

Container is running out of space

Created by Hernan Escalera on Apr 18, 2023

No labels

1 Comment



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Title: Container is running out of space

Symptom:

Reduced performance, crashes, or failures in the affected container(s)

Impact:

When a container runs out of disk space, it can slow down the application running within it. This can lead to longer response times and degraded performance. Crashes or failures, If the container completely runs out of disk space, the application running within it may crash or fail. This can cause downtime and disrupt critical business operations.

Diagnosis:


1.- Identify the affected container(s): Connect through <https://sre-console.saas.ibm.com/sre-console/clusters>, select the appropriate environment prod-GuardiumInsights:

IBM SaaS Console Operation Hub

Cloud: AWS

Prod: guardiuminsights

Clusters





Global SRE tools: 

Search

Data center

Create ROSA

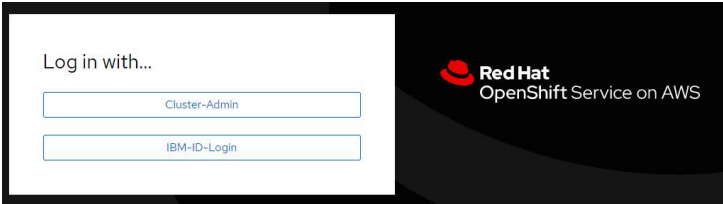
AWS console

Name	Status	Created at	Version	Default machine pool	Custom machine pool	Data Center	Availability Zones	SRE handover	Region scope SRE tools	Cluster tools	Action
sgi-preprod01c	Ready	Mon Apr 10 2023, 6:56:31 AM	4.10.55	3 Master 3 Infra 3 Compute	[(m6i.4xlarge) - Min:9, Max:36]	Virginia(us-east-1)	us-east-1c, us-east-1b, us-east-1a	Ready	Tools box		
sgi-prod01	Ready	Fri Apr 21 2023, 9:53:54 AM	4.10.56	3 Master 3 Infra 3 Compute	[(m6i.4xlarge) - Min:9, Max:36]	Virginia(us-east-1)	us-east-1b, us-east-1a, us-east-1c	Not Started	Tools box		

2.- Go through sgi-prod01:

sgi-prod01	Ready	Fri Apr 21 2023, 9:53:54 AM	4.10.56	3 Master 3 Infra 3 Compute	[(m6i.4xlarge) - Min:9, Max:36]	Virginia(us-east-1)
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3.- Select IBM-ID-Login in the Red-Hat screen:



- 4.- Use the `oc get pods -n giaas | grep -iv completed| grep -iv running` command to list all affected pods in the giaas namespace. Note the name of the pod running out of space.
- 5.- Run `oc get pods <pod-name> -o wide` to check on which node the pod is scheduled.
- 6.- Run `oc adm top node` to check resource usage by each node in the cluster.
- 6.- Check the container logs to see if there are any error messages related to disk space using `oc logs` command followed by the pod name and container name to view the logs.
- 7.- Resize the container, If the container has a fixed size, you may need to resize it to allocate more disk space.

Remediation:

- 1.- Identify and address the root cause: The first step in remediation is to identify and address the root cause of the pod restarts.
- 2.- We need to ensure the problem is the logs full. Firstly, we need delete all the old logs, by the next command: `oc logs <pod name> --since=0 --all-containers=true --tail=0 > /dev/null`

Post Remediation Steps:

- 1.- Monitor the pod, after implementing remediation steps, it's important to continue monitoring the pod to ensure it remains stable and does not experience further restarts.
- 2.- Log into Grafana to monitor logs and ensure the stability of the pods (<https://sre-console.saas.ibm.com/sre-console/clusters>). In the MSCP console, select the correct environment and select Grafana:

IBM SaaS Operation Hub

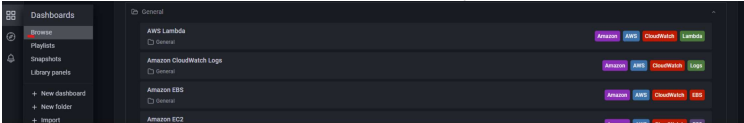
Cloud: AWSProd: guardiuminsights

Clusters

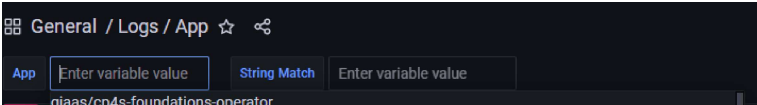
Global SRE tools: Data center: Create ROSA

Name	Status	Created at	Version	Default machine pool	Custom machine pool	Data Center	Availability Zones	SRE handover	Region scope SRE tools	Cluster tools	Action
sg-prod01sc	Ready	Mon Apr 10 2023, 6:56:31 AM	4.10.57	3 Master 3 Infra 3 Compute	[[m5d.large]] - Minc9, Mac36	Virginia(us-east-1)	us-east-1c, us-east-1b, us-east-1a	Ready		Tools box	I
sg-prod01	Ready	Fri Apr 21 2023, 9:33:58 AM	4.10.56	3 Master 3 Infra 3 Compute	[[m5d.large]] - Minc9, Mac36	Virginia(us-east-1)	us-east-1b, us-east-1a, us-east-1c	Not Started		Tools box	I

3.- In Grafana select the correct dashboard for the app's logs:



4.- In the applications menu select the name corresponding to the pod you are verifying, to check your stability:



5.- Monitor logs and ensure the stability of the applications