Securaa Cyber Security Asset Management (CSAM) Administration Guide

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Securaa CSAM Platform Overview

Securaa CSAM (Cyber Security Asset Management) provides comprehensive visibility and management of your security assets at your finger CSAMs. It delivers a fully automated solution for asset discovery, classification, monitoring, and risk analysis across your entire digital environment. CSAM enables seamless data collection, intelligent asset processing, and enriched insights into security vulnerabilities and compliance gaps. It disseminates actionable information to stakeholders, empowering them to prioritize vulnerabilities effectively. With a user-friendly interface and advanced visualization tools, including a dynamic asset relationship graph, users can effortlessly categorize assets by risk level and initiate actions to remediate vulnerabilities, ensuring enhanced security and compliance posture.

The main features of Securaa CSAM are

- Fetching assets from cloud environments and on-premises infrastructure.
- Fetching vulnerabilities from Nessus.
- Fetching vulnerability details from the NVD (National Vulnerability Database).
- Setting business hierarchy content, tags, and comments for each asset.
- Exporting and importing assets.
- Fetching assets at three levels in the CSAM inventory: cloud level, service level, and asset level.
- Filtering data through query filters at all three levels.
- Exporting assets using filtered queries, ensuring only the filtered assets are exported.
- Generating reports for each asset.
- Providing drill-down views for detailed vulnerability and alert information for

each asset.

- Displaying a dashboard with comprehensive details of all assets.
- Offering a drill-down feature from dashboard details that redirects to the CSAM inventory.
- Including widgets for vulnerability breakdown, unscanned machines, coverage by tools, and high-risk assets categorized by business hierarchy.
- Providing drill-down views for the vulnerability breakdown and coverage by tools widgets.

Installation Process

Prerequisites for Deployment

Securaa CSAM needs the following for a successful deployment

- Connectivity to Securaa servers is required to download the latest software versions and Docker images. After establishing the connection, the application must be configured in the Application tab within the CSAM application. This configuration enables data fetching from cloud platforms, including AWS, Azure, and GCP, as well as on-premises infrastructure tools such as Nessus, QRadar, and Symantec.
- Port 8229 should be open in the CSAM machine to establish connectivity with SOAR.
- Administrative privileges on the operations system platform.
- SSH Connectivity tools like Putty to connect with Securaa CSAM machine.

- Browser software like Chrome to access the Securaa web interface.

Operating system requirements

Securaa CSAM can be deployed on the following operating systems and must meet the minimum hardware requirements.

Operating System	**Supported Version**
RHEL	9.x, 8.x
Rocky Linux	8.x
Alma Linux	8.x
Centos	9.x

Hardware Requirements

MSSP POC (Proof of concept)

COMPONENT	**Specification**
CPU	4 CPU
Memory	16 GB RAM
Storage	300 GB SSD [~ 20 Million Records]

MSSP (PRODUCTION)

COMPONENT	Specification
CPU	8 CPU
Memory	32 GB RAM
Storage	500 GB SSD [~ 30 Million Records]

Note: More storage needs to be added if records exceed 30 million.

Network Connectivity Requirements

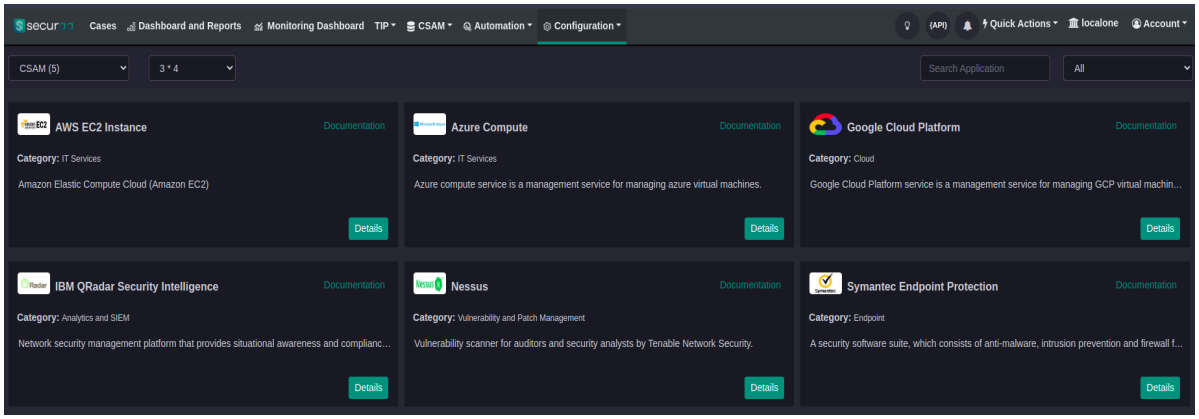
The following URLs need to be whitelisted before installation. Securaa downloads the latest software version, docker images, and other dependencies from these URLs:

- https://s3.us-east-2.amazonaws.com/
- https://665853670667.dkr.ecr.us-east-2.amazonaws.com/
- https://release.securaa.io:9002
- https://repo.securaa.io/

Application configuration that fetches data from cloud and on-premises environments:

- Onprem :
  - IBM QRadar Security Intelligence
  - Nessus
  - Symantec Endpoint Protection
- Clouds:

- AWS EC2 Instance.
- Azure Compute.
- Google Cloud platform.



Securaa CSAM Installation

The below steps can be used to set up Securaa CSAM on a single virtual machine:

1. Take server SSH access and download the installer with the help of a URL shared by the Securaa team.
    - Redhat

```
PS C:\Users\sbhos\Desktop> ssh -i '.\securaamasterkey (1).pem' ec2-user@3.22.164.217
The authenticity of host '3.22.164.217 (3.22.164.217)' can't be established.
ED25519 key fingerprint is SHA256:E6NQT+3X+QUym+0Fh/iUFY0yy8oxcu2V+nZ/UjTXqvk.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.22.164.217' (ED25519) to the list of known hosts.
Register this system with Red Hat Insights: rhc connect
```

    - Ubuntu

```
PS C:\Users\sbhos\Desktop> ssh -i '.\securaamasterkey (1).pem' ubuntu@3.141.10.202
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1036-aws x86_64)
```

2. Below mentioned command can be used to run the RPM for the CSAM installation. Refer to Snap for more details.

   COMMAND: wget RPM link

   rpm –ivh RPM_NAME –nodeps –force

- Redhat

```
[ec2-user@ip-172-31-22-105 ~]$ sudo wget https://repo.securaa.io/installer/securaa_csam-6.0.0-1.x86_64.rpm
--2025-01-28 04:42:51--  https://repo.securaa.io/installer/securaa_csam-6.0.0-1.x86_64.rpm
Resolving repo.securaa.io (repo.securaa.io)... 18.223.129.72
Connecting to repo.securaa.io (repo.securaa.io)|18.223.129.72|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 9733782 (9.3M) [application/x-redhat-package-manager]
Saving to: ‘securaa_csam-6.0.0-1.x86_64.rpm’

securaa_csam-6.0.0-1.x86_64.rpm      100%[=====================================================================>]   9.28M  --.-KB/s    in 0.09s

2025-01-28 04:42:51 (105 MB/s) - ‘securaa_csam-6.0.0-1.x86_64.rpm’ saved [9733782/9733782]
```

- Ubuntu

```
root@ip-172-31-17-164:/home/ubuntu# echo "sslverify=false" >> /etc/yum.conf
root@ip-172-31-17-164:/home/ubuntu#  wget https://repo.securaa.io/installer/install_csam_pkgs_debian-1.sh
--2025-01-28 05:49:33--  https://repo.securaa.io/installer/install_csam_pkgs_debian-1.sh
Resolving repo.securaa.io (repo.securaa.io)... 18.223.129.72
Connecting to repo.securaa.io (repo.securaa.io)|18.223.129.72|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2160 (2.1K) [application/octet-stream]
Saving to: ‘install_csam_pkgs_debian-1.sh’

install_csam_pkgs_debian-1.sh        100%[=====================================================================>]   2.11K  --.-KB/s    in 0s

2025-01-28 05:49:33 (500 MB/s) - ‘install_csam_pkgs_debian-1.sh’ saved [2160/2160]
```

```
root@ip-172-31-17-164:/home/ubuntu# wget https://repo.securaa.io/installer/securaa_csam-6.0.0-1.deb
--2025-01-28 05:56:18--  https://repo.securaa.io/installer/securaa_csam-6.0.0-1.deb
Resolving repo.securaa.io (repo.securaa.io)... 18.223.129.72
Connecting to repo.securaa.io (repo.securaa.io)|18.223.129.72|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10583116 (10M) [application/octet-stream]
Saving to: ‘securaa_csam-6.0.0-1.deb’

securaa_csam-6.0.0-1.deb            100%[=====================================================================>]  10.09M  --.-KB/s    in 0.1s

2025-01-28 05:56:18 (102 MB/s) - ‘securaa_csam-6.0.0-1.deb’ saved [10583116/10583116]
```

3. The installation will start.

- Redhat

```
[ec2-user@ip-172-31-22-105 ~]$ sudo rpm -ivh securaa_csam-6.0.0-1.x86_64.rpm --nodeps --force
Verifying...                          ################################# [100%]
Preparing...                          ################################# [100%]
Updating / installing...
   1:securaa_csam-6.0.0-1             ################################# [100%]
Begin Installation !!
Installing zip and unzip for software unpackage...
package installed.
Installing wget package...
package installed.
Installing firewall...
Package installed.
Installing whois...
Package installed.
Installing docker ..
Installed docker.
All packages downloaded and installed successfully.
 Log files created. : Successfully Executed. ✓
 Log files created. : Successfully Executed. ✓
================== CSAM: ==================== ✓
CSAM:[0]: : Successfully Executed. ✓
```

- Ubuntu

```
root@ip-172-31-17-164:/home/ubuntu# sudo dpkg -i securaa_csam-6.0.0-1.deb
Selecting previously unselected package securaainstaller.
(Reading database ... 85193 files and directories currently installed.)
Preparing to unpack securaa_csam-6.0.0-1.deb ...
Unpacking securaainstaller (6.0.0-1) ...
Setting up securaainstaller (6.0.0-1) ...
 Log files created. : Successfully Executed. ✓
 Log files created. : Successfully Executed. ✓
================== CSAM: ==================== ✓
CSAM:[0]: : Successfully Executed. ✓
```

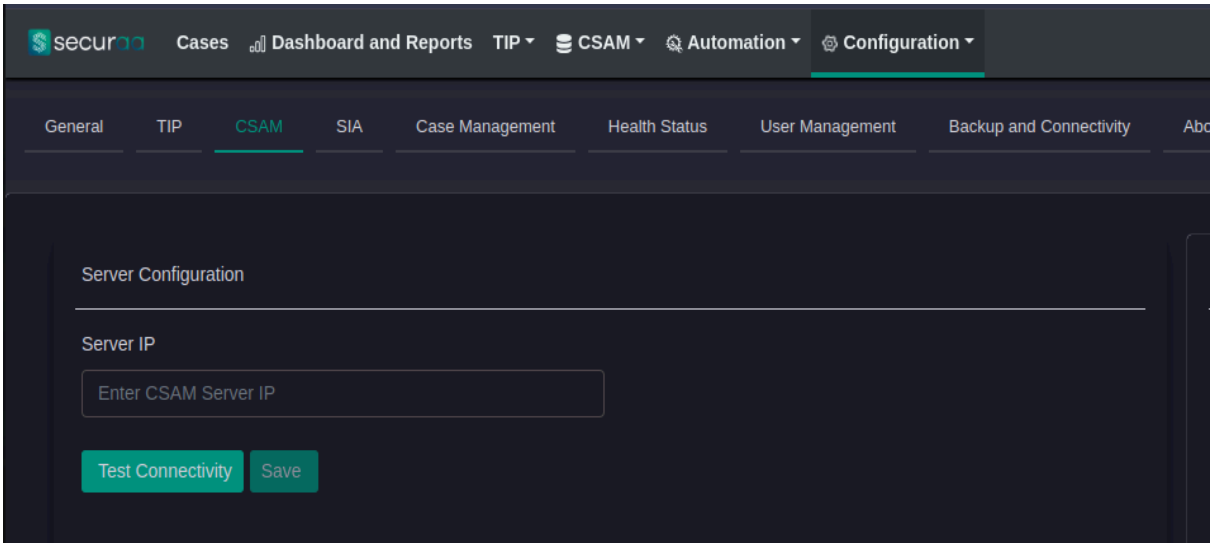
4. After installation, Reboot the server.

```
SECURAA CSAM is Installed, Please Reboot the Machine ✓
vm.max_map_count = 462144
Created symlink /etc/systemd/system/default.target.wants/csam_manager.service → /etc/systemd/system/csam_manager.service.
[ec2-user@ip-172-31-22-105 ~]$  sudo reboot
```

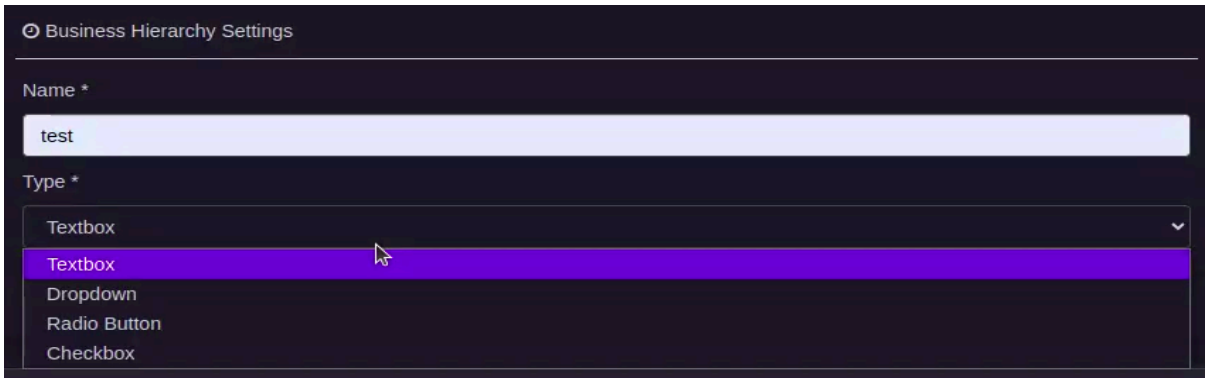
Post Installation Configuration

NOTE: Please configure the following settings before you start using CSAM from securaa soar portal.

1. Login to Securaa Portal.
2. Connect Securaa SOAR platform to CSAM machine by providing a private CSAM server IP address in Configuration→ Platform→ CSAM→ CSAM Server Configuration.



3. Test connectivity after entering the IP address and click on save once connectivity is successful.
4. On successful connectivity, the User will be able to configure the following:-
    - Add the Business Hierarchy with type as radio button, Dropdown, Checkbox, and textbox as shown in the snapshot



Business Hierarchy

The Business Hierarchy is a structured framework for organizing and classifying assets based on key attributes such as location, department, criticality, and ownership. By providing context to assets, this hierarchy simplifies tracking, management, and optimization. Aligning assets with the organization's structure enhances visibility, ensures compliance and supports more informed decision-making, ultimately improving operational efficiency and resource utilization.

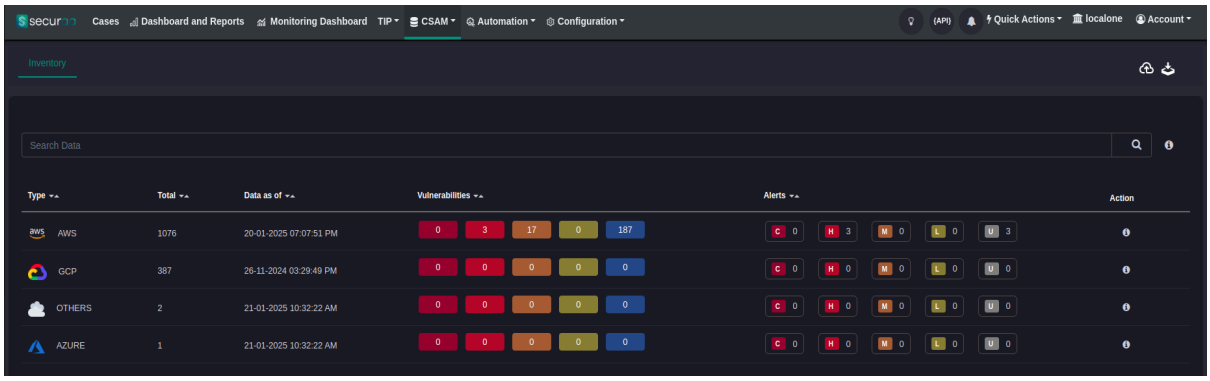
Inventory

Inventory Browser Screen

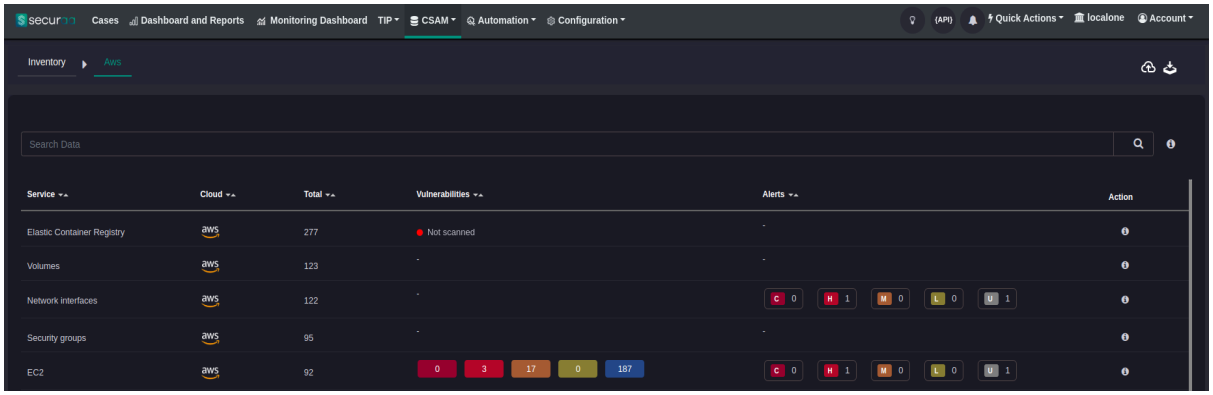
Analysts can navigate from the CSAM menu to the **Inventory Browser** screen. The Inventory Browser lists all assets retrieved from the configured applications. The asset data is organized into three levels:

- **Level One**: Inventory
- **Level Two**: Services
- **Level Three**: Asset list

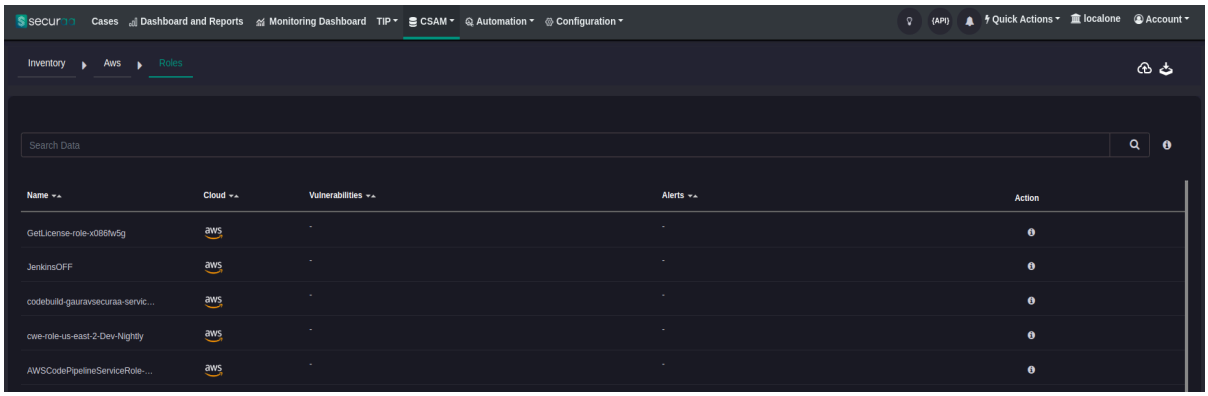
The **Inventory** page lists all cloud platforms retrieved from the configured applications. This page serves as the first level of the asset hierarchy, allowing users to view and select specific cloud types.



The **Service** page is accessed after a user selects a type or cloud from the **Inventory** page. It displays all the services associated with the selected cloud.



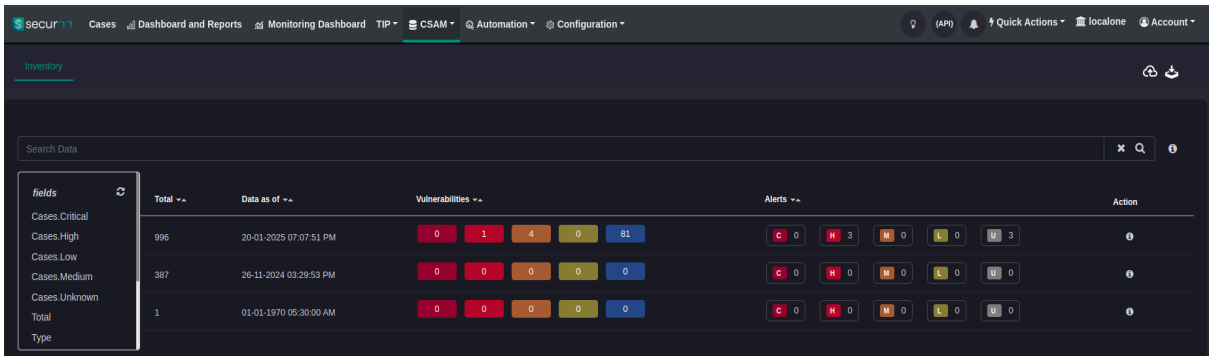
The **Asset** list page is accessed after a user selects a service from the **Service** page. It displays all the assets that are associated with the service chosen.



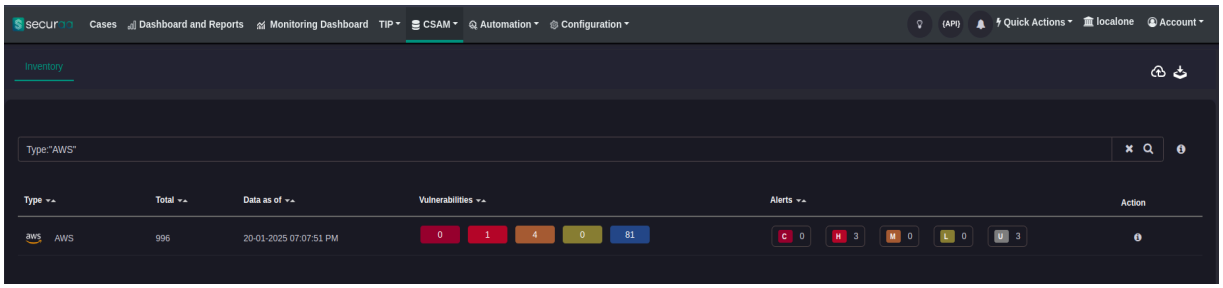
Query filter

Users can apply filters using **QueryFilter** at different levels:

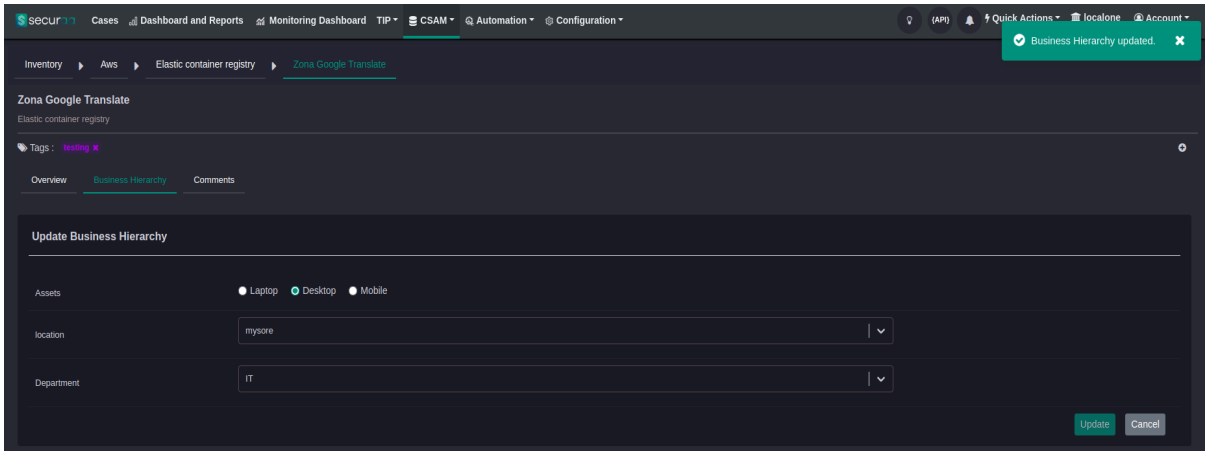
- A **query filter** is used to refine and limit the data returned by a query based on specific criteria. It allows users to extract only the relevant subset of data from a larger dataset by applying conditions on fields or attributes.
- Filters use operators like equals (=), greater than (>), less than (<), and match to specify criteria.
- Multiple filters can be combined using AND, OR, and NOT to create complex conditions.
- On the **Inventory** page, filters are available for **Type (clouds)**, **Total assets**, **Vulnerabilities**, and **Alerts**.
- On the **Service** page, users can filter by **Services**, **Total assets**, **Vulnerabilities**, and **Alerts**.
- On the **Asset** page, users can view the list of assets for a specific service within a specific cloud and filter by **Name**, **Vulnerabilities**, and **Alerts**.

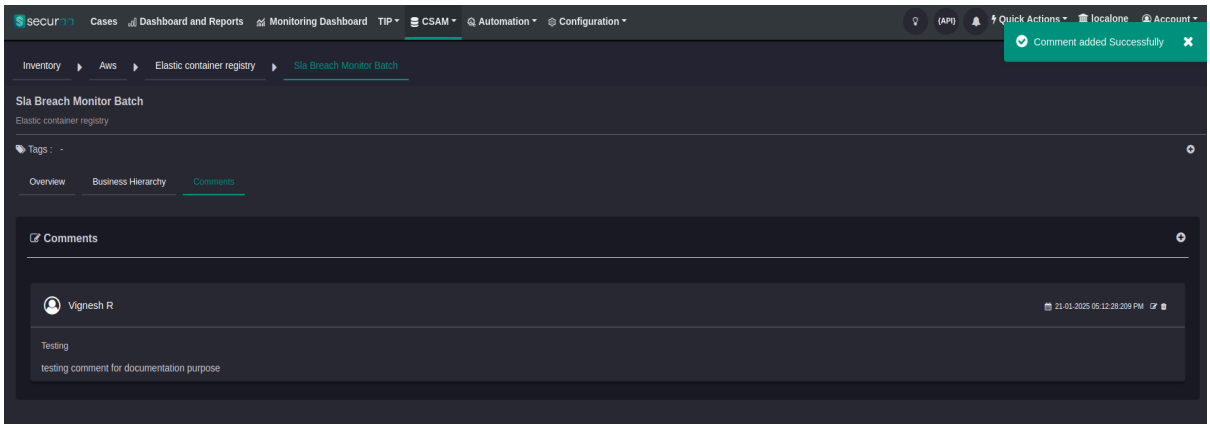


This snapshot shows the query filter suggestions provided for users, allowing them to select and apply filters to refine their search results or data view.

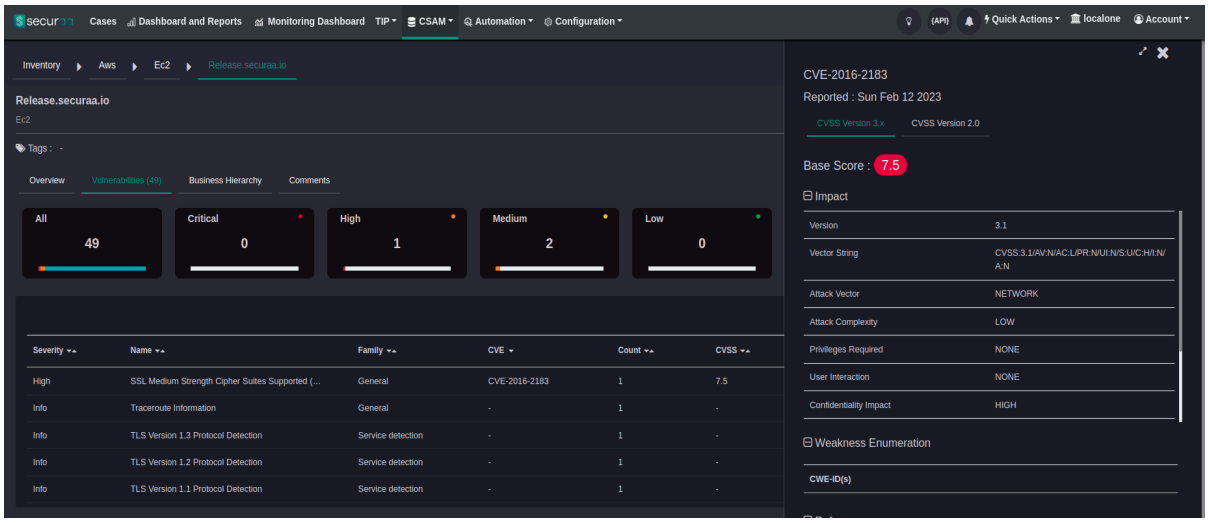


After the assets are listed, detailed information about a specific asset can be accessed by clicking on the asset. This action opens the asset information page, where users can view comprehensive details of the selected asset. Additionally, users have the option to update the **Business Hierarchy**, add or modify **Comments**, and add **Tags** to the asset.





Inside the asset details page, users can access comprehensive vulnerability information by selecting the corresponding **CVE_ID**. This allows users to view detailed data about specific vulnerabilities associated with the asset, enabling more informed analysis and remediation actions.



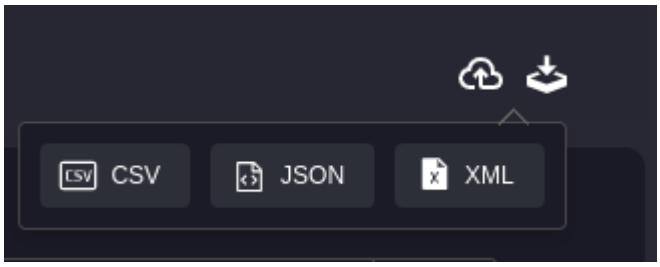
Export Assets

Analysts can download all the Asset data available in the CSAM in .CSV format by clicking on the  icon at the top right corner of the Inventory browser screen.

Analysts can also download asset data by applying filters using the **QueryFilter**. If a user needs specific data, such as a particular asset, cloud, service, or any other filtered set of data, they can use the QueryFilter to refine the results. The filtered data can then be exported, ensuring that only the required information is downloaded.

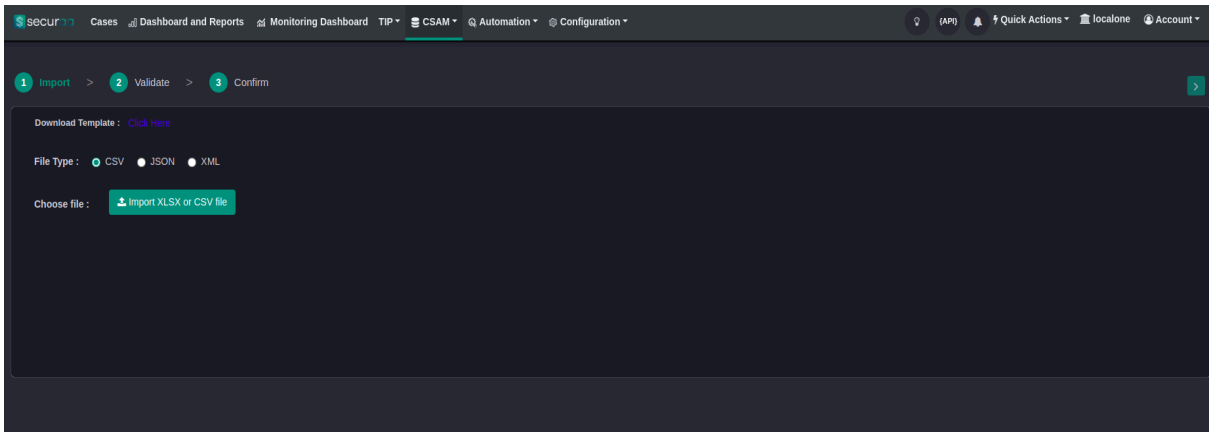
Also export asset will be exported in 3 different format

- CSV
- JSON
- XML



Import Assets

Analysts can import Assets to Securaa CSAM by clicking on  the icon at the top right corner of the Inventory browser screen.



The steps to Import are as follows

1. Download template in three different format

   a. Fill all the Asset data in **CSV** file in the format shown in the below snapshot

	A	B	C	D	E
1	ipaddress	sources	asset_type	tags	business_hierarchy
2					

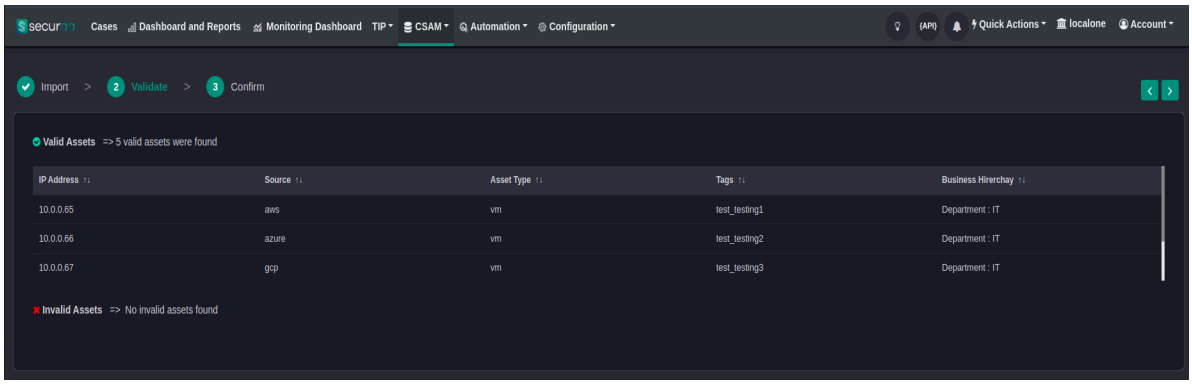
   b. Fill all the Asset data in **JSON** file in the format shown in the below snapshot

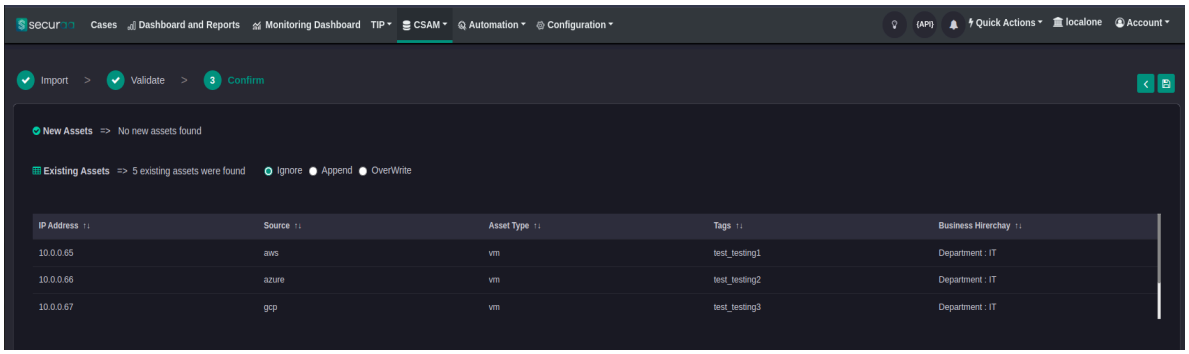
```
{
  "Assets": [
    {
      "ipaddress": "10.0.0.29",
      "sources": "qradar",
      "asset_type": "vm",
      "tags": "testingbot,malware",
      "business_hierarchy":
        {"Department":"IT"}
    }
  ]
}
```

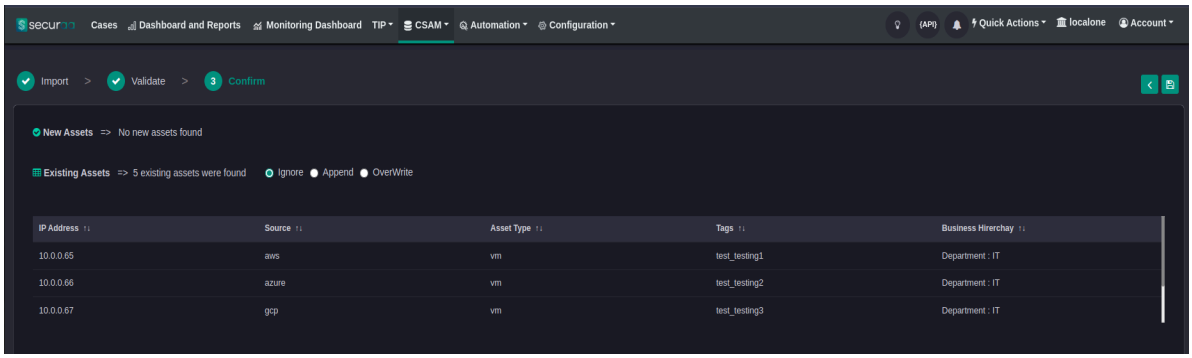
c. Fill all the Asset data in **XML** file in the format shown in the below snapshot

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<root>
        <assets>
           <ipaddress>1.1.1.1</ipaddress>
           <sources>qradar</sources>
           <asset_type>vm</asset_type>
           <tags>testingbot malware</tags>
           <business_hierarchy>
                <Department>IT</Department>
           </business_hierarchy>
         </assets>
</root>
```

2. Upload the CSV containing Asset data.
3. Verify Asset details and confirm Assets that are being uploaded.





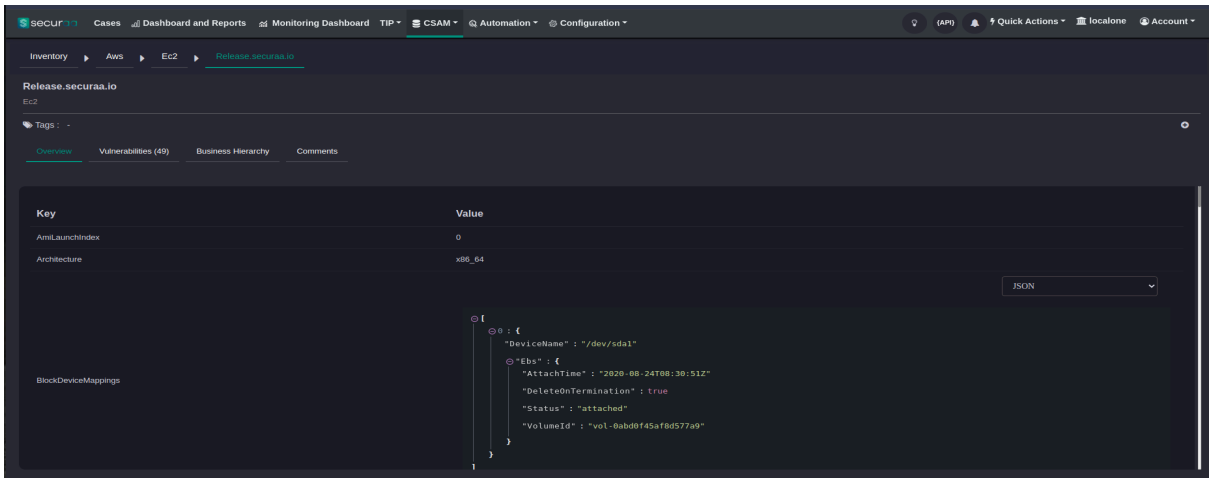


4. After the imported data is validated, it moves to the **Confirm** stage. At this stage, if an IP address already exists, the data is flagged as an existing asset. The user is then presented with three options:
    - **Ignore**: Skip the imported data without making any changes to the existing asset.
    - **Overwrite**: Replace the existing asset data with the new imported data.
    - **Append**: Add new information from the imported data to the existing asset without replacing current values.

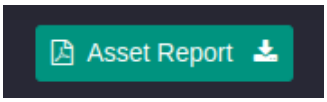
    Based on the user's input, the data is processed and saved accordingly.

Asset Overview

Users can drill down by clicking on an asset in the Asset List Browser screen to view detailed information about that particular asset, specific to the respective service and cloud, as shown in the snapshot.



Asset Report

The user can download the asset information in PDF report format from the Asset Information screen. Upon clicking the **Asset Report** button 

, the asset details will be downloaded and presented in a PDF report, as shown in the snapshots below.

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Asset and Vulnerability Report

Asset Name: Checkpoint Firewall | **Service Name:** Aws

Overview

Key	Value
AmiLaunchIndex	0
Architecture	x86_64
BootMode	-
CapacityReservationId	-
ClientToken	4d8d1778-4e81-421d-9804-5e554ce2d0f0
EbsOptimized	true
ElasticGpuAssociations	-
ElasticInferenceAcceleratorAssociations	-
EnaSupport	true
Hypervisor	xen
ImageId	ami-06c919bb36d164a19
InstanceId	i-020c322a009ffa1de
InstanceLifecycle	-
InstanceType	m5.xlarge
Ipv6Address	-
KernelId	-
KeyName	securaamasterkey
LaunchTime	2024-10-22T10:02:55Z
Licenses	-
OutpostArn	-
Platform	-
PlatformDetails	Linux/UNIX

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Key	Value
RootDeviceType	ebs
SourceDestCheck	true
SpotInstanceRequestId	-
SriovNetSupport	-
StateTransitionReason	User initiated (2024-10-22 10:49:56 GMT)
SubnetId	subnet-006f044c
UsageOperation	RunInstances
UsageOperationUpdateTime	2024-05-22T06:47:49Z
VirtualizationType	hvm
VpcId	vpc-31983a5a

Business Hierarchy

Key	Value
No Data	

Alerts

CRITICAL	HIGH	MEDIUM	LOW	UNKNOWN
0	0	0	0	0

Summary

Severity	Case ID	Description	Source	Status	Category	Risk
No Data						

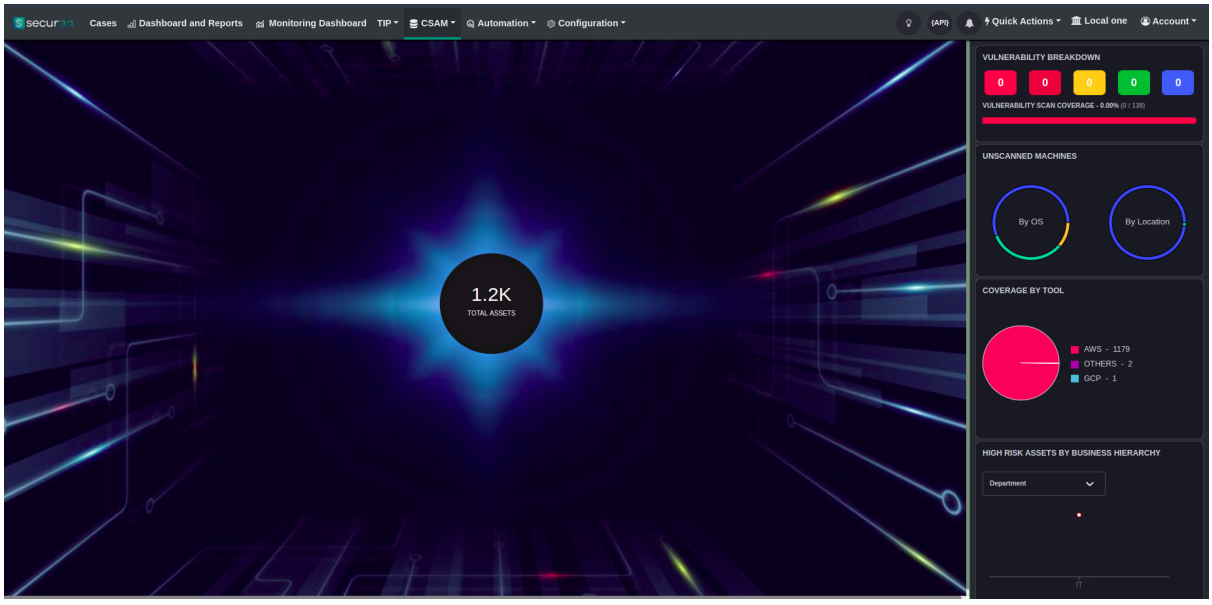
Vulnerabilities

CRITICAL	HIGH	MEDIUM	LOW	INFO
0	0	0	0	0

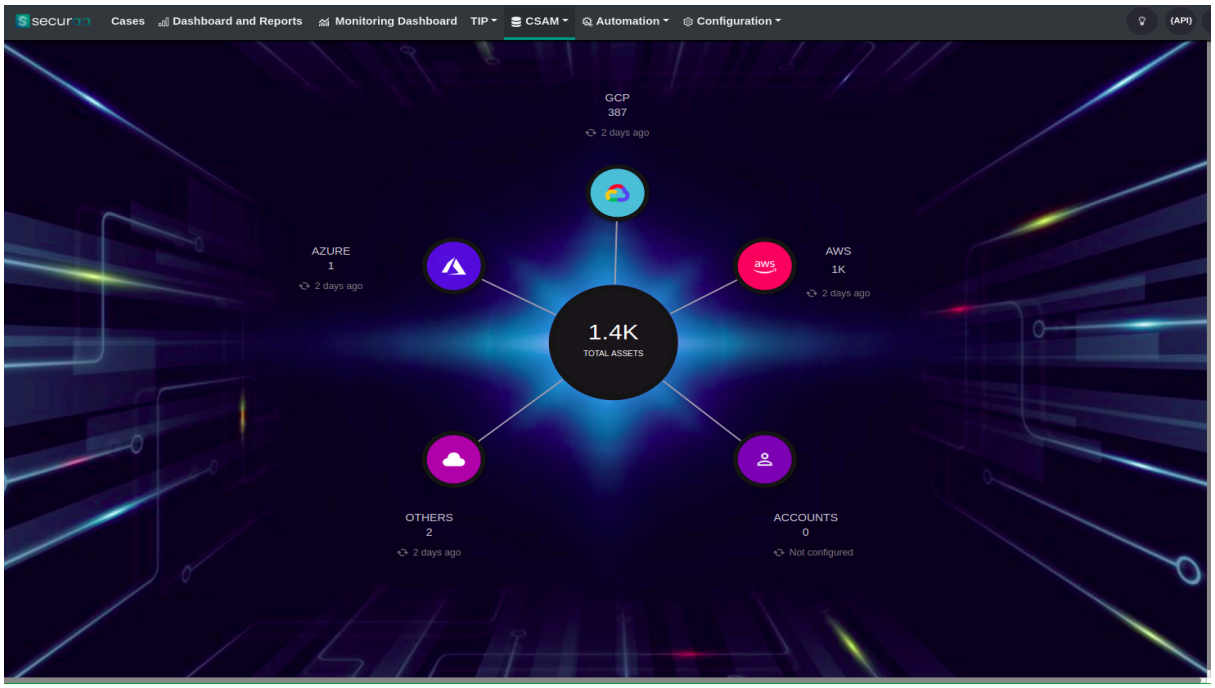
CSAM Node Dashboard

The CSAM dashboard provides comprehensive visibility into security assets with various interactive widgets, such as **Vulnerability breakdown** ,**Unscanned machines**, **Coverage by tools**, **High risk by business hierarchy**. CSAM is integrated with Securaa to enable efficient cyber security asset management, offering insights into asset inventory, vulnerabilities, and compliance status. The dashboard presents data in an easy-to-understand graphical format, allowing SOC Analysts to quickly assess the security posture. Analysts can click on widgets to drill down into detailed views, enabling them to analyze specific assets, vulnerabilities, and alerts, and take appropriate actions to mitigate risks and improve overall security.

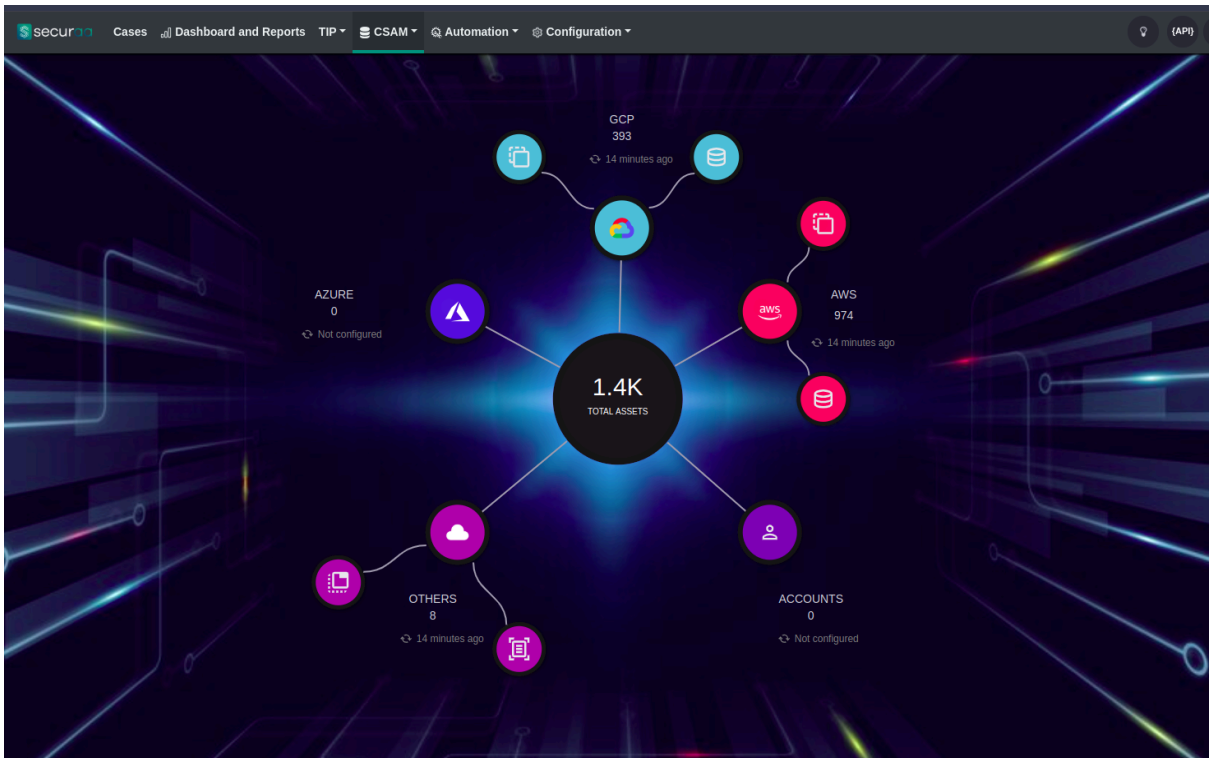
To access the CSAM Dashboard, go to the CSAM menu and select the Dashboard option. This will display the Dashboard interface as shown in the snapshot.



- The above snapshot shows a visual representation of the level one dashboard and the widget in the side panel.
- When we click on Total Assets, a visual representation of the level two dashboard is displayed, where we can see the clouds and on-premises infrastructure represented as nodes as shown in the snapshot.
- Clicking on a cloud name provides a drill-down that redirects to the inventory page of the respective cloud.



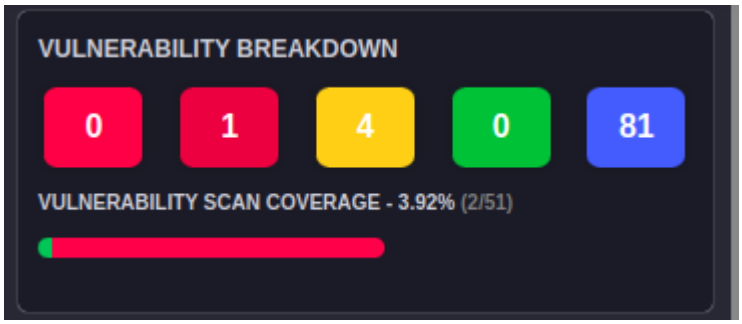
- In level two, after viewing the cloud nodes, clicking on a respective cloud displays the VM services and storage for each cloud, as shown in the snapshot.



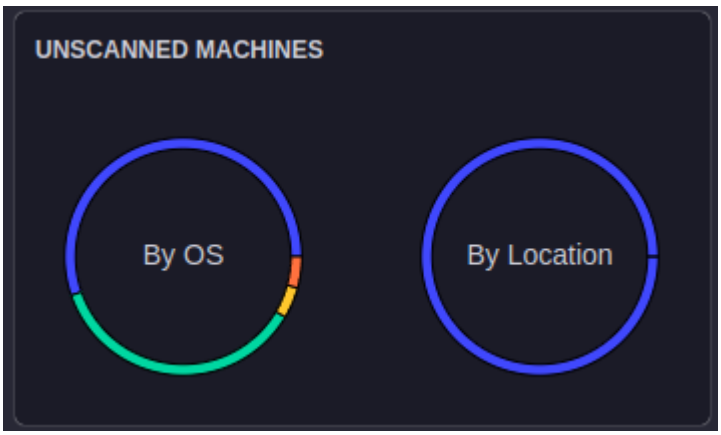
- After level two of the dashboard, where services are displayed upon clicking a cloud, clicking on each service provides a drill-down view that redirects to the inventory page of the respective service.

CSAM Widget consist of 4 widgets ,

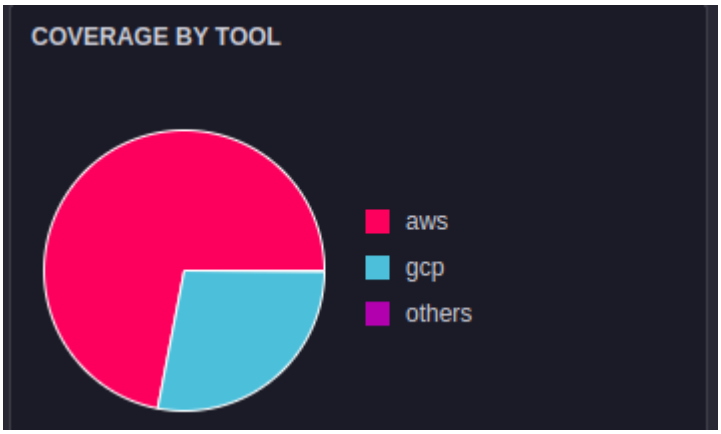
1. Vulnerability breakdown
    - The vulnerability breakdown shows the total count of vulnerabilities for each asset.
    - We have provided a drill-down for the vulnerabilities, which will directly redirect to the inventory page.
    - Additionally, the vulnerability breakdown widget displays the scan coverage percentage of the total vulnerabilities for VMs.



2. Unscanned machine
    - The unscanned machines are displayed as "Unscanned Machines by OS" and "Unscanned Machines by Location."



3. Coverage by tool
    - Coverage by tool shows the total number of each cloud in the pie chart format.
    - Here we gave a drill-down through pie chart if we click on the pie chart it will redirect to inventory page .



4. High risk by business hierarchy
    - We provide a graphical representation of the business hierarchy, where the business hierarchy configuration data is grouped. By selecting a specific business hierarchy from the dropdown, you can view the risk associated with that particular business hierarchy.

CSAM Automation Tasks

Securaa CSAM supports one automated task. Below are the details of the task

1. **Get Asset Information**

   This task helps in retrieving detailed information about the asset by providing its IP address.