Red Hat OpenShift Service on AWS

User Guide

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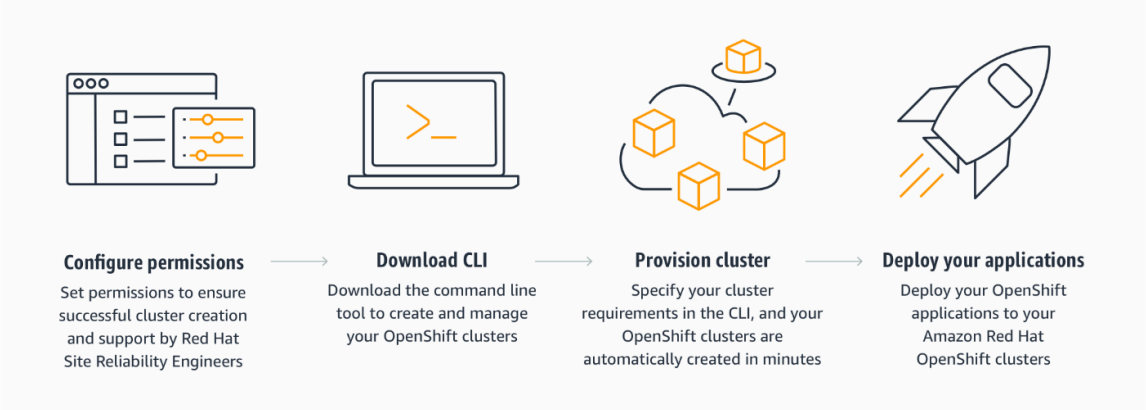
What is Red Hat OpenShift Service on AWS (ROSA)?

Red Hat OpenShift Service on AWS is a managed service that's available through the AWS Management Console. It helps Red Hat OpenShift users build, scale, and manage containerized applications on AWS. With ROSA, you can create Kubernetes clusters using Red Hat OpenShift APIs and tooling and have access to the full breadth and depth of AWS services. ROSA streamlines moving on-premises Red Hat OpenShift workloads to AWS, and offers tight integration with other AWS services. With ROSA, you can access Red Hat OpenShift licensing, billing, and support all directly through AWS.

There are no up-front costs required to use ROSA. You pay only for the container clusters and nodes that you use. With pay-as-you-go pricing, you don't have to worry about complex, multi-year contracts. This flexibility means that you can align your Red Hat OpenShift consumption in AWS with your business needs.

How does ROSA work



Each ROSA cluster comes with a fully-managed control plane and compute nodes. Installation, management, maintenance, and upgrades are performed by a Red Hat site reliability engineers (SRE) with joint Red Hat and Amazon support. ROSA clusters are deployed in your account with support for existing VPCs.

Note
By default, Red Hat manages all ROSA clusters using the same restrictions, quotas, expectations, and configurations.

Getting started with Red Hat OpenShift Service on AWS (ROSA)

This topic provides an overview of how to set up, and get started using, Red Hat OpenShift Service on AWS (ROSA).

Prerequisites

Before you set up ROSA, make sure you have completed these actions:

- Install and configure the latest AWS CLI. For more information, see AWS Command Line Interface.
- Install and configure the latest rosa CLI. For more information, see the topic in the Red Hat Documentation.
- Follow the steps in the Setting up your environment guide in the Red Hat documentation.
- Ensure you meet all of the requirements in the Customer Requirements topic in the Red Hat documentation.

Enable Red Hat OpenShift Service on AWS

Red Hat OpenShift Service on AWS can be enabled in the AWS Management Console.

1. Navigate to Red Hat OpenShift Service on AWS.
2. Select **Enable OpenShift**.

> **Note**
> You can ignore this step if you completed it during the process of completing the Red Hat guide for **Setting up your environment**.

Using the ROSA CLI to create your cluster

After you have completed all the prerequisite steps, you can use the ROSA CLI to create and manage your cluster through Red Hat OpenShift. For more information, see Creating a ROSA cluster.

> **Note**
> Cluster creation can take up to 40 minutes.

Troubleshooting

This chapter covers troubleshooting some of the requirements necessary to create a cluster including account permissions, ROSA service enablement, and service quotas.

Troubleshooting Permissions

With Red Hat OpenShift Service on AWS (ROSA), you can receive both Red Hat and AWS support directly through AWS. Several requirements must be met to receive support from Red Hat site reliability engineers (SRE). For information about these requirements, see the Red Hat OpenShift Minimum Required Service Control Policy page.

Run the following command to verify your AWS account has the correct permissions.

```
rosa verify permissions
```

If you receive any errors, double check if it's because a service control policy (SCP) isn't applied to your AWS account. If you're required to use an SCP, see the Red Hat Requirements for Customer Cloud Subscriptions policies page for more information about the minimum required SCP.

Troubleshooting ROSA Enablement

ROSA uses AWS Marketplace to facilitate subscription management, billing, and metering. When you enable this service, the Red Hat Console subscribes to AWS Marketplace. To enable this service your Red Hat Console requires either the `AWSMarketplaceManageSubscriptions` and `RegisterUsage` permissions or the `AWSMarketplaceFullAccess` permission. For more information, see: IAM for AWS Marketplace.

The following IAM policy grants the minimum permissions necessary to enable ROSA:

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": [
                "aws-marketplace-management:AWSMarketplaceManageSubscriptions",
                "aws-marketplace:RegisterUsage"
            ],
            "Resource": "*"
        }
    ]
}
```

Document history for the Red Hat OpenShift Service on AWS User Guide

The following table describes the documentation releases for Red Hat OpenShift Service on AWS.

update-history-change	update-history-description	update-history-date
Initial release (p. 4)	Initial release of the Red Hat OpenShift Service on AWS User Guide	March 24, 2021