

# Red Hat Summit 2019 Press Conference

Enabling the opportunity ahead with the leading open hybrid cloud portfolio

#### **Paul Cormier**

President, Products and Technologies

#### **Matt Hicks**

Senior vice president, Engineering

#### Stefanie Chiras, Ph.D.

Vice president and general manager, Red Hat Enterprise Linux

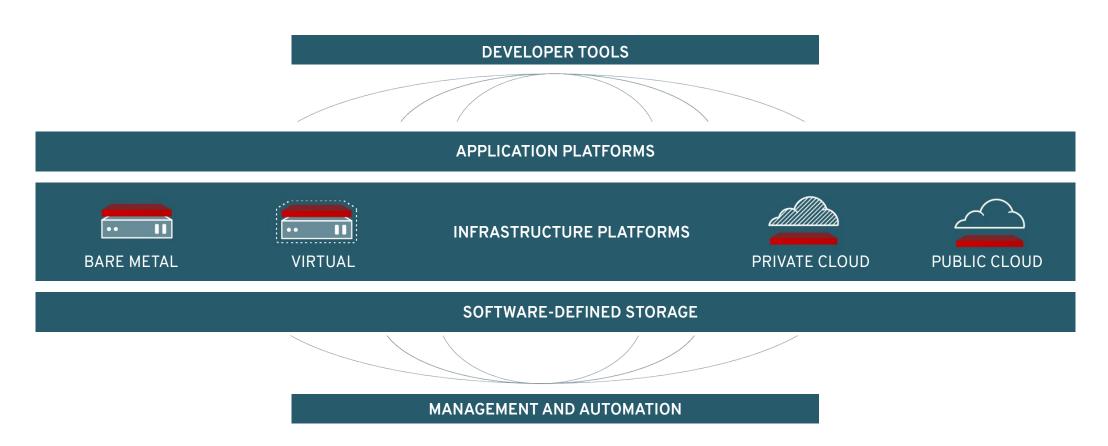
#### Ashesh Badani

Senior vice president, Cloud Platforms



# Red Hat's vision is open hybrid cloud

We have been delivering on this consistent vision for 5+ years

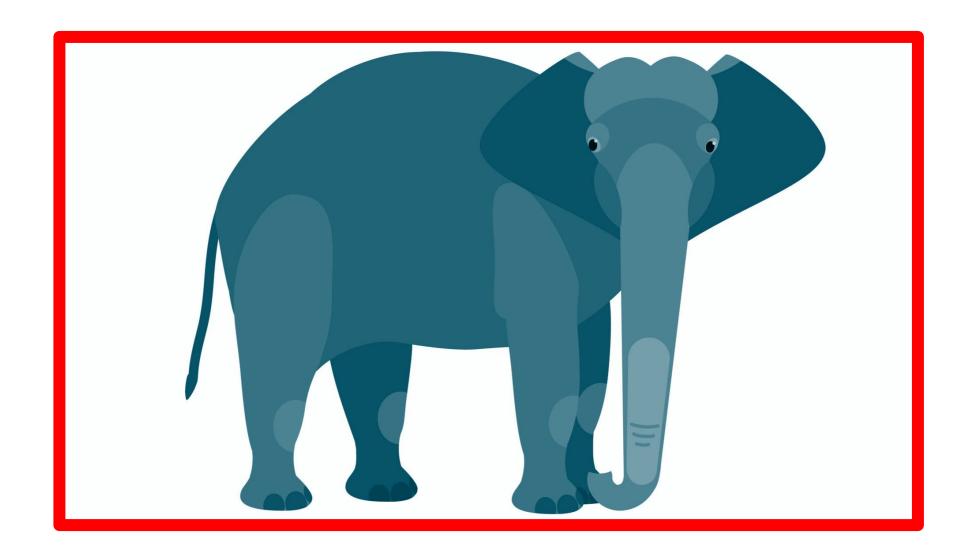




# How Red Hat became the leading open hybrid cloud provider









# Red Hat + IBM: An existing 20+ year collaboration



# May 2018: WebSphere and Cloud Private integration with OpenShift

- IBM middleware (WebSphere, DB2, MQ)
   packaged as certified RHEL containers
- IBM Cloud Private and Red Hat OpenShift Container Platform integration
  - Consistent hybrid platform available on-premises and in the IBM Cloud
- Aligned consultancy and implementation services from IBM Garage and Red Hat Services



### Customer success: Massachusetts Open Cloud

Today:

Red Hat Ceph Storage
Red Hat OpenStack Platform
Red Hat Services
Lenovo servers

Tomorrow:
Red Hat OpenShift® on IBM AC922



### Customer success: National Laboratories

- Red Hat Enterprise Linux powers 2 of the top 3 supercomputers in the world
- Linux is the OS of choice for ALL of the top
   500 supercomputers in the world
  - SUMMIT & SIERRA use IBM, NVIDIA, & Mellanox technologies, with Red Hat Enterprise Linux as the OS



5

### Red Hat Summit 2019 news

### Linux innovation

Linux is the innovation engine for hybrid cloud

#### **ANNOUNCING:**

- Red Hat Enterprise Linux 8
- Red Hat Smart Management
- Red Hat Universal Base Image (UBI)

# Containers + app dev innovation

Containers + Kubernetes are the killer technology for the hybrid cloud

### ANNOUNCING:

- Red Hat OpenShift 4
- Azure Red Hat OpenShift

# Hybrid cloud ecosystem + customer momentum

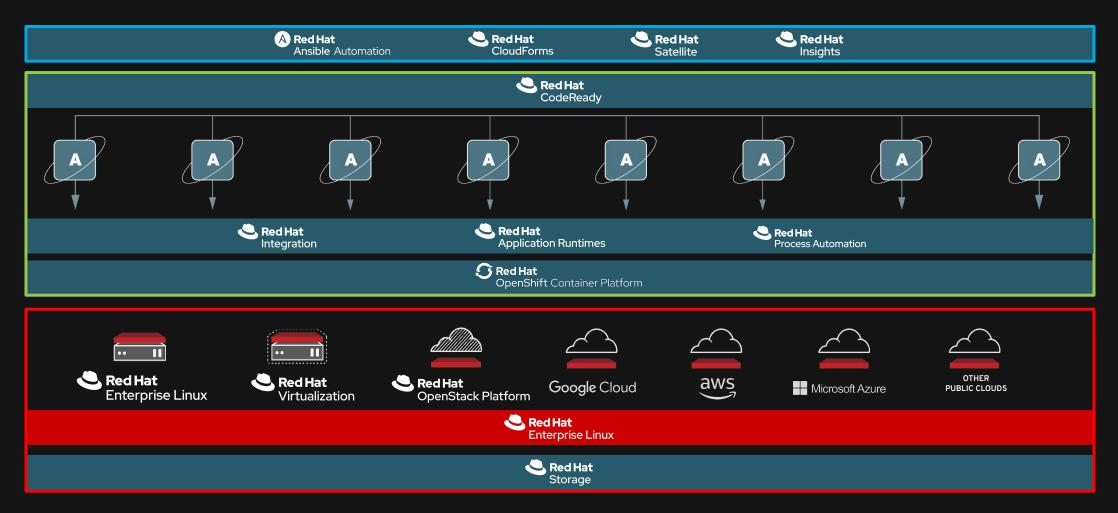
Making open hybrid cloud a reality for customers and partners

### ANNOUNCING:

- RHEL's vast economic impact
- 1000+ OpenShift customers
- OperatorHub
- OpenShift Operator Certification



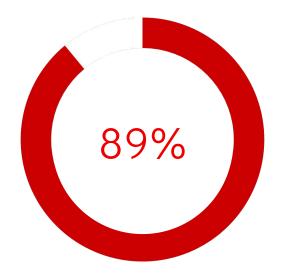
# Red Hat's broad portfolio and ecosystem delivers the industry's only true open hybrid cloud



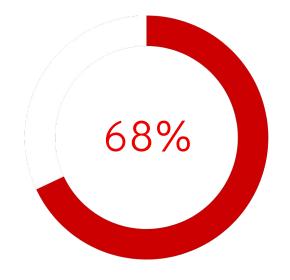


# Red Hat's vision is reality.

# Enterprise customers want open source solutions.



**89%** of IT leaders say enterprise open source is important to their organization's strategy



**68%** of IT leaders reported an increase in use of enterprise open source over the past year



# Red Hat's vision is reality.

# Developers prefer the open source technologies that Red Hat delivers.

2019 Stack Overflow

Developer Survey:

**Developers Most Loved** 

**Platforms** 

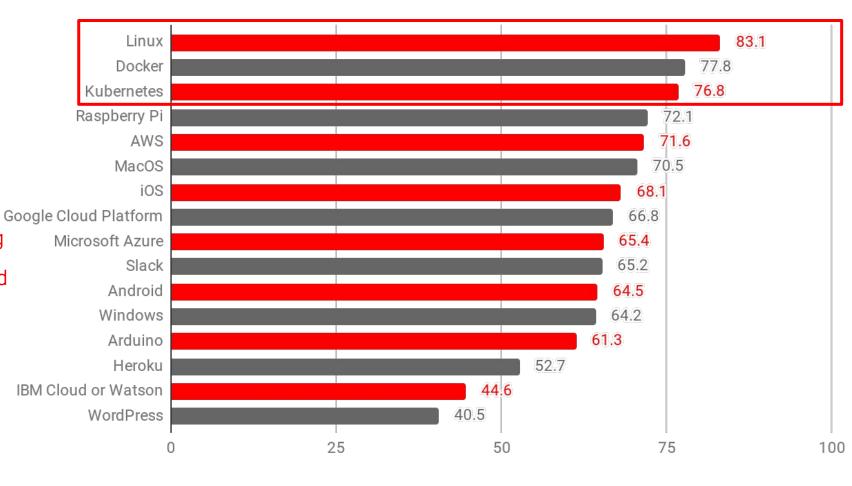
% of developers who are developing

with the language or technology and

have expressed interest in

continuing to develop with it





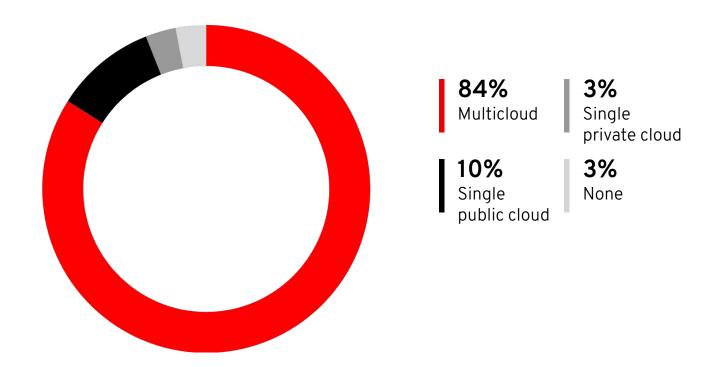


# Red Hat's vision is reality.

# Hybrid and multicloud are here to stay.

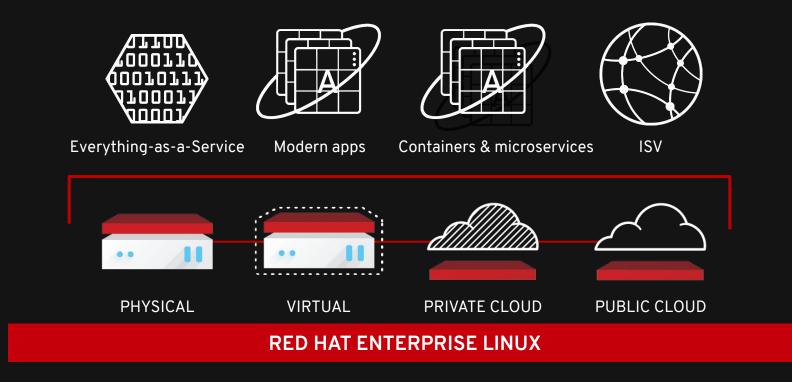
**84%** of enterprises\* have a multicloud strategy

\*Respondents with 1000+ employees





# Hybrid is the new datacenter





This week, Red Hat takes open hybrid cloud innovation to the next level.

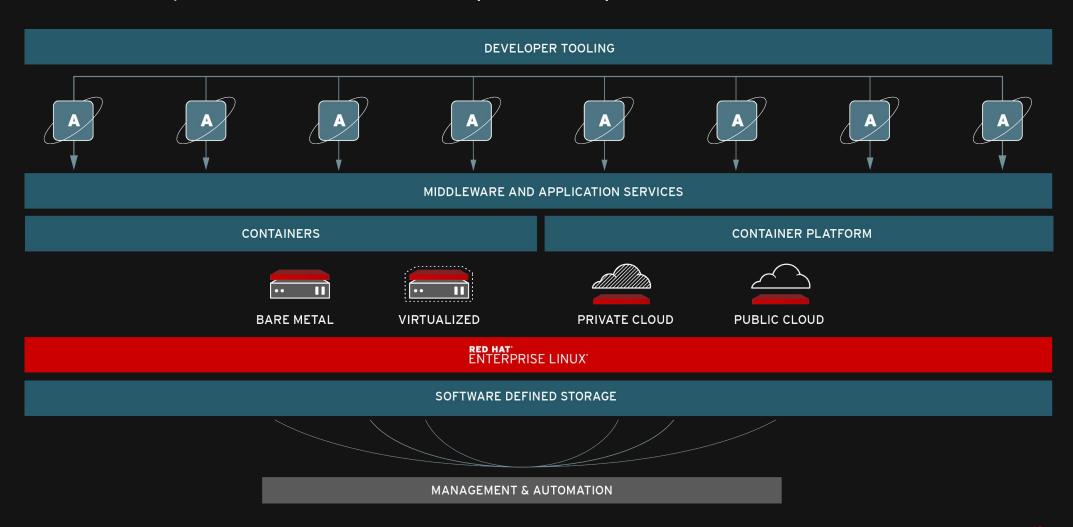






# **Red Hat Enterprise Linux**

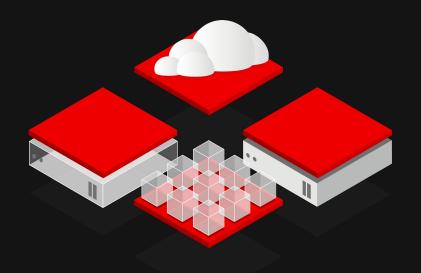
Operational consistency, security, and cloud foundation





# Red Hat Enterprise Linux 8

Reduce the friction and cost of change in the support of service delivery



FASTER, MORE CONSISTENT DELIVERY in any deployment footprint with full-coverage native automation

PLATFORM in any cloud infrastructure and for emerging workloads, like machine learning

FASTER ON-BOARDING FOR NON-LINUX USERS without fear of the command line

SEAMLESS, NON-DISRUPTIVE MIGRATION process for existing Red Hat<sup>®</sup> Enterprise Linux<sup>®</sup> deployments



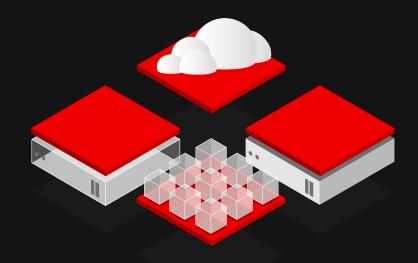
# Red Hat Enterprise Linux 8

Increase agility and reduce time to market of critical business workloads

FASTER TIME TO "HELLO WORLD" with streamlined access to high-quality open source development tools

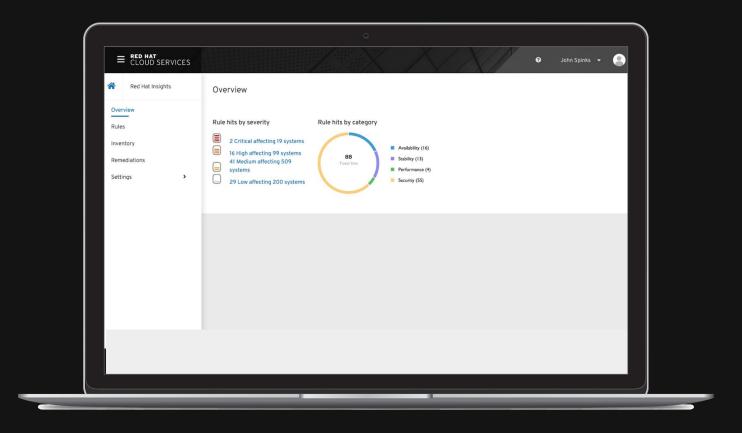
teading database partner for Oracle, SAP HANA®, Microsoft SQL Server, and Postgres EASE TRANSITION & FUEL ADOPTION OF CONTAINERIZED WORKLOADS with the inclusion of new container tools

INTELLIGENT OS INSIGHTS (differentiated SaaS) included with every Red Hat Enterprise Linux subscription





# Red Hat Enterprise Linux 8 with Insights Intelligent Linux for the hybrid cloud





# Introducing Red Hat Smart Management

Offering Red Hat Management on-premises or in the cloud to best meet customer needs

#### **RED HAT SATELLITE**

Manage your entire Red Hat environment, connected to the internet or in an airgap environment, including:

- System patching
- Provisioning
- Subscription management

#### **CLOUD MANAGEMENT SERVICES FOR RHEL**

#### **VULNERABILITY**

Assess & monitor known security exposures for RHEL

Report findings to stakeholders

Remediate CVEs via Ansible Automation

#### **COMPLIANCE**

Assess & monitor compliance to security policies via OpenSCAP

Report findings to stakeholders

Remediate non-compliance issues via Ansible Automation

# SYSTEM COMPARISON

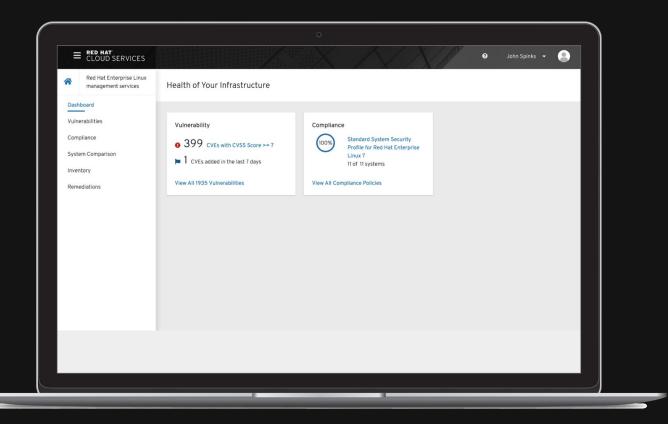
Compare system configuration of one host to other hosts

Report findings to stakeholders



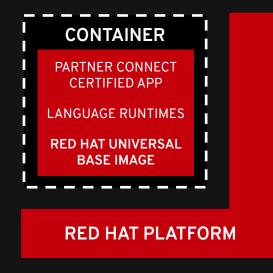
# Red Hat Smart Management

Expanding Red Hat management tools into SaaS delivery

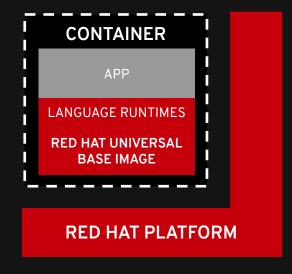




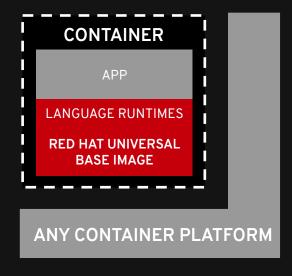
# The Red Hat Universal Base Image Build once, deploy anywhere



Certification provides the highest level of support



Enterprise support when run on Red Hat platforms

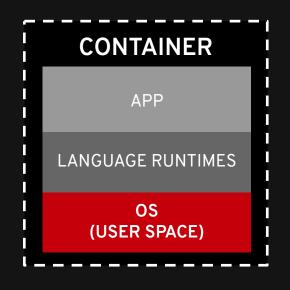


Trusted base for any environment



# Introducing the Red Hat Universal Base Image

The base image for all your needs - enterprise architecture, security & performance



Based on RHEL; made available at no charge by a new end user license agreement.

### Development

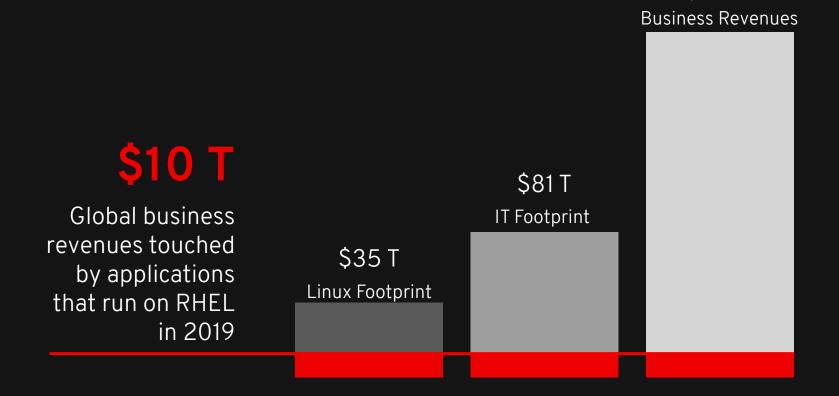
- Minimal Images (~90 to ~200MB footprint)
- Programming languages
- Enables a single CI/CD chain

#### **Production**

- Supported as RHEL when running on RHEL
- Same Performance, Security & Life cycle as RHEL
- Can attach RHEL support subscriptions as RHEL



Understanding Red Hat Enterprise Linux's impact in the global economy



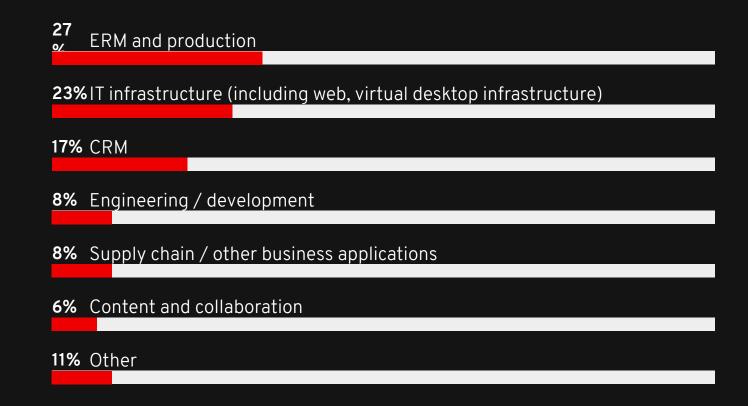
By 2023, Global business revenues touched by RHEL are expected to grow to

\$12.3 T



# Largest workloads contributing to RHEL footprint From bare metal to multiple public clouds

of all the world's workloads run on Red Hat Enterprise Linux





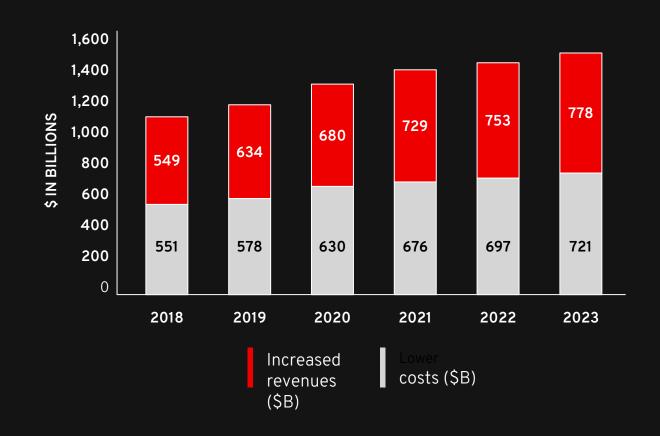
The RHEL Advantage is substantial in a hybrid cloud world \$1.2+ trillion in business benefits per year to customers in 2019 alone (½ from increased revenues; ½ from decreased expenses)

#### Reduced costs

- The purchase cost of servers
- The cost of software running on servers
- The maintenance cost of servers

### Increased staff productivity

- IT staff time managing servers
- IT staff time doing routine IT tasks
- Time to resolve support calls
- Time to recover from unplanned downtime
- Time to deploy new business apps
- Time to upgrade mission critical apps

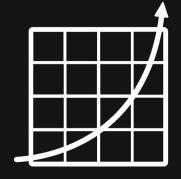




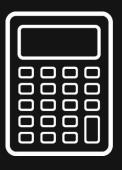
# Size and reach of the Red Hat Enterprise Linux ecosystem



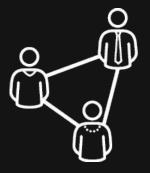
Overall - the RHEL ecosystem is more than **20x larger** than Red Hat's corporate revenue



The RHEL economy is
expected to drive \$80+
billion in ecosystem
revenue in 2019; net new
ecosystem revenues are
expected to total more than
\$150 billion through
2023



For every dollar made by Red Hat in 2019, the ecosystem is expected to make **\$21.74** 

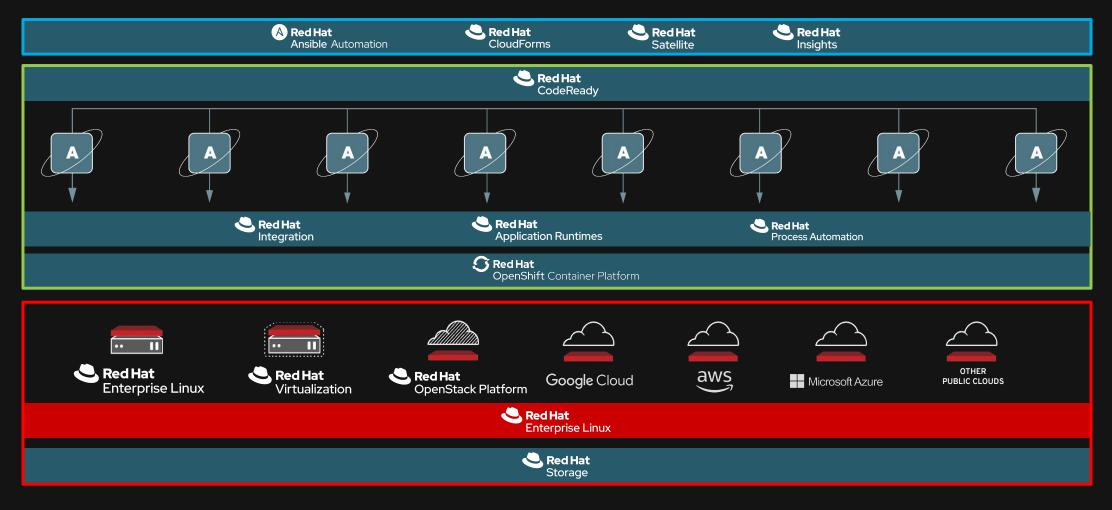


million people are
expected to work in Red
Hat-related positions (growing
by more than 600,000 people)

By 2023, **more than 3.3** 



# Red Hat OpenShift: The platform for the hybrid cloud





# Red Hat OpenShift: the leading enterprise Kubernetes platform 1000+ customers spanning all regions and industries





**WEB APPS** 

BEST









**Deutsche Bank** 

**CLOUD NATIVE DEV** 

**MULTICLOUD** 

**MODERNIZE APPS** 







**MOBILE** 



BIG DATA ANALYTICS





AI ML







IOT



# Azure Red Hat OpenShift - now available

Jointly engineered, operated, and supported by both Microsoft and Red Hat with an integrated support experience



Managed, enterprise-grade Red Hat OpenShift clusters on Azure, in minutes



### Empower developers to Innovate

Support for a range of traditional, cloud native and serverless tools Easily connect your applications to hundreds of Azure services such as MySQL, PostgreSQL, Redis, Cosmos DB, and more



### Scale on-demand. Pay as you go.

Scale as your application demand changes Choice of standard, high-memory, or high-CPU application nodes



### Enterprise-grade operations, security and compliance\*

Industry-leading availability (99.9%) + award-winning support SOC, ISO, PCI DSS, CSA and HIPAA regulatory compliance (coming soon)



# Red Hat OpenShift 4

### Trusted enterprise Kubernetes

- Trusted Host, Content, Platform
- Full Stack Automated Install
- Over the Air Updates & Day 2 Mgt

### A cloud-like experience, everywhere

- Hybrid, Multi-Cluster Management
- Operator Framework
- Operator Hub & Certified ISVs

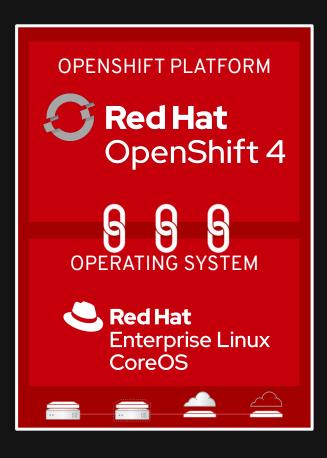
### Empowering developers to innovate

- OpenShift Service Mesh (Istio)
- OpenShift Serverless (Knative)
- CodeReady Workspaces (Che)



# What's new in Red Hat OpenShift 4?

The Kubernetes platform for Big Ideas



### Enterprise Kubernetes reimagined

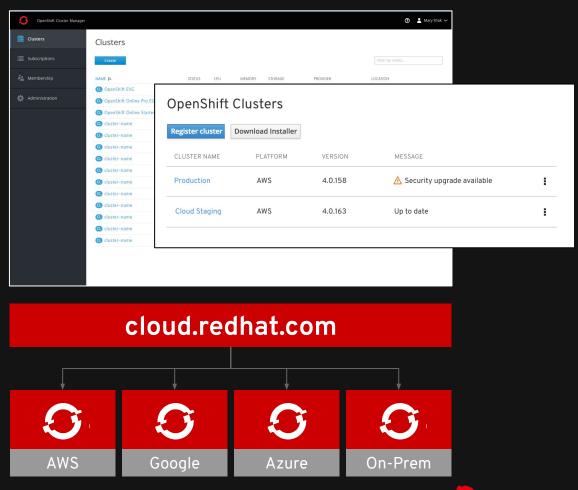
- Fully integrated and automated architecture
- Seamless Kubernetes deployment on any cloud or on-premises environment
- Fully automated installation, from cloud infrastructure to OS to application services
- One click platform and application updates
- Auto-scaling of cloud resources



# What's new in Red Hat OpenShift 4? Delivering hybrid cloud Kubernetes anywhere

# Hybrid Management for the Hybrid Cloud

- Manage multiple OpenShift Kubernetes clusters, across multiple cloud and on-premise environments
- Install and update OpenShift across all your cloud environments
- Centrally manage policy and deployments





# OperatorHub and Certified Operators

OperatorHub.io launched by Red Hat, AWS, Microsoft, and Google

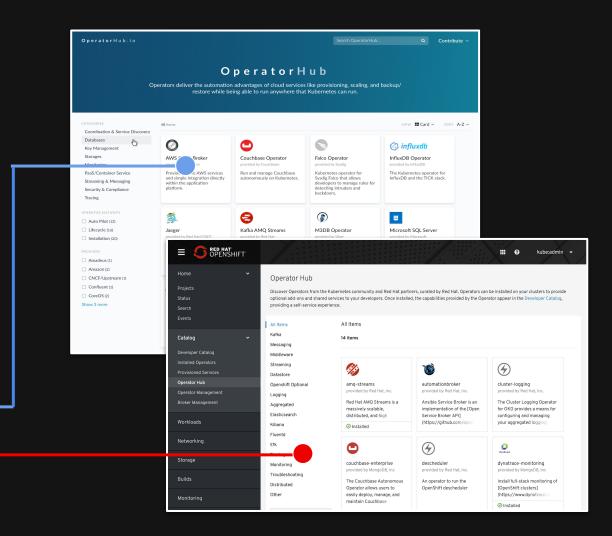
 Home for the Kubernetes community to share Operators

OperatorHub integrated into OpenShift 4
OpenShift Operator Certification

 Verified, automated updates, security checked, and supported through Red Hat

**COMMUNITY OPERATORS** 

**OPENSHIFT CERTIFIED OPERATORS** 





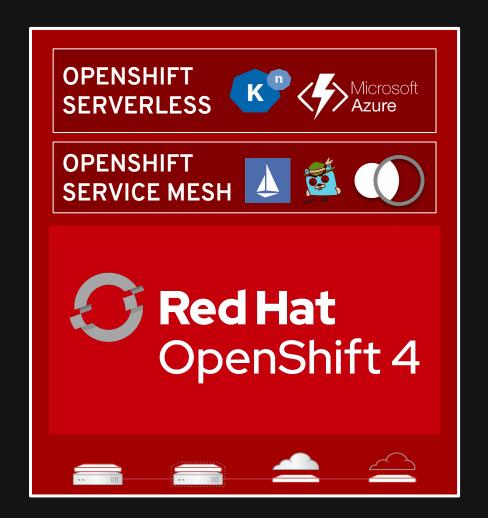
# OpenShift Service Mesh and OpenShift Serverless

### **OpenShift Service Mesh**

 Integrated Service Mesh for enhanced security and network segmentation of microservices applications. Combines Istio, Kiali (UI), and Jaeger (Tracing) projects.

### **OpenShift Serverless**

- Integrated serverless, enabling scale-to-zero FaaS services and event sources - built on the Knative framework.
- Support for Azure Functions
- Integrated with Camel-k for rich set of initial event sources: HTTP, Kafka, AMQP





# OpenShift Developer Experience

Enabling Innovation and Integration for Developer productivity

### **CodeReady Workspaces**

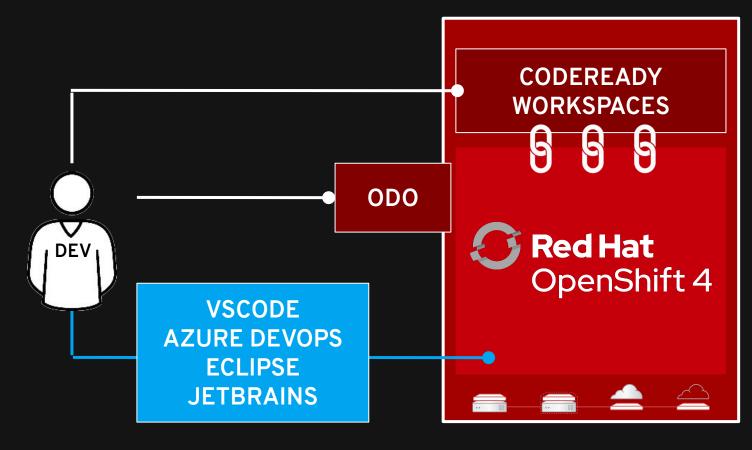
Web-Based IDE (Eclipse Che),
 Collaborative Development,
 integrated with CI/CD.

### **OpenShift ODO**

Advanced developer CLI

### **OpenShift Plugins**

 Integration plugins - VScode, Azure DevOps, Eclipse IDE, JetBrains





# The Hybrid Cloud, all within OpenShift

RED HAT OPENSHIFT Multi Cluster Manager Multi-Cluster Manager Administrator and Perspectives Developer Red Hat Applications OpenShift Logging OpenShift Service Mesh Red Hat Applications Red Hat 3 Scale Red Hat Fuse SkyDive 3rd Party Applications AWS Third-party Applications Kafka Mongo **Customer Applications** Application 1 **Customer Applications** Application 2 Application 3



# Recap: Red Hat Summit 2019 news

### Linux innovation

Linux is the innovation engine for hybrid cloud

#### **ANNOUNCING:**

- Red Hat Enterprise Linux 8
- Red Hat Smart Management
- Red Hat Universal Base Image (UBI)

# Containers + app dev innovation

Containers + Kubernetes are the killer technology for the hybrid cloud

### ANNOUNCING:

- Red Hat OpenShift 4
- Azure Red Hat OpenShift

# Hybrid cloud ecosystem + customer momentum

Making open hybrid cloud a reality for customers and partners

### **ANNOUNCING:**

- RHEL's vast economic impact
- 1000+ OpenShift customers
- OperatorHub
- OpenShift Operator Certification



# Thank you

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