Red Hat Enterprise Linux

What's new with UBI

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What we'll discuss today

What is Red Hat Universal Base Image?

Demo new features

What problems does it solve?

Questions

Red Hat Universal Base Image

The purpose is to be To be the highest quality and most flexible base container image available

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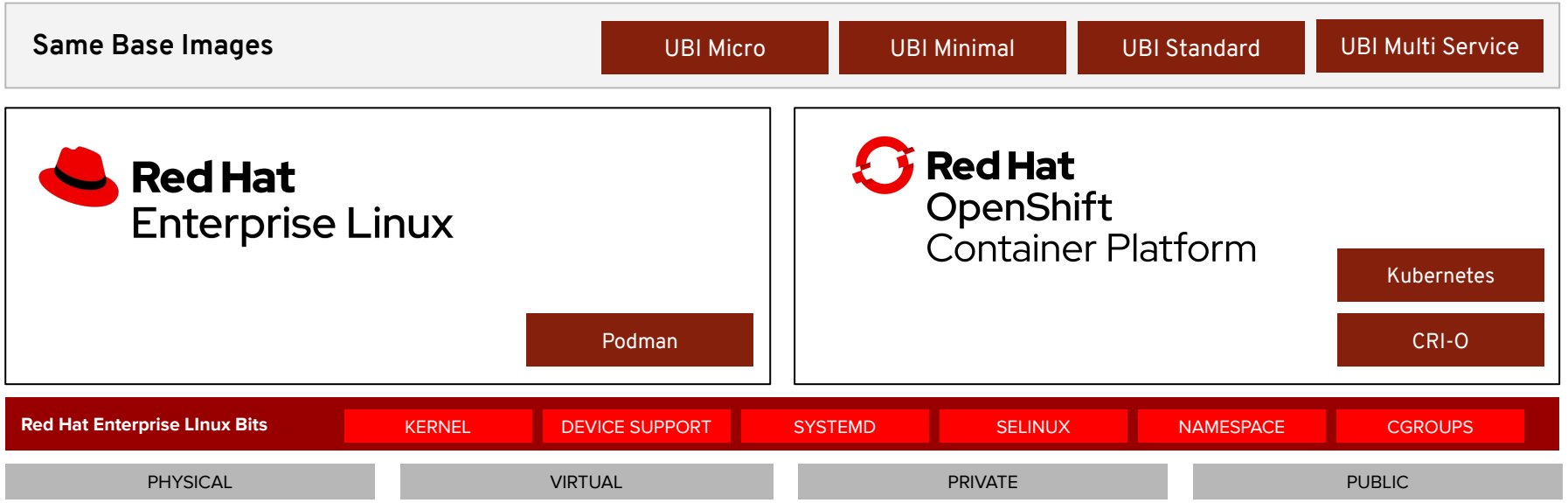
Red Hat Enterprise Linux & OpenShift Container Hosts

Same foundational technology, two products



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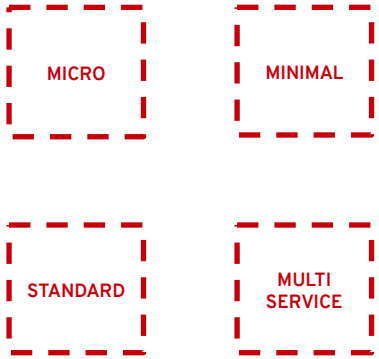
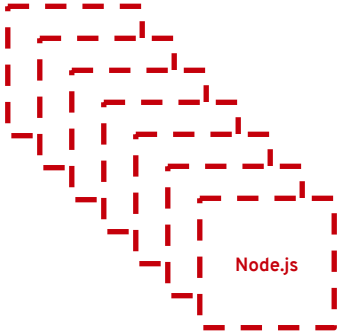
What is Red Hat Universal Base Image?

Four base image, language runtimes, and software packages



Base Images



Pre-Built Language Images

Package Subset

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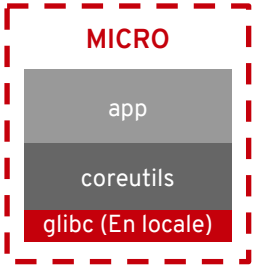
What is Red Hat Universal Base Image?

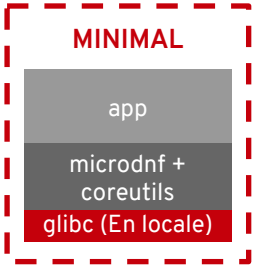
Four images to choose from



ubi8/ubi-micro

Designed for applications that contain all dependencies (Golang, dotnet, etc)

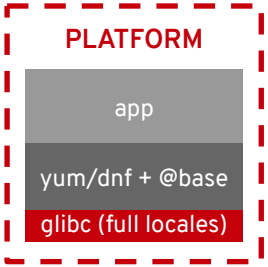
- Tiny (<15MB)
- No package manager
- Built using Buildah



ubi8/ubi-minimal

Designed for applications that contain all dependencies (Golang, dotnet, etc)

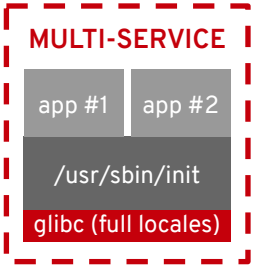
- Minimized content set
- No suid binaries
- Minimal package manager (install, update, remove)



ubi8/ubi

For any application that runs on RHEL

- Unified, openssl crypto stack
- Full YUM stack
- Includes useful basic OS tools (tar, gzip, vi, etc)



ubi8/ubi-init

Eases running multiple services in a single container

- Configured to run systemd on start
- Simply enable the services at build time

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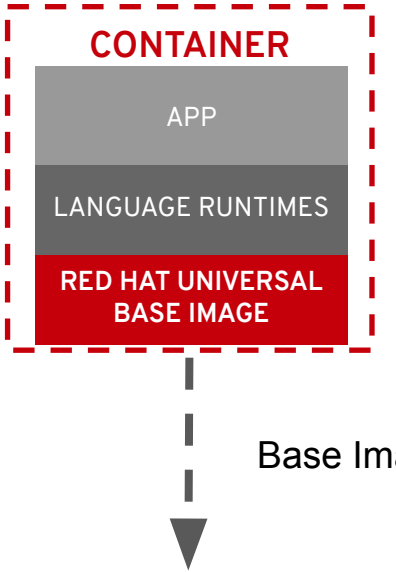
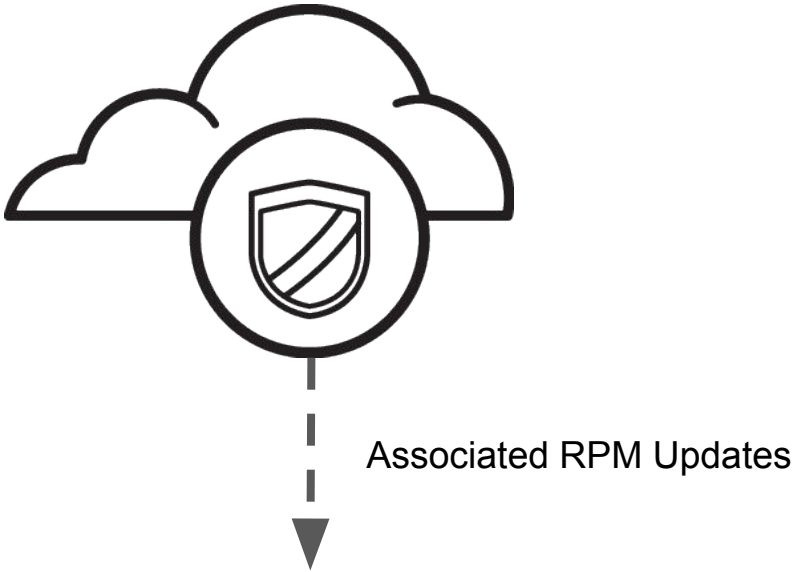
Two Ways to Get Updates

Red Hat provides updated base images & RPMs





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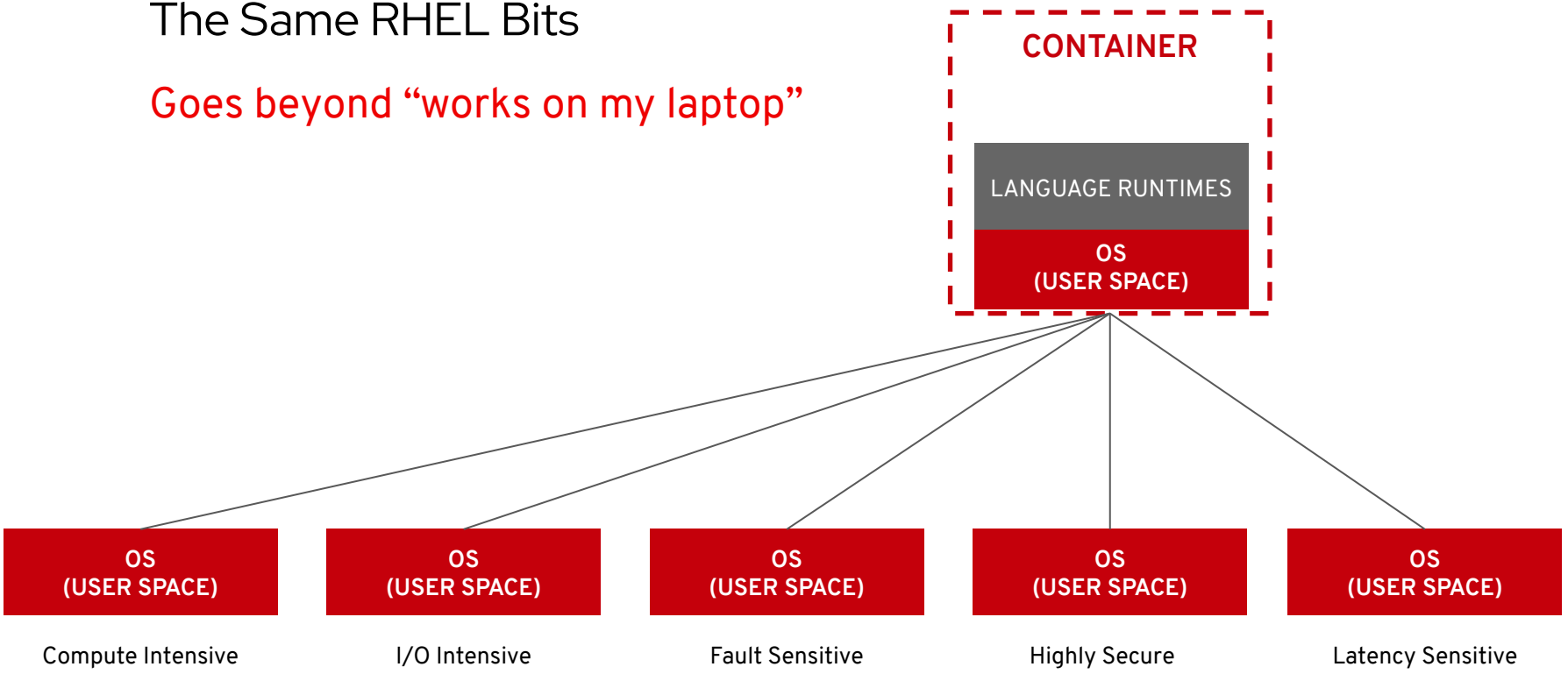
The Same RHEL Bits

Goes beyond “works on my laptop”



Demo

What Challenges Does it Solve?

Too Many Options

Figuring out which container base image to use can be difficult

Traditional Options

- Red Hat Enterprise Linux
- Fedora
- CentOS
- Debian
- Ubuntu
- Windows

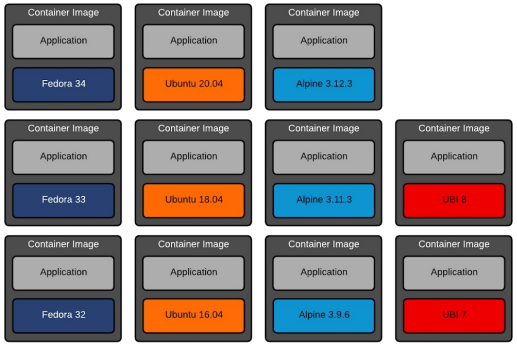
Minimal Options

- Distroless
- Scratch
- UBI Minimal
- UBI Micro
- Alpine

Developers Will Make a Choice

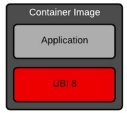
Which creates image sprawl

No Standard Operating Environment



- 8 different versions of glibc
- 3 different versions of muslc
- 11 different versions of openssl

Standardized on Universal Base Image 8



- 1 version of glibc
- 1 version of openssl

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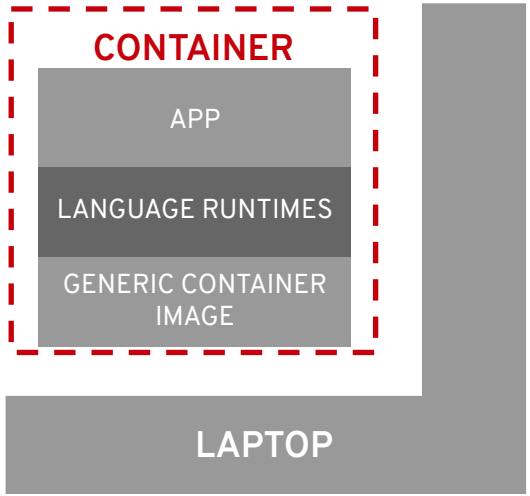
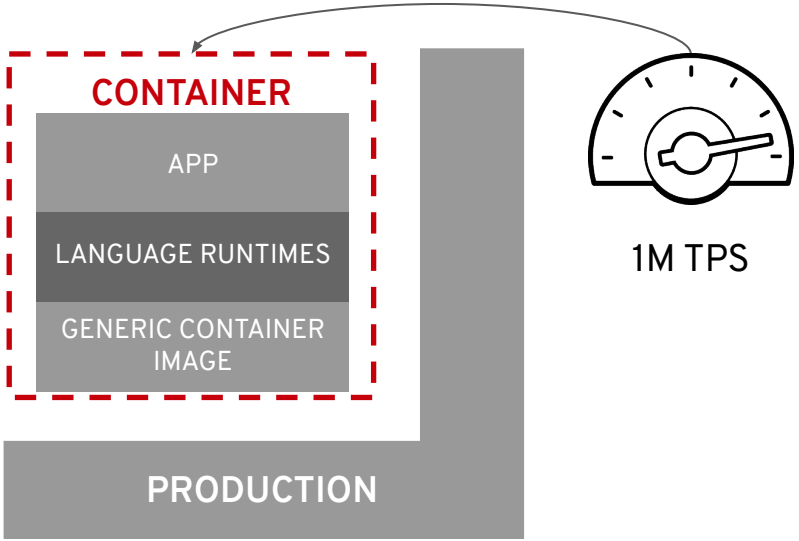
It Works on My Laptop, But...

What about performance?



Works on my laptop



But, what about at 1M transactions per second

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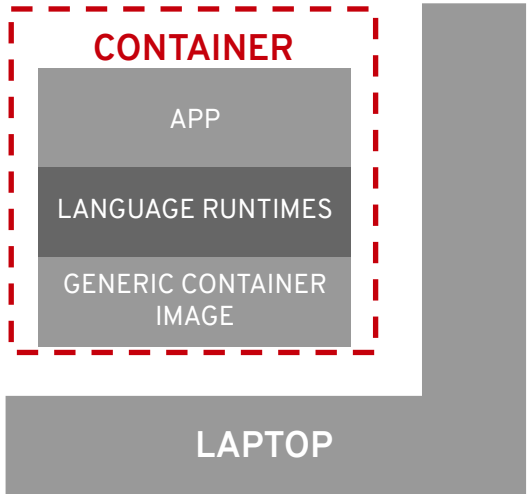
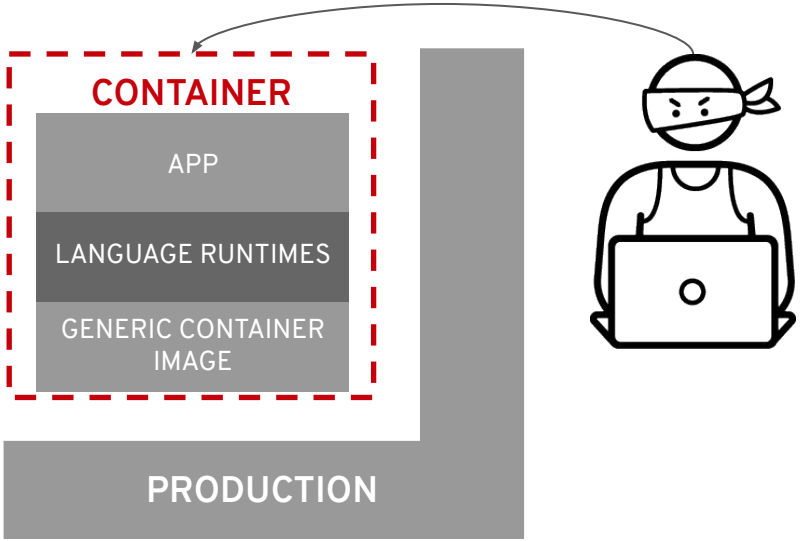
It Works on My Laptop, But...

What about security?



Works on my laptop



What about hackers?

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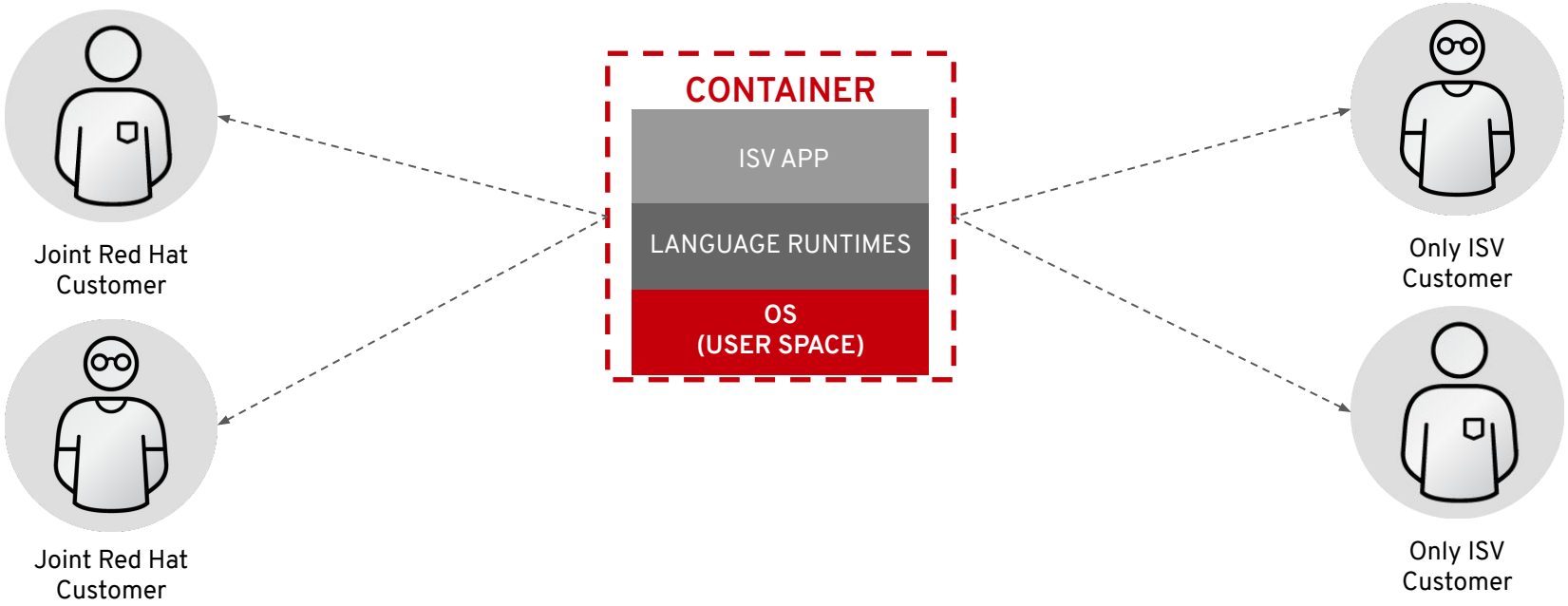
ISVs Need to Distribute Anywhere

Meet your customers where they are, Joint Red Hat customers or not



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How to Select The Right Image

There is standard criteria which can help

Architecture

- C Library
- Core Utilities
- Size
- Life Cycle
- Compatibility
- Troubleshooting
- Technical Support
- ISV Support
- Distributability

Security

- Updates
- Tracking
- Security Response Team

Performance

- Automated
- Performance Engineering

Questions

Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.


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