

1 Table of Contents

- 1 Table of Contents..... 1
 - 1.1 Revision History..... 1
- 2 OpsRamp Public Cloud Observability..... 2
 - 2.1 Introduction 2
 - 2.2 Assumptions..... 3
 - 2.3 GreenLake OpsRamp Access 3
 - 2.4 OpsRamp Accounts..... 4
 - 2.5 Public Cloud Discovery..... 5

1.1 Revision History

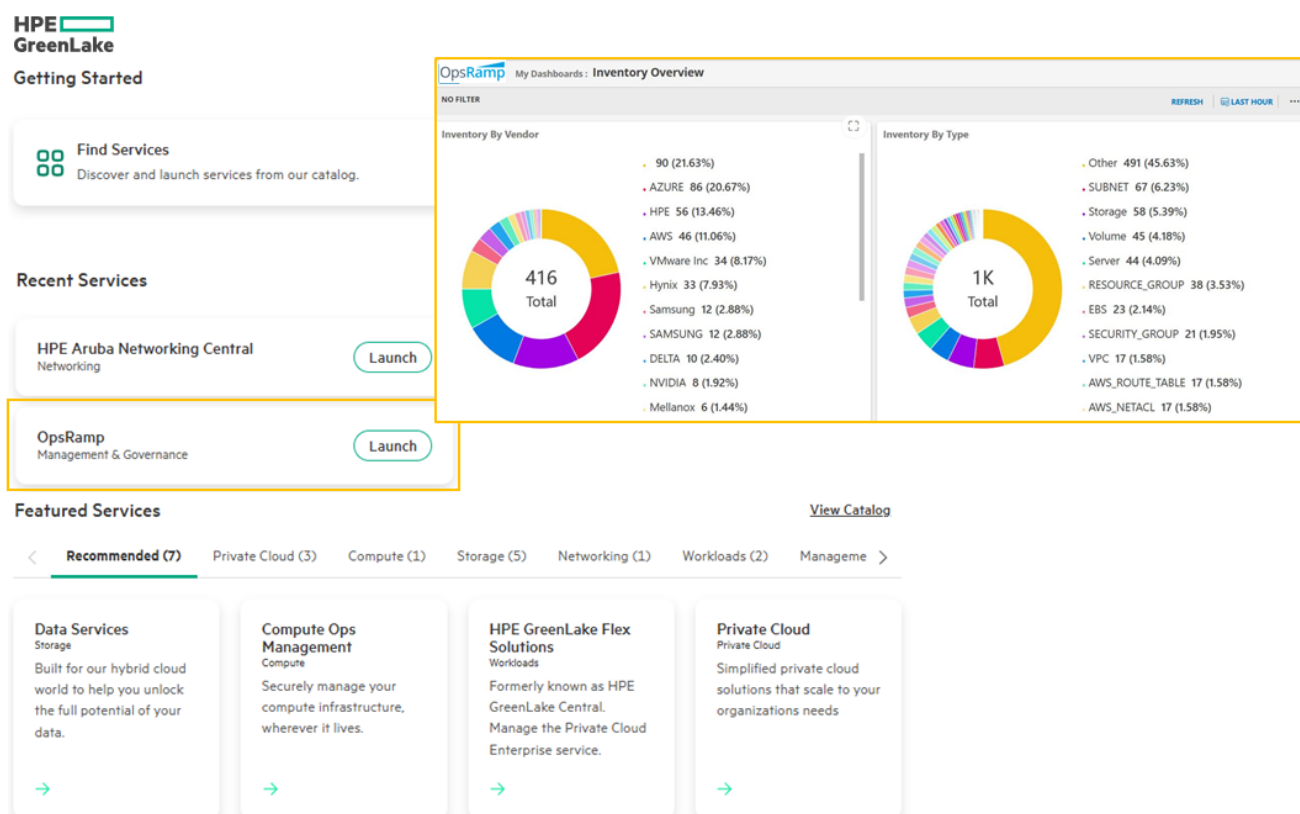
DATE	VERSION	EDITOR	CHANGES
08 Feb 2025	0.1	Ariya Parsamanesh	Initial creation
02 Mar 2025	0.2	Ariya Parsamanesh	Added the discovery workflow

2 OpsRamp Public Cloud Observability

2.1 Introduction

The increasing complexity of IT environments, especially with the addition of cloud services, can lead to chaos, inefficiencies, and uncontrolled "shadow IT." OpsRamp addresses these challenges with a comprehensive, cloud-based observability platform. By integrating logs, alerts, events, and network data, OpsRamp delivers AI-driven insights.

Essentially, OpsRamp is an AI-powered IT operations management platform that enables organisations to monitor, manage, and automate their entire IT infrastructure. A key strength is its extensive library of over 3,000 integrations for diverse infrastructure and applications. This provides a unified view of the organization's IT landscape, regardless of whether it's hybrid, on-premises, or cloud-based. OpsRamp offers health, performance, and availability dashboards, along with event management and automated remediation workflows.



The three components of OpsRamp are

- **Discovery and Observability** that automatically discovers every infrastructure resource in on-prem and 3rd party cloud environments. And then aggregating the metrics, events and logs from them in one dashboard.
- **Event and Incident Management** that automatically correlates, deduplicates and suppresses unnecessary alerts, to help reduce noise and focuses on root case of the issue.
- **Intelligent Automation** that improves efficiently through automating processes like routine maintenance tasks, remediation tasks in response to alerts, triggering tasks in 3rd party tools using APIs.

Benefits

- Simpler IT operation management, since instead of using multiple tools for each cloud infrastructure and environment, you get a consolidated on-premise, cloud and cloud-native observability.
- This enables you to respond to alert and security events more effectively
- Since you can co-relate various alerts, you can set your metrics and can automate the remediation, your service uptime will increase and results in better user and application experience.

In this technote I'll cover the basic setup of OpsRamp and focus on its simplicity for adding observability of a cloud based environment.

2.2 Assumptions

- You already have a valid GreenLake account
- Your OpsRamp subscription is added to your GreenLake account

2.3 GreenLake OpsRamp Access

OpsRamp is a service app which is part of HPE GreenLake along with other apps that are available like Aruba Central and HPE Sustainability Insight Center just to mention a few. Here is my GreenLake account and it shows my recent services and also a service catalog.

The screenshot displays the HPE GreenLake OpsRamp dashboard. At the top, the HPE GreenLake logo is on the left, and navigation tabs for Home, Services, and Devices are on the right. Below the header, there's a 'Getting Started' section with two cards: 'Find Services' (Discover and launch services from our catalog.) and 'Manage Workspace' (Set up this workspace, users, access and more.). A 'Dismiss' link is in the top right of this section. The 'Recent Services' section follows, with a 'My Services' link. It contains two cards: 'HPE Aruba Networking Central' (Networking) and 'User Experience Insight' (Networking), each with a 'Launch' button. The 'Featured Services' section has a 'View Catalog' link and a horizontal filter bar with categories: Recommended (8), Private Cloud (3), Compute (1), Storage (5), Networking (1), Workloads (2), and Managem... (partially visible). Below the filter bar, there are eight service cards arranged in a 2x4 grid. The first card is 'Data Services' (Storage). The second is 'Compute Ops Management' (Compute). The third is 'HPE GreenLake Flex Solutions' (Workloads), noted as formerly known as HPE GreenLake Central. The fourth is 'Private Cloud' (Private Cloud). The fifth card, 'OpsRamp' (Management & Governance), is highlighted with a yellow background. The sixth is 'Wellness Dashboard' (Management & Governance). The seventh is 'HPE Sustainability Insight Center' (Management & Governance). The eighth is 'HPE InfoSight' (Management & Governance). Each card includes a brief description and a green arrow pointing right.

HPE GreenLake Home Services Devices

Getting Started [Dismiss](#)

Find Services
Discover and launch services from our catalog.

Manage Workspace
Set up this workspace, users, access and more.

Recent Services [My Services](#)

HPE Aruba Networking Central (Networking) [Launch](#)

User Experience Insight (Networking) [Launch](#)

Featured Services [View Catalog](#)

< **Recommended (8)** Private Cloud (3) Compute (1) Storage (5) Networking (1) Workloads (2) Managem... >

Data Services (Storage)
Built for our hybrid cloud world to help you unlock the full potential of your data. →

Compute Ops Management (Compute)
Securely manage your compute infrastructure, wherever it lives. →

HPE GreenLake Flex Solutions (Workloads)
Formerly known as HPE GreenLake Central. Manage the Private Cloud Enterprise service. →

Private Cloud (Private Cloud)
Simplified private cloud solutions that scale to your organizations needs. →

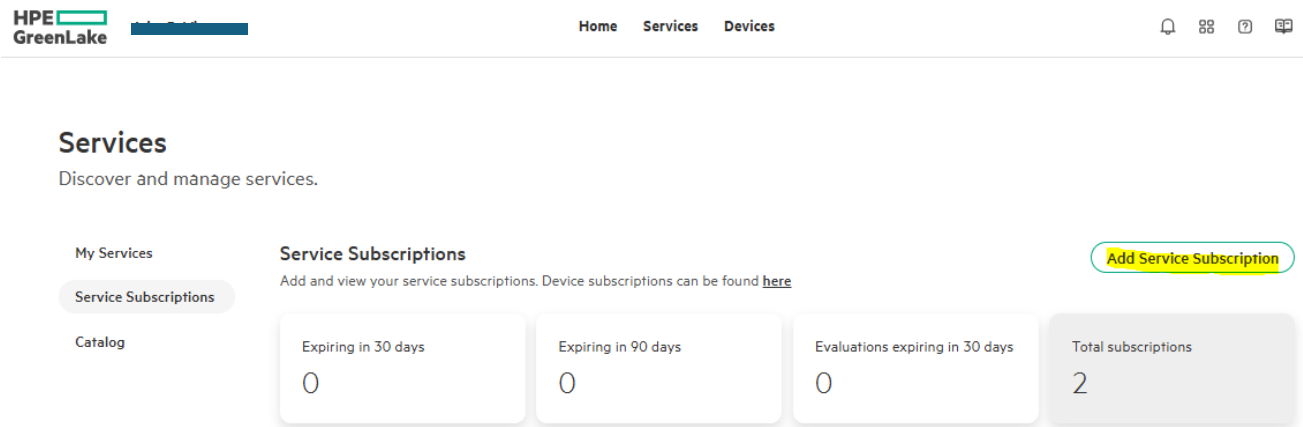
OpsRamp (Management & Governance)
Effectively manage your hybrid cloud IT resources with AIOps driven IT Operations Management. →

Wellness Dashboard (Management & Governance)
Mitigate risks and accelerate business agility with a 360 proactive health view of your environment. →

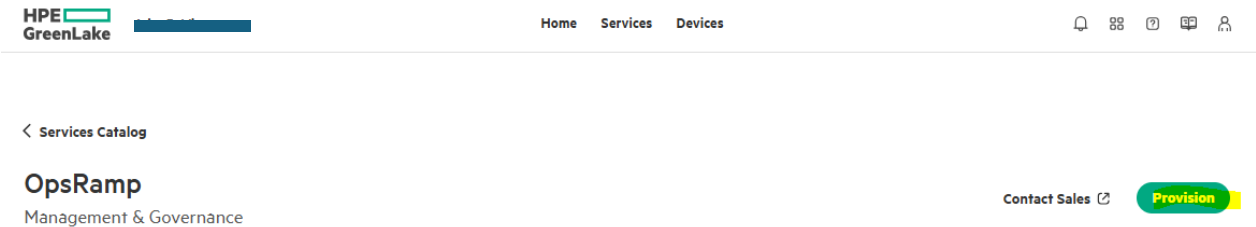
HPE Sustainability Insight Center (Management & Governance)
Gain visibility and insights for optimizing the sustainability of your IT estate. →

HPE InfoSight (Management & Governance)
AI-driven intelligence across servers, storage, virtual machines and more. →

OpsRamp is listed under Management and Governance Management tab of service catalog. But it also gets listed under recommended tab. You need to first add the OpsRamp subscription to your GreenLake service subscriptions.



And then go to the service catalog and provision OpsRamp app.



Once these are done you can launch the App and you'll be redirected to your OpsRamp dashboard.

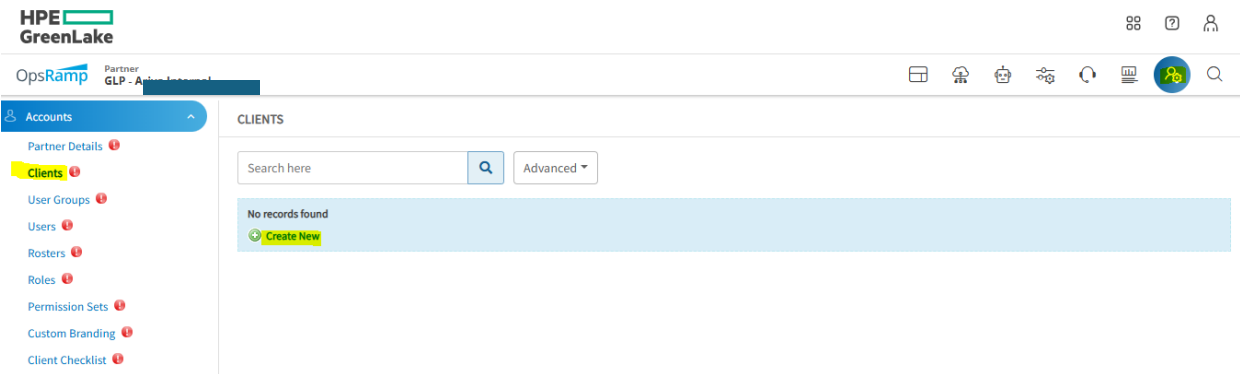


2.4 OpsRamp Accounts

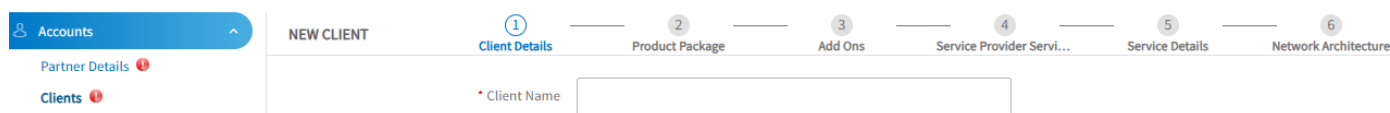
One thing to note about OpsRamp is that it uses multi-tenant architecture and hence it has different type of accounts. There is a “Partner” Account which is a top level account generally used by MSPs or large organisations. This account lets you create bunch of other accounts called “Client” accounts. These “Client” accounts could represent business units or branch offices, etc. With “Client” account you can then implement role base access control (RBAC), have different monitoring and visualisation specific to it, etc.

Firstly you need to setup a “Client” account then you might have a collector to discovers say network devices or an agent that is installed on resources that needs monitoring or a direct API integration.

To setup a client, you need to navigate to Setup icon >> Setup >> Client

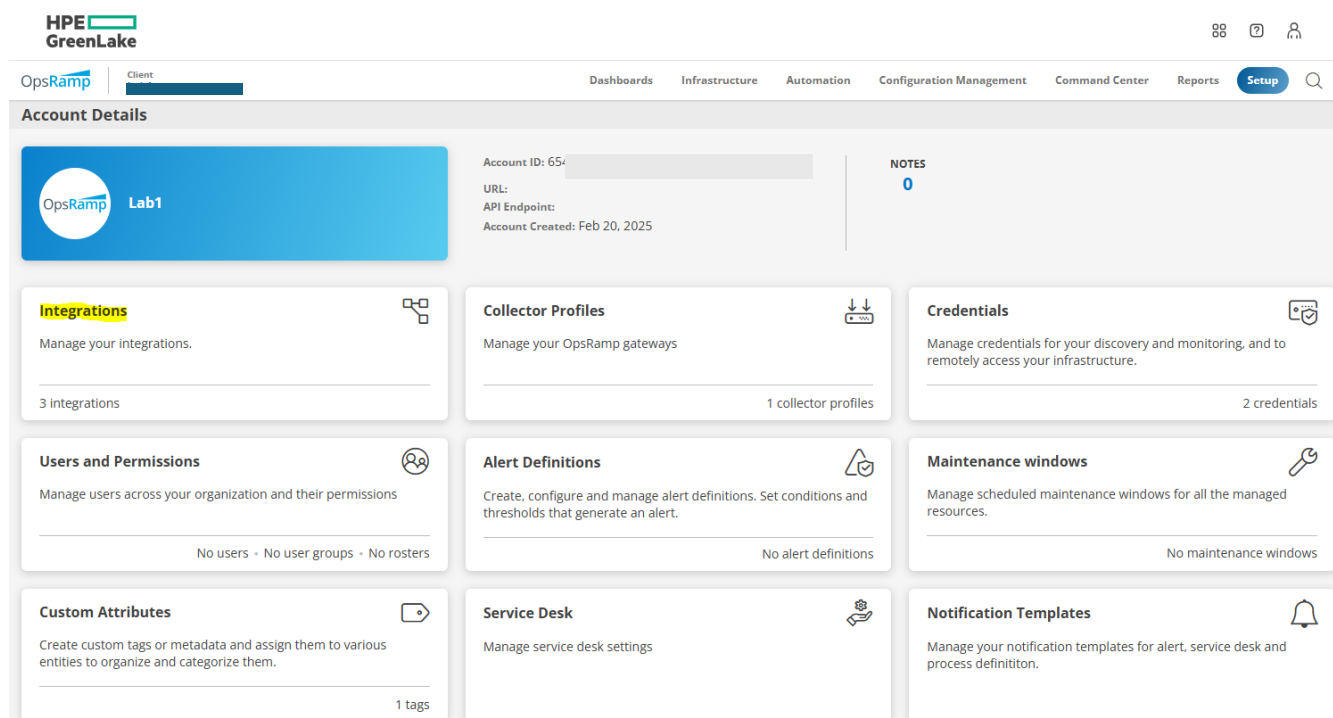


I won't go to the details of setting of a client as you can always refer to OpsRamp user guide, but as minimum you need to add the mandatory fields in Client detail part.



2.5 Public Cloud Discovery

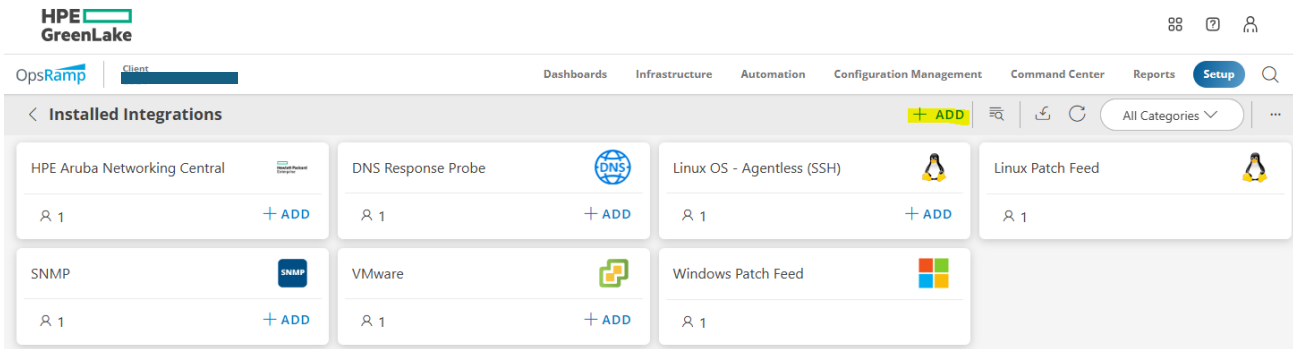
Now, to onboard public cloud resources, click on setup in the navigation bar and navigate to the account details page for the “client” that you just added.



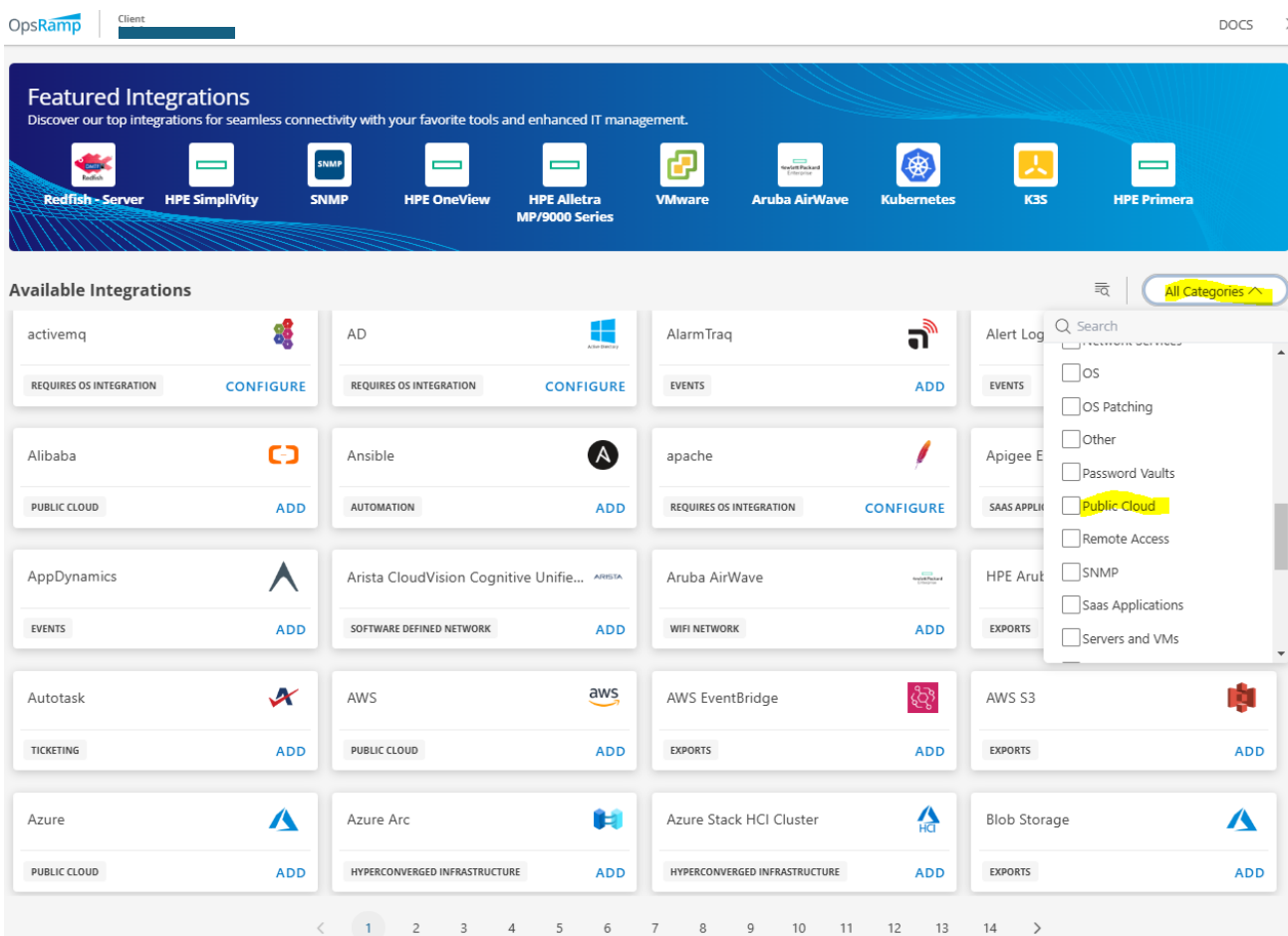
The account details page allows us to access the account details of our OpsRamp instance. Here there are a number of functional groups available like

- Defining your various collectors that you might need to discover your endpoints/devices.
- Credentials that are needed to discover devices/servers/application in your network
- Defining the alerts for your environment
- Setting up your maintenance windows
- Using custom attribute for various integration like we do with New Aruba Central
- Define your notification templates that can be sent using email, SMS, or voice (needs to have your own subscribed add-on).
- and Integration group that provides app store for various integration with different application and infrastructure like public cloud.

Click on the integrations tile to access the OpsRamp integration app store. This page displays all the installed integration applications for this instance.



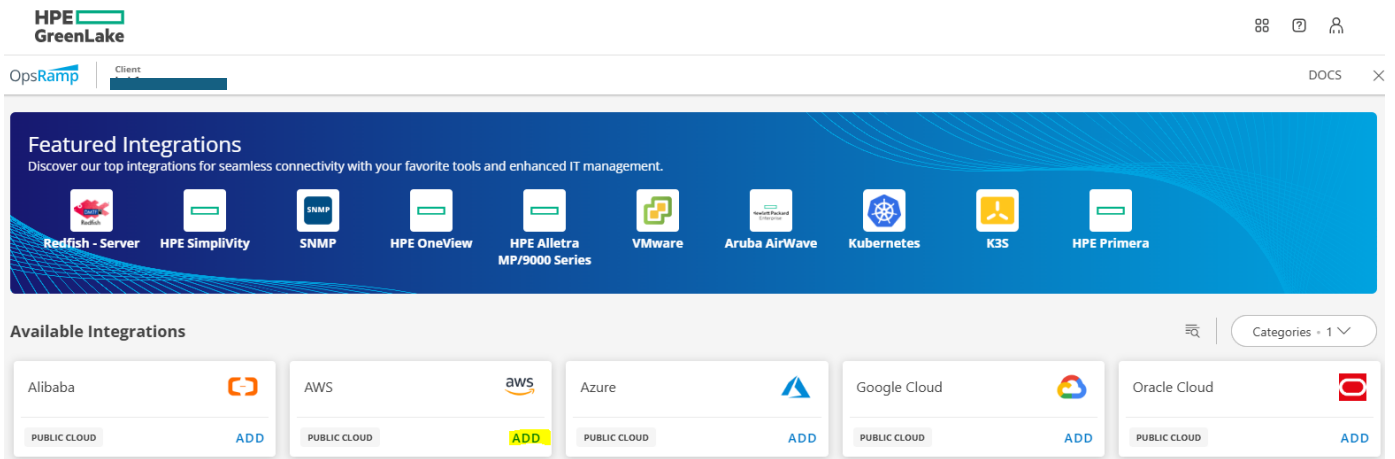
Next to integrate a new public cloud account we'll click on ADD which brings us to the next screen where we can choose the integration that we need. The list is in alphabetical order with the list of Featured integration at the top. OpsRamp provides the ability to discover and onboard resources or devices from any domain, vendor, or technology.



One of the important features of OpsRamp is its extensive integrations. The aim of the integrations is to connect OpsRamp to organisation's existing tools, platforms and ITSM solutions. Then based on these integrations OpsRamp can receive all the events, use its ML/AI to reduce the noise and correlate the alerts. Once we have the severity based Alerts then OpsRamp can provide automated remediation as well.

To filter the available integrations list, expand "all categories" filter at the top of the page and select public cloud as shown from the list. Now the page only shows the available Public Cloud Integration apps.

Here we'll choose to install the AWS app.



Next we get to the AWS configuration page to begin the process of discovering and onboarding resources. It is assumed that you have authorised access to AWS account and you have IAM with AssumeRole External ID.

OpsRamp recommends that the AWS integration uses the External ID method as it adds an additional layer of security to the integration, for details of it please refer to OpsRamp user guide.

The screenshot shows the 'ADD AWS' configuration page. The page has a breadcrumb trail: 'OpsRamp > Client > ADD AWS'. Below the breadcrumb, there's a progress indicator with three steps: '1 CONFIGURE', '2 FILTER', and '3 OPTIONS'. The 'CONFIGURE' step is active. The 'Configure' section contains a form with the following fields:

- Name ***: A text input field containing 'AWS Resource Discover'.
- Region(s) ***: A dropdown menu with a blue bar and a downward arrow.
- Access Type**: Three radio button options:
 - ☒ IAM Role with External ID (Recommended)
 - ☐ Access Keys
 - ☐ Parent Account Access
- Account number ***: A text input field with a blue bar. A link 'Where do I put this?' is next to it.
- External ID (optional) ***: A text input field with a blue bar.
- AssumeRole ARN ***: A text input field with a blue bar.

Once all the information has been entered, click next to proceed. Now we are brought to the filter page where Few can toggle between the available filter options and specify the type of AWS resources we want to onboard to our OpsRamp instance.

FILTER CRITERIA

SMART ✓

RESOURCE

FILTER BY RESOURCE TYPE

ALL

SELECT ✓

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Amazon Connect | <input type="checkbox"/> API Gateways | <input type="checkbox"/> App Mesh | <input type="checkbox"/> App Stream |
| <input type="checkbox"/> Applications | <input type="checkbox"/> AppSync API | <input type="checkbox"/> Athena | <input type="checkbox"/> Auto Scaling Groups |
| <input type="checkbox"/> BeanStalks | <input type="checkbox"/> Bot | <input type="checkbox"/> Cloud HSM Cluster | <input type="checkbox"/> Cloud Search Domain |
| <input type="checkbox"/> CloudFront | <input type="checkbox"/> Cognito User Pool | <input type="checkbox"/> Cognito User Pool Client | <input type="checkbox"/> Direct Connections |
| <input type="checkbox"/> DocDB Cluster | <input type="checkbox"/> DRS Source Servers | <input type="checkbox"/> Dynamodb | <input type="checkbox"/> EC2 Instances |
| <input type="checkbox"/> ECS Clusters | <input type="checkbox"/> EFS | <input type="checkbox"/> Elastic Search Services | <input type="checkbox"/> Elastic Transcoders |
| <input type="checkbox"/> ElastiCache | <input type="checkbox"/> EMR | <input type="checkbox"/> EventBridge Bus | <input type="checkbox"/> FSX File Systems |
| <input type="checkbox"/> Gamelift Alias | <input type="checkbox"/> Gamelift Build | <input type="checkbox"/> Gamelift Fleet | <input type="checkbox"/> Gamelift Matchmaking Config |
| <input type="checkbox"/> Gamelift Matchmaking Rule set | <input type="checkbox"/> Gamelift Queue | <input type="checkbox"/> Gamelift Script | <input type="checkbox"/> Glue |
| <input type="checkbox"/> GuardDuty | <input type="checkbox"/> Hosted Zone | <input type="checkbox"/> Inspector Target | <input type="checkbox"/> Inspector Template |
| <input type="checkbox"/> IOT Job | <input type="checkbox"/> IOT Rule | <input type="checkbox"/> Kinesis | <input type="checkbox"/> Kinesis Firehoses |
| <input type="checkbox"/> Kms | <input type="checkbox"/> Lambda | <input type="checkbox"/> Lightsail | <input type="checkbox"/> Load Balancers |
| <input type="checkbox"/> Machine Learning | <input type="checkbox"/> Media Connect Entitlements | <input type="checkbox"/> Media Connect Flow | <input type="checkbox"/> Media Convert Job |
| <input type="checkbox"/> Media Convert Job Template | <input type="checkbox"/> Media Convert Preset | <input type="checkbox"/> Media Convert Queue | <input type="checkbox"/> Media Package Channel |
| <input type="checkbox"/> Media Package Harvest Job | <input type="checkbox"/> Media Package Origin Endpoint | <input type="checkbox"/> Media Tailor Playback Config | <input type="checkbox"/> MQ Broker |
| <input type="checkbox"/> MSK Cluster | <input type="checkbox"/> NAT Gateway | <input type="checkbox"/> Neptune DB Cluster | <input type="checkbox"/> OpsWorks Stack |
| <input type="checkbox"/> Pipelines | <input type="checkbox"/> Projects | <input type="checkbox"/> RDS | <input type="checkbox"/> Redshift |
| <input type="checkbox"/> Replication Instance | <input type="checkbox"/> Repositories | <input type="checkbox"/> Route 53 | <input type="checkbox"/> S3 Bucket |
| <input type="checkbox"/> SageMaker EndPoint | <input type="checkbox"/> SageMaker GroundTruth | <input type="checkbox"/> SageMaker Training | <input type="checkbox"/> SageMaker Transform |
| <input type="checkbox"/> SNS | <input type="checkbox"/> Spot Requests | <input type="checkbox"/> SQS | <input type="checkbox"/> State Machine |
| <input type="checkbox"/> Storage Gateway | <input type="checkbox"/> SWF | <input type="checkbox"/> Target Group | <input type="checkbox"/> Transit Gateway |
| <input type="checkbox"/> Translate Job | <input type="checkbox"/> Volumes | <input type="checkbox"/> VPN | <input type="checkbox"/> WAF |
| <input type="checkbox"/> Workspace | | | |

We can choose to discover and onboard all the resources in the AWS account, or they can choose to only discover specific resource types.

Filter

FILTER CRITERIA

SMART

RESOURCE ✓

FILTER BY RESOURCE TAG

ALL ✓

ANY

Resource Type	Key	Operator	Value	
API Gateway	Key	Operator	Value	+ x

The last page of the public cloud discovery process provides flexible options to manage AWS resources while onboarding onto the OpsRamp instance.

OpsRamp
Client
ADD AWS

✓ CONFIGURE

✓ FILTER

3 OPTIONS

☐ Manage Device
Manage resources in addition to discovering them.

☐ Enable Metric Streaming
Metric streaming streams data from AWS Kinesis Firehose. Note: This will stop metric collection from CloudWatch APIs.

☐ Stream CloudWatch Alarms
Enter SQS URL to get alarms.[See Configuring Amazon CloudWatch alarms.](#)

☐ Create a resource based on CloudTrail events stream
Enter SQS URL to get events.[See Configuring Amazon CloudTrail.](#)

☐ Stream AWS Events
Enter SQS URL to get events.[See Configuring AWS Events.](#)

☐ Collect Cost Analytics
To collect cost details of services, we use Cost Explorer to fetch Cost Analytics data.

☐ Assign Credentials Matching with Fingerprint
Check if the credential set of EC2 instance matches the credential set of the key pair.

☐ Assign Management Profile

DISCOVERY SCHEDULE

NONE
MINUTES
HOURLY
DAILY ✓
WEEKLY
MONTHLY

Every
1
days
at
01:00 AM ⓘ

We can define a discovery schedule to ensure that all resource statuses are in sync between OpsRamp and AWS Infrastructure. Now click finish to complete the installation and initiate the resource discovery. Once the AWS resource discovery is completed by OpsRamp, the resources will be arranged by resource type.

To view the newly discovered public cloud resources, we'll navigate to "Infrastructure >>Resources" and then by clicking on AWS.

OpsRamp
Client

Dashboards
Infrastructure
Automation
Configuration Management
Command Center
Reports
Setup

Resources
643
229 ↑
6 ↓
165 ⓘ
243 ⓘ

Search Name / IP Address
Advanced Search

Server
74
>

Network Device
3
>

Storage
58

VMware
1
>

Power
10

Other
491

Gateway
1

Cluster
2

AWS
1
>

Microsoft Azure
1
>

Endpoint
1

Resources

Server
Servers
Gateway 1
Linux 15
Server 44
Windows 15

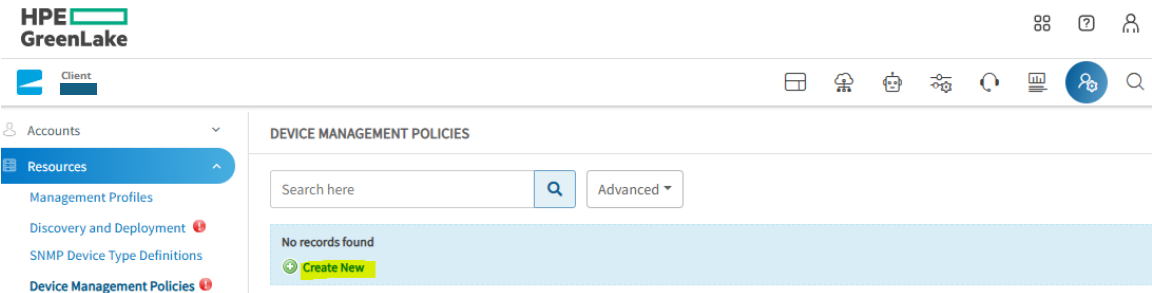
Network Device
Network Devices
Switch 3

Storage
Storages
Storage 58

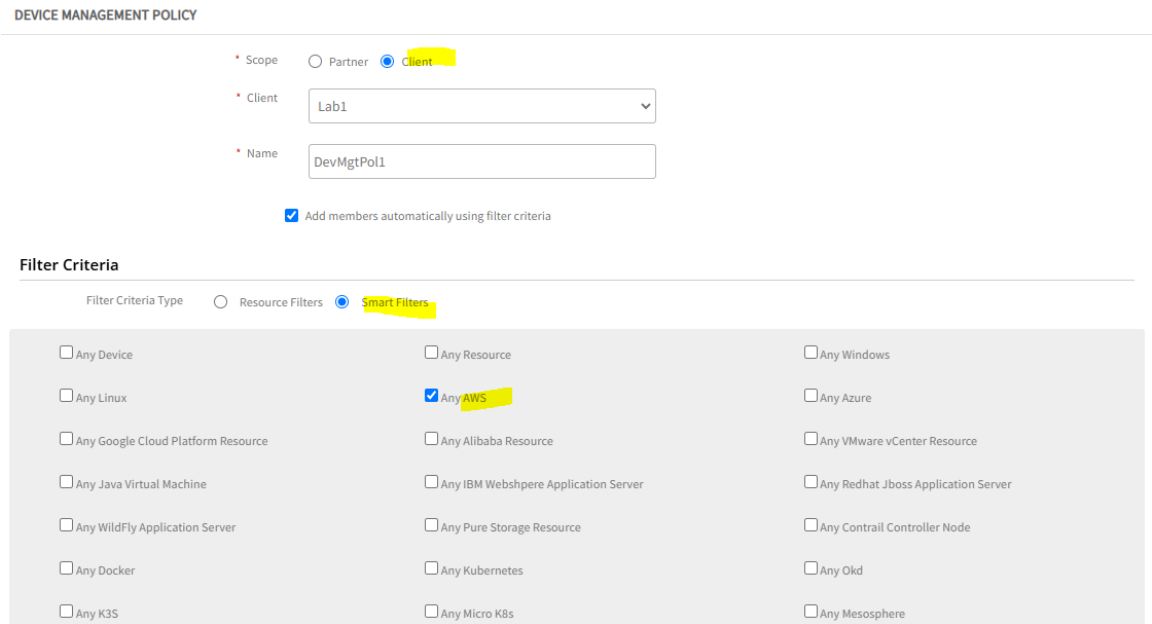
The AWS infrastructure resource page shows the list of AWS resources that were discovered and onboarded to OpsRamp.

9 | Page

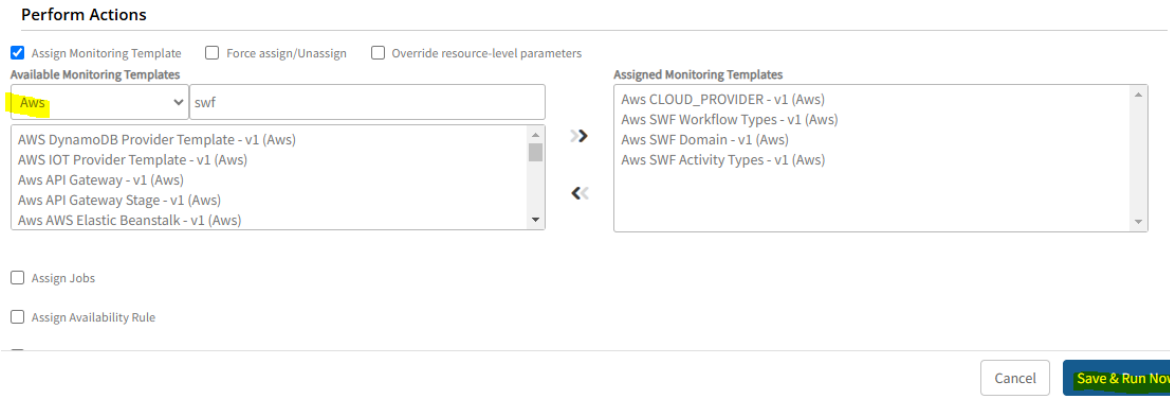
It is important to collect metrics for monitoring and managing resources. The easiest way to collect metrics is to create device management policy to obtain metrics from all your discovered resources and any future ones automatically. We need to go to Setup >> Resources >> Device Management Policies.



Select the Smart filters to be able to choose from the categories.

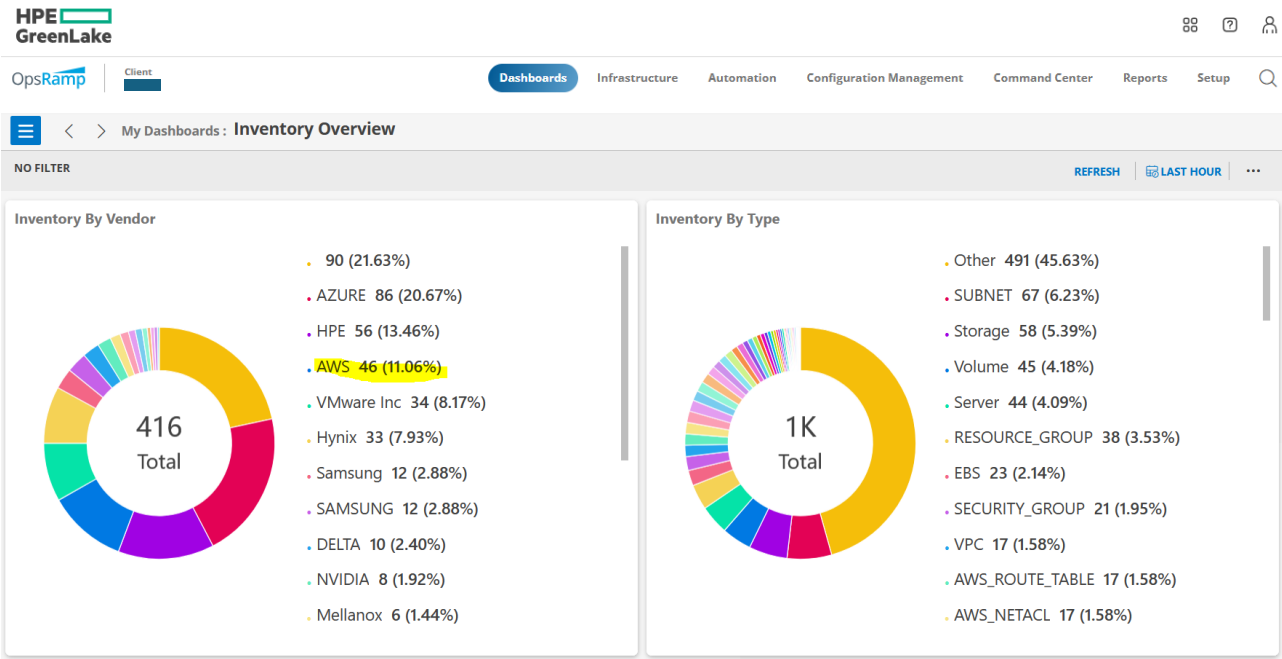


Now scroll down and select check the check box for “Assign Monitoring Template”. Then select AWS as a filter and choose relevant templates for your test or even all the available templates.



OpsRamp includes a vast number of Monitoring templates that can be applied to the resource types and then based on that you can see the performance, availability of the resource in the custom dashboard. For more details about Monitoring templates please refer to the OpsRamp user guide.

Now when we go back to our dashboard, we should see all the resources that are discovered and assigned.



Lastly you can have a number of customised dashboards at different levels. Partner administrator, a Client administrator, or a user with Manage Dashboard permission can create dashboards.