redhat.

Red Hat Enterprise Linux 8

What's new?

Pascal Fenkam
Senior Partner Solutions Architect
fenkam@redhat.com

LINUX IS THE WINNER

Linux is the dominant operating system

RHEL is the market share leader

Required for digital transformation

New applications being built on Linux

Platform for next generation of applications

CAGR 12%

Windows Server CAGR -4%

IDC Market Forecast for Worldwide Server Operating System Environments Forecast, 2018–2022 (US44376618), published October, 2018

OUR POSITION

Red Hat Enterprise Linux 8

Digital transformation can **ONLY** be done with Linux.

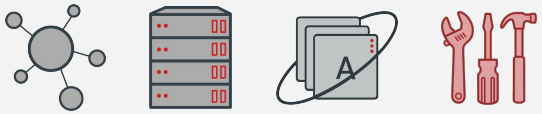
ONLY Red Hat Enterprise Linux provides an intelligent OS that is the consistent foundation for the enterprise hybrid cloud.

Delivering **ANY** application on any footprint at any time.

THE ECOSYSTEM THAT POWERS ECOSYSTEMS

Red Hat Enterprise Linux fuels the portfolio

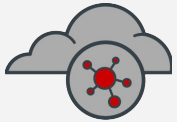
RED HAT® ENTERPRISE LINUX®



RED HAT® OPENSTACK® PLATFORM

Flexible private cloud for ecosystem products and services

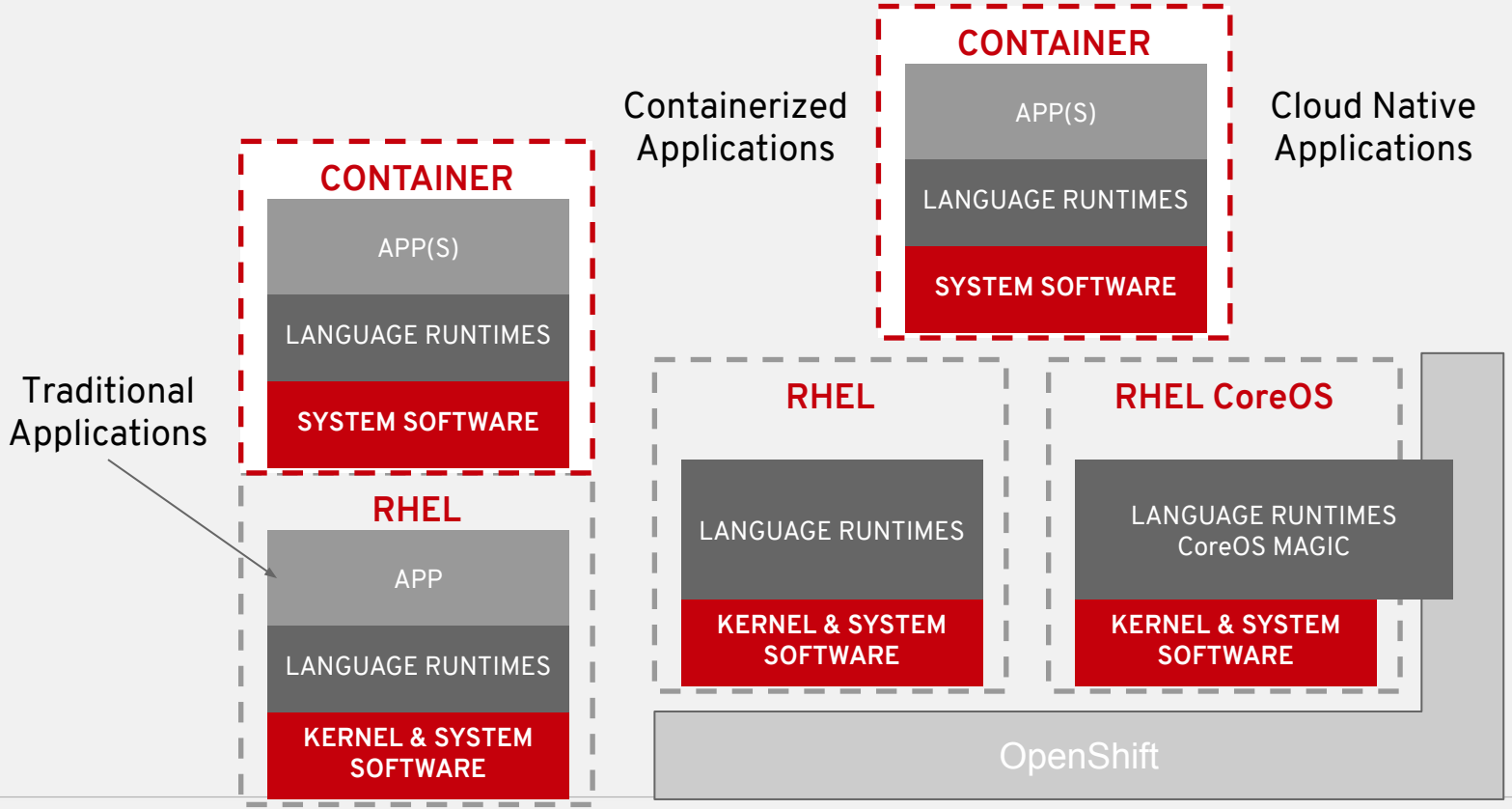
RED HAT® OPENSHIFT®



Open hybrid cloud for container and microservices orchestration

It starts with Linux

Containers are Linux, Linux is RHEL, RHEL is everywhere



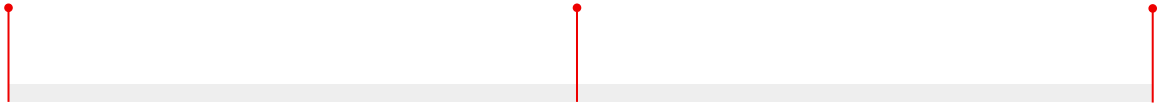
redhat.

Predictable updates

3 years
Major releases

6 months
Minor updates

2 phases
Support life cycle



Red Hat

Hardware partner ecosystem

SILICON

OEMS

IHVS

Optimized experiences for mission-critical databases

Microsoft SQL Server

- Red Hat Enterprise Linux is the reference platform for SQL Server on Linux
- Benchmark-breaking performance
- Fast deployment and portability via containers

SAP HANA

- Red Hat Enterprise Linux is 1 of only 2 certified Linux distributions
- More than 20 years of Red Hat and SAP joint engineering collaboration
- Exceptional performance and scalability —the largest SAP install in the world runs on Red Hat Enterprise Linux

The Cool New Stuff!!!

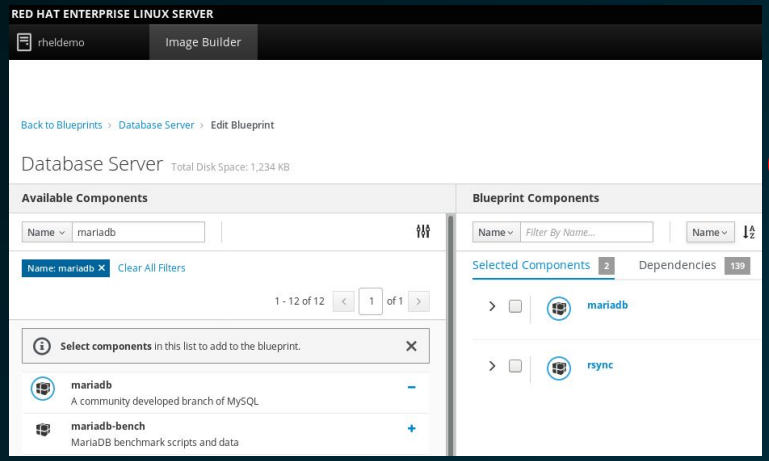
redhat.

RHEL AS A GUEST

- **Light-weight kernel packaging**
  Reduced footprint for guests only with separate packaging for additional drivers
- **Direct access from the guest**
  Pass-through, virt-io improvements
- **Optimized for the Cloud**
  AWS, Azure, and GCE

redhat.

IMAGE BUILDER



- **Create** custom blueprints
- **Target** any platform:

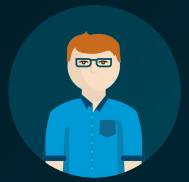
RED HAT® VIRTUALIZATION

RED HAT® OPENSTACK® PLATFORM

aws

Azure

+ other cloud platforms



SYSTEMS/CLOUD ADMINISTRATOR

"I need to quickly create customized OS images for my hybrid deployment environments, including physical, virtual, and private and public clouds."

redhat.

A MODERN DEVELOPMENT ENVIRONMENT

- **Application Stream**
  Access to rich content from Red Hat
- **Modules**
  The next generation of Software Collection Packaging
- **Next-gen container tools**
  Flexibility, stability, and performance with containers

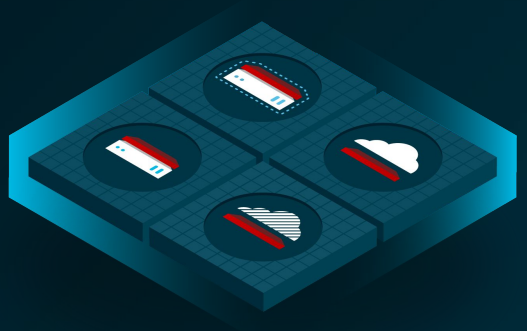
DEVELOPERS

Stable APIs and ABIs

redhat.

RED HAT ENTERPRISE LINUX
Application Stream

ANY APP,
ON ANY FOOTPRINT,
ANYWHERE.



BARE METAL | VIRTUAL | PRIVATE CLOUD | PUBLIC CLOUD

This means:
RHEL offers many versions of many apps,
and each one installs and runs as if it's the only version in the OS.

redhat.

NEXT-GEN CONTAINER TOOLS

Providing stability, flexibility, and performance with containers and images

buildah

- Build oci/docker images

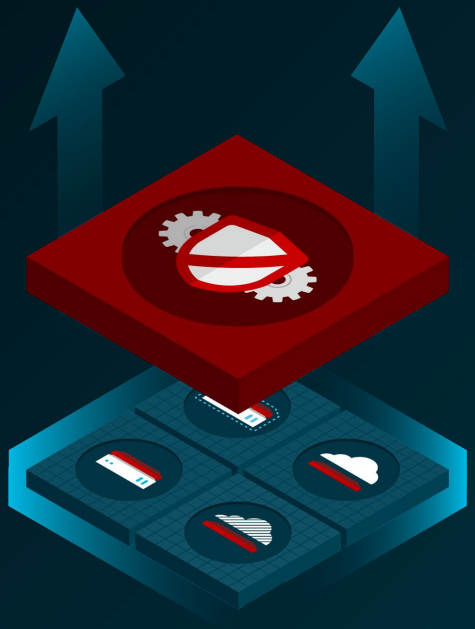
skopeo

- Inspect, copy, and sign images

podman

- Run, manage, and debug containers

redhat.



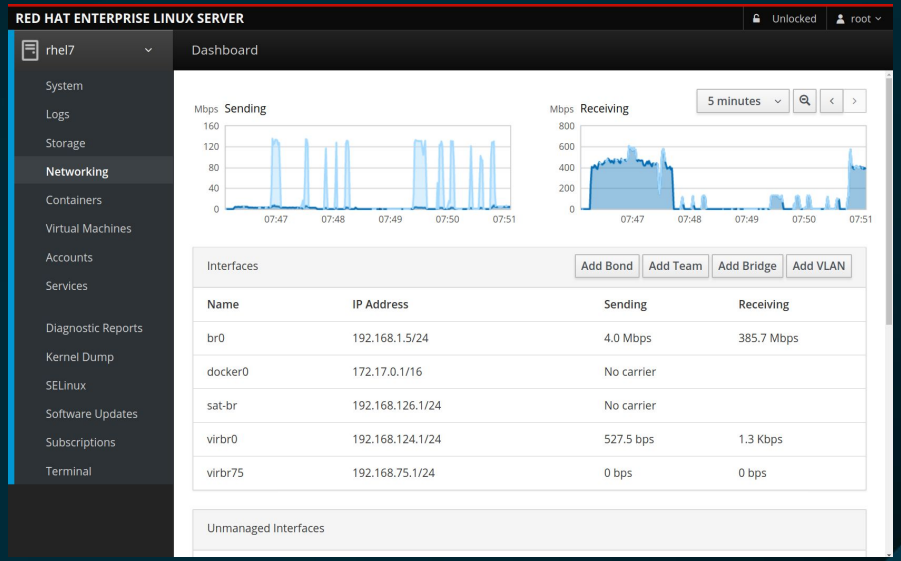
SIMPLE SYSTEM MANAGEMENT

- Package Management
- System Roles
- Red Hat Web Console
- Operating Intelligence
- Managing File system and Storage

redhat.

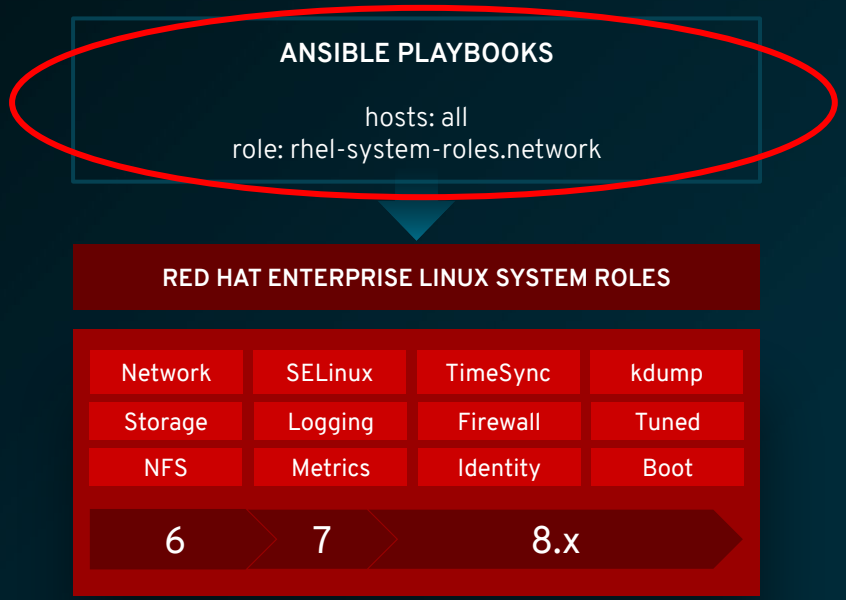
RED HAT WEB CONSOLE

- Feature rich interface
- Better gateway for Windows Admins
- Integration with VDO, RAID, Disk Encryption
- More sophisticated health indicators



redhat.

SYSTEM ROLES



CURRENT ROLES

- Network
- SELinux
- TimeSync
- Postfix
- kdump

TARGETED ROLES

- Storage
- Logging
- Metrics
- NFS
- Tuned
- Firewall
- And more!

redhat.

FILE SYSTEMS AND STORAGE

- **Stratis**
  Easy to use CLI and API for management

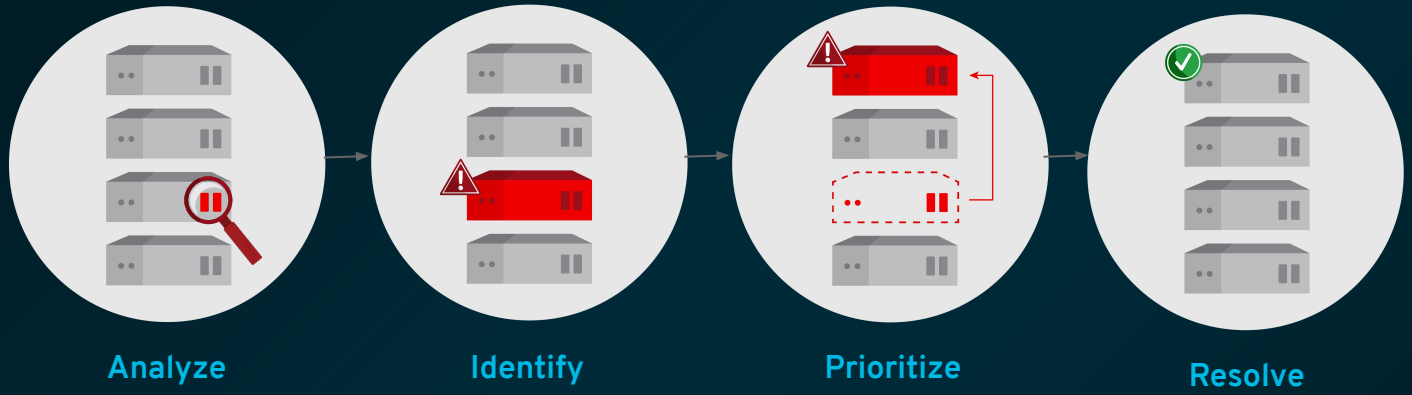
- **XFS Reflink and RMAP**
  support providing faster snapshot-like support within XFS and faster file system checks

- **VDO compression and deduplication**
  to increase storage efficiency and reduce costs

- **Performance** optimizations

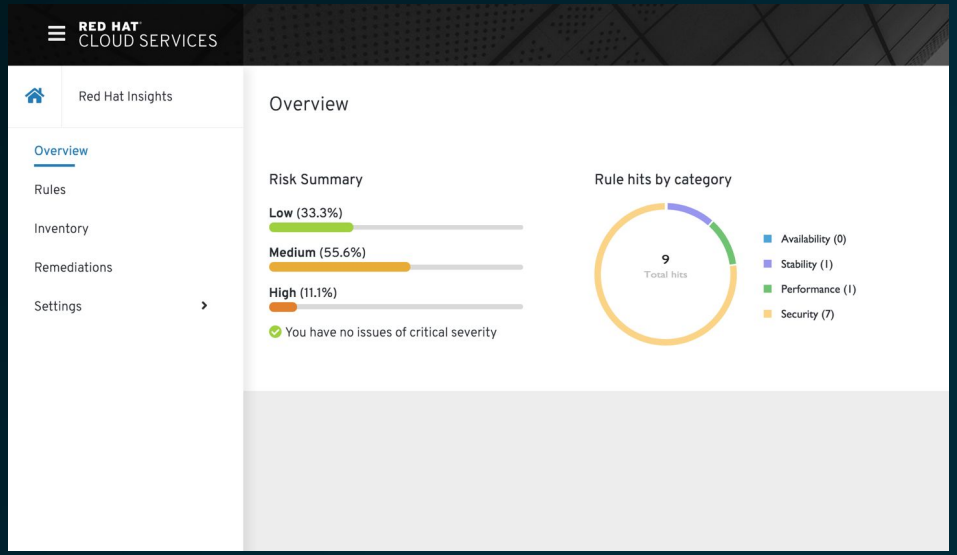
redhat.

Red Hat Insights: Gain operating intelligence



redhat.

Detect and fix issues with Red Hat Insights

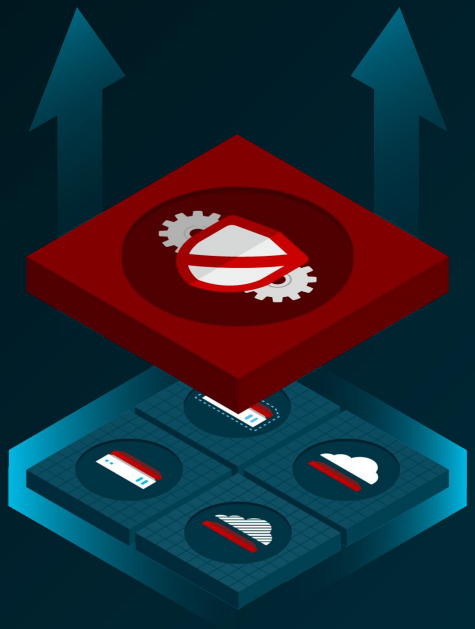


Proactive advice
Identification of issues before they become problems

Continuous assessment
Real-world results to help find new risks

Simpler remediations
Tailored results at the host level

redhat.



A SECURE PLATFORM

- System Hardening
- Session Recording
- Automation of Security Configuration
- Identity Management
- Managing Network Services

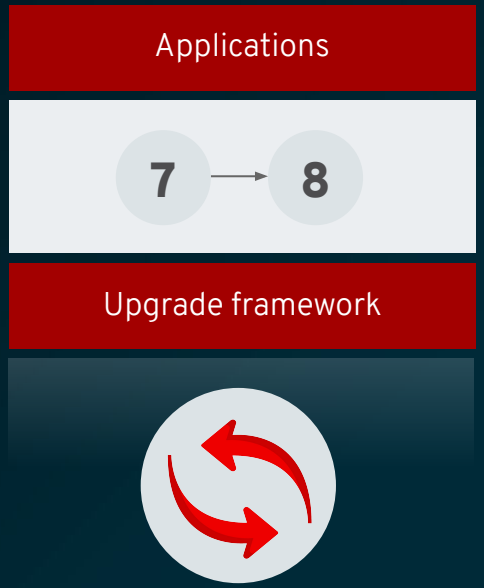
redhat.

SECURITY AND COMPLIANCE

- **System-wide crypto policies**
  Reduce attack vector and stay in compliance
- **Industry standard algorithms and protocols**
  OpenSSL 1.1.1; TLS 1.3

redhat.

In-place upgrades for your systems



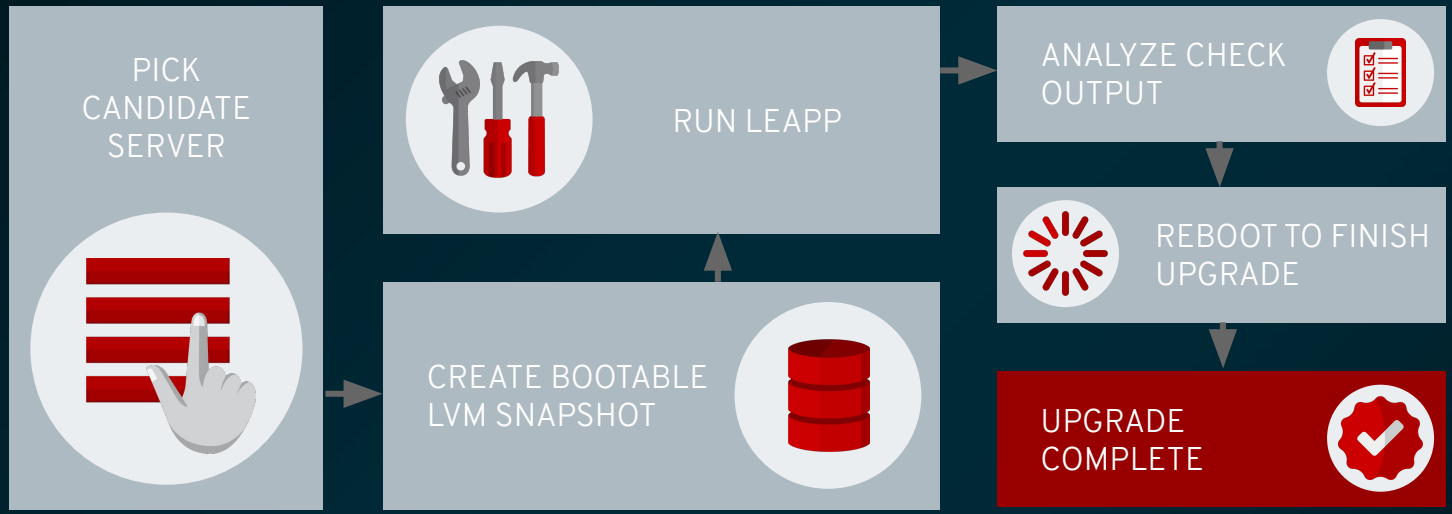
Reduced migrations
Analyze systems to determine if upgrading in place can avoid a costly migration

Easy rollback options
Combine with bootable LVM snapshots for safety

Improved framework
Get better analysis and a simplified process with a more extensible framework

redhat.

Can I upgrade this host?



redhat.

redhat.

THANK YOU

linkedin.com/company/red-hat

facebook.com/redhatinc

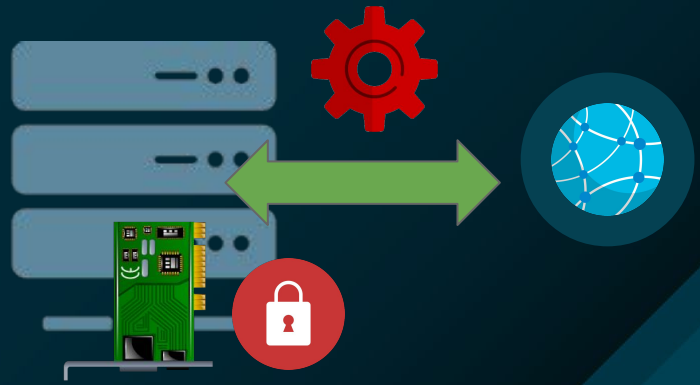
youtube.com/user/RedHatVideos

twitter.com/RedHat

INTRODUCING THE RED HAT UNIVERSAL BASE IMAGE

NETWORKING SERVICES

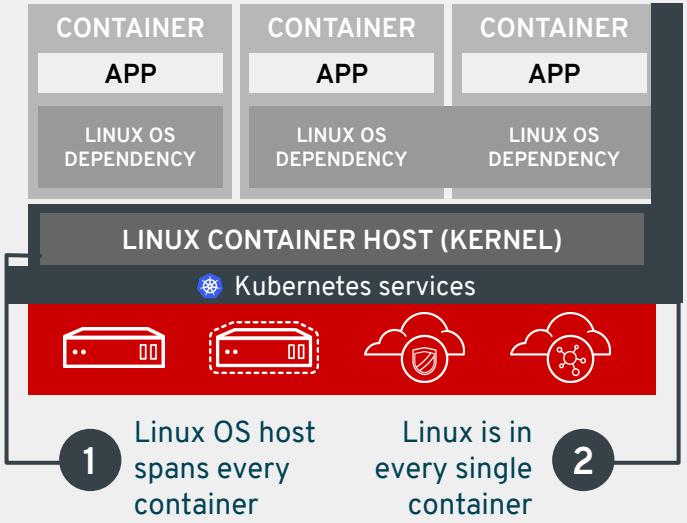
- **Dynamic network control for load balancing**
  eBPF XDP/TC
- **DDoS Protection and application security**
- **Crypto offload**
  for IPSec VPN and TLS
- **NetworkManager**
  CLI and API to configure services



redhat.

RED HAT UNIVERSAL BASE IMAGE

A bold change that will help us expand the ecosystem



WHY?

Because containers ARE Linux.

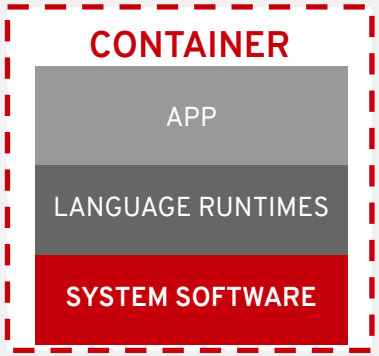
Developers & software vendors include Linux code ***inside*** the container. This enables a container ecosystem that when run on OpenShift, delivers a Red Hat Enterprise Linux experience.

WHAT?

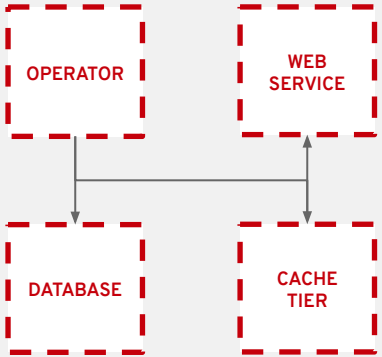
A **subset of Red Hat® Enterprise Linux®** that is freely available and redistributable, driving standardization on container (or base) images that are “RHEL-ready.”

CERTIFICATION PROGRAMS ADD VALUE

Two main levels of participation



Container
Certification
Now for UBI



Operator
Certification

NEW

redhat.

Summary

And why customers will care

- **Developers** get a small image they can distribute anywhere
- **Operations** teams have a supportable base image with an enterprise life cycle
- **Architects** can automate operations with operators
- **Enterprise support** in Red Hat environments for UBI based containers
- **Community** can grow and share containerized applications anywhere

Bottom line: Red Hat platforms powering applications built on RHEL technology lower the cost, risk and friction in moving to the Open Hybrid Cloud

redhat.