Red Hat
Enterprise Linux

What's new in OpenShift Cloud Services

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Managed OpenShift Black Belt

OpenShift Virtualization is available across major cloud providers.

Migrate VMs to the cloud

Modernize and build new apps with cloud-native tech

Generally Available on Red Hat OpenShift Service on AWS and self-managed OpenShift on AWS

Technical Preview of Azure Red Hat OpenShift

Technical Preview on OpenShift Dedicated and self-managed OpenShift on Google Cloud Platform

Generally Available on Red Hat OpenShift on IBM Cloud

Azure Red Hat OpenShift (ARO)

What's new

Confidential Containers (TP)

Confidential Containers offer a robust solution to protect sensitive data within cloud environments. By using hardware-based trusted execution environments (TEEs), Confidential Containers provide a secure enclave within the host system, isolating applications and their data from potential threats. This isolation ensures that even if the host system is compromised, the confidential data remains protected.

Workload Identities (TP)

Azure Red Hat OpenShift supports managed identities and workload identities. Managed identities and workload identities help minimize risk when securing workloads and applications by providing short-lived tokens rather than long-lived credentials such as a service principal with client secret credentials.

Cluster-Wide Proxies

This feature allows production environments to deny direct access to the internet and instead have an HTTP or HTTPS proxy available.

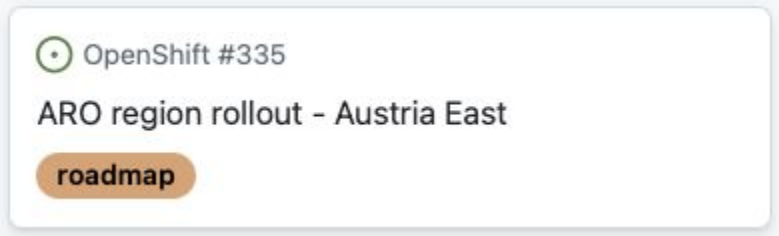
What's coming next

Prometheus Persistence

This feature allows prometheus data to be persisted on a PV.

Azure Region Austria East

EOY



ARO HCP

Next Evolution of ARO. Completely managed Control Plane outside of your Azure Subscription

Extended Update Support

Allows to use the EUS channel for ARO

Red Hat OpenShift Service on AWS (ROSA)

What's new

ROSA
Updates

What's New

ROSA (with HCP)

- Compliance certifications
  - ISO, Soc 2 Type 2, SOC 3, PCI DSS delivered on May 1, 2024
  - HIPAA delivered October 1, 2024
- HCP clusters can have **Graviton/Arm** compute
- **Cluster scalability** increased to 500
- **Bring your own CNI** on HCP Clusters
- SRE "Approved Access" : a secure workflow for SRE access to clusters and AWS account
- Support for custom AWS IAM policies attached to ROSA roles
- **Machinepool Configs**
  - EC2 IMDSv2, AWS Tags, Security Groups
- **Machinepool Node Management Configs**
  - Drain Timeout, MaxUnavailable, MaxSurge
- Cross-Account Private API Server Connectivity over PrivateLink
- Machine pool configure node root disk size

ROSA
Updates

What's New (Q2'25)

ROSA (with HCP)

- AWS Malaysia **region** (ap-southeast-5) now available
- AWS Tel Aviv **region** (il-central-1) now available
- AWS Canada West **region** (ca-west-1) now available
- New **instance-type** families now available: m8g, c8g, p5e, c7i-flex
- Egress-IP support

ROSA
Updates

What's New (Q3'25)

ROSA (with HCP)

- New **instance-type** families now available: i7i/e, p6-b200
  - AWS Inferentia and Trainium for **AI & ML** (note about software/drivers)
- **Shared-VPC** deployment - GA - August 25
- Install/Operate HCP Clusters with **No Public Egress** required
- HCP Cluster End-of-Life or Deletion Policy
- Capacity Reservation and Capacity Blocks for AI/ML (private preview)
- Cluster Monitoring Notifications for Ingress Controller Health
- Cluster Monitoring Notifications for etcd health

Notable Deprecations:

- Cluster Monitoring configuration through OCM, ROSA CLI or Terraform

ROSA
Updates

What's New

ROSA classic

- SDN to OVN Live Migration (Feb 2025)
- **Enhanced Notifications** for cluster upgrades with pre-upgrade cluster health checks.
- **Enhanced Notifications** for unavailability of worker nodes for scheduling pods and User Workload Monitoring (UWM)
- Ability to Cordon, Drain, and Reboot worker nodes
- Support for additional **AWS IAM policies** attached to ROSA roles
- Cluster scalability increase to **249** nodes
- cgroupsv1 to cgroupsv2

What's coming next

ROSA
Updates

What's Coming Next

ROSA (with HCP)

- Capacity Reservations and Capacity Blocks for AI/ML (GA)
- Advanced cluster autoscaling configurations (+expanders)
- AutoNode/Karpenter Private Preview
- In-cluster configuration of Cluster Monitoring stack.
- Console Machinepool include Node Management configuration
- Expanded cluster image registry and mirror configuration
- Ability to append to cluster global pull-secret
- Further AWS Region expansion: Thailand, Mexico
- Machine pools with AWS EC2 Spot instances

ROSA
Updates

What's Coming Next

ROSA (with HCP)

- Customize the in-cluster branding - ETA Q3
- Modify AWS Tags on existing clusters
- Configure OVN internal subnets during and post installation
- Monitoring/Notifications for worker nodes
- Monitoring/Notifications for Critical Cluster Operators
- ROSA CLI service-account tool

ROSA
Updates

What's Coming Later

ROSA (with HCP)

- AutoNode (Karpenter) GA
- Cluster with no worker nodes (zero worker nodes)
- Autoscale Machine pool to/from zero worker nodes
- Managed cluster console
- Enable custom-domain for cluster console
- Machine pools with AWS Windows License-Included for Virtualization
- Machine pools with AWS Dedicated Hosts for Windows BYOL for Virtualization
- BGP on OVN-Kubernetes for ROSA Virtualization

ROSA
Updates

What's Coming Later pt.2

ROSA (with HCP)

- Control Plane Log Forwarding to CloudWatch & S3
  - Audit logs to include Oauth Logs
- AWS GovCloud
- CCCS/Protected-B
- Support for IPSec full mode
- Documentation Improvements
- Customer-managed IAM policies
- Ongoing service security and reliability enhancements

ROSA
Updates

What's Coming

ROSA classic

- Default to STS mode
- Discontinuation of new classic clusters (April 2026)

ROSA
Updates

ROSA Security Features

SRE "Approved Access"

- Approved Access is a new customer approval service for ROSA that allows the customer to control SRE access to their cluster. In some cases, as part of a Support workflow, an SRE will require elevated access to their cluster. Approved Access will provide the ability for the customer to Approve or Deny these elevated requests.
- Ability to block SRE elevated access to all ROSA clusters within an AWS Account
- Will be alerted if an SRE tries to access your cluster with elevated access
- Ability to approve or deny SRE requests for elevated access to all ROSA clusters and/or AWS Environment within an organization.

Status: GA

Zero Egress (HCP)

All new ROSA HCP clusters will be created without requiring internet access

- This feature will help customers eliminate the need to open up their network firewall as part of the ROSA HCP cluster install and update prerequisites. Some enterprise customers have security requirements that do not allow any sort of internet egress and are not allowed to use ROSA without this feature.
- Container registries required to deploy a ROSA HCP cluster are now mirrored in each region

Status: GA

ROSA
Updates

ROSA Integration Features

Shared-VPC Deployment

- As with the ROSA (classic architecture) Shared-VPC deployment model, ROSA with HCP can now deploy with the AWS Shared-VPC model
- Leveraging AWS managed policies to ensure secure access restrictions for cross-account VPC/hosted-zone cluster networking.
- Securely decouple AWS accounts from AWS networking in regards to your ROSA cluster deployment.

Status: GA

OpenShift Auto-Node / Karpenter

- ROSA with HCP clusters will be able to take advantage of the cloud-scale autoscaler from AWS, Karpenter.
- Tunable just-in-time right-sized infrastructure provisioning for workloads in a ROSA cluster, providing efficient and improved application availability.

Status: engineering in progress - ETA Q3

ROSA
Updates

ROSA Virtualization - Windows Licensing

ROSA (with HCP)

There are two different ways for customers to be compliant with Microsoft Windows Licensing rules when it comes to running Windows in a VM on a virtualized environment on AWS that is not EC2 (i.e Nutanix, OpenShift Virtualization, VMWare Cloud)

Windows License Included

For customers who do not have Windows Licenses before October 2019 or would prefer to just pay for what they use

- Customer must deploy a special Windows Server AMI to a Bare Metal Host in which they will be charged for Windows Licenses for all cores on that Bare Metal worker regardless if they are using all cores for Windows or Linux.

Status: Currently in Preview. Completing Architectural Design Review for GA.
Estimated time: Goal is to GA in Q3'25

BYOL (Bring your Own License)

This is for customers who bought Windows Licenses before October 2019

- Customers must run their workloads on a bare metal instance on a Dedicated Host.

Status: Deprioritized in favor of Windows LI to start. Windows 2019 maintenance window expired Jan 2024, unless they bought extended lifecycle support.
Estimate time: Will Revisit after Windows LI

Thank you

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