

1) Jenkins EC2:

Search [Alt+S] [Icons] N. Virginia neha.sharma6@publicissapient.com @ 0326-1695-1021

Instances (1/1) Info [Refresh] [Connect] [Instance state] [Actions] [Launch instances]

Find Instance by attribute or tag (case-sensitive)

Instance state = running X Clear filters

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability zone
<input checked="" type="checkbox"/>	Jenkins	i-053f1e4064b6d1cca	Running	t2.small	Initializing	No alarms	us-east-1a

Instance: i-053f1e4064b6d1cca (Jenkins)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

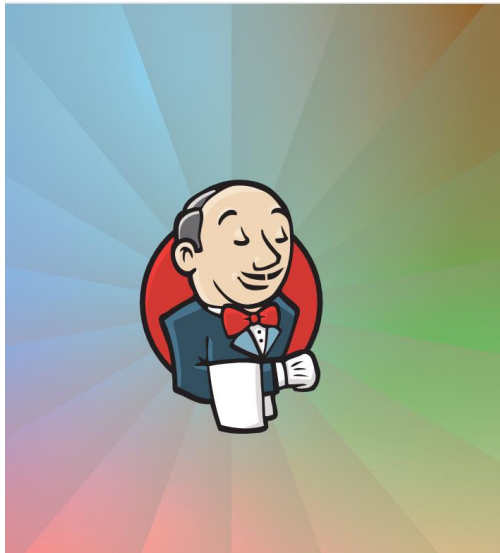
Instance summary Info

Instance ID i-053f1e4064b6d1cca (Jenkins)	Public IPv4 address 54.89.28.100 open address	Private IPv4 addresses 172.31.54.46
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-89-28-100.compute-

Jenkins UI:

→ ↻ Not secure | http://54.89.28.100:8080/login?from=%2F [Icons]

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Sign in to Jenkins

Username

Password

☐ Keep me signed in

Sign in

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Jenkins Search (CTRL+K) Neha Sharma log out

Dashboard >

+ New Item Add description

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Build Queue ▼

No builds in the queue

S	W	Name ↓	Last Success	Last Failure	Last Duration
✓	☁	eks-pipeline	8 days 0 hr #14	8 days 2 hr #13	5 min 51 sec ▶
✓	☁	elk-prometheus-logging	8 days 1 hr #14	8 days 1 hr #13	2 min 23 sec ▶
✓	☁	elk-prometheus-monitoring	8 days 0 hr #2	8 days 0 hr #1	18 sec ▶

EKS – Elastic Kubernetes Service:

Git URL:-

<https://pscode.lioncloud.net/eca-nehsharm22/aws-eks-setup>

Stage View:



Cluster:

Search

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X

EKS > Clusters

ⓘ New Kubernetes versions are available for 1 cluster.

Clusters (1) Info

🔄

Delete

Add cluster

🔍 Filter clusters

< 1 >

	Cluster name	Status	Kubernetes version	Provider
○	EKS-CLUSTER	Active	1.26 Update now	EKS

Amazon EKS

X

Amazon Elastic Kubernetes Service (Amazon EKS) is a managed service that makes it easy for you to run Kubernetes on AWS without needing to stand up or maintain your own Kubernetes control plane. Kubernetes is an open-source system for automating the deployment, scaling, and management of containerized applications.

Applications running on Amazon EKS are fully compatible with

Pods:

Search

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X

ice

< Overview Resources Compute Networking Add-ons >

☰

Workloads: Pods (13)

View details

Pod is the smallest and simplest Kubernetes object. A Pod represents a set of running containers on your cluster.

[Learn more](#)

All Namespaces

🔍 Filter Pods by property or value

< 1 2 >

	Name	Age
○	prometheus-prometheus-node-exporter-lqmc	Created 36 minutes ago
○	prometheus-prometheus-pushgateway-75986b9c9f-d8mww	Created a minute ago

(EC2 instances) or Fargate compute. Worker nodes run in your account; Fargate compute runs in AWS accounts.

All compute (EC2 or Fargate) show up as nodes in the cluster Overview tab. You can manage this compute in the cluster configuration tab.

3. Resources that are defined in the Kubernetes API. There are a number of standard resources that define how your code runs on the cluster. You can see common resources and their status in the cluster Workloads tab.

The EKS console allows you to view, but not modify Kubernetes API resources. You can modify your

Nodes Groups:

Q Search [Alt+S] N. Virginia neha.sharma6@publicissapient.com @ 0326-1695-1021

×

vice

Nodes (1) Info

Q Filter Nodes by property or value

< 1 >

Node name ▲	Instance type ▼	Node group ▼	Created ▼	Status ▼
ip-172-31-79-177.ec2.internal	t3.xlarge	EKS-CLUSTER-NODEGROUP	Created an hour ago	✓ Read y

Node groups (1) Info

Edit Delete Add node group

Group name ▲	Desired size ▼	AMI release version ▼
EKS-CLUSTER-NODEGROUP	1	1.26.8-20231002

compute worker nodes run in your account; Fargate compute runs in AWS accounts.

All compute (EC2 or Fargate) show up as nodes in the cluster Overview tab. You can manage this compute in the cluster configuration tab.

3. Resources that are defined in the Kubernetes API. There are a number of standard resources that define how your code runs on the cluster. You can see common resources and their status in the cluster Workloads tab.

The EKS console allows you to view, but not modify Kubernetes API resources. You can modify your Kubernetes resources using

ELK setup

Logging: Kibana

Repo URL :

<https://pscode.lioncloud.net/eca-nehsharm22/aws-elm-prometheus-setup>

Elastic:



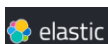
Welcome to Elastic

Username

Password



Log in



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Welcome home



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Observability

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Security

Prevent, collect, detect, and respond to threats for unified protection across your infrastructure.



Analytics

Explore, visualize, and analyze your data using a powerful suite of analytical tools and applications.

✓ Console Output

```
Started by user Neha Sharma
Obtained logging/Jenkinsfile from git https://pscode.lioncloud.net/eca-nehsharm22/aws-elk-prometheus-setup
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/elk-prometheus-logging
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential c599c311-0fea-463c-87b9-9c1a89959ca0
> /usr/bin/git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/elk-prometheus-logging/.git # timeout=10
Fetching changes from the remote Git repository
> /usr/bin/git config remote.origin.url https://pscode.lioncloud.net/eca-nehsharm22/aws-elk-prometheus-setup #
timeout=10
```

Query Dev Tool:

← → ↺ ⚠ Not secure | http://a910b7238ed2747eea7249ea397b3bd5-95779630.us-east-1.elb.amazonaws.com:5601/app/dev_tools#/console

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elastic

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≡ D Dev Tools Console

Console Search Profiler Grok Debugger Painless Lab BETA

History Settings Variables Help

1 # Click the Variables button, above, to create your own variables.
2 GET \${exampleVariable1} // _search
3 {
4 "query": {
5 "\${exampleVariable2}": {} // match_all
6 }
7 }

1 {
2 "took": 3,
3 "timed_out": false,
4 "_shards": {
5 "total": 1,
6 "successful": 1,
7 "skipped": 0,
8 "failed": 0
9 },
10 "hits": {
11 "total": {
12 "value": 1436,
13 "relation": "eq"
14 },
15 "max_score": 1,
16 "hits": [
17 {
18 "_index": ".ds-filebeat-8.5.1-2023.10.08-000001",
19 "_id": "WFABEIsB4jMmHe44eVMO",
20 "_score": 1,
21 "_source": {
22 "@timestamp": "2023-10-08T15:56:50.331Z",
23 "host": {
24 "name": "filebeat-filebeat-h2ntn"

200 - OK 590 ms

The screenshot shows the Elastic Dev Tools Console. On the left, a REST client request is defined with a GET method and a query string. The response on the right is a JSON object representing a container configuration for filebeat.

```

1 # Click the Variables button, above, to create your own variables.
2 GET ${exampleVariable1} // _search
3 {
4   "query": {
5     "${exampleVariable2}": {} // match_all
6   }
7 }

24   "name": "filebeat-filebeat-h2qtp"
25   },
26   "stream": "stderr",
27   "ecs": {
28     "version": "8.0.0"
29   },
30   "input": {
31     "type": "container"
32   },
33   "container": {
34     "runtime": "containerd",
35     "image": {
36       "name": "docker.elastic.co/beats/filebeat:8.5.1"
37     },
38     "id": "ce526865cc505a53b28bf77ff830bcd51d152a9f213aca93d3e78526456303f7"
39   },
40   "kubernetes": {
41     "namespace_labels": {
42       "kubernetes_io/metadata_name": "elk"
43     },
44     "pod": {
45       "ip": "172.31.77.238",
46       "name": "filebeat-filebeat-h2qtp"

```

Monitoring:

Grafana:

Repo Url : <https://pscode.lioncloud.net/eca-nehsharm22/aws-elk-prometheus-setup>

The screenshot shows the Jenkins console output for a pipeline named 'k-prometheus-monitoring'. The output indicates that the pipeline was started by user 'Neha Sharma' and that the monitoring/Jenkinsfile was obtained from a specific Git repository. The pipeline is running on Jenkins in the directory '/var/lib/jenkins/workspace/elk-prometheus-monitoring'.

```

ins
Search (CTRL+K)
Neha Sharma
log out

k-prometheus-monitoring > #2

[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/elk-prometheus-monitoring
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE

```

EC2 commands to get Grafana url and checked Grafana is running fine

```
aws
Services
Search
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~ -d
bash: $'\E[200-kubect1': command not found
ec2-user@ip-172-31-54-46 ~]$ kubectl get secrets --namespace=elk elasticsearch-master-credentials -o jsonpath='{.data.password}' | base64 -d
/aRF6Lz37T2np1W5[ec2-user@ip-172-31-54-46 ~]$ ^C
ec2-user@ip-172-31-54-46 ~]$ kubectl get all -n grafana
No resources found in grafana namespace.
ec2-user@ip-172-31-54-46 ~]$ kubectl get all -n grafana
NAME                                READY    STATUS    RESTARTS   AGE
pod/grafana-78495b6d6-kk8cq         1/1      Running   0           103s

NAME                                TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
service/grafana                      LoadBalancer  10.100.53.119    a818ff3e84b91457d9ce4e1e63ca95e9-1754025202.us-east-1.elb.amazonaws.com  80:32534/TCP     103s

NAME                                READY    UP-TO-DATE    AVAILABLE    AGE
deployment.apps/grafana              1/1      1              1            103s

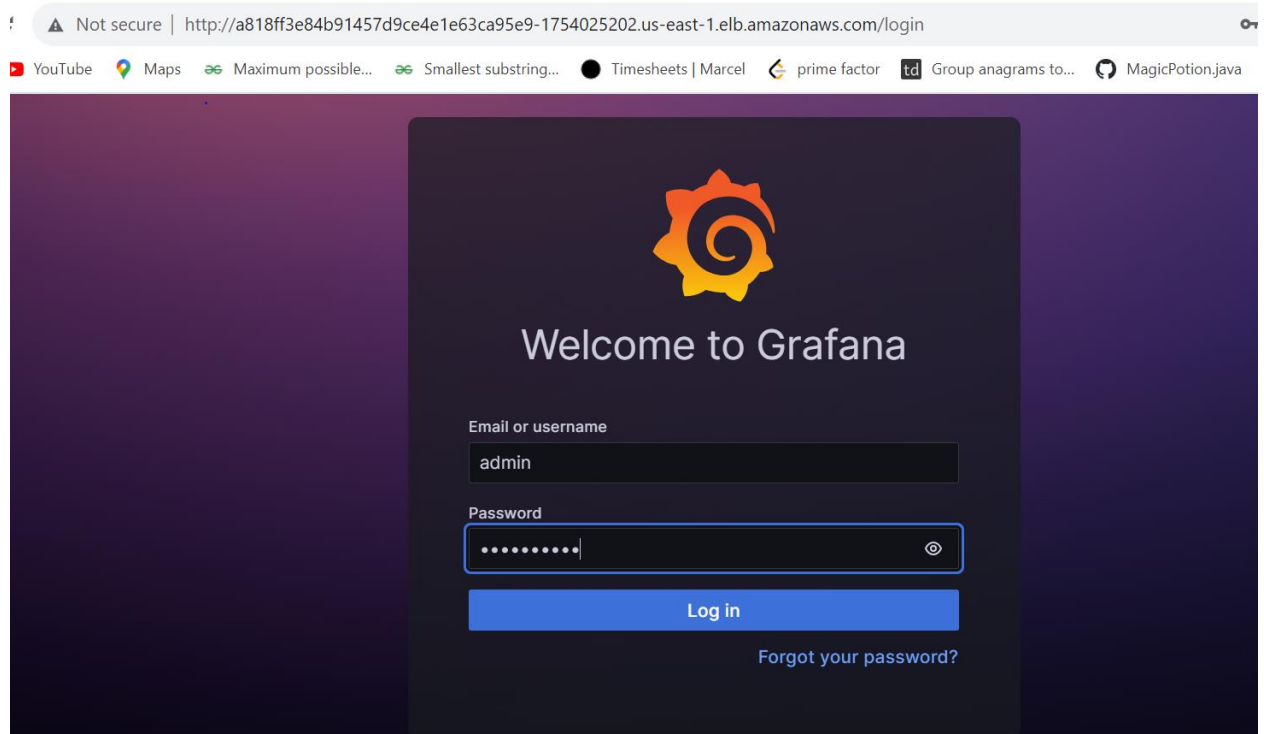
NAME                                DESIRED    CURRENT    READY    AGE
replicaset.apps/grafana-78495b6d6    1          1          1        103s
ec2-user@ip-172-31-54-46 ~]$
```

```
aws
Services
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deployment.apps/grafana 1/1      1              1            103s

NAME                                DESIRED    CURRENT    READY    AGE
replicaset.apps/grafana-78495b6d6    1          1          1        103s
ec2-user@ip-172-31-54-46 ~]$ kubectl get secret --namespace grafana grafana -o jsonpath="{.data.admin-password}" | base64 --decode ; echo
ecretpass
ec2-user@ip-172-31-54-46 ~]$ export SERVICE_IP=$(kubectl get svc --namespace grafana grafana -o
^C
export SERVICE_IP=$(kubectl get svc --namespace grafana grafana -o jsonpath='{.status.loadBalancer.ingress[0].ip}')
^C
ec2-user@ip-172-31-54-46 ~]$ export SERVICE_IP=$(kubectl get svc --namespace grafana grafana -o jsonpath='{.status.loadBalancer.ingress[0].ip}')
^C
ec2-user@ip-172-31-54-46 ~]$ export SERVICE_IP=$(kubectl get svc --namespace grafana grafana -o jsonpath='{.status.loadBalancer.ingress[0].ip}')
^C
ec2-user@ip-172-31-54-46 ~]$ kubectl get svc --namespace grafana -w grafana
NAME                                TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
grafana                            LoadBalancer  10.100.53.119    a818ff3e84b91457d9ce4e1e63ca95e9-1754025202.us-east-1.elb.amazonaws.com  80:32534/TCP     10m
```

Grafana Login Page:



Grafana Dashboard:

