the count of certificates with respect to enabled / disabled push automatically.</b>
<b>*Select category</b>	Select category as certificate.

Field	Description
<b>ACL restricted</b>	Select this checkbox to query certificates based on role permission.
The asterisk (*) symbol indicates mandatory fields.	

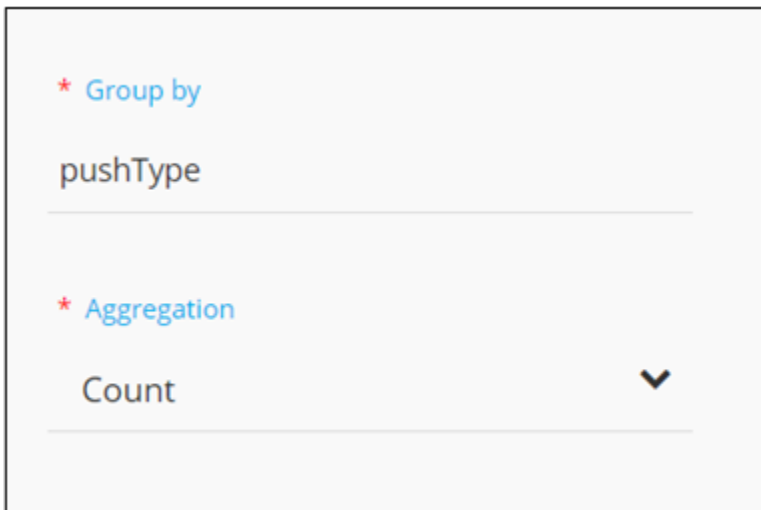
3. Select a sample API hook from the list of preexisting hooks.



4. To save your selections, click **Next**.

5. Under the **CHART CONFIGURATION** section, select the **PIE** chart.

6. Enter or select the field information.

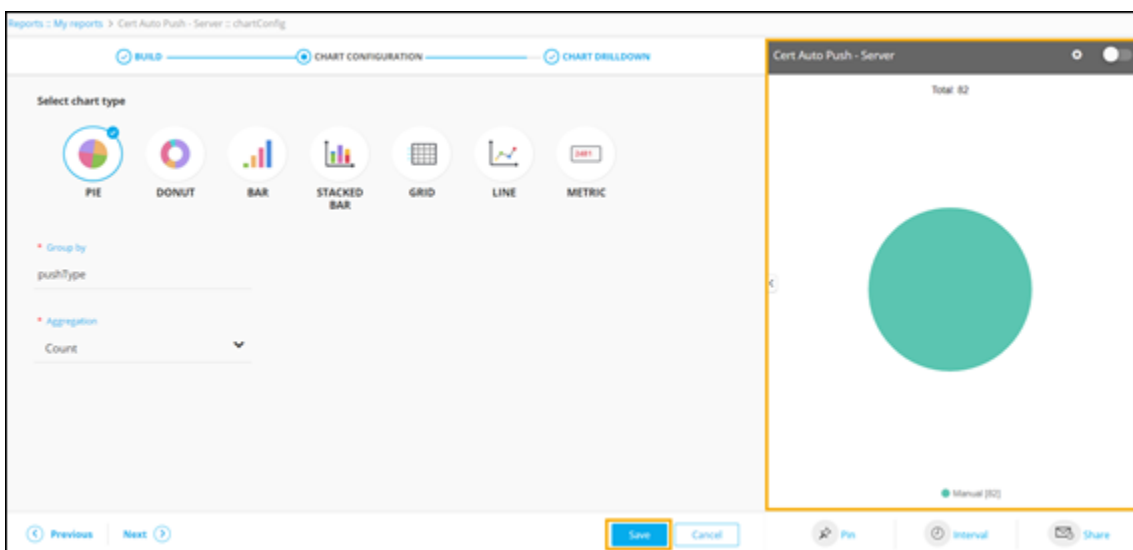


The following table describes the field information in this section:

Field	Description
<b>*Group by</b>	Enter the criteria on the basis of which report data will be grouped.  For example: <b>pushType</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
The asterisk (*) symbol indicates mandatory fields.	

7. To save your selections, click **Save**.

A preview of the pie chart is generated on the right side of the screen.



## How to Create a New Hook

To create a new hook for generating reports based on a specific category:

1. On the [My Reports](#) page, click **Create new report**.
2. Under the **BUILD** section, click **Create new hook**.

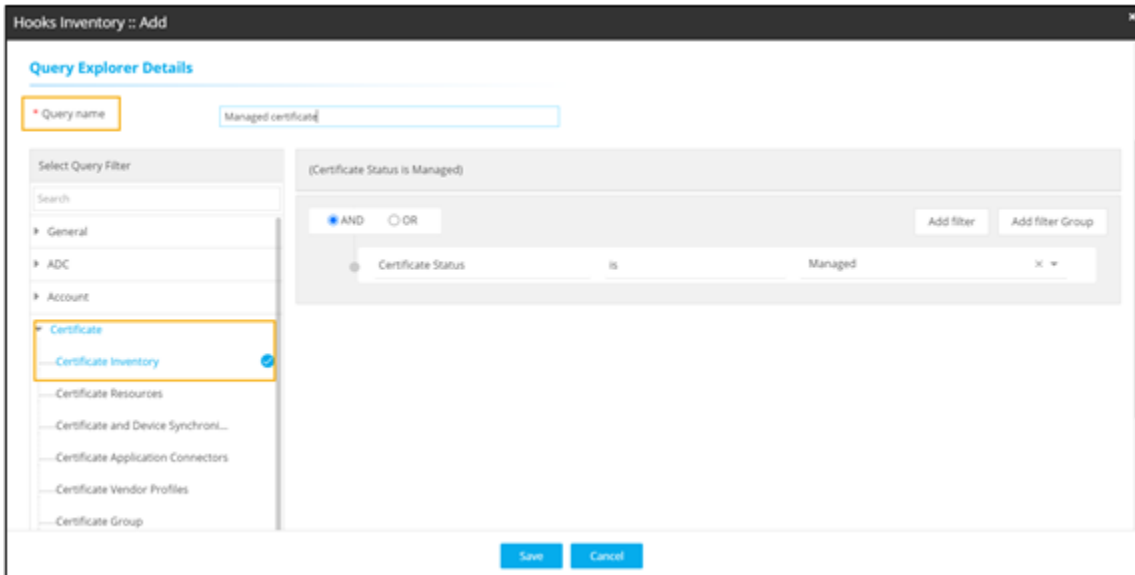
The **Hooks Inventory** page pops up, where users can add/create a new hook according to their specific requirements.

- [Creating a Query Explorer Hook](#)
- [Creating a Script Hook](#)
- [Creating a REST API Hook](#)

## Creating a Query Explorer Hook

1. In the **Hooks Inventory :: Add** window, under **Hooks Type**, select the **Query Explorer** option.
2. Add a description for the selected hook.

3. Under **Query Explorer Details**, enter or select the field information.



The following table describes the various fields in the **Query Explorer Details** section:

<b>Query name</b>	valid query name.
<b>Select Query Filter</b>	For example, <b>Managed certificates</b> .
<b>Filter</b>	Appropriate query filter from the pre-populated list

of  
filters.

For  
example,  
**Certificate  
Inventory  
under  
Certificate  
section.**

**Add  
Filter**  
filter  
and  
select  
appropriate  
fields  
from  
the  
predefined  
values.

For  
example,  
**Certificate  
Status  
is  
Managed.**

**AND/  
Select  
OR**  
the  
appropriate  
conditional  
parameters  
depending  
on

the  
type  
of  
output  
required  
in  
the  
report.

**AND:**

Report  
will  
reflect  
data  
satisfying  
all  
the  
filter  
conditions.

**OR:**

Report  
will  
reflect  
data  
satisfying  
either  
of  
the  
filter  
conditions.

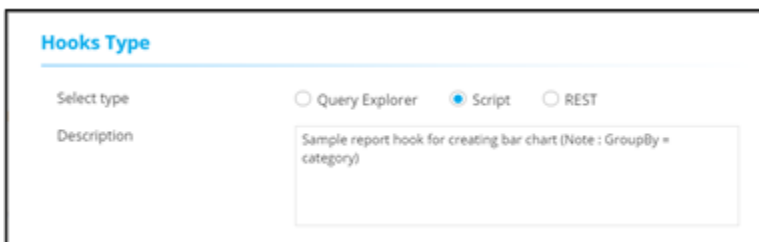
All  
asterisk  
(\*  
marked  
fields

are  
mandatory.

4. To add this new hook to the list of existing hooks, click **Save**.

## Creating a Script Hook

1. In the **Hooks Inventory :: Add** window, under **Hooks Type**, select the **Script** option.
2. Add a description for the selected hook.

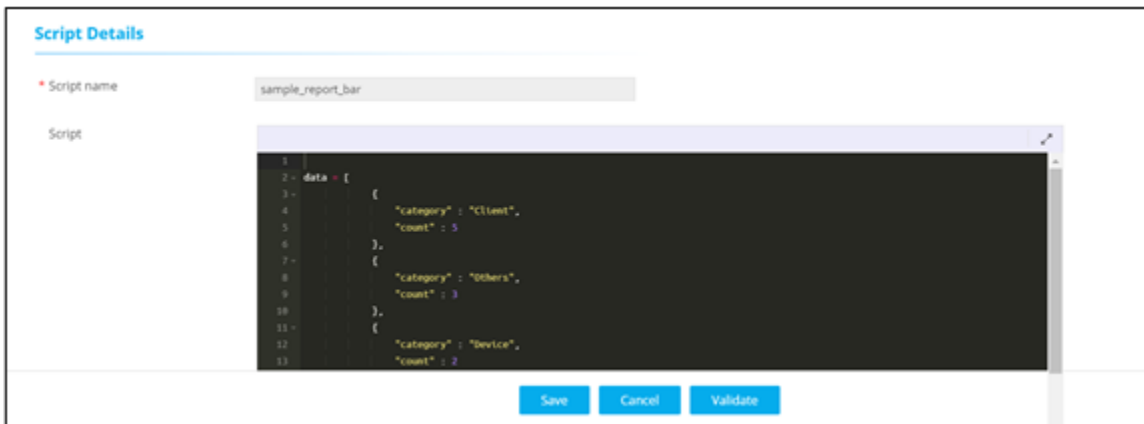


**Hooks Type**

Select type  Query Explorer  Script  REST

Description

3. Under **Script Details**, enter a valid script name and define the script logic .



**Script Details**

\* Script name

Script 

```

1
2 data = [
3   {
4     "category" : "Client",
5     "count" : 5
6   },
7   {
8     "category" : "Others",
9     "count" : 3
10  },
11  {
12   "category" : "Device",
13   "count" : 2

```

4. To add this new hook to the list of existing hooks, click **Save**.

## Creating a REST API Hook

1. In the **Hooks Inventory :: Add** window, under **Hooks Type**, select the **REST** option.
2. Enter a description for the selected hook.

### Hooks Type

---

Select type  Query Explorer  Script  REST

Description 

Fetches the list of domain names for which there are more than one certificates available and only one or a few(out of all) are available in the server inventory.

3. Under **API Details**, enter or select the field information.

◦ **Using REST API**

### API Details

---

\* API name

Select type  REST API  Internal

Method

\* URL

◦ **Using Internal API**

### API Details

---

\* API name

Select type  REST API  Internal

\* URI

[View Details](#) ▼

The following table describes field description in this section:

**API name**  
valid

name  
for  
the  
API.

**Select  
type**

select  
between  
REST  
API  
and  
Internal.

• **REST**

**API:**

Use  
this  
to  
select  
external  
API  
and  
enter  
the  
URL.

• **Internal:**

Use  
this  
to  
select  
an  
internal  
API  
and  
select  
a  
URI

(Uniform  
Resources  
Identifier)  
from  
the  
dropdown  
menu.

#### **Path** parameters

#### **params**

are  
used  
to  
identify  
a  
specific  
resource(s).

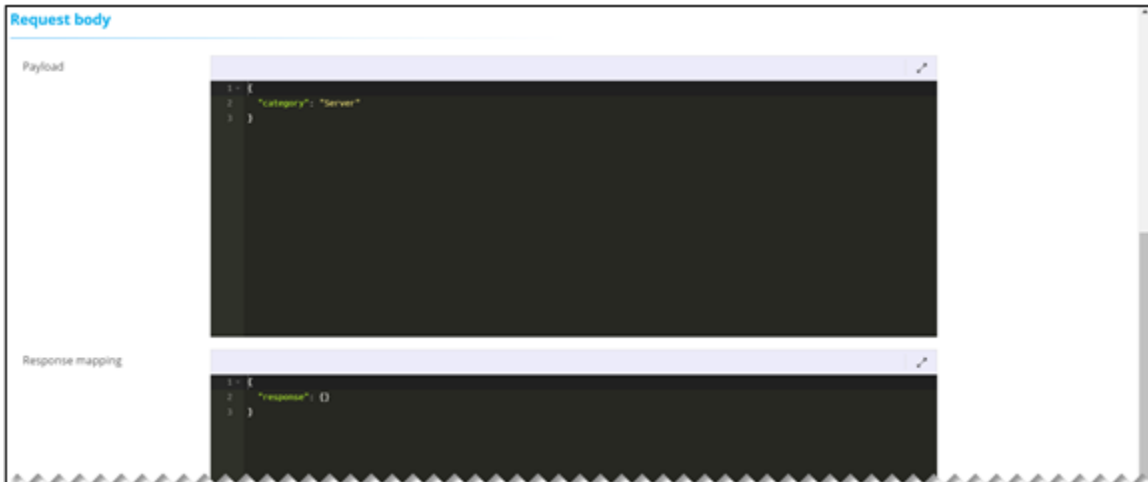
#### **Query** parameters

#### **params**

are  
used  
to  
filter  
resources.

All  
asterisk  
(\*)  
marked  
fields  
are  
mandatory.

4. Under **Request Body**, enter the payload and response mapping details.



The following table describes field description in this section:

### **Payload**

is the actual data that needs to be passed for the API.

### **Response mapping**


integration response from the backend.

5. To add this new REST API hook to the hook inventory, click **Save**.

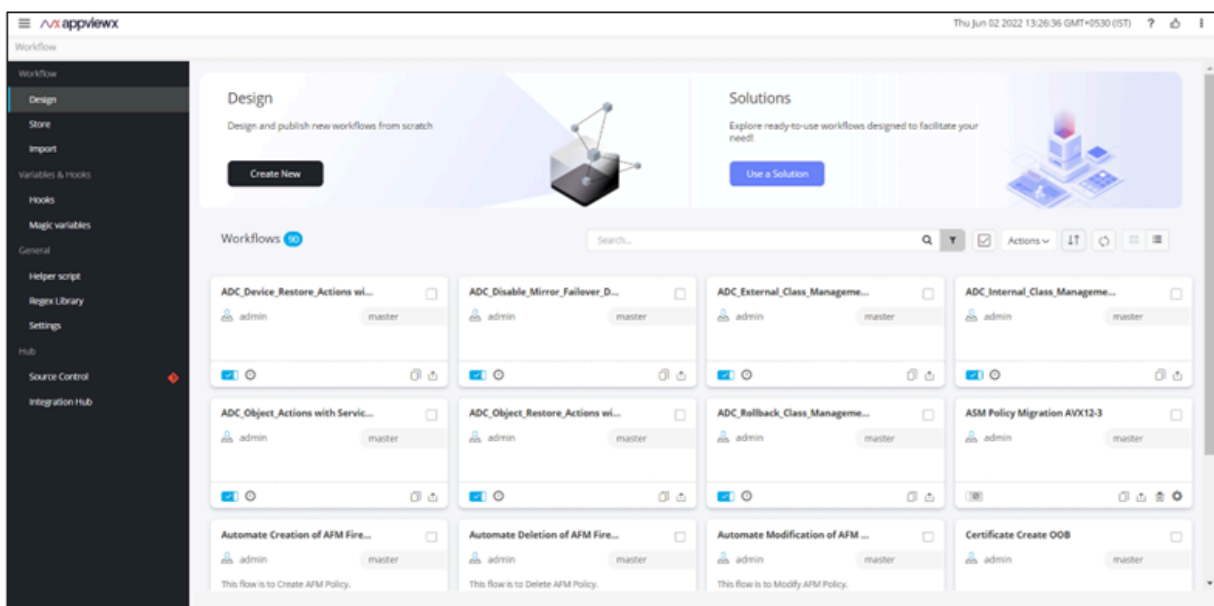
## How to Reuse Hooks

The **Hooks Inventory** lists all the hooks that are available to you for building reports. Any new hook created will be added to the **Hooks Inventory** and can be reused for creating reports.

To create and reuse hooks:


1. From the top left corner of the screen, click .
2. From the menu displayed, select **Studio > Workflow**.

The **Workflow** inventory is displayed.



3. From the navigation pane on the left, click **Hooks**.  
The **Hooks Inventory** is displayed.

Hooks	Description	Hook Type
<input type="checkbox"/> Cmdb_Get_Certificates	Fetch all the certificate details from inventory	Query Explorer
<input type="checkbox"/> Cmdb_Get_Devices	Fetch all device details from inventory	Query Explorer
<input type="checkbox"/> Cert cost report - Unit based cost	Fetches count of CA actions performed based on the certificate groups.	REST
<input type="checkbox"/> Certificate Client Autorenewal Ready Report	Fetches count of client certificates ready for the auto-renewal process.	REST
<input type="checkbox"/> Certificate Client CAA Grid	Fetches list of certificates in appview inventory (client) which have and do not have C...	REST
<input type="checkbox"/> Certificate Client CAA Record	Fetches the count of certificates in appview inventory (client) which have and do not ...	REST
<input type="checkbox"/> Certificate Client Cipher suite	Fetches Client Cipher suite	REST
<input type="checkbox"/> Certificate Client Cipher suite Grid	count of device endpoints with respect to the cipher suite details along with the priori...	REST
<input type="checkbox"/> Certificate Client Endpoint Vulnerability	Fetches only for the objects associated with the certificates, which are available in the ...	REST
<input type="checkbox"/> Certificate Client Endpoint Vulnerability Grid	Fetches list of objects associated with the certificates, which are available in the client...	REST
<input type="checkbox"/> Certificate Client Monitor Failure Grid	report list certificates in the appview which are disassociated from the endpoints, wh...	REST
<input type="checkbox"/> Certificate Client Monitor Failure Report	Fetches the count of client certificates in the appview which are disassociated from t...	REST
<input type="checkbox"/> Certificate Client Push Report Grid	Fetches list of device connectors configured and non configured with push automati...	REST
<input type="checkbox"/> Certificate Client Shared Client Report	Fetches the count of client certificates shared with multiple end points.	REST
<input type="checkbox"/> Certificate Client TLS version	Fetches count of objects along with the TLS versions of the same	REST
<input type="checkbox"/> Certificate Client TLS version Grid	Shows the count of objects along with the TLS versions of the same	REST
<input type="checkbox"/> Certificate Client Transparency Report	Fetches the list of domain names for which there are more than one certificates avail...	REST
<input type="checkbox"/> Certificate Client Transparency Report Grid	Fetches the total count of domain names for which there are more than one certificat...	REST
<input type="checkbox"/> Certificate Client push Report	Fetches Client push Report	REST
<input type="checkbox"/> Certificate Server Autorenewal Ready Report	Fetches count of server certificates ready for the auto-renewal process.	REST
<input type="checkbox"/> Certificate Server CAA Grid	Fetches list of certificates in appview inventory (server) which have and do not have ...	REST
<input type="checkbox"/> Certificate Server CAA Record	Fetches the count of certificates in appview inventory (server) which have and do not...	REST
<input type="checkbox"/> Certificate Server Cipher suite	Fetches Server Cipher suite	REST
<input type="checkbox"/> Certificate Server Cipher suite Grid	count of device endpoints with respect to the cipher suite details along with the priori...	REST
<input type="checkbox"/> Certificate Server Endpoint Vulnerability	Fetches only for the objects associated with the certificates, which are available in the ...	REST
<input type="checkbox"/> Certificate Server Endpoint Vulnerability Grid	Fetches list of objects associated with the certificates, which are available in the same	REST

4. To add a new hook, click  from the top right corner of the screen. The **Workflow > Hooks Inventory > Add** page is displayed.

**Hooks Type**

Select type  Query Explorer  Script  REST

Description

**Query Explorer Details**

\* Query name

Select category

Search

General  Device Inventory  Alert  Application Setting  Logging

AND  OR

Add filter Add filter Group

Add Filter

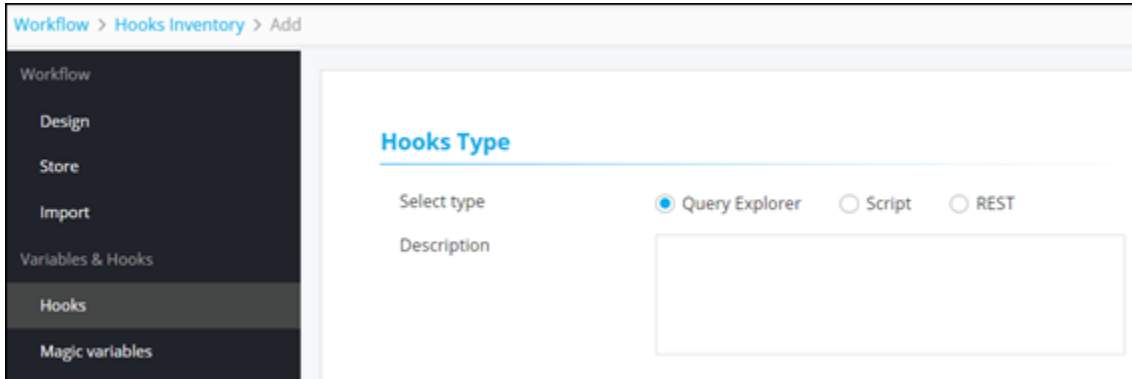
**Response mapping**

Available fields  Select all >>

Selected fields

Save Cancel Validate

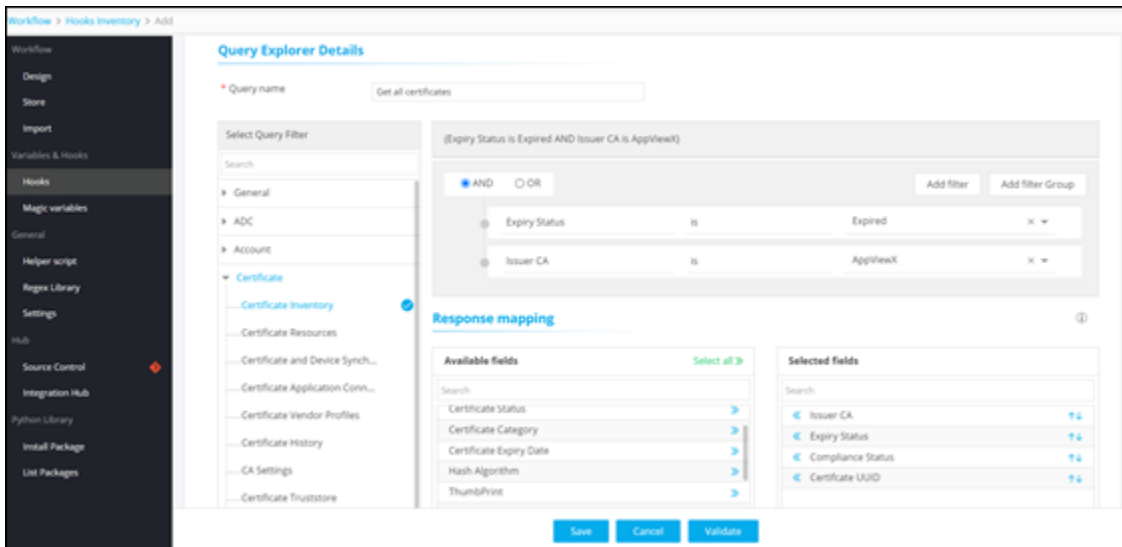
5. Under **Hooks Type**, enter or select the field information.



This table describes the field information in this section:

Field	Description
<b>Select Type</b>	Select hook type as <b>Query Explorer</b> .
<b>Description</b>	Enter a valid description.  For example: <b>Retrieve all certificates that have been managed or monitored.</b>

6. Under **Query Explorer Details**, enter or select the field information.



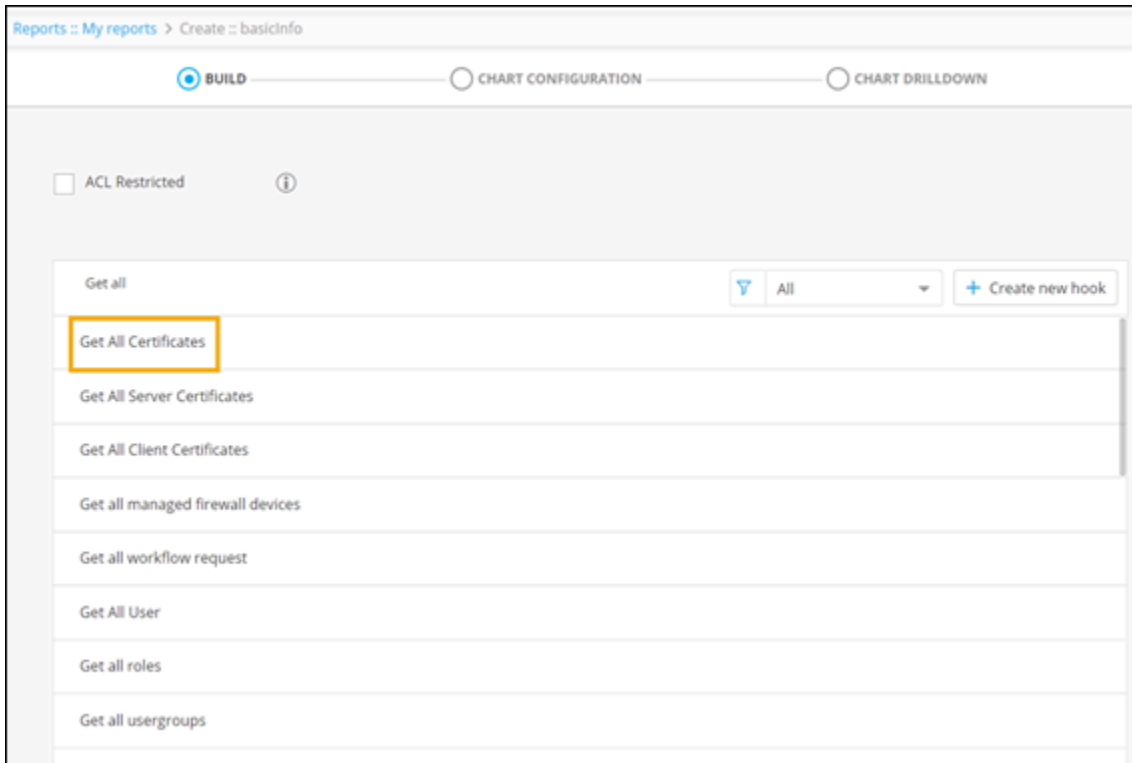
This table describes the various fields in this section:

Field	Description
<b>Query name</b>	Enter a valid query name.

Field	Description
	For example: <b>Get all certificates.</b>
<b>Select Query Filter</b>	Select an appropriate query filter from the collection of hooks. For example: <b>Certificate Inventory under the Certificate section.</b>
<b>Add filter</b>	Add a filter(s) and select appropriate fields from the predefined values. For example: <b>Expiry Status is Expired and Issuer CA is AppViewX.</b>
<b>AND/OR</b>	Select the appropriate conditional parameters depending on the type of output required in the report.  <b>AND:</b> Report will reflect data satisfying all the filter conditions.  <b>OR:</b> Report will reflect data satisfying either of the filter conditions.
<b>Response Mapping</b>	Select the fields from the available list to map the integration response. For example: Select <b>Issuer CA, Expiry Status, Certificate Status, Certificate UUID.</b>  Selected fields appear on the right side.
The asterisk (*) symbol indicates mandatory fields.	

7. To add this hook to the **Hooks Inventory**, click **Save**.
8. On the [My Reports](#) page, click **Create new report**.
9. To search for the new hook, under the **BUILD** section, type the keyword in the search bar.

The new hook is added to the list of hooks.



# Chapter 11: Report Widgets

- [Overview](#)
- [How to Create a Widget](#)
- [How to Download Report Widgets](#)
- [How to Pin a Widget to a Dashboard](#)

## Overview

You can create customized widgets, pin them to a dashboard, and also download report widgets to your device using the Report builder platform.

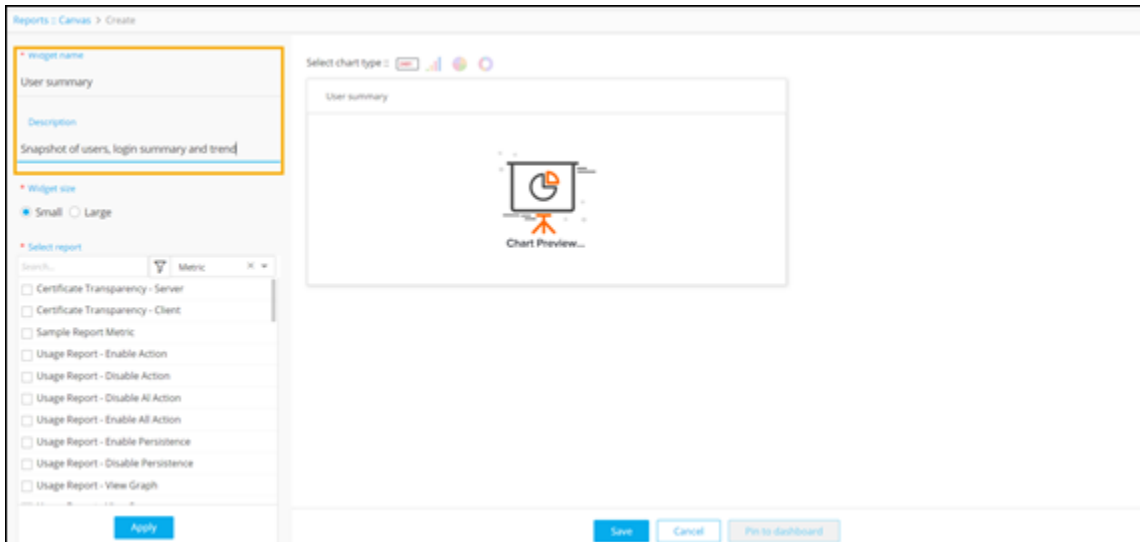
## How to Create a Widget

- [Creating a User Summary Widget](#)
- [Creating a Certificate Lifecycle Management Widget](#)

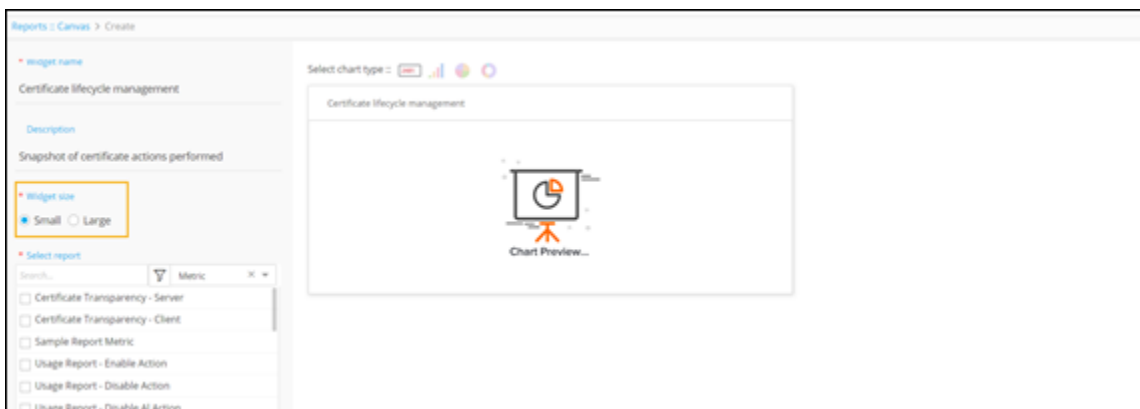
## Creating a User Summary Widget

To create a **User Summary** widget that displays the information on user groups, roles, and login summary:

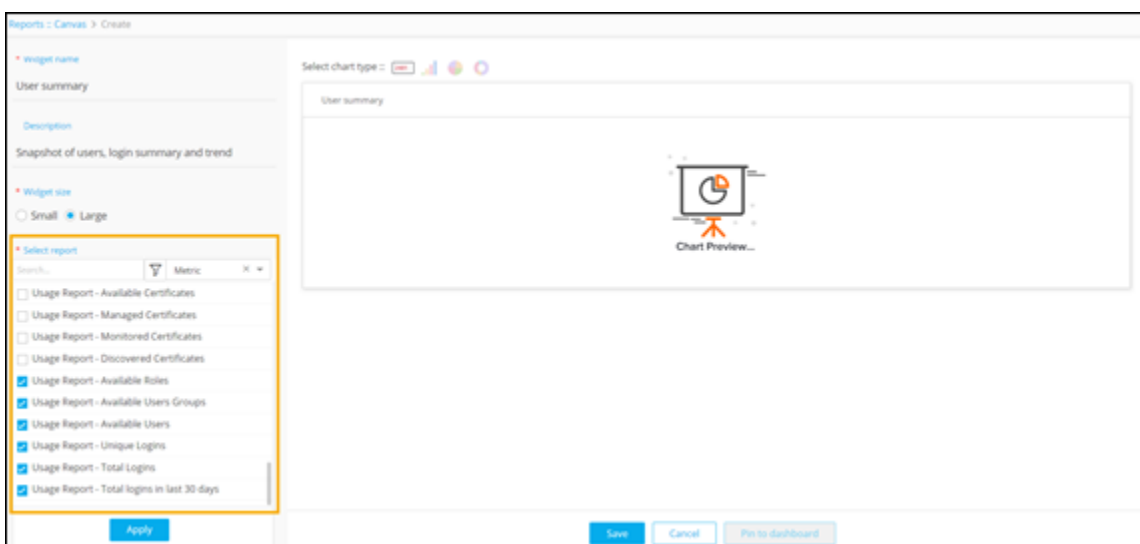
1. On the [Widget](#) page, click **Create new widget**.
2. On the **Reports::Canvas > Create** page, enter a suitable **Widget name** and **Description**.



3. Select the **Widget size**.



4. From the list of reports available as metrics, select the report(s) to be displayed on the widget.



- To get a preview of the widget, click **Apply**.
- Click **Save**.
- To change the status of the widget to **Enabled**, turn on the toggle.



The **User Summary** widget is displayed on the **Reports :: Canvas** page under **Widget**.

Widget name	Description	Location	Status
Widget_Testing		TestReportingDashboard.My_Reports	<input checked="" type="checkbox"/>
Automation Request Summary	Snapshot of Automation Request status and trend	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Certificate Lifecycle Management	Snapshot of Certificate actions performed	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Asset Inventory	Snapshot of all the device assets in the Inventory	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Certificate - Environment Snapshot	Snapshot of Certificates management, monitored	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Application Service Actions	Snapshot of application service actions performed	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Application Delivery - Environment Snapshot	Snapshot of application delivery	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
User Summary	Snapshot of the user, login summary and trend	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>

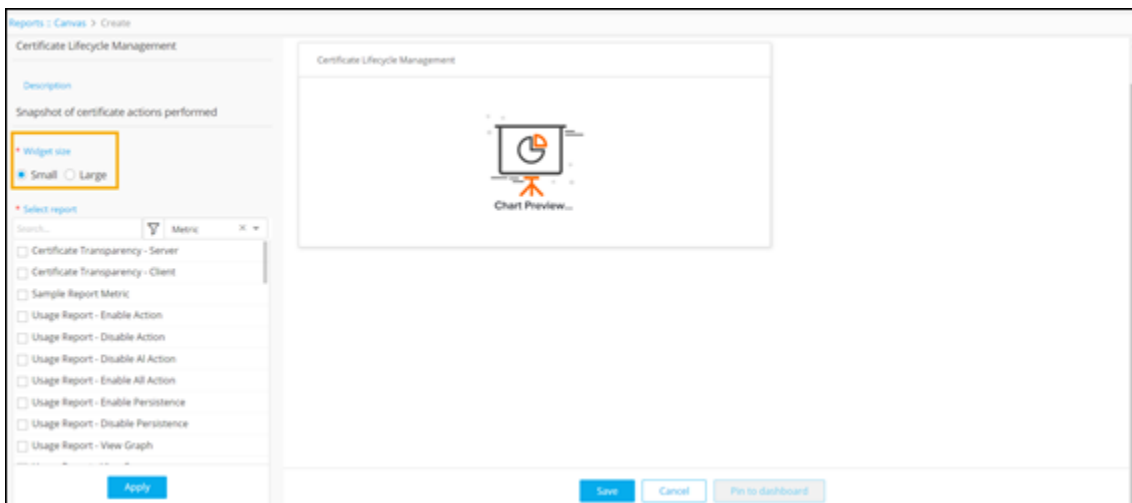
## Creating a Certificate Lifecycle Management Widget

To create a **Certificate Lifecycle Management** widget that displays a snapshot of certificate actions performed:

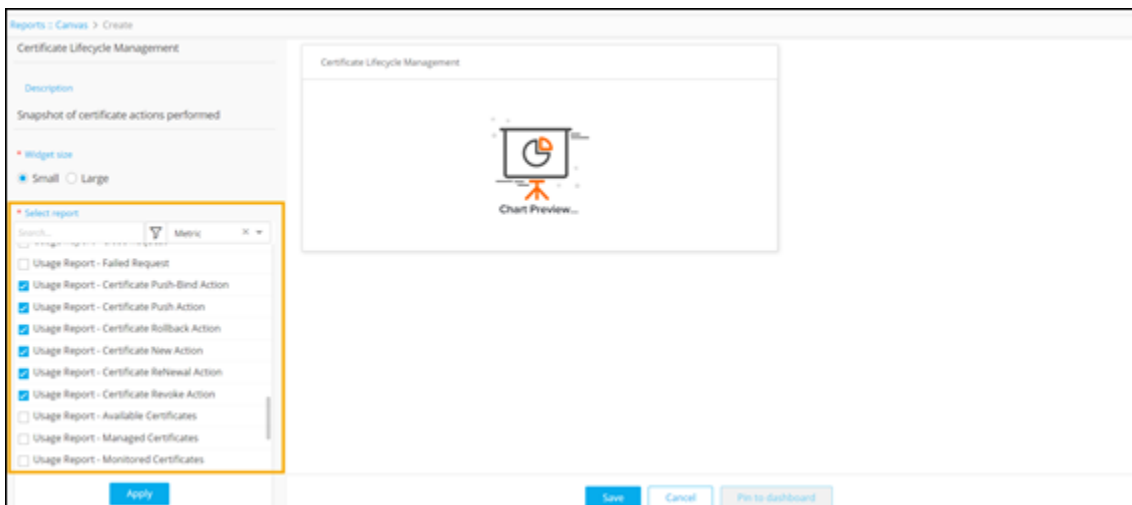
- On the **Widget** page, click **Create new widget**.
- On the **Reports::Canvas > Create** page, enter a suitable **Widget name** and **Description**.




3. Select the **Widget size**.

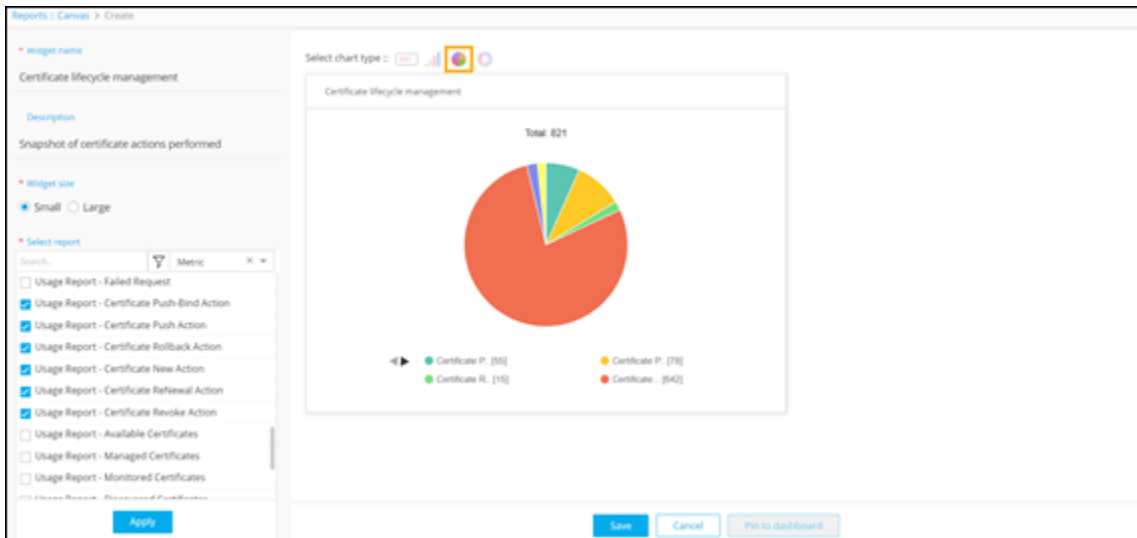


4. From the list of reports available as metrics, select the report(s) to be displayed on the widget.



5. To get a preview of the widget, click **Apply**.

6. To view this widget as a pie chart, click  .



Reports : Canvas > Create

Widget name: Certificate lifecycle management





Description: Snapshot of certificate actions performed

Widget size:  Small  Large

Select report: Search... Metric

- Usage Report - Failed Request
- Usage Report - Certificate Push-Bind Action
- Usage Report - Certificate Push Action
- Usage Report - Certificate Rollback Action
- Usage Report - Certificate New Action
- Usage Report - Certificate Renewal Action
- Usage Report - Certificate Revoke Action
- Usage Report - Available Certificates
- Usage Report - Managed Certificates
- Usage Report - Monitored Certificates

Apply Save Cancel Pin to dashboard

Select chart type:    

Certificate lifecycle management

Total: 821

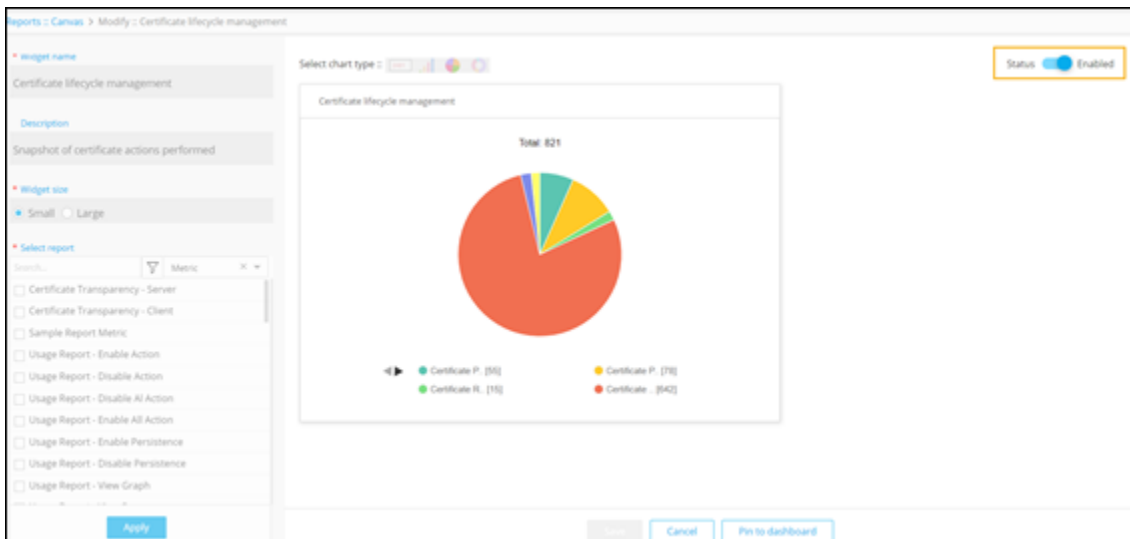
Legend: Certificate P. [38], Certificate P. [78], Certificate R. [15], Certificate . [42]



**Note:** You can choose between four chart types: metric, bar, pie, and donut.

7. To save this widget, click **Save**.

8. To change the status of the widget to **Enabled**, turn on the toggle.



Reports : Canvas > Modify : Certificate lifecycle management

Widget name: Certificate lifecycle management





Description: Snapshot of certificate actions performed

Widget size:  Small  Large

Select report: Search... Metric

- Certificate Transparency - Server
- Certificate Transparency - Client
- Sample Report Metric
- Usage Report - Enable Action
- Usage Report - Disable Action
- Usage Report - Disable All Action
- Usage Report - Enable All Action
- Usage Report - Enable Persistence
- Usage Report - Disable Persistence
- Usage Report - View Graph

Apply Save Cancel Pin to dashboard

Select chart type:    

Certificate lifecycle management

Total: 821

Legend: Certificate P. [38], Certificate P. [78], Certificate R. [15], Certificate . [42]

Status:  Enabled

The **Certificate Lifecycle Management** widget is displayed on the **Reports :: Canvas** page under **Widget**.

Widget name	Description	Location	Status
Widget_Testing		TeeReportingDashboard,My_Reports	<input checked="" type="checkbox"/>
User Summary	Snapshot of the user, login summary and trend	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Certificate Lifecycle Management	Snapshot of Certificate actions performed	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Certificate - Environment Snapshot	Snapshot of Certificates management, monitored	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Automation Request Summary	Snapshot of Automation Request status and trend	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Asset Inventory	Snapshot of all the device assets in the Inventory	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Application Service Actions	Snapshot of application service actions performed	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>
Application Delivery - Environment Snapshot	Snapshot of application delivery	Usage_And_Adoption_Metrics	<input checked="" type="checkbox"/>

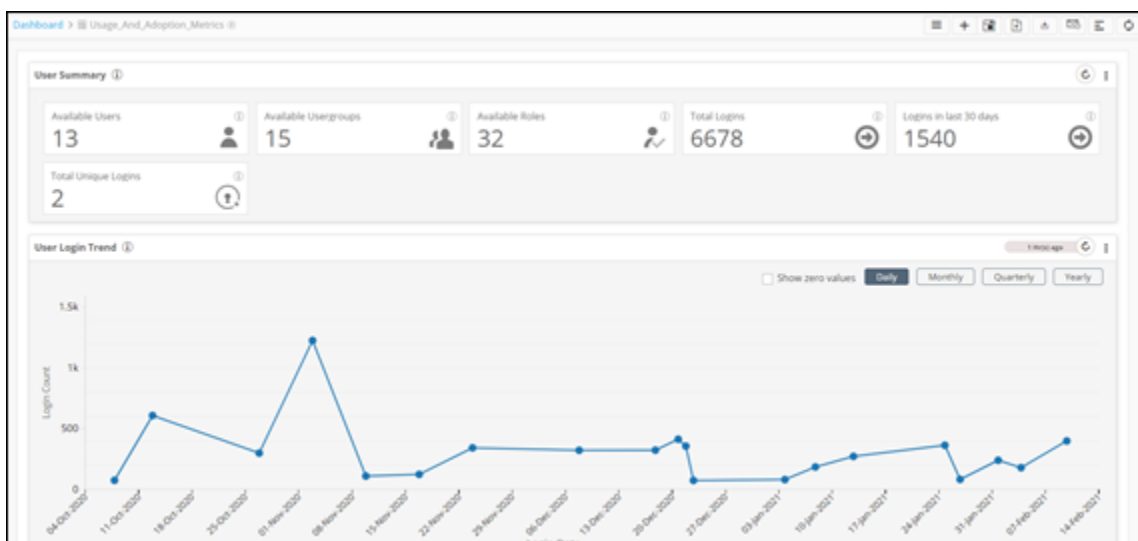
## How to Download Report Widgets

Report widgets can also be downloaded to your device as a PDF or CSV file.


To download the widget as PDF:

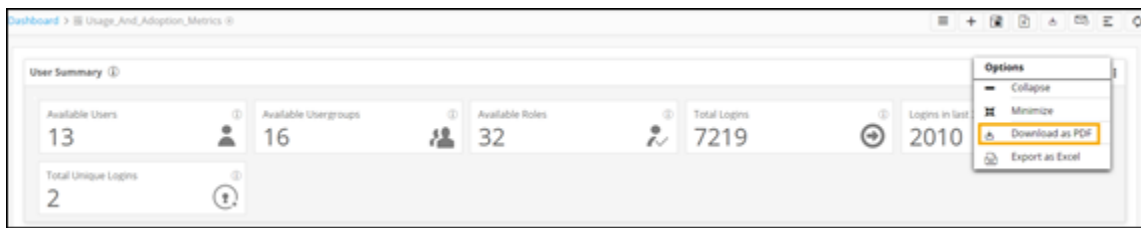
1. From the **Dashboard** inventory, select the **Usage\_And\_Adoption\_Metrics** dashboard.

This dashboard displays all the widgets pinned to this dashboard.



**Note:** For more information on how to search a dashboard, click [here](#).

- To see all available options, from the top right corner of the widget, click .
- To download the widget as a PDF file to your device, select **Download as PDF**.



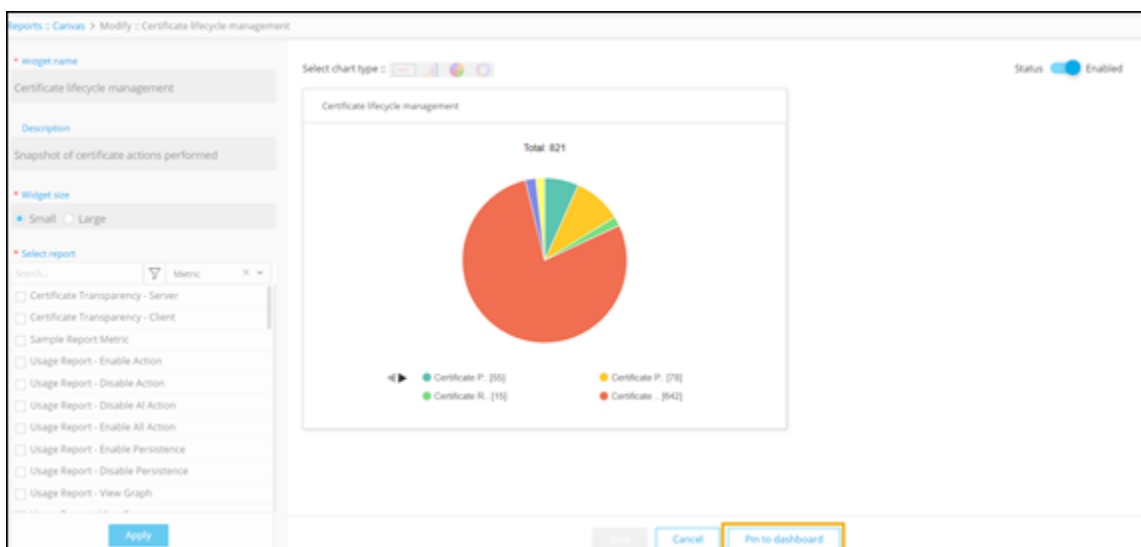
The widget is downloaded to your machine as a PDF file.

## How to Pin a Widget to a Dashboard

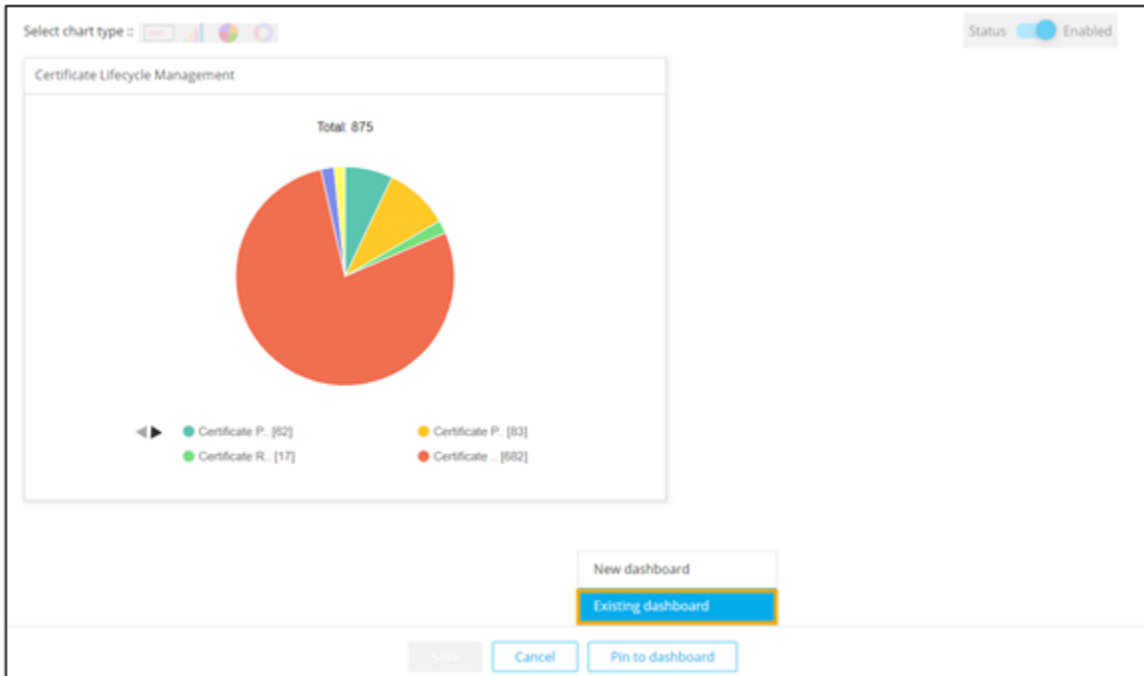
Once a widget has been created and saved, it can be pinned to a dashboard.

To pin a widget to a dashboard:

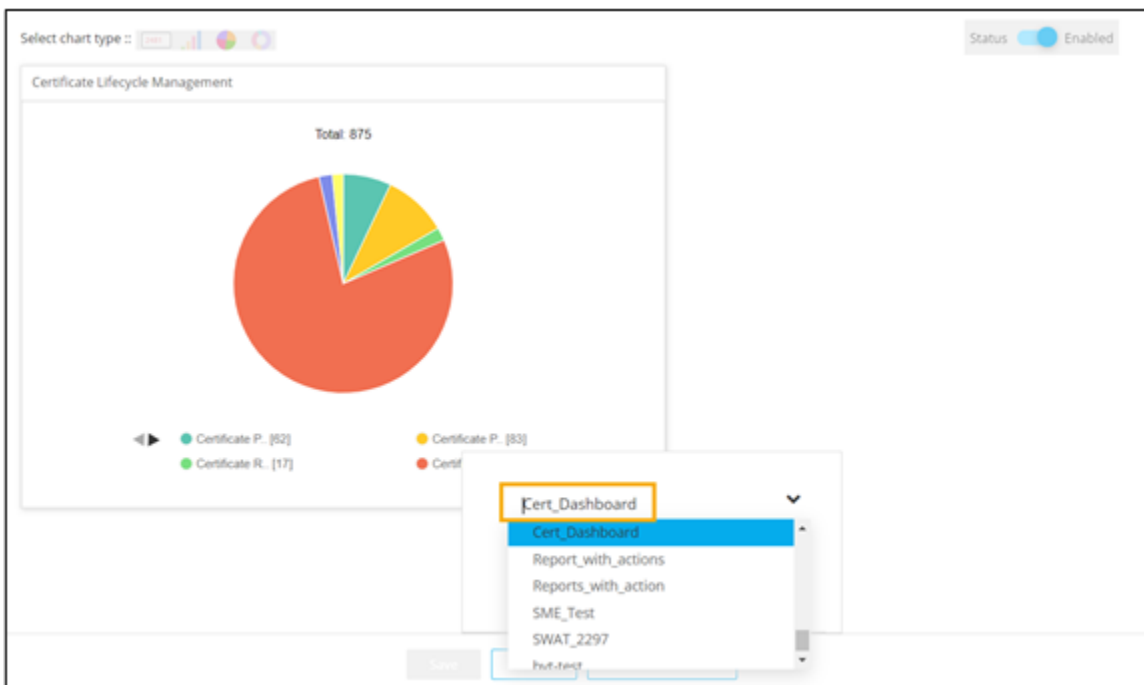
- On the [Report :: Canvas](#) page, click on the widget to be pinned.
- Click **Pin to dashboard**.



- To pin the widget to an existing dashboard, click **Existing dashboard**.



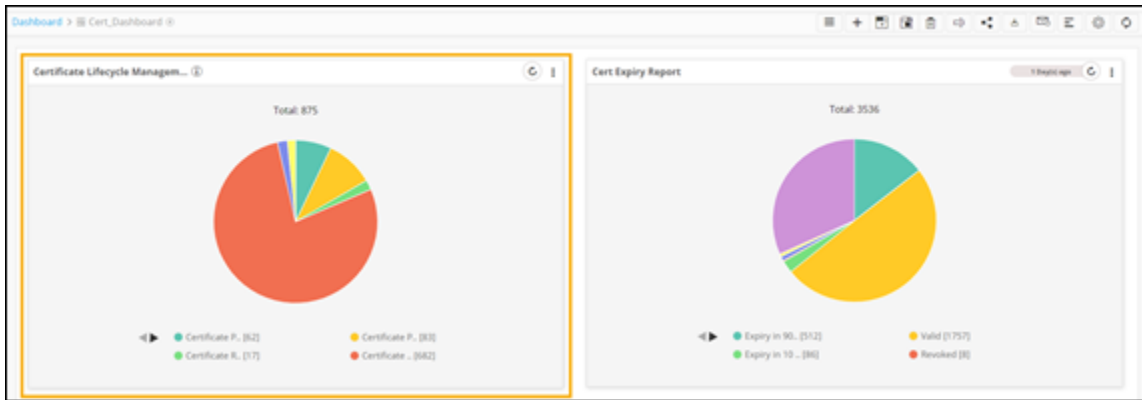
4. From the list of dashboards in the dropdown menu, select a dashboard.



5. To pin this widget to the selected dashboard, click **Save**.

6. On the **Dashboard Inventory** page, click on the required dashboard name.

The widget is displayed on the dashboard.



# Chapter 12: Downloading Reports

- [Overview](#)
- [How to Download a Report in the PDF Format](#)
- [How to Download a Report in the CSV Format](#)
- [How to Download a Report as an Excel sheet](#)

## Overview

Once a report has been generated and pinned to a dashboard it can be downloaded in multiple formats (.pdf, .csv, .xls).

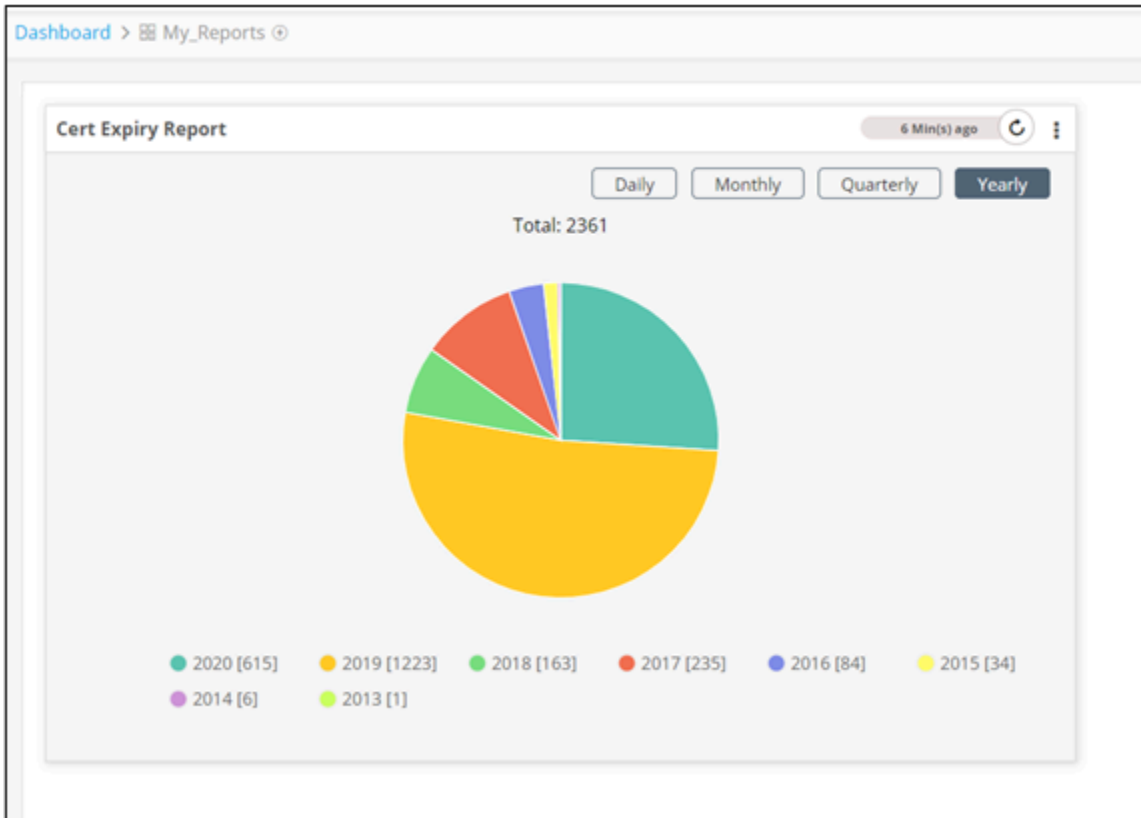
## How to Download a Report in the PDF Format

1. From the **Dashboard** inventory page, select the dashboard on which the report that you wish to download has been pinned.

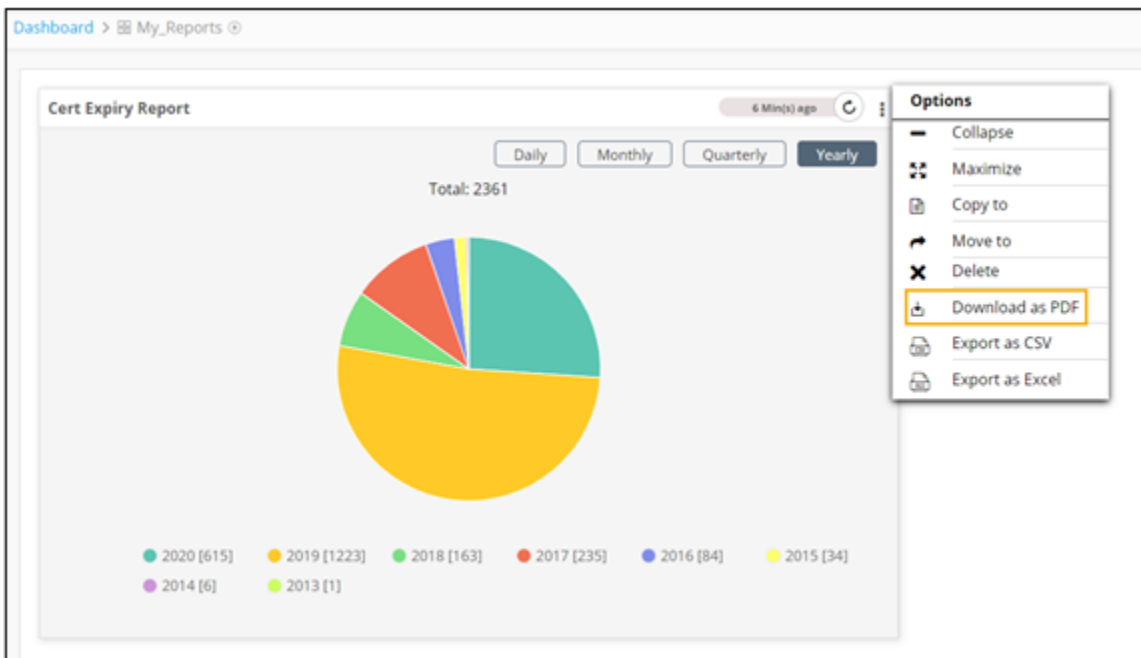


**Note:** For more information on how to search for a dashboard in the inventory, click [here](#).

The pinned report can be seen on the dashboard.



2. To download the report to your device as a PDF file, from the top right corner of the report, click .
3. From the **Options** dropdown menu, select **Download as PDF**.



The report will be downloaded to your machine as a PDF file.



**Note:** In the case of **Grid** reports, the PDF download only supports up to 1000 rows.

## How to Download a Report in the CSV Format

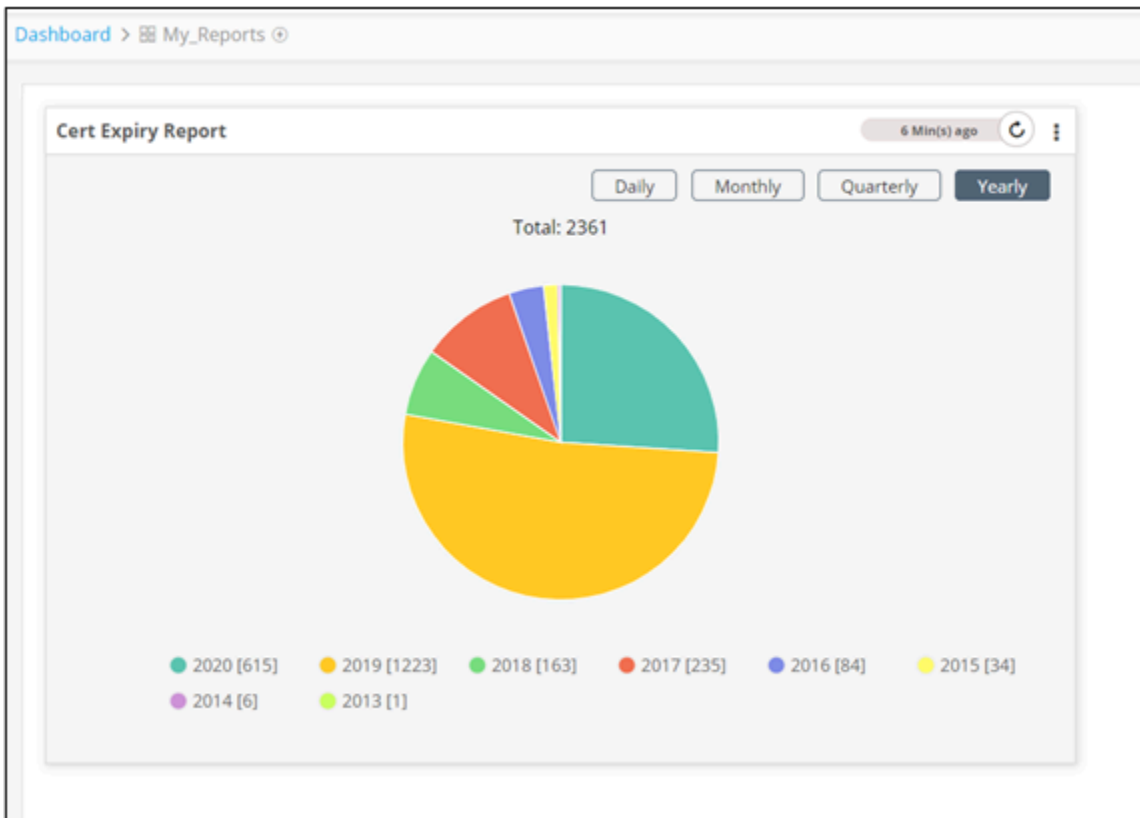
1. From the **Dashboard** inventory page, select the dashboard on which the report that you wish to download has been pinned.

Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
mydashboard	RW	Application view, Class management		
My Reports	RW	Reports		

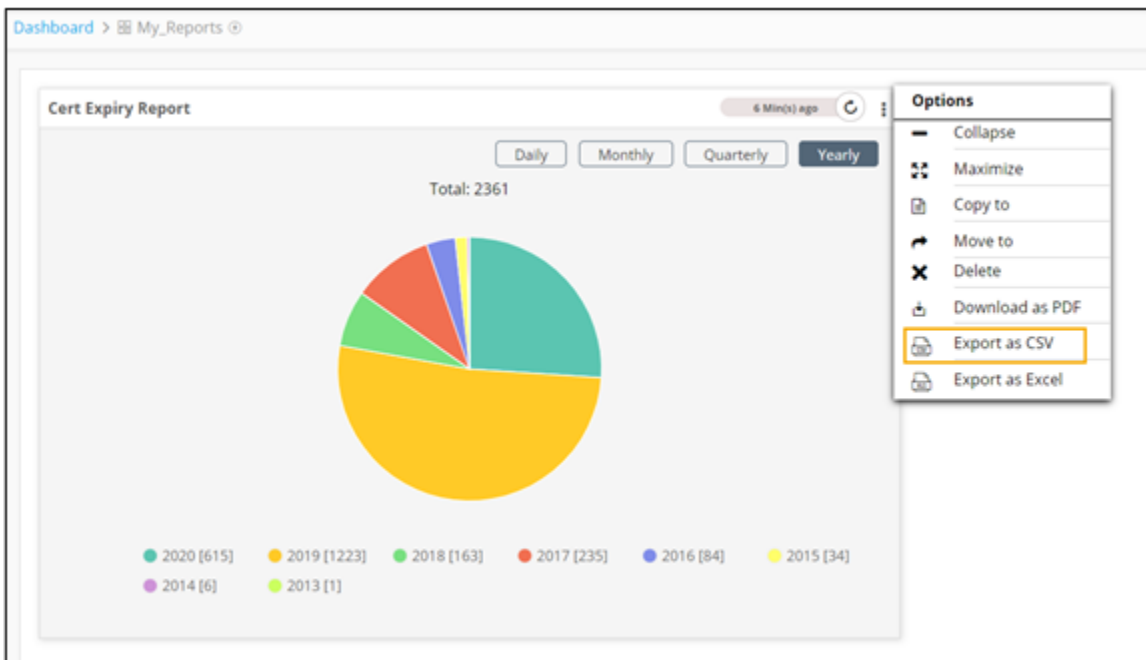


**Note:** For more information on how to search for a dashboard in the inventory, click [here](#).

The pinned report can be seen on the dashboard.



2. To download the report to your device as a PDF file, from the top right corner of the report, click .
3. From the **Options** dropdown menu, select **Export as CSV**.



The report will be downloaded to your machine as a .csv file.



**Note:** In the case of **Grid** reports, the .csv file only supports up to 1,00,000 rows.

## How to Download a Report as an Excel sheet

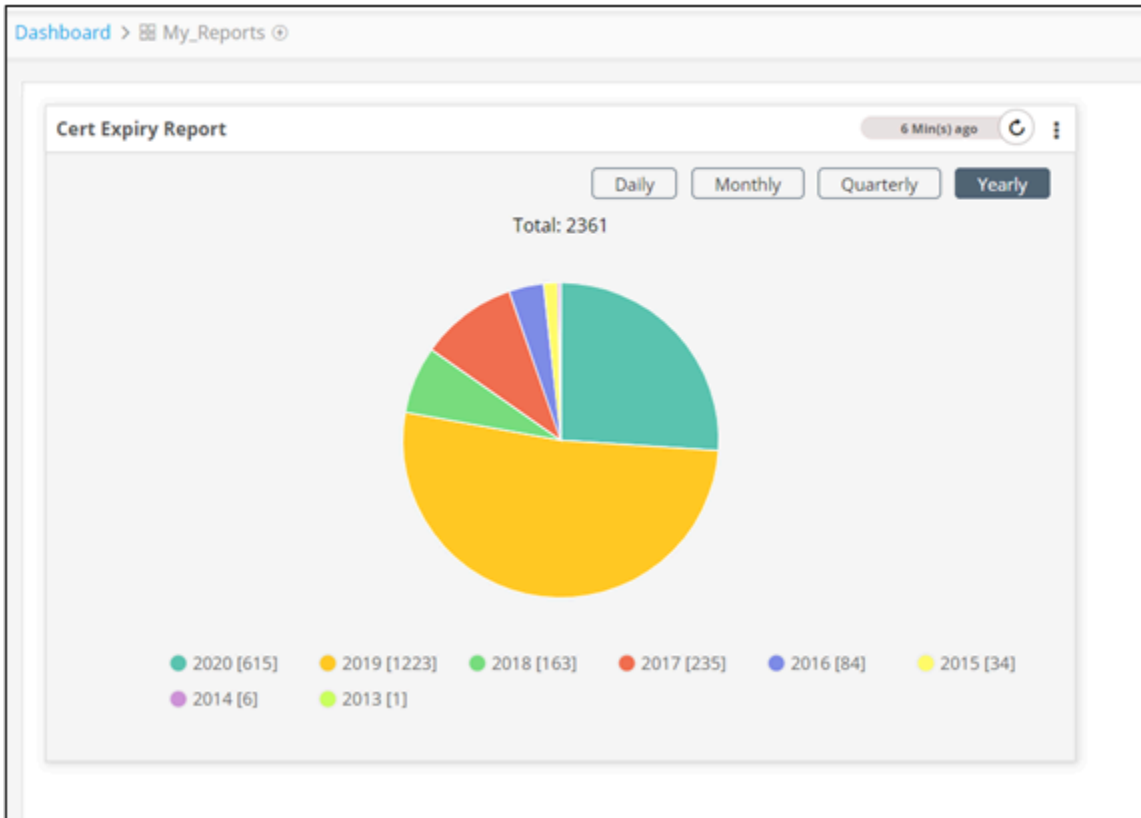
1. From the **Dashboard** inventory page, select the dashboard on which the report that you wish to download has been pinned.

Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
myDashboard	RW	Application view, Class management		
My Reports	RW	Reports		

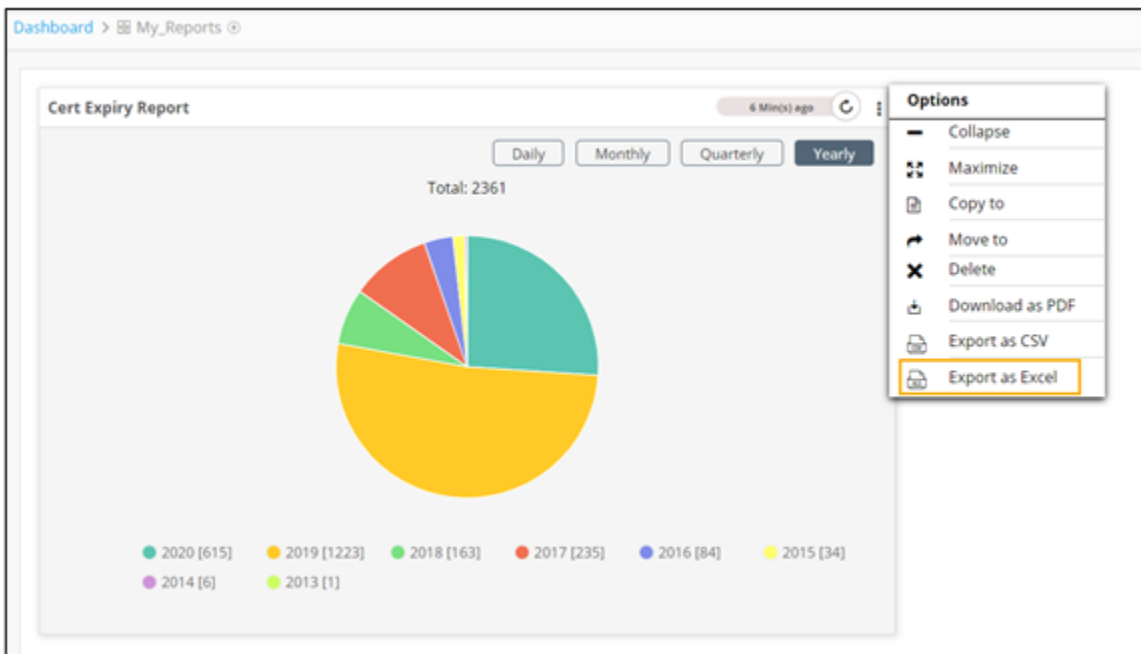


**Note:** For more information on how to search for a dashboard in the inventory, click [here](#).

The pinned report can be seen on the dashboard.



2. To download the report to your device as a PDF file, from the top right corner of the report, click
3. From the **Options** dropdown menu, select **Export as Excel**.



The report will be downloaded to your machine as a .xls file.



**Note:** In the case of **Grid** reports, the .xls file only supports up to 1,00,000 rows.

# Chapter 13: Performing Actions on Reports

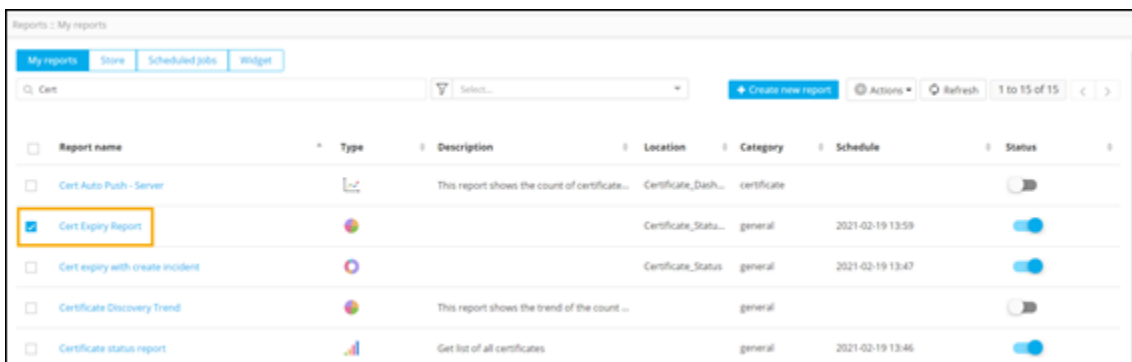
- [How to Pin Reports](#)
- [How to Clone Reports](#)
- [How to Share Reports](#)
- [How to Delete Reports](#)

## How to Pin Reports

You can pin reports to a dashboard from the **My Reports** page. A maximum of 20 reports can be pinned to a dashboard. Pinning a report to the dashboard allows you to visualize different reports in the same place.

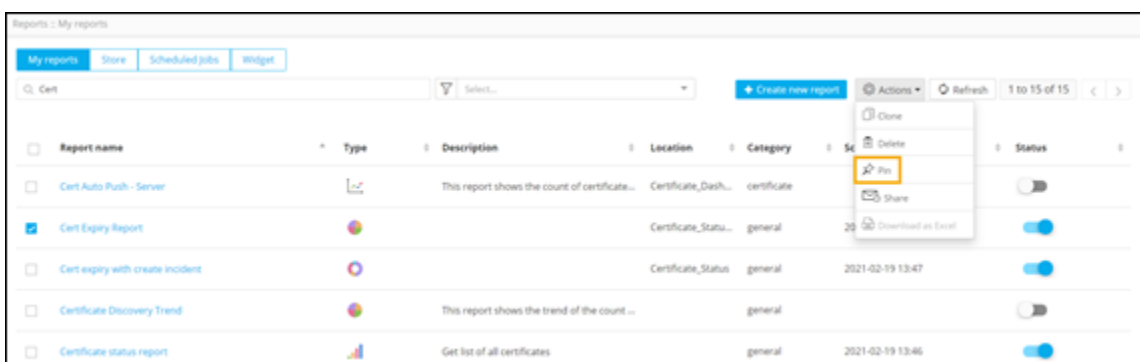
To pin a report to dashboard:

1. On the **Reports: My reports** page, under **My reports**, select the report to be pinned.

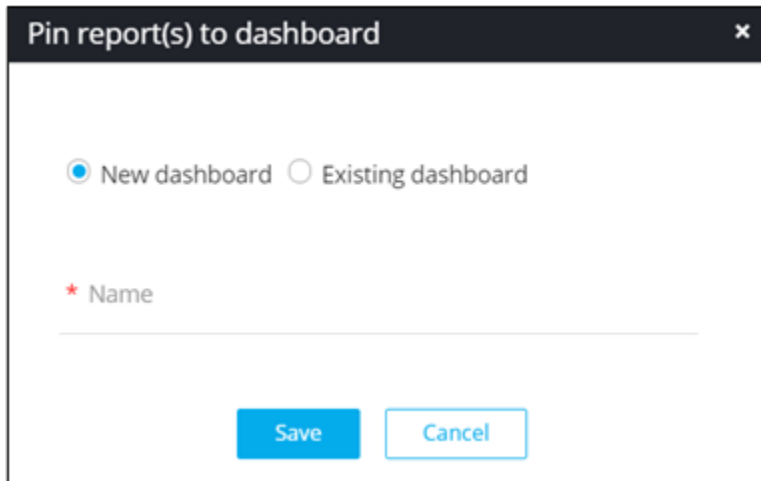


2. To see the list of available actions, click **Actions**.

3. From the list of available actions, select **Pin**.



4. In the **Pin report(s) to dashboard** window, select if the report is to be pinned to a new or existing dashboard.



Pin report(s) to dashboard

New dashboard  Existing dashboard

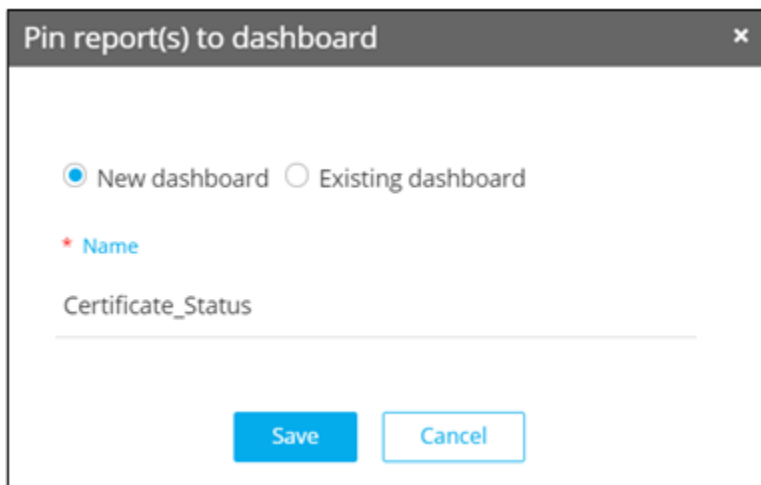
\* Name

Save Cancel

- [How to Pin a Report to a New Dashboard](#)
- [How to Pin a report to an Existing dashboard](#)

## How to Pin a Report to a New Dashboard

1. In the **Pin report(s) to dashboard** window, select the **New dashboard** option.
2. Enter a name for the dashboard.



Pin report(s) to dashboard

New dashboard  Existing dashboard

\* Name

Certificate\_Status

Save Cancel

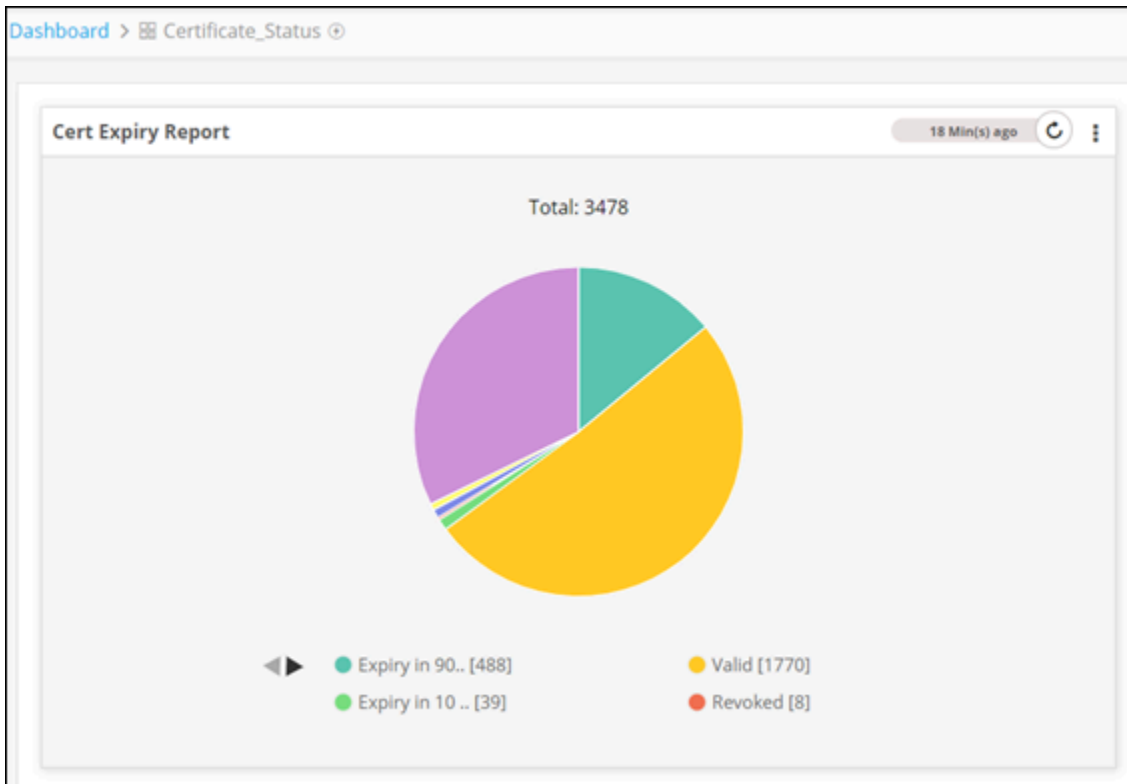
3. To pin the report to the new dashboard, click **Save**.  
The new dashboard is listed on the **Dashboard Inventory** page.

Dashboard

Search: cert

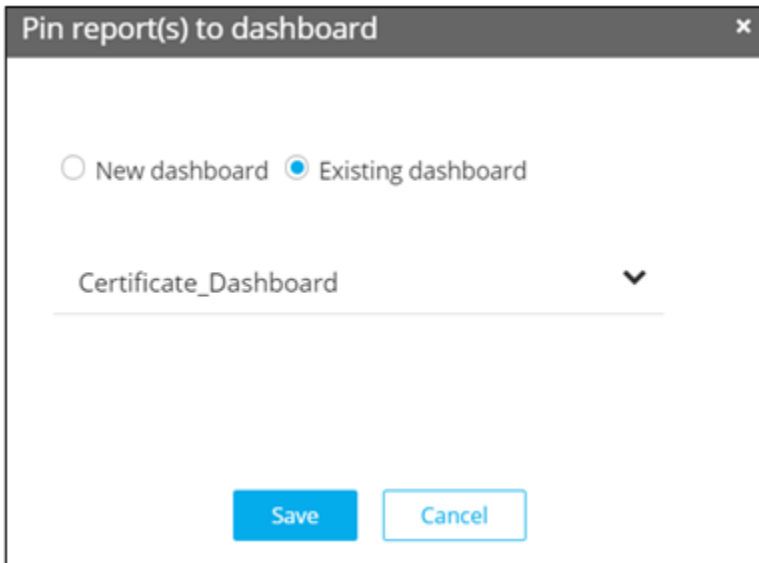
Dashboard name	Permission type	Widget types available	Shared as R	Shared as RW
ServerCertificate	RW	Report by Certificate Authority - Server,		admin usergroup, UG1, null, ExternalUser, ...
ClientCertificate	RW	Report by Certificate Authority - Client,		admin usergroup, UG1, null, ExternalUser, ...
CodeSigningCertificate	RW	Report By Certificate Authority - CodeSigning		admin usergroup, UG1, null, ExternalUser, ...
Certificate_Status	RW	Reports		
Client_Certificate_Security	RW	Reports		admin usergroup, UG1, null, ExternalUser, ...
Server_Certificate_Security	RW	Reports		admin usergroup, UG1, null, ExternalUser, ...
Trust_Store_Certificates	RW	Reports		admin usergroup, UG1, null, ExternalUser, ...

4. To view the pinned report, click on the dashboard name.



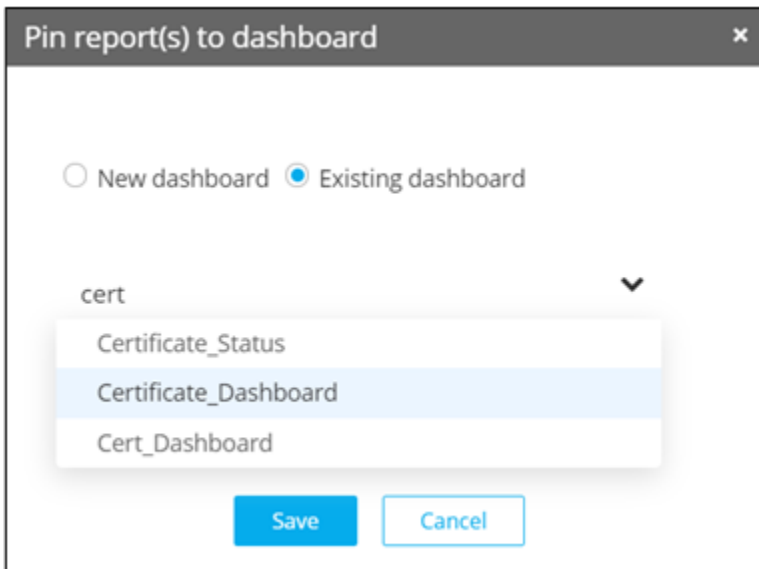
## How to Pin a report to an Existing dashboard

1. In the **Pin report(s) to dashboard** window, select the **Existing Dashboard** option.



The screenshot shows a dialog box titled "Pin report(s) to dashboard" with a close button (x) in the top right corner. Inside the dialog, there are two radio buttons: "New dashboard" (unselected) and "Existing dashboard" (selected). Below the radio buttons is a dropdown menu with the text "Certificate\_Dashboard" and a downward arrow. At the bottom of the dialog, there are two buttons: "Save" (highlighted in blue) and "Cancel".

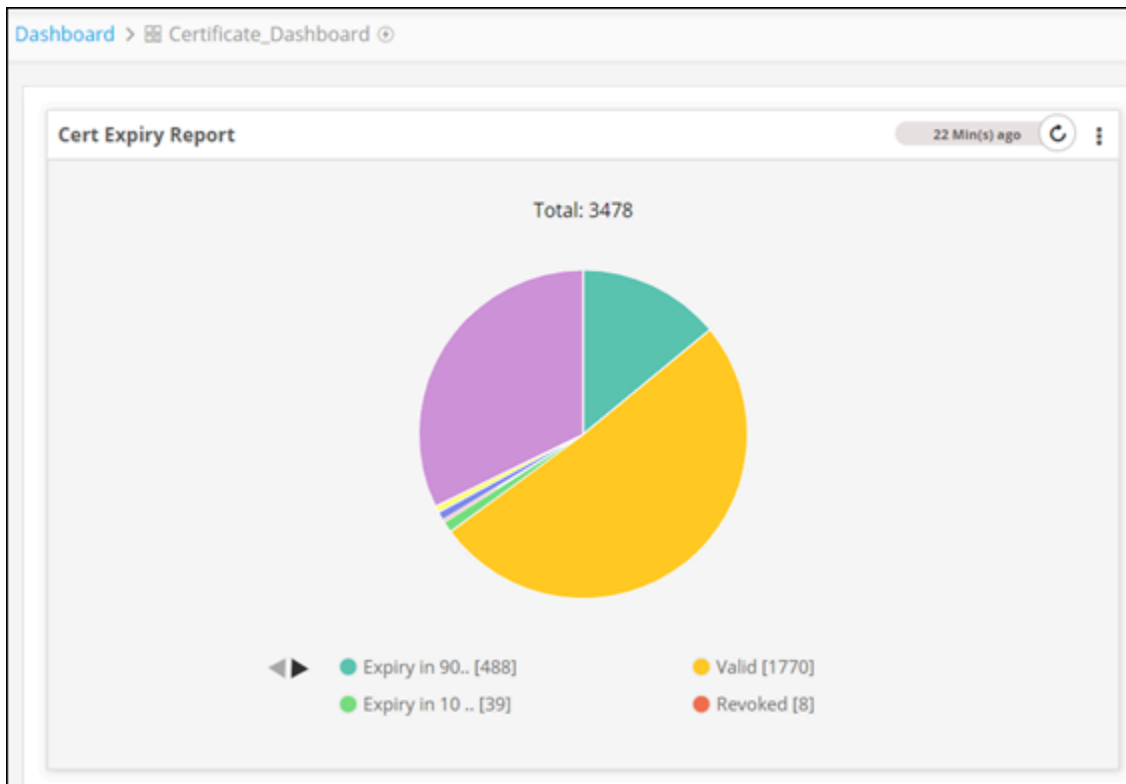
2. Select the dashboard from the dropdown menu.



The screenshot shows the same dialog box as above, but the dropdown menu is open. The text "cert" is visible above the dropdown list. The list contains three items: "Certificate\_Status", "Certificate\_Dashboard" (which is highlighted with a blue background), and "Cert\_Dashboard". The "Save" and "Cancel" buttons are still visible at the bottom.

3. To pin the report to the selected dashboard, click **Save**.

The report is displayed on the selected dashboard.

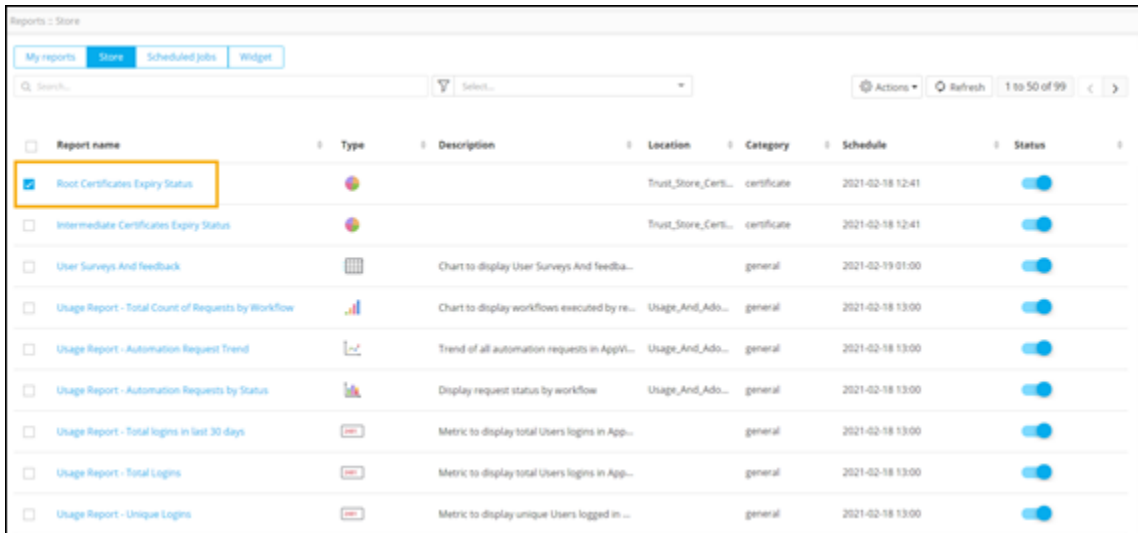


## How to Clone Reports

AppViewX's report builder allows you to clone a report. You can clone a report to make modifications, display additional data, and create additional levels of drilldown if not available in the previous report. Instead of creating a second report from scratch, you can clone an existing report and make the necessary changes.

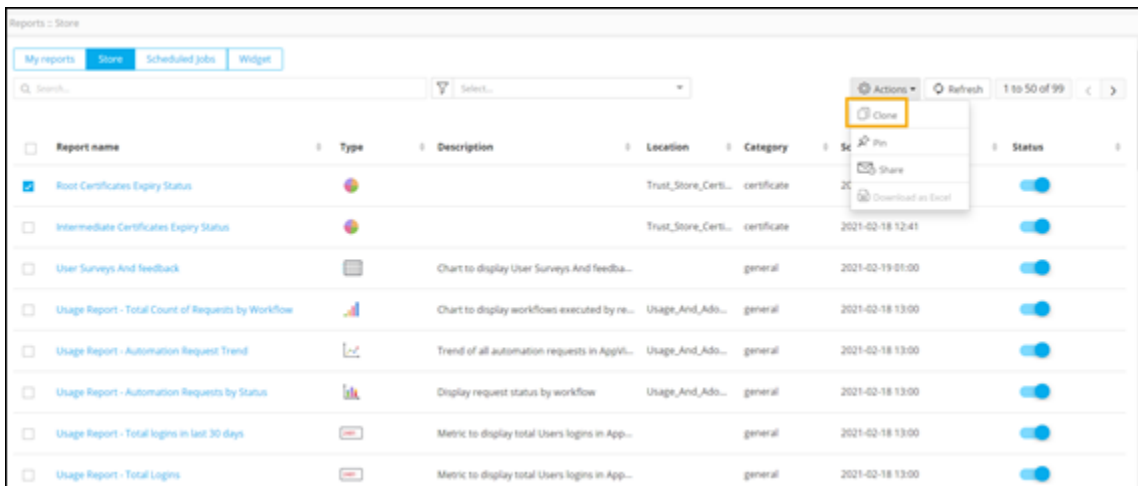
To clone a report:

1. From the **Reports :: Store** page, select the report to be cloned.

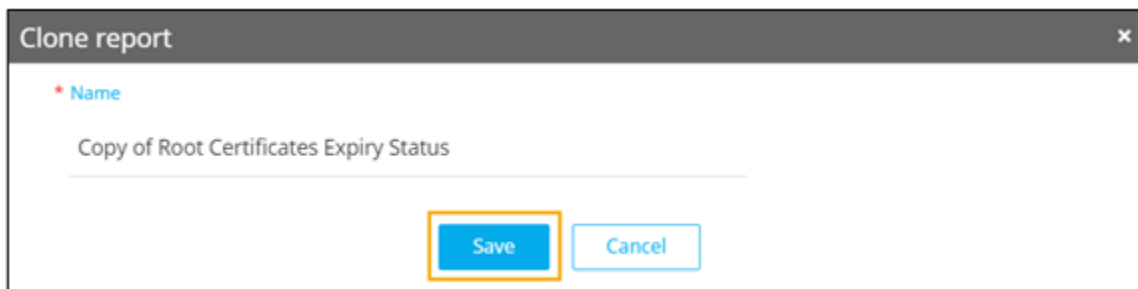


2. To see the list of available actions, click **Actions**.

3. From the list of available actions, select **Clone**.



4. In the **Clone report** pop-up window, change the name of the report (if required) and click **Save**.



The cloned report is displayed on the **Reports :: My reports** page.

Report name	Type	Description	Location	Category	Schedule	Status
ADC Backup Status - Today			ADC_Backup_Re...	general	2021-02-18 11:18	<input checked="" type="checkbox"/>
ADC OverAll Backup Status			ADC_Backup_Re...	general	2021-02-18 11:27	<input checked="" type="checkbox"/>
Backup				general		<input type="checkbox"/>
Cert Expiry Report			My_Reports	general		<input type="checkbox"/>
Cert expiry with create incident				general		<input type="checkbox"/>
Certificate Discovery Trend		This report shows the trend of the count ...		certificate		<input type="checkbox"/>
Copy of Root Certificates Expiry Status				certificate		<input type="checkbox"/>

## How to Share Reports

Once a report is generated, it can be emailed either as inline content or as a PDF attachment to other users or user groups.



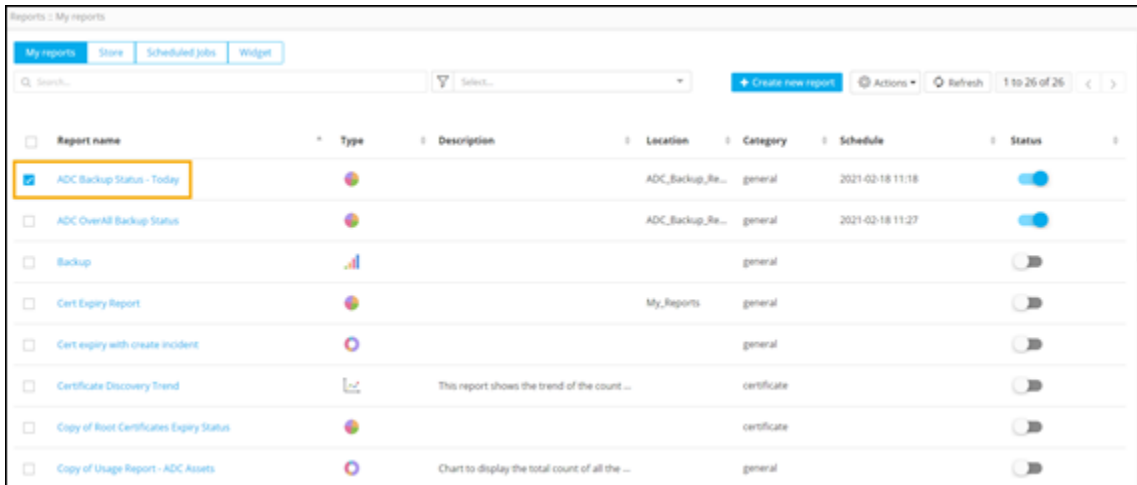
**Note:** For more information on sharing reports, click [here](#).

## How to Delete Reports

AppViewX's report builder also allows you to delete reports.

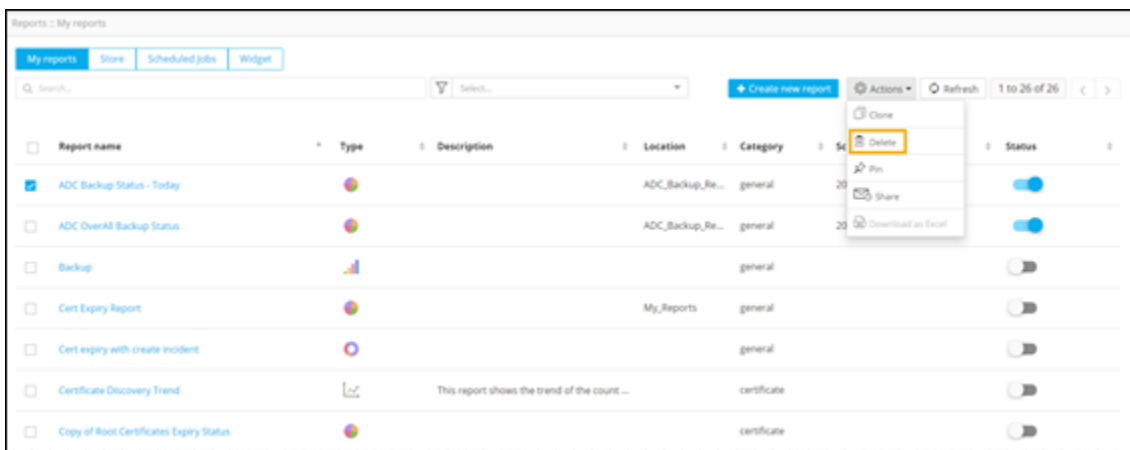
To delete a report:

1. On the **Reports :: My Reports** page, select the report to be deleted.



2. To see the list of available actions, click **Actions**.

3. From the list of available actions, select **Delete**.




4. To delete the selected report, click **Yes** in the **Confirm delete** pop-up window.

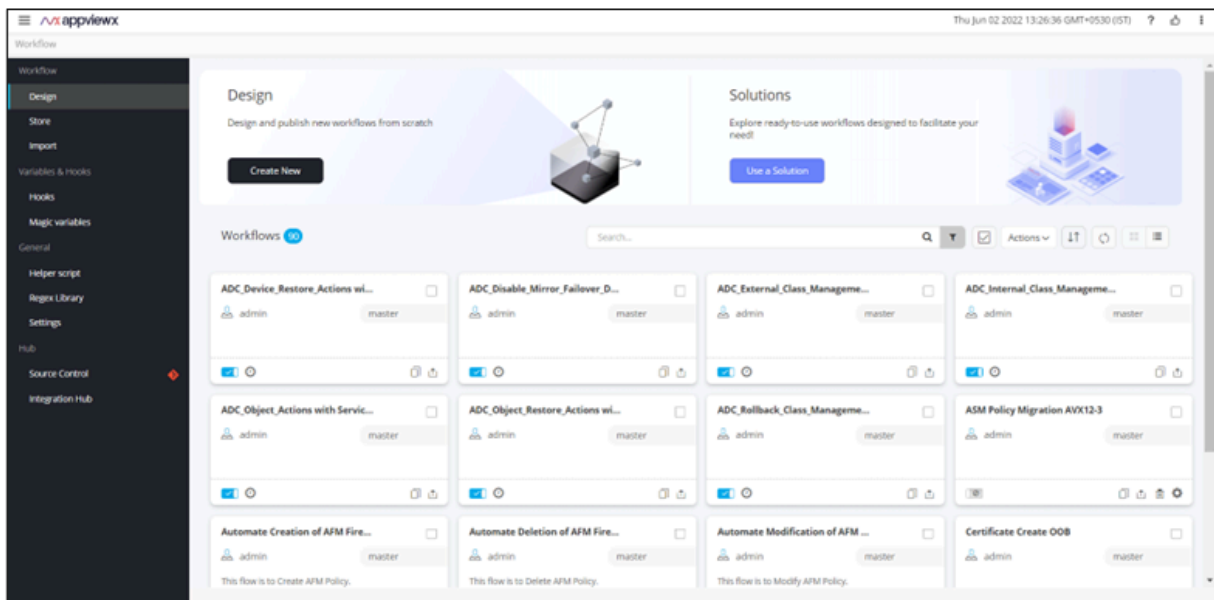
# Chapter 14: BYOR with Actionable Workflow

You can build customized reports, pin them to the dashboard, and assign one or more closed loop workflows for quick actions. These workflows can be triggered at specific time intervals to gather data and integrate it into the reports. Assigning a workflow to your reports aids in elimination of redundant tasks, reduces processing time, improves efficiency, and gives greater visibility.

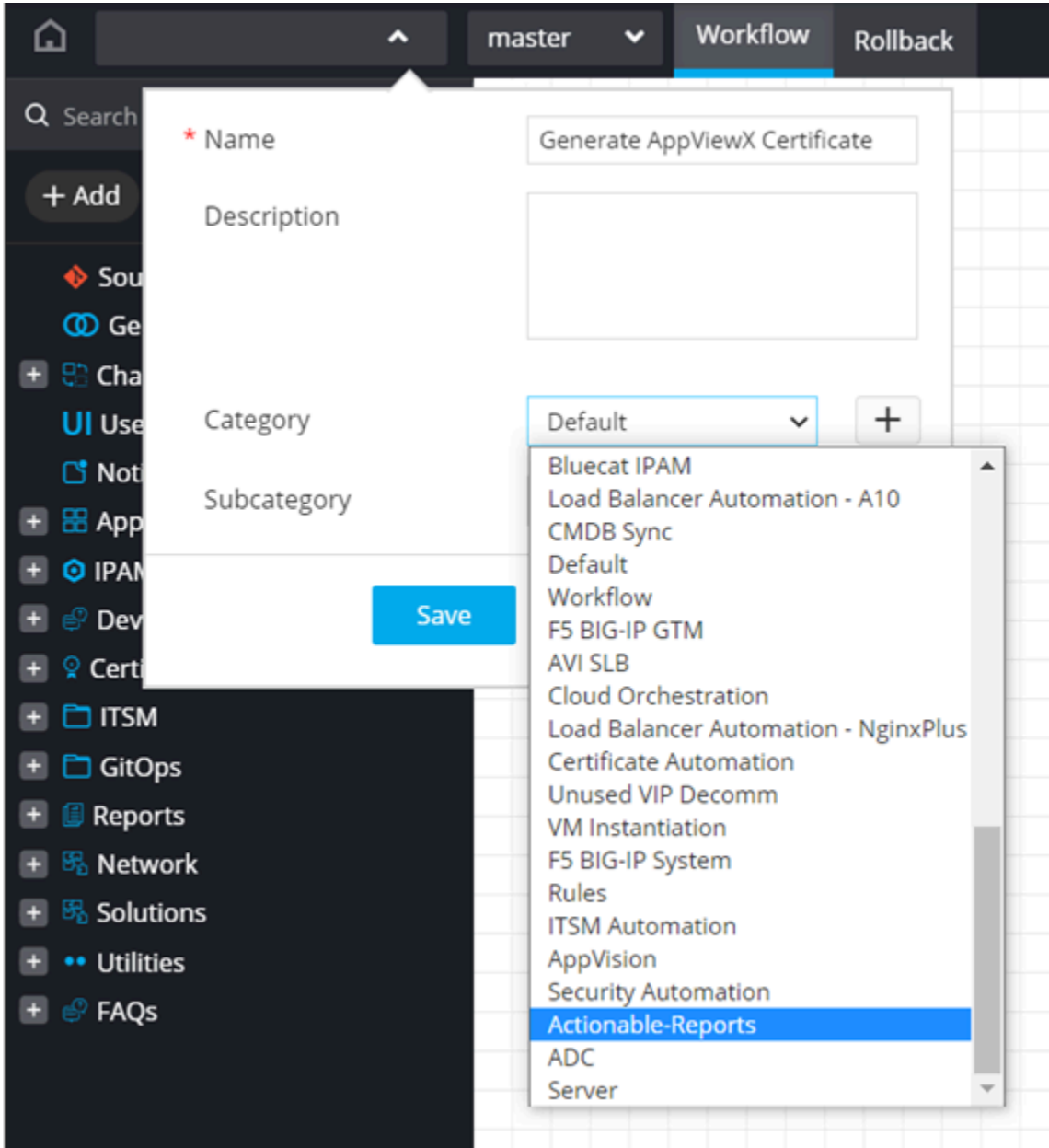
To assign an actionable workflow to your report:

1. From the top left corner of the screen, click .
2. From the menu displayed, select **Studio > Workflow**.

The **Workflow** inventory is displayed.



3. To create a new workflow, click **Create New**.
4. Enter or select the field information.

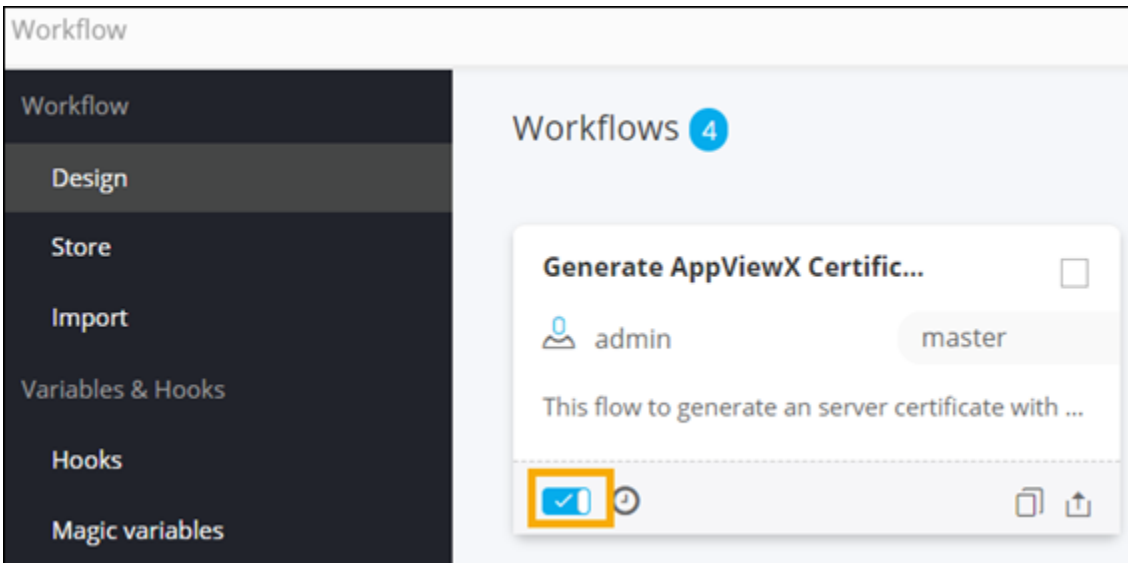


The following table describes the various fields in this section:

Field	Description
<b>*Name</b>	Enter a valid name for the workflow. For example: <b>Generate AppViewX Certificate</b> .
<b>Description</b>	Enter a description for the workflow.
<b>Category</b>	Select the category as <b>Actionable-Reports</b> from the dropdown list.
<b>Subcategory</b>	The subcategory is set to <b>default</b> .

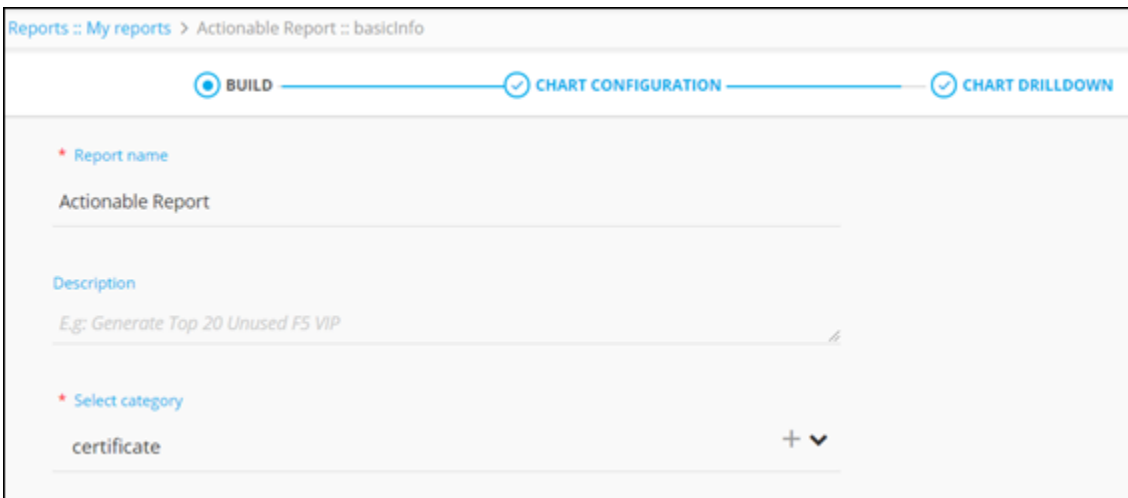
Field	Description
The asterisk (*) indicates mandatory fields.	

5. To enable the workflow, on the **Workflow** Inventory page, turn on the toggle.



6. On the [Reports :: My Reports](#) page, click **Create new report**.

7. Under the **BUILD** section, enter or select the field information.

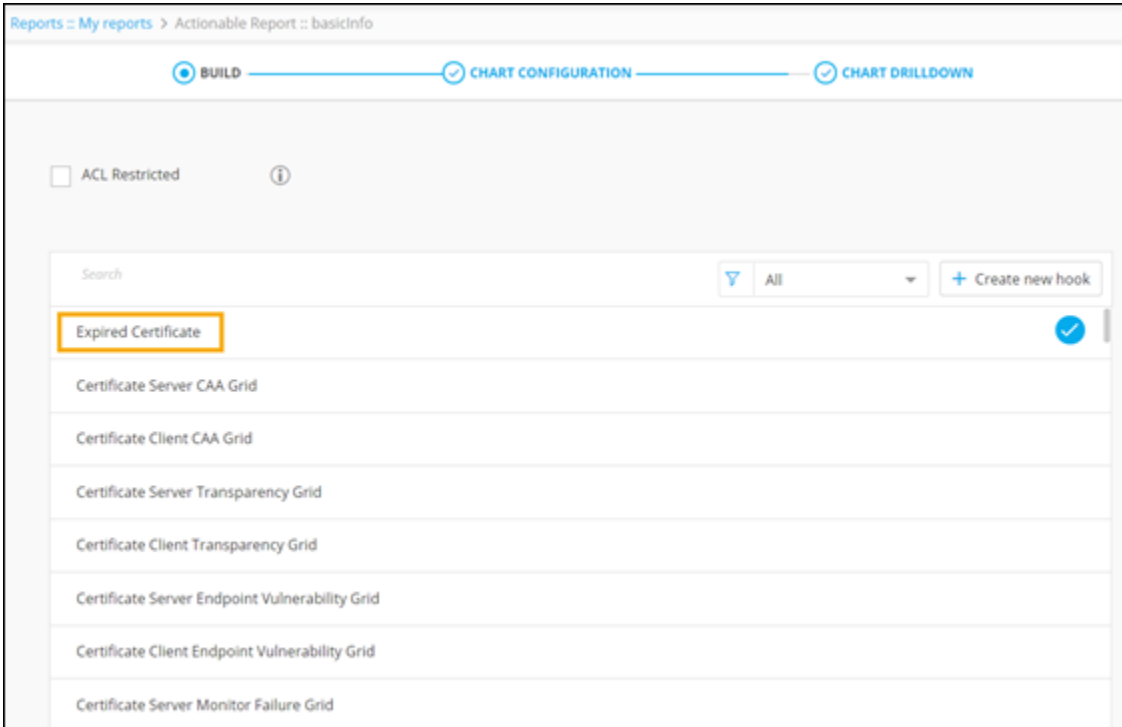


The following table describes the fields under this section:

Field	Description
<b>*Report name</b>	Enter a valid report name. For example: <b>Actionable Report</b> .
<b>Description</b>	Enter a description of the report.

Field	Description
*Select category	Select the category as <b>certificate</b> from the dropdown.
All asterisk (*) marked fields are mandatory.	

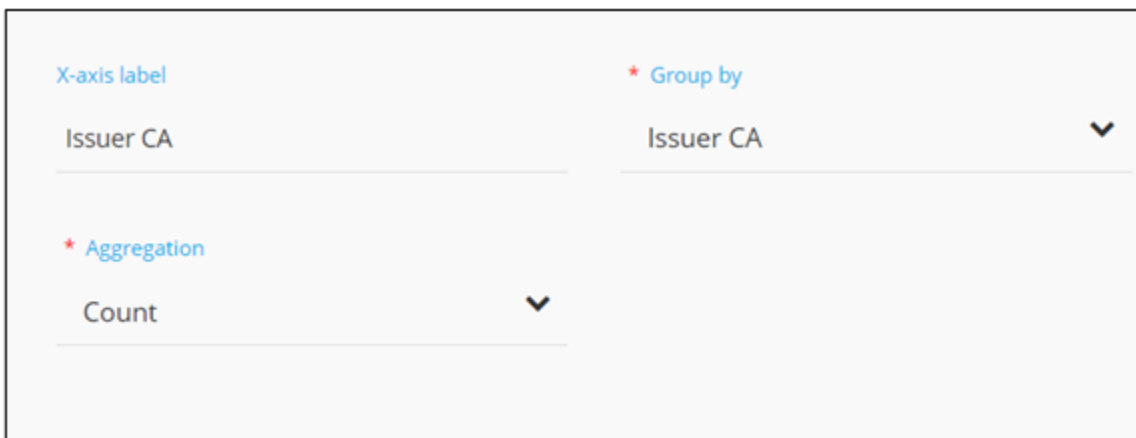
8. Select the hook from the list.



9. To save your selections, click **Next**.

10. Under the **CHART CONFIGURATION** section, select the chart type as **BAR**.

11. Select the field information for creating the chart.

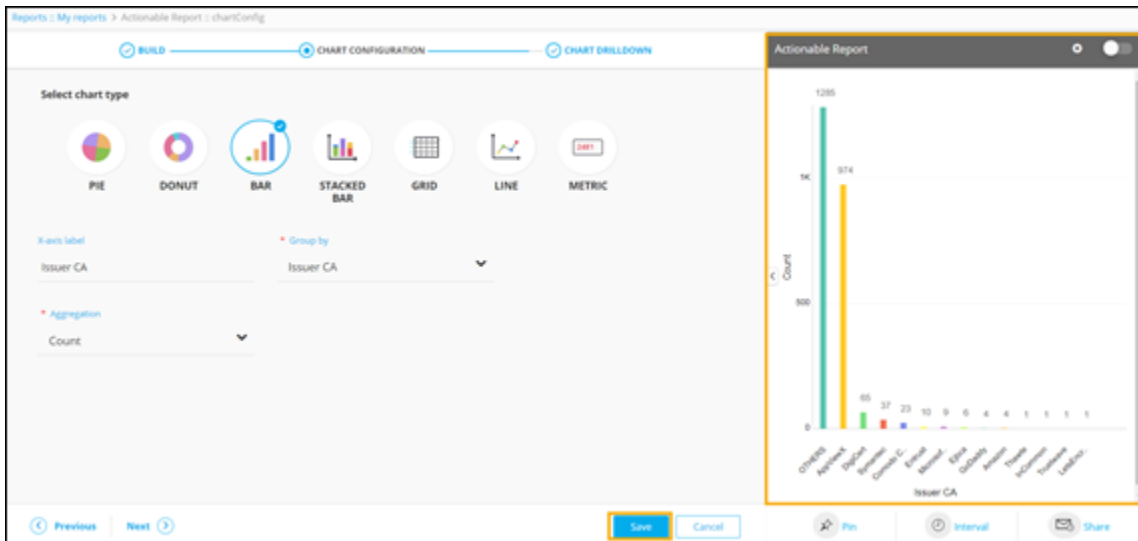


This table describes the field information in this section:

Field	Description
<b>X-axis label</b>	Enter the criteria for the X-axis label. For example: <b>Issuer CA</b> .
<b>*Group by</b>	Select a value from the dropdown list on the basis of which report data will be grouped. For example: <b>Issuer CA</b> .
<b>*Aggregation</b>	Select the calculation to be done on the report data for the dropdown. The following options are available: <ul style="list-style-type: none"> <li>• <b>Average</b>: Calculates the average value of a given set of data.</li> <li>• <b>Sum</b>: Calculates the sum of all values in a given set of data.</li> <li>• <b>Count</b>: Calculates the total number of items in a given numeric field.</li> <li>• <b>Maximum</b>: Displays the maximum value in a given set of data.</li> <li>• <b>Minimum</b>: Displays the minimum value in a given set of data.</li> </ul>
All asterisk (*) marked fields are mandatory.	

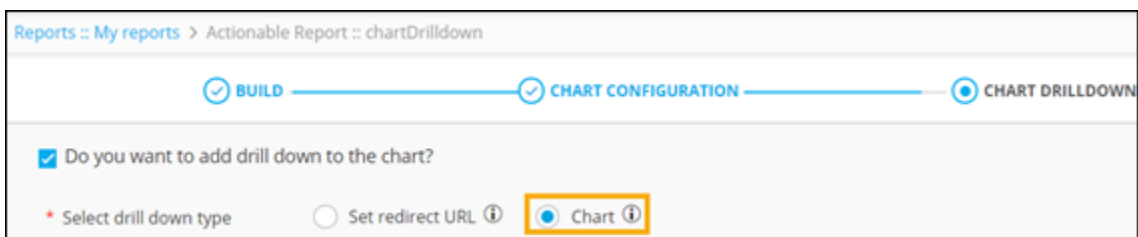
12. Click **Save**.

A preview of the chart is generated on the right side of the screen.



13. To add **Chart Drilldown**, click **Next**.

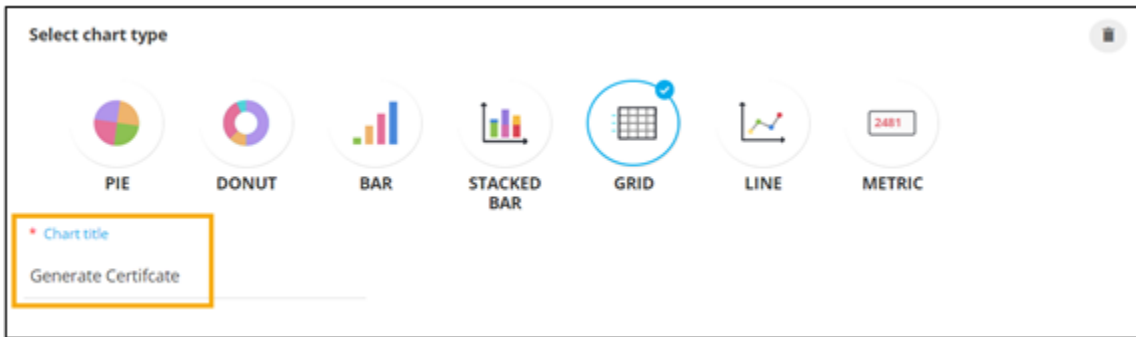
14. Select drilldown type as **Chart**.




15. Select the chart type as **GRID**.

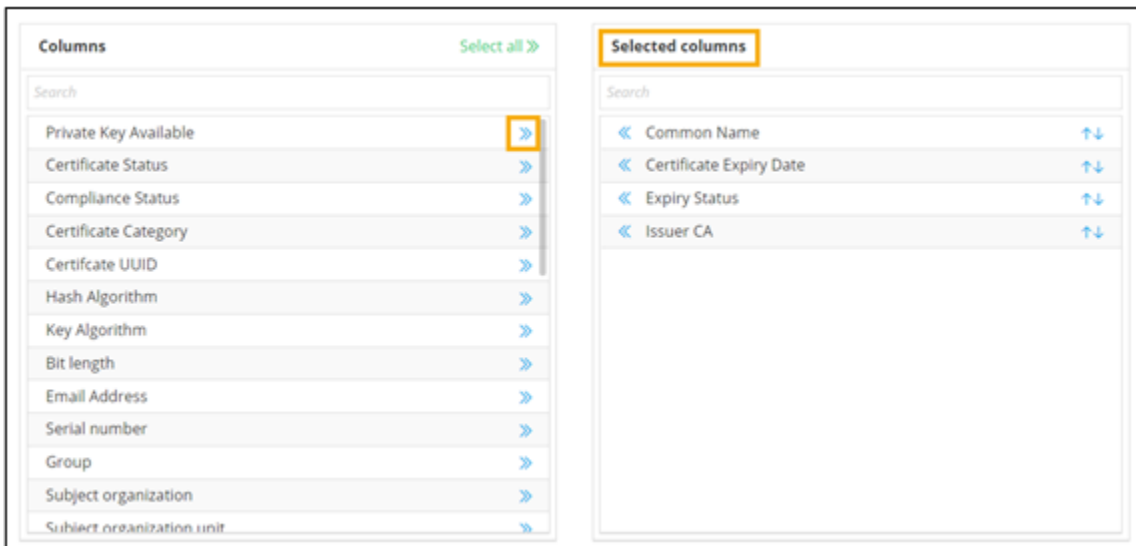


16. Enter the Chart **title** as **Generate Certificate**.



17. To select the column headers to be displayed within the grid, click  .

**Selected columns** are displayed on the right.



18. Enter or select the field information to associate a workflow with the report.

This table describes the field information in this section:

Field	Description
* <b>Action name</b>	Enter a valid action name. For example: <b>Generate Cert</b> .
* <b>Select a workflow</b>	Select the workflow that was created (Generate AppViewX Certificate) from the dropdown menu.
The asterisk (*) indicates mandatory fields.	

19. To enable the workflow, click **Save & Enable**.

20. To display the chart drilldown, click any of the bars in the graph.

21. Select the **Common Name** for the actionable workflow.

22. To trigger the workflow, select the workflow from the dropdown menu.

Actionable Report


Generate Certificate

1 to 100 of 974

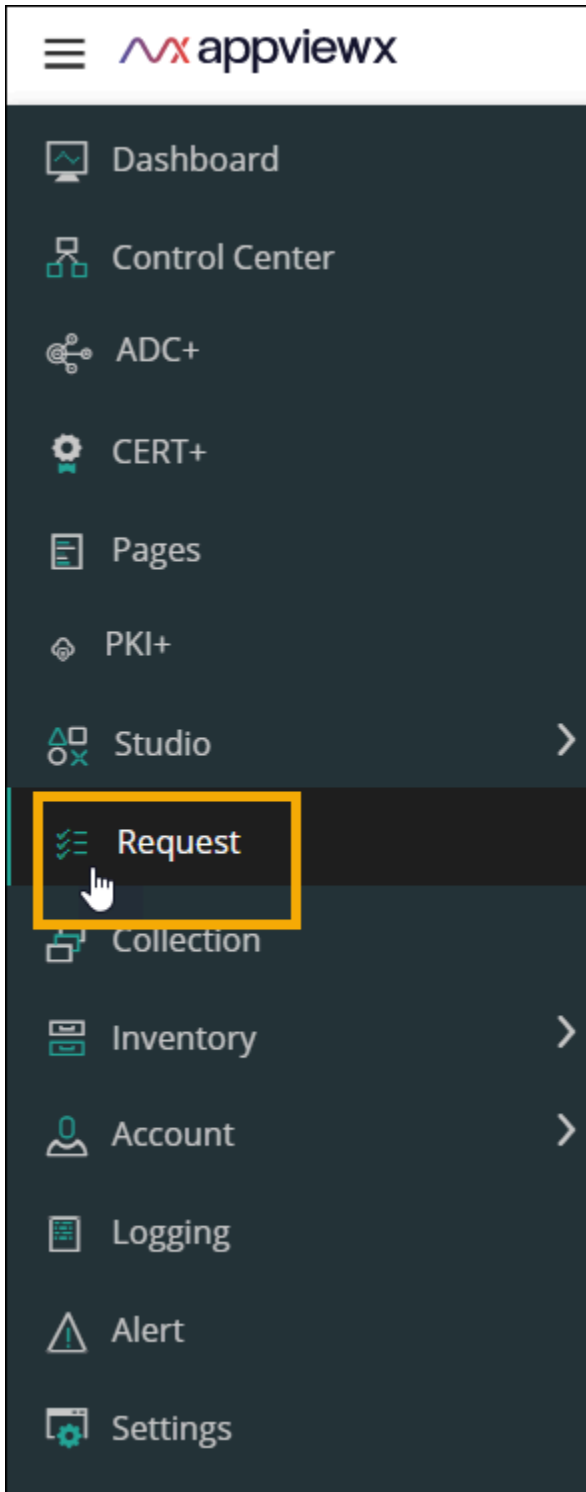
Search...

	Common Name	Certificate Expiry Date	Expiry Status	Issuer CA
<input type="checkbox"/>	checkpoint	6-3-2020	Expired	AppViewX
<input checked="" type="checkbox"/>	citrixsecurepush.appviewx.com	10-10-2020	Expired	AppViewX
<input type="checkbox"/>	*.demo.com	17-5-2019	Expired	AppViewX
<input checked="" type="checkbox"/>	chevtest.appviewx.com	16-11-2017	Expired	AppViewX
<input checked="" type="checkbox"/>	pushautomatically.appviewx.com	29-5-2019	Expired	AppViewX
<input type="checkbox"/>	*.star.com	25-5-2019	Expired	AppViewX
<input type="checkbox"/>	letsrock.appviewx.com	16-11-2017	Expired	AppViewX
<input type="checkbox"/>	*.appviewx.rsa.com	29-5-2019	Expired	AppViewX
<input type="checkbox"/>	*.theriRSAcom	22-5-2019	Expired	AppViewX
<input type="checkbox"/>	*.payoda1.com	28-9-2018	Expired	AppViewX
<input type="checkbox"/>	TueApp.appviewx.com	29-5-2019	Expired	AppViewX
<input type="checkbox"/>	*.rsaReplace.com	22-5-2019	Expired	AppViewX
<input type="checkbox"/>	wednesday4096avx.appviewx.c...	16-5-2019	Expired	AppViewX

Maximum 1000 records shown. (\*Date format - DD-MM-YYYY)

23. From the top left corner of the screen, click .

24. From the menu displayed, click **Request**.



25. On the **Request** page, from the navigation pane on the left, select **All**.

26. On the **Request :: All** page, select the workflow **Request ID**.

Request ID	Workflow	Created by	Created time	Last updated	Status	Ref. ID	Activity log
1196	certificate_discovery_rule	system	03/01/2021 03:56:06	03/01/2021 03:56:07	Completed		View
1195	Generate AppViewX Certificate	admin	03/01/2021 01:26:11	03/01/2021 01:26:15	Completed		View
1194	Generate AppViewX Certificate	admin	03/01/2021 01:20:35	03/01/2021 01:20:40	Completed		View
1193	Generate AppViewX Certificate	admin	03/01/2021 01:18:34	03/01/2021 01:18:38	Completed		View
1192	Generate AppViewX Certificate	admin	03/01/2021 01:15:40	03/01/2021 01:15:45	Completed		View
1191	Generate AppViewX Certificate	admin	03/01/2021 01:13:08	03/01/2021 01:13:12	Completed		View
1190	Generate AppViewX Certificate	admin	03/01/2021 01:12:40	03/01/2021 01:12:43	Completed		View
1189	Generate AppViewX Certificate	admin	03/01/2021 01:12:35	03/01/2021 01:12:38	Completed		View
1188	Generate AppViewX Certificate	admin	03/01/2021 01:10:11	03/01/2021 01:10:13	In Progress		View
1187	Generate AppViewX Certificate	admin	03/01/2021 01:10:05	03/01/2021 01:10:06	In Progress		View
1186	certificate_adc_push_and_bind	admin	02/28/2021 05:59:20	02/28/2021 05:59:56	Completed		View
1185	certificate_adc_push_and_bind	admin	02/28/2021 05:50:15	02/28/2021 05:50:59	Failed		View
1184	certificate_adc_push_and_bind	admin	02/28/2021 05:50:14	02/28/2021 05:50:48	Failed		View
1183	certificate_discovery_rule	system	02/28/2021 03:58:04	02/28/2021 03:58:04	Completed		View
1182	certificate_discovery_rule	system	02/27/2021 13:02:13	02/27/2021 13:02:14	Completed		View
1181	certificate_cloud_push_withou...	system	02/27/2021 13:02:08	02/27/2021 13:02:16	Completed		View
1180	certificate_renew_request	admin	02/26/2021 11:12:16	02/26/2021 11:12:19	Completed		View
1179	certificate_renew_request	admin	02/25/2021 09:40:52	02/25/2021 09:40:54	Completed		View
1178	certificate_renew_request	admin	02/25/2021 08:40:07	02/25/2021 08:40:09	Completed		View
1177	certificate_new_request	admin	02/25/2021 08:39:29	02/25/2021 08:39:32	Completed		View
1176	certificate_renew_request	admin	02/25/2021 07:33:02	02/25/2021 07:33:05	Completed		View
1175	certificate_new_request	admin	02/25/2021 07:32:36	02/25/2021 07:32:39	Completed		View
1174	certificate_new_request	admin	02/25/2021 07:09:43	02/27/2021 13:02:11	Completed		View
1173	certificate_renew_request	admin	02/25/2021 07:08:41	02/25/2021 07:08:44	Completed		View
1172	certificate_new_request	admin	02/25/2021 07:07:49	02/25/2021 07:07:55	Completed		View
1171	certificate_renew_request	admin	02/25/2021 07:06:32	02/25/2021 07:06:35	Completed		View
1170	certificate_renew_request	admin	02/25/2021 07:04:49	02/25/2021 07:04:51	Completed		View
1169	certificate_new_request	admin	02/25/2021 07:04:18	02/25/2021 07:04:20	Completed		View
1168	certificate_rollback_adc	admin	02/25/2021 05:08:18	02/25/2021 05:09:09	Completed		View
1167	certificate_adc_push_and_bind	admin	02/25/2021 05:04:58	02/25/2021 05:06:43	Completed		View

A stage-wise view of the workflow is displayed.

The screenshot shows a workflow stage view with a search bar and a list of steps: Script, Loop, Get Inputs, Generate CSR, Get CA Settings, and Submit CSR. A central panel displays a 'Script Success' message with a cloud and server icon. A log window at the bottom shows the following output:

```

Logs - Script
[03/01/2021 08:55:40] Installing Script
[03/01/2021 08:55:40] [{"command": "c:\\windows\\system32\\cmd.exe", "timeout": 10, "args": ["AppViewX", "addCACert", "10-10-2020", "status", "Expired"], "command": "ch

```

27. To view the payload that was passed for the actionable workflow, click **Script**.

28. To see successful completion of the workflow, click **Submit CSR**.

# Chapter 15: User Feedback and Survey Reports

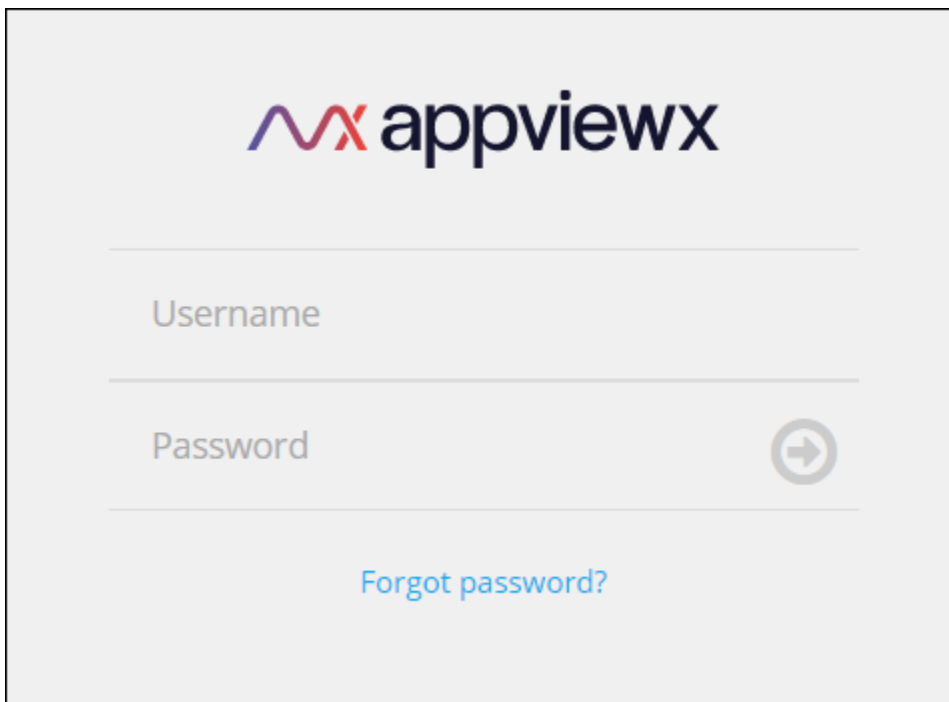
- [Overview](#)
- [Submitting a Feedback](#)
- [Enabling/Disabling the Feedback Option](#)


## Overview

AppViewX hosts a user feedback feature on its report building platform, where users can rate their experience with the report builder and also submit a descriptive comment on the tool. This feedback can then be used to create reports to track customer experience.

## Submitting a Feedback

1. Log into AppViewX.



2. From the top right corner of the screen, click  .

<input type="checkbox"/>	Report name	Type	Description	Location	Category	Schedule	Status
<input type="checkbox"/>	Discovered Certificates with Association Count	PDF		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	Managed Certificates with Association Count	PDF		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	Monitored Certificates with Association Count	PDF		License_Usage	general		<input type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issued/Renewed/Reissued Certificates with Ass...	PDF		License_Report	general	2022-06-11 08:33	<input checked="" type="checkbox"/>
<input type="checkbox"/>	PKIaaS Issuing/Intermediate Certificates with Associat...	PDF		License_Report	general		<input type="checkbox"/>
<input type="checkbox"/>	PKIaaS Root Certificates with Association Count	PDF		License_Report	general		<input type="checkbox"/>

3. Enter feedback comments in the popup window.

Please rate your experience for **Reports**

Partner with us for customer advisory sessions

Please leave your feedback here


**Submit feedback**

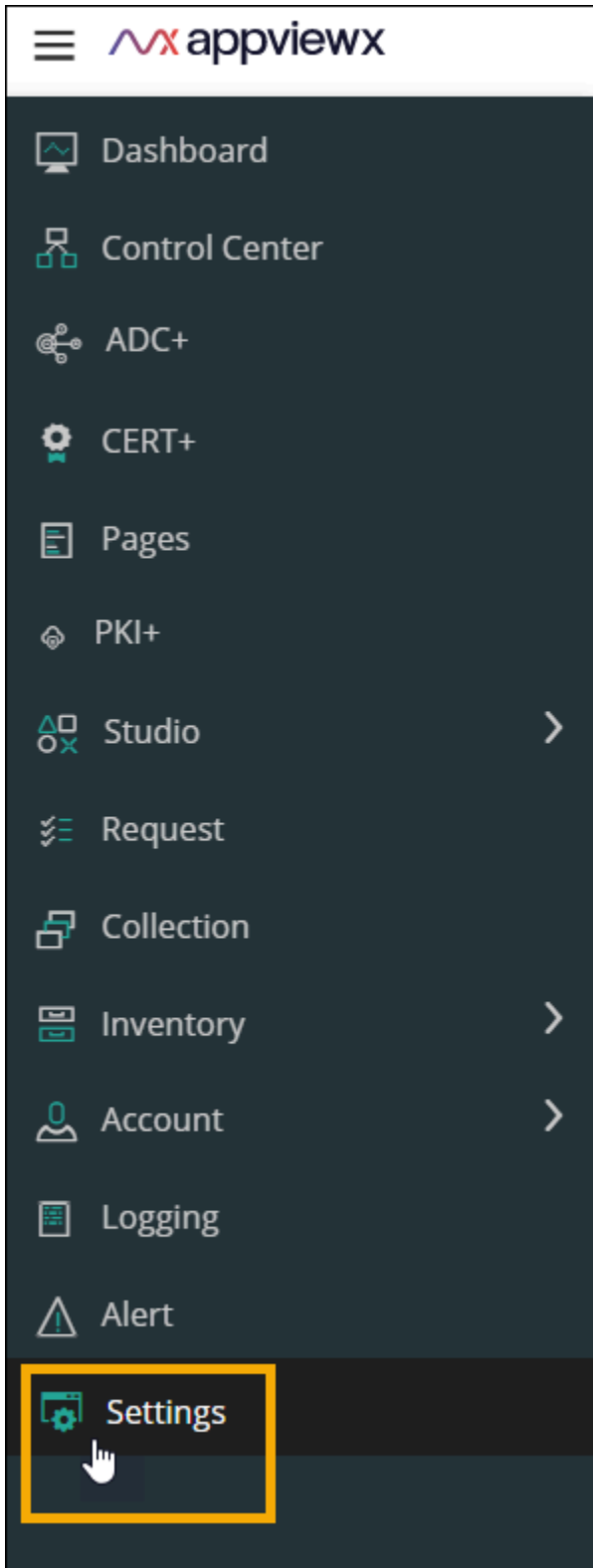
4. Click **Submit feedback**.

The **User Surveys and feedback** report on the **Store** page gives detailed information on user feedback.

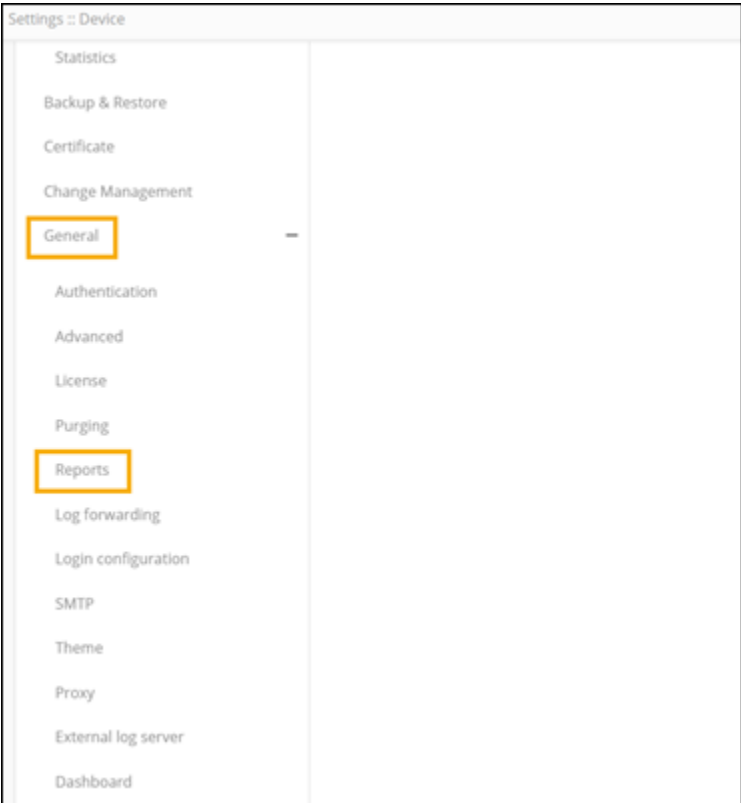
Report name	Type	Description	Location	Category	Schedule	Status
User Surveys And feedback	Chart	Chart to display User Surveys And feedba...		general	2021-02-24 19:30	On
Usage Report - Total Count of Requests by Workflow	Chart	Chart to display workflows executed by re...	Usage_And_Ado...	general	2021-02-24 19:30	On
Usage Report - Automation Request Trend	Line	Trend of all automation requests in Appli...	Usage_And_Ado...	general	2021-02-24 19:30	On
Usage Report - Automation Requests by Status	Chart	Display request status by workflow	Usage_And_Ado...	general	2021-02-24 19:30	On
Usage Report - Total logins in last 30 days	Metric	Metric to display total Users logins in App...		general	2021-02-24 19:30	On
Usage Report - Total Logins	Metric	Metric to display total Users logins in App...		general	2021-02-24 19:30	On
Usage Report - Unique Logins	Metric	Metric to display unique Users logged in ...		general	2021-02-24 19:30	On
Usage Report - Available Users	Metric	Metric to display available Users in AppVi...		general	2021-02-24 19:30	On
Usage Report - Available Users Groups	Metric	Metric to display available User Groups in...		general	2021-02-24 19:30	On

## Enabling/Disabling the Feedback Option

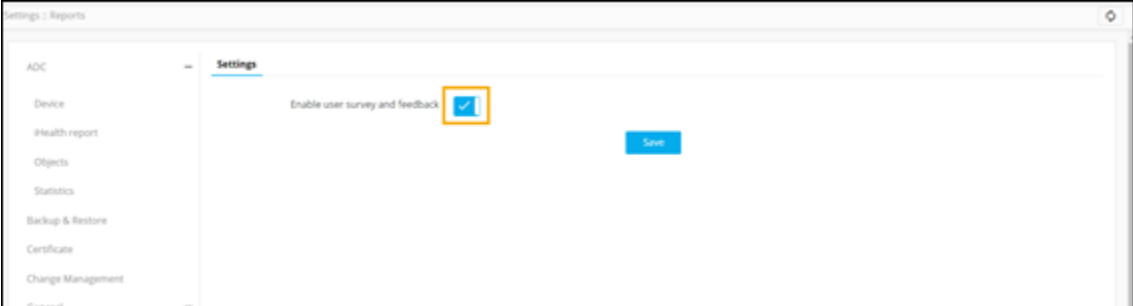
1. From the top left corner of the screen, click .
2. From the menu displayed, click **Settings**.



3. On the **Settings** page, under **General**, select **Reports**.



4. To enable feedback, turn on the toggle. To disable feedback, turn off the toggle.



5. Click **Save**.

# Chapter 16: Best Practices

Listed here are some best practices that will help you build visually engaging, insightful and effective reports:

- **Identifying target audience and their requirements**

Before you even start building reports, it is important to know who the target audience or end user is. Meeting with them to know about their specific requirements is crucial to build comprehensive reports that display complete and accurate information.

- **Choosing the right chart**

The right chart or graph can help you display your data most efficiently and effectively. Pie charts can be used for fewer data points, while bar graphs can be used to show comparison among categories. Line charts, on the other hand, are most useful for showing changes over a period of time. Choosing the wrong chart can create confusion and the data might even be interpreted incorrectly. The Reports module offers seven different chart types to choose from.

- **Highlighting key areas**

Using colors to highlight key areas is a powerful way to guide the end users to important data. However, the choice of colors is crucial and overuse of colors in your reports may be distracting. The **Reports** module offers color code mapping for pie charts, donut charts, bar charts, and stacked bar charts.

- **Grouping related metrics together on Dashboard**

It is important to group related metrics together to help the end user quickly make connections between the data on a dashboard. The **Reports** module has a provision for moving widgets around on the dashboard so that you can keep related widgets/reports in one place.

- **Adding interactive elements**

Using the **Chart Drilldown** feature in the **Reports** module is a great way to ensure that your reports are interactive. Displaying high level data first and allowing the user to drill down for further details keeps the user engaged.

- **Keeping it simple**

Last, but not least, keep your reports simple. Do not clutter it with too much information and avoid using too many colors. Prioritize readability by making them visually appealing and easy to understand.

# Chapter 17: Troubleshooting

Following are the common issues you may face when working with the **Reports** module:

Issue	Cause	Solution
There is something wrong with my Scheduled Job.	<b>Avx_platform_report_generator</b> plugin is disabled.	Check plugin status and enable it.
Report pinned to dashboard shows error message.	Report is not enabled.	Enable the report on My Reports page.
I am not able to edit a report in the <b>Store</b> .	Prebuilt reports in the <b>Store</b> cannot be edited .	Clone the report and customize it as per your need.
<b>Schedule time elapsed</b> error while defining the interval.	Time entered is the same as the current time.	Enter a time which is 1-2 minutes later than the current time.

In case of any other issues with the **Reports** module, users can access the following logs for further investigation:

- avx-subsystems log
- avx-commons log