

# AWS und Red Hat: Ihre Plattform für eine zukunftssichere IT-Infrastruktur

**Alex König**

Sr. Solutions Architect  
Amazon Web Services

**David Surey**

Sr. Technical Account Manager  
Amazon Web Services



# Agenda

About AWS

AWS + RedHat

Compute

Containers

Programs & Tools

# About AWS



# Show of hands



Model: Amazon Nova Canvas 1.0

Prompt: *crowd in an auditorium in front of a stage with aws branding, raising hands, questions asked*

# About AWS

*“Well-architecting The Cloud since 2006”*

# How do customers benefit from the cloud?

## Agility

Teams can experiment and innovate quickly and frequently

---

## Cost Savings

Only pay for what you use, leveraging economies of scale

---

## Elasticity

Easily scale up or down with the needs of the business

---

## Innovation

Focus on business differentiators, not infrastructure

---

## Global Footprint

Extensive, reliable, and secure global cloud infrastructure

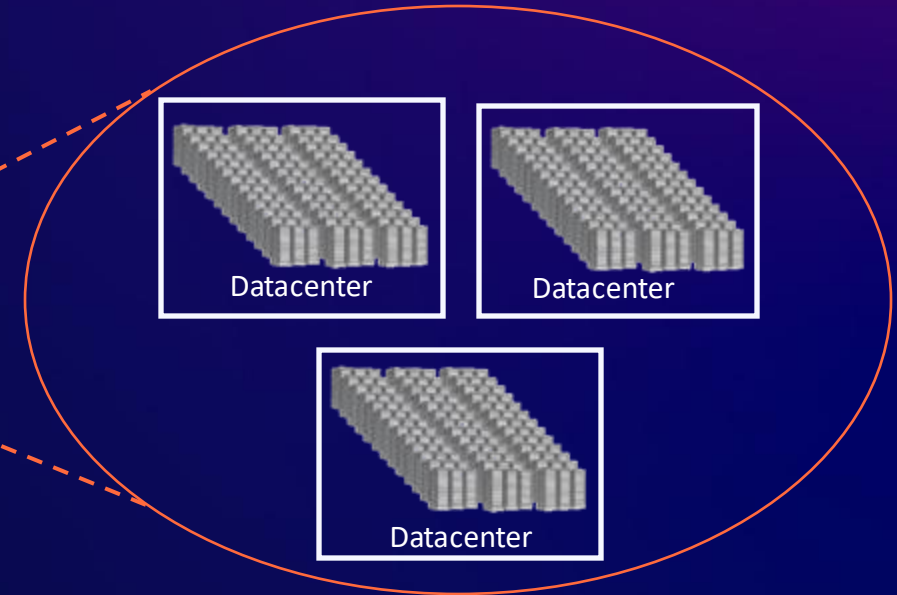
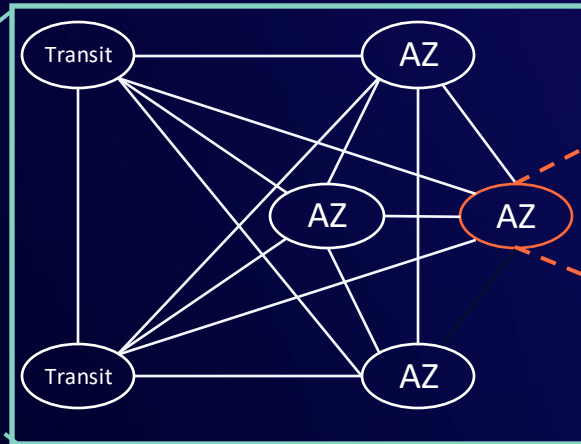
---

# AWS global infrastructure

AWS REGIONS, EDGE LOCATIONS, AND THE GLOBAL BACKBONE



# AWS Region design



## Global Presence

120 Availability Zones  
38 Regions  
700+ Points of Presence

## AWS Region

**A Region** is a physical location around the world where we cluster data centers. We call each group of logical data centers an **Availability Zone**.

## AWS Availability Zone (AZ)

**Availability Zones** consist of one or more discrete data centers, each with redundant power, networking, and connectivity, housed in separate facilities.

# AWS European Sovereign Cloud

A NEW, INDEPENDENT CLOUD FOR EUROPE, WITH INFRASTRUCTURE LOCATED AND OPERATED WITHIN THE EUROPEAN UNION



- Set to launch by end of 2025 in Brandenburg, Germany under a dedicated German parent company with local European leadership and independent governance
- Physically separate and independent from existing AWS Regions, with separate IAM stack and in-Region billing and usage metering systems
- Customer content and customer-created metadata stays in EU
- Day-to-day operations, technical support, and customer services will be provided only by EU residents who are located in the EU subject to EU law



# New sovereign controls for the AWS European Sovereign Cloud



Independent governance structure



Sovereign Requirements Framework



Indefinite operations



Dedicated Security Operations Center (SOC)



Access to a replica of the source code to support continuity



Establishing a European trust service provider

# Why AWS?



## AWS Availability Zone Design

38 AWS Regions  
120 AWS Availability Zones



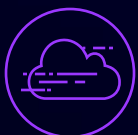
## TCO Price Reductions

134 Price Reductions  
Since 2006



## Resilient Infrastructure

Gartner Magic Quadrant  
Worldwide Leader for Cloud  
Infrastructure as a Service



## Amazon CloudFront

700+ Points of Presence, 100+  
cities, 50+ countries



## Breadth & Depth

200+ fully featured services  
support any cloud workload



## Sustainable Operations

Match 100% of the electricity we  
consume with renewable energy

## Hardware Innovation

Recognized as the Most Innovative Cloud Provider;  
Exclusive Purpose-Built Hardware



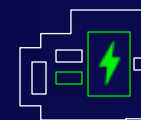
## AWS Inferentia and AWS Trainium

AI chips built for price performance of  
model training & serving



## AWS Graviton

Powerful & efficient custom-  
built Arm-based processors



## AWS Nitro System

Reduces costs of virtualization &  
maximizes server resources delivered  
to your EC2 instances

# AWS + RedHat



# AWS and Red Hat

Empowering organizations to accelerate innovation with a comprehensive hybrid cloud platform that combines the flexibility of AWS with the power of Red Hat open-source technologies

- Red Hat Enterprise Linux expands its availability to AWS
- Red Hat JBoss Middleware on AWS
- Announced strategic alliance to natively integrate AWS services into Red Hat OpenShift Container Platform
- Red Hat joins the APN Customer Engagements Program
- Red Hat OpenShift Service on AWS (ROSA)
- Red Hat OpenShift Virtualization on AWS
- Red Hat Offerings on AWS Marketplace
- RHEL 10 for AWS

2008 2012 2015 2017 2018 2019 2020 2021 2022 2023 2024 2025

Red Hat and AWS partnership begins

Red Hat Enterprise Linux on AWS

RHEL for SAP HANA expands its availability to AWS

Red Hat Enterprise Linux for SAP Solutions expands its availability to AWS

Microsoft SQL Server on Red Hat Enterprise Linux on AWS announced

AWS Partner Ready for RHEL on AWS on AWS Outpost was announced to support Open Hybrid Cloud

Red Hat Ansible Automation Platform on AWS

ROSA Local Zones  
ROSA Outpost  
Red Hat OpenShift AI  
Advanced Cluster Security

Fully-Managed Ansible Automation Platform on AWS Marketplace

Red Hat Signs Strategic Collaboration Agreement with AWS to Propel Virtualization and AI



# AWS and Red Hat's benefits

Forrester conducted a Total Economic Impact (TEI) study on **ROSA**

Observations include:

**60-70%**

reduction in development time

**50%**

improvement in operational efficiency

**486%**

return on investment (ROI)

**20%**

of developer time recaptured



Nucleus studied enterprise organizations' journey from on-premises to the **AWS Cloud**

Observations include:

**69%**

reduction in unplanned downtime

**64%**

reduction in mean time to resolution

**40%**

reduction of overall IT costs

**43%**

reduction in security events

[Red Hat OpenShift Service on AWS enables innovation and agility for modern business](#)



Visit [AWS Cloud Economics Center](#) to further understand value of AWS

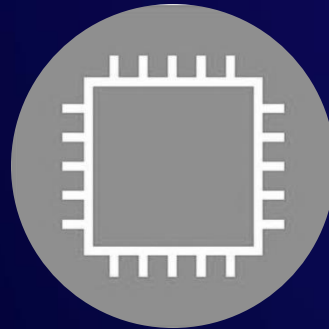
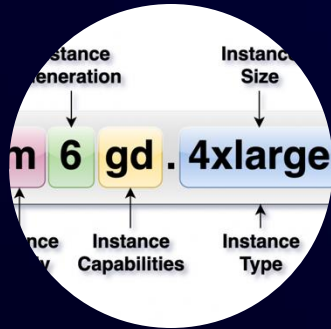


# Compute



# Compute at AWS in a nutshell

over 850 compute instance types



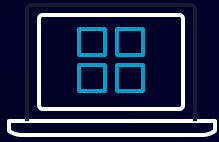
- over 850 compute instance types

- 30b+ instances launched since 2006

- 100m+ instances launched every day

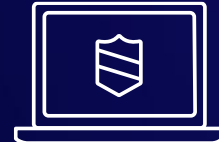
# Features of RHEL on AWS

Consistently runs across physical, virtualized, cloud, and container environments



## Flexible app environment

Bridge production stability and developer agility by delivering the latest in stable development tools, technologies, and frameworks



## Secure foundations

Military-grade security technologies – from network firewall control to secure containers for application isolation – to help prevent intrusions and protect your data



## High performance

Meet demanding performance requirements across diverse areas like computational scalability, application performance, and database throughput

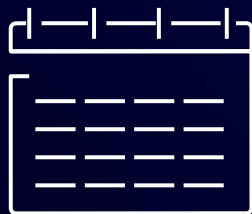


## Reliable platform

Gain the reliability and support that frees you to deliver business benefits through technology, instead of managing downtime and system updates

# Flexible deployment options

Commercial Linux distribution for AWS



## AWS Marketplace

Purchase Red Hat Enterprise Linux via AWS Marketplace in yearly or on-demand subscriptions



## Red Hat Cloud Access

Easily move existing Red Hat subscriptions from on-premises to AWS environments through the Red Hat Cloud Access

# Containers



# Why Red Hat OpenShift Service on AWS (ROSA)



**Red Hat**  
**OpenShift**

Red Hat OpenShift Service on AWS is a turnkey application platform that reduces operational complexity, allowing developers to focus on building and scaling applications that add more value to the business, go to market faster, and get more from their cloud investment.

## Consolidated billing



- ▶ Use your existing AWS commitment/EDP to use Red Hat OpenShift
- ▶ Get a single unified bill from AWS for both Red Hat OpenShift and AWS consumption

## Joint support



- ▶ Integrated support systems
- ▶ Contact Red Hat or AWS support
- ▶ Foundation based on RHEL with decades of enterprise IT knowledge and experience

## Built for hybrid



- ▶ Consistent OpenShift experience across clouds and on-premises
- ▶ Runs on bare metal and VMs
- ▶ Mitigates customer concerns about cloud lock-in

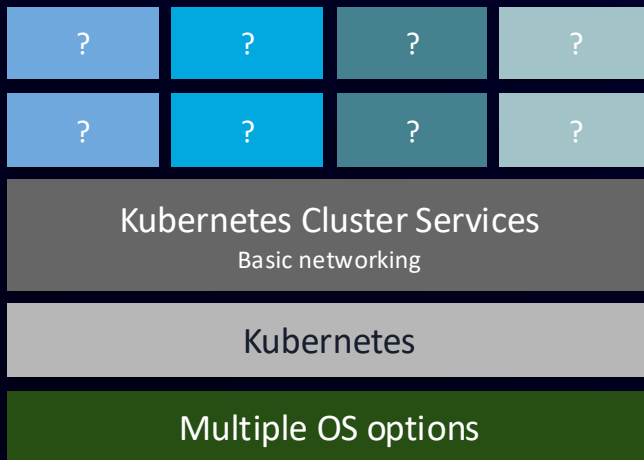
## Integration with AWS services



- ▶ Build containerized applications that integrate natively with more than 170+ AWS cloud services

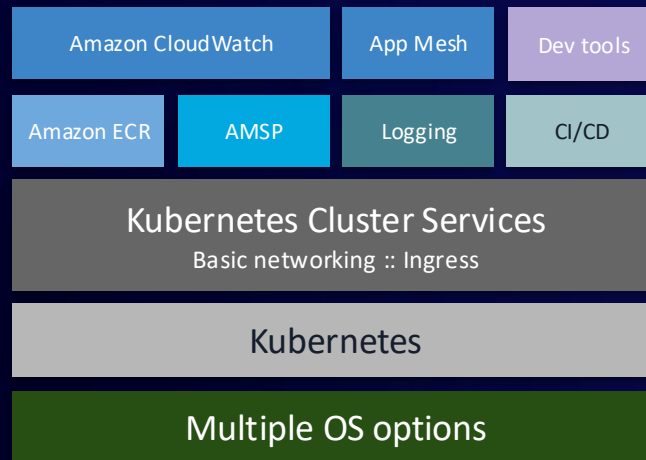
# DIY K8s

- Full assembly required
- Unmanaged
- No defaults
- No integrations



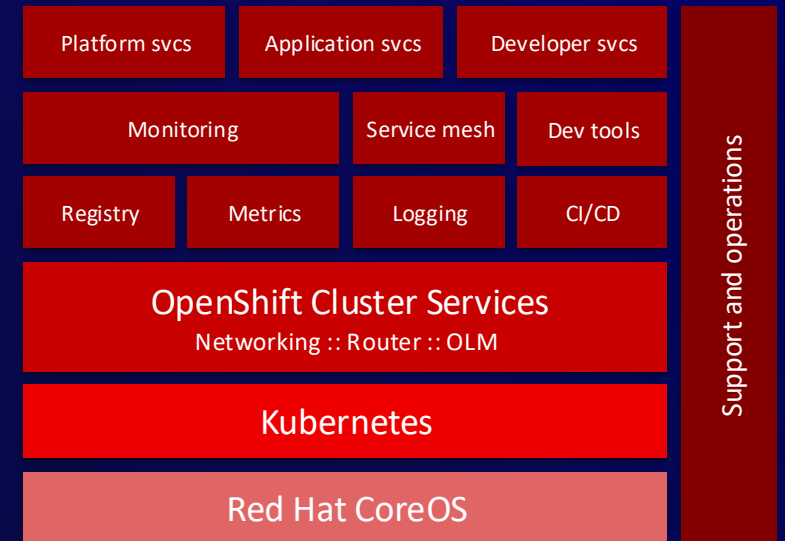
# Amazon EKS

- Some assembly required
- Managed cluster
- Some defaults
- Some integrations



# ROSA

- No assembly required
- Managed platform stack
- Opinionated defaults
- Supported set of integrations



# Virtual Machine Modernization Journey

RED HAT AND AWS MEET YOU WHERE YOU ARE WITH ALL THE TOOLS YOU NEED



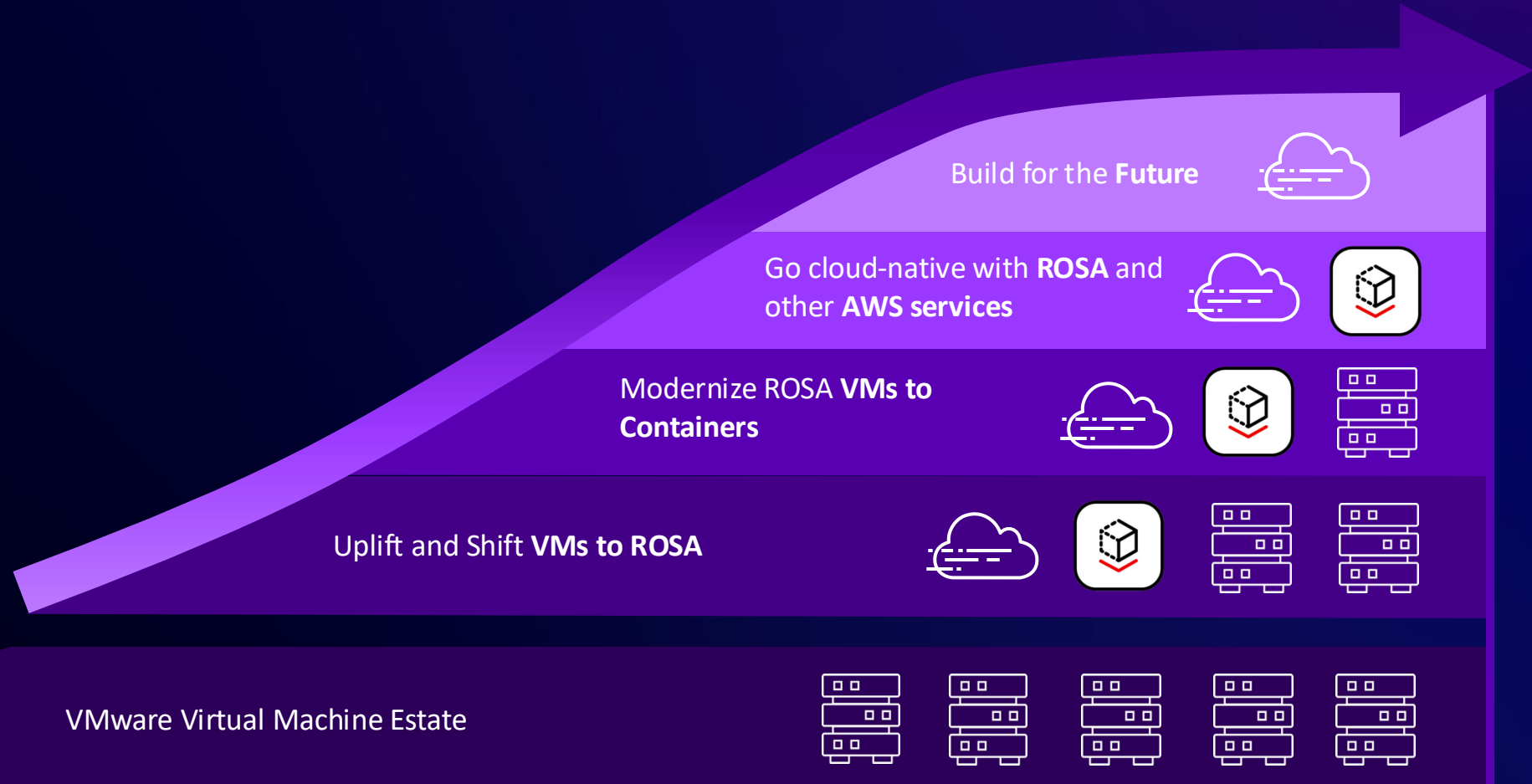
On-Prem VMs



VMs Lifted to ROSA



Cloud Native Containers



State 4

Innovate

State 3

Refactor

State 2

Replatform

State 1

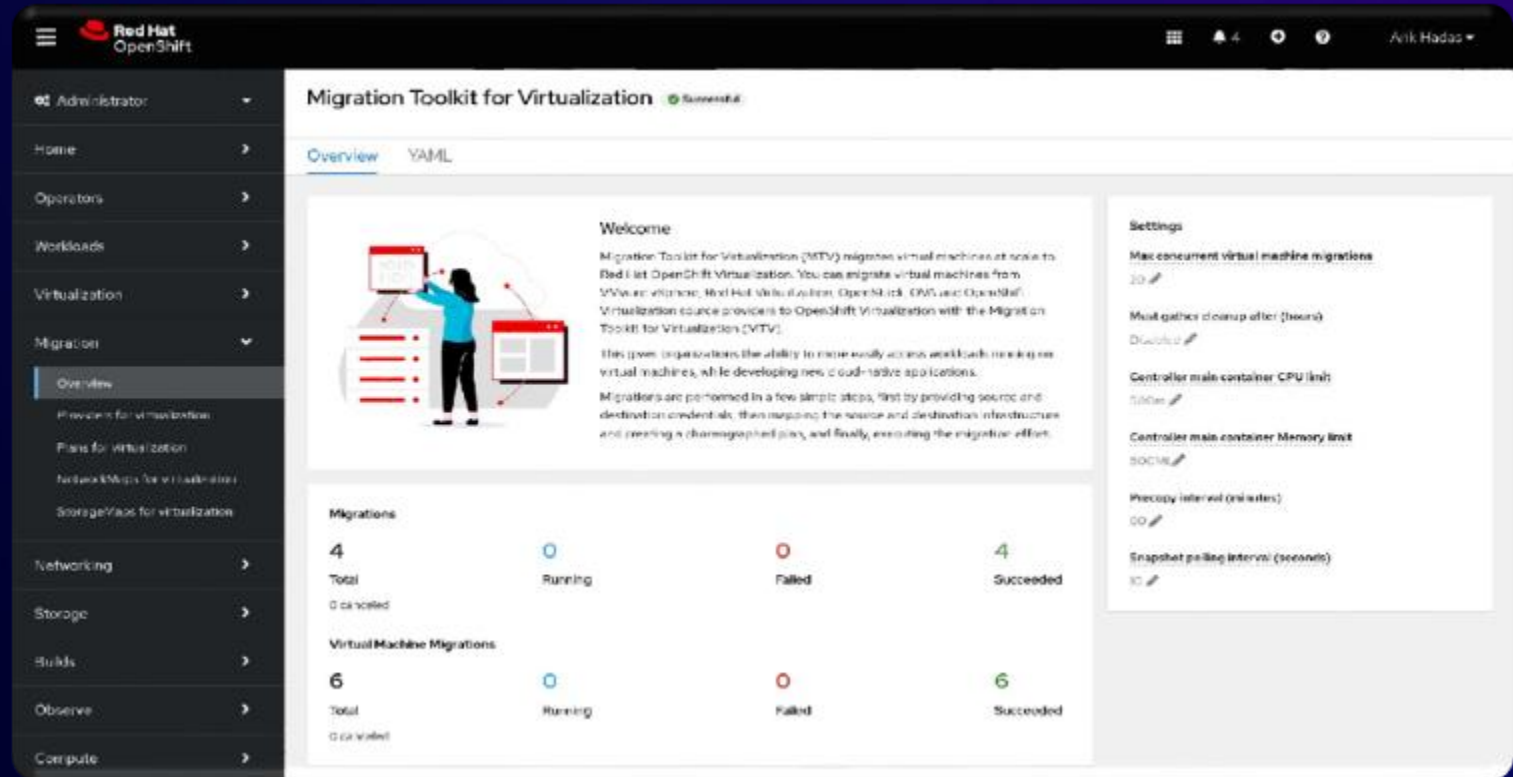
Uplift & Shift

State 0

# Red Hat Migration toolkit for virtualization (MTV)

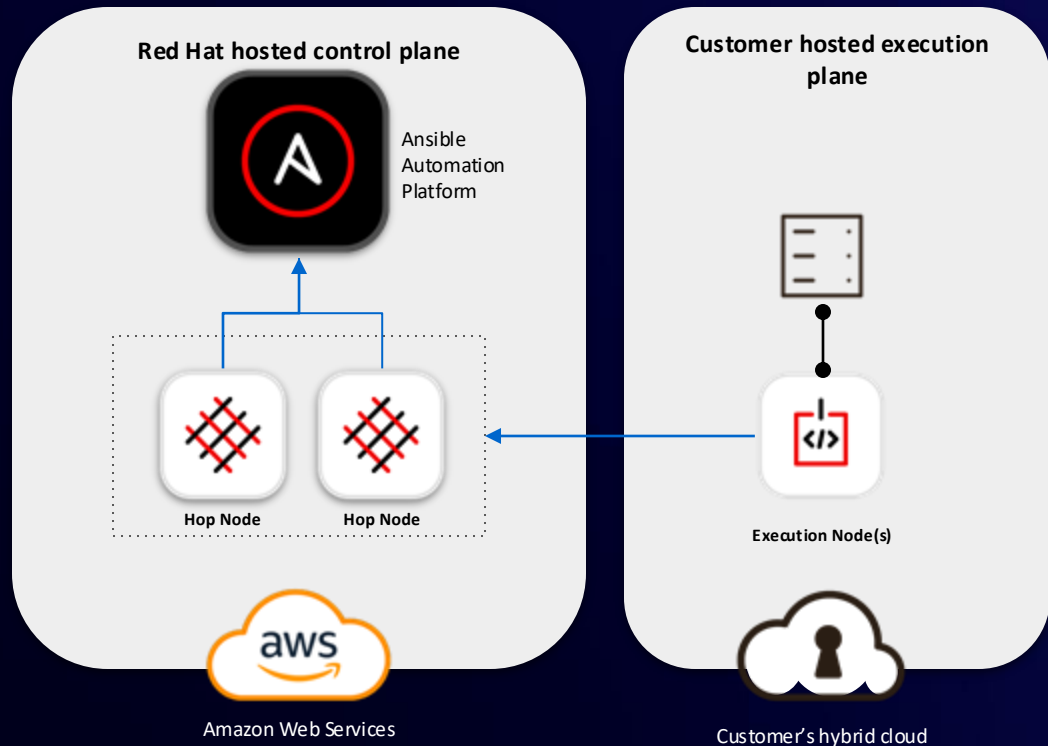
INCLUDED FEATURE IN ROSA

- Easy migration of virtual machines  
*Linux and Windows*
- Migrate virtual machines to OpenShift Virtualization in a few simple steps
- Provide source and destination credentials, map infrastructure, and create migration plans



# Red Hat Ansible Automation Platform Service on AWS

A FULLY MANAGED ANSIBLE AUTOMATION PLATFORM CONTROL PLANE



Execution nodes - deployed in your infrastructure, with the ability to pull automation tasks vs push, simplifying networking and minimizing network security configuration

# Take Aways



---

How do Customers benefit from all this?



# Next steps

- 📍 **Chat** with us after the session
- 📍 **Engage** ask your AWS representative about incentives for Migrations
- 📍 **Learn** by diving into our digital assets



<https://aws.amazon.com/partners/redhat/>

# Thank you!

**Alex König**

kngalx@amazon.de

**David Surey**

suredavi@amazon.de

