



TECHNICAL INTRODUCTION TO THE RED HAT UNIVERSAL BASE IMAGE

Standardize on one container image for all your
application needs

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CHALLENGES IN SELECTING THE RIGHT CONTAINER BASE IMAGE

THERE ARE A LOT OF DIFFERENT OPTIONS

Figuring out which container base image to use can be difficult

Traditional Options

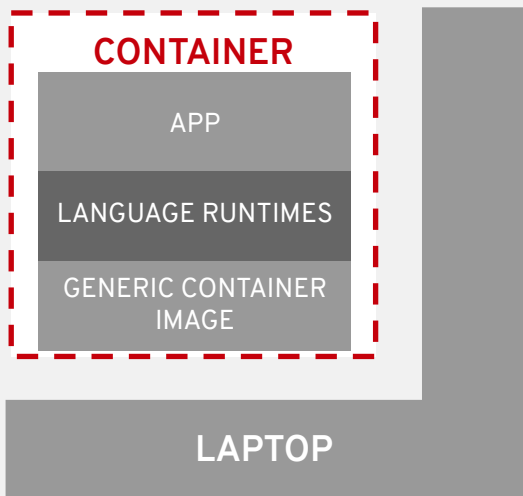
- Red Hat Enterprise Linux
- Fedora
- CentOS
- Debian
- Ubuntu
- Windows

Minimal Options

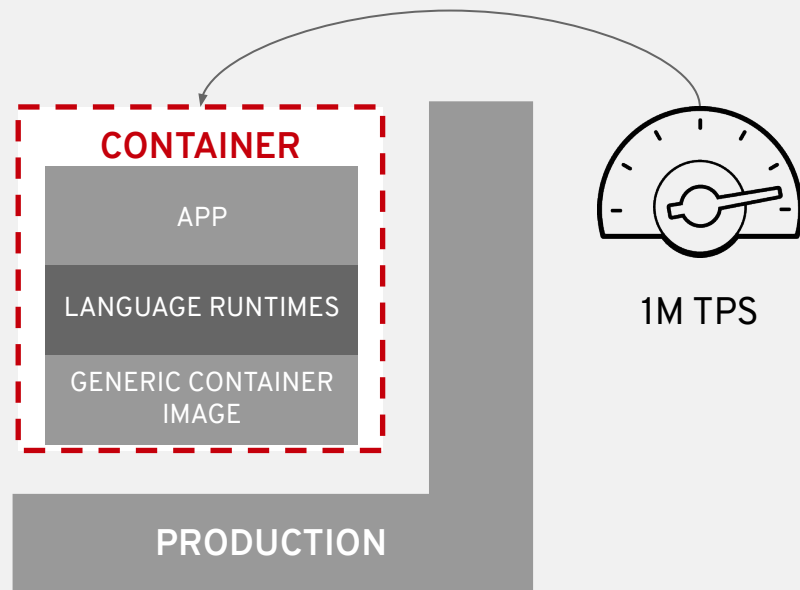
- Distroless
- Scratch
- RHEL Minimal
- Alpine

IT WORKS ON MY LAPTOP, BUT...

What about performance?



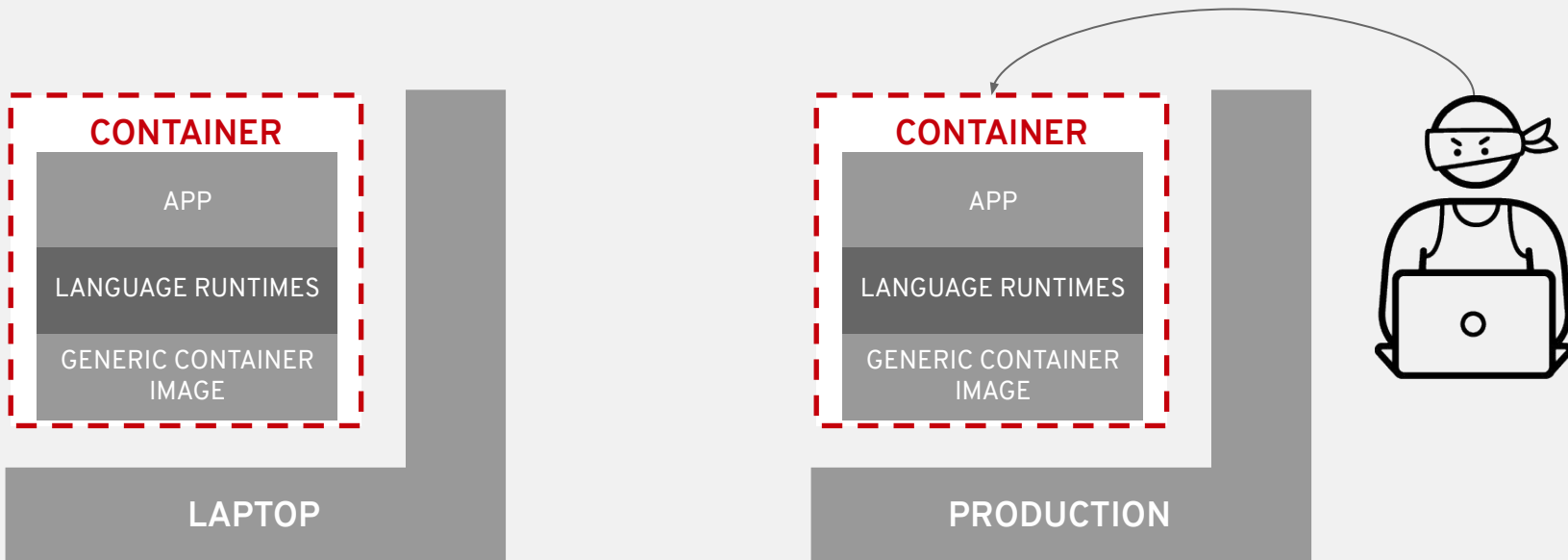
Works on my laptop



But, what about at 1M transactions per second

IT WORKS ON MY LAPTOP, BUT...

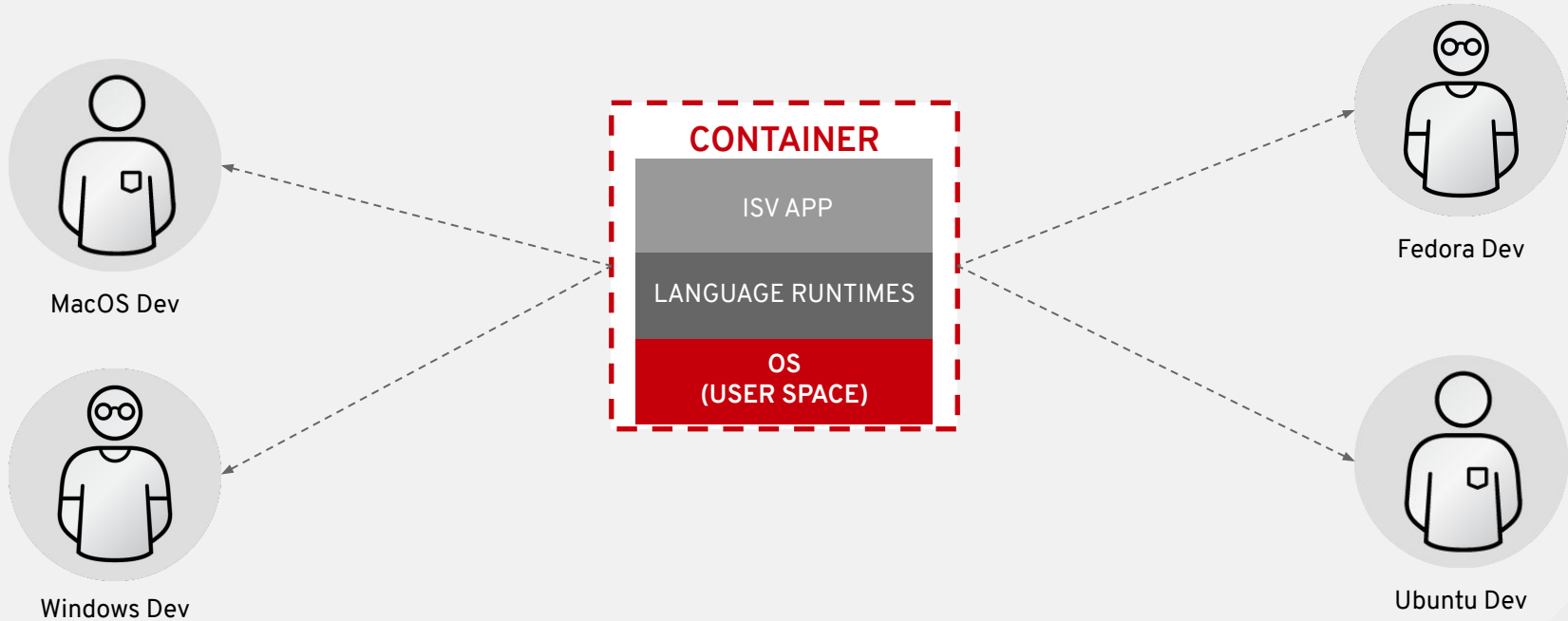
What about security?



Works on my laptop

What about hackers?

DEVELOPPER NEED ACCESS TO A BASE IMAGE ON THERE LAPTOPS



INTRODUCING THE RED HAT UNIVERSAL BASE IMAGE

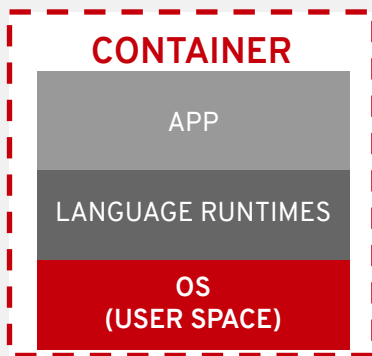
THE RED HAT UNIVERSAL BASE IMAGE

The purpose is...

“To be the highest quality and most flexible base container image available”

THE BASE IMAGE FOR ALL OF YOUR NEEDS

Enterprise architecture, security and performance



The Red Hat Universal Base Image is based on RHEL and made available at **no charge** by a new end user license agreement.

Development

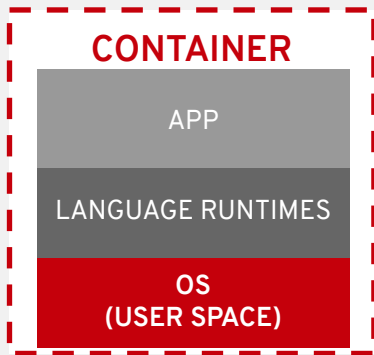
- Minimal footprint (~90 to ~200MB)
- Programming languages (Modularity & AppStreams)
- Enables a single CI/CD chain

Production

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

THE BASE IMAGE FOR ALL OF YOUR NEEDS

Engineered by Red Hat with an enterprise roadmap, security and performance



Trusted:

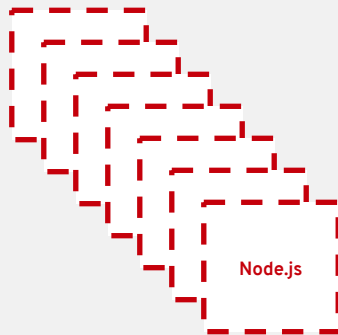
- Libraries
- Packaging format
- Core Utilities
- Security Response
- Patching
- Performance Response
- Technical Support
- More

WHAT IS THE RED HAT UNIVERSAL BASE IMAGE?

Three base images, language runtime images, and software packages



Base Images



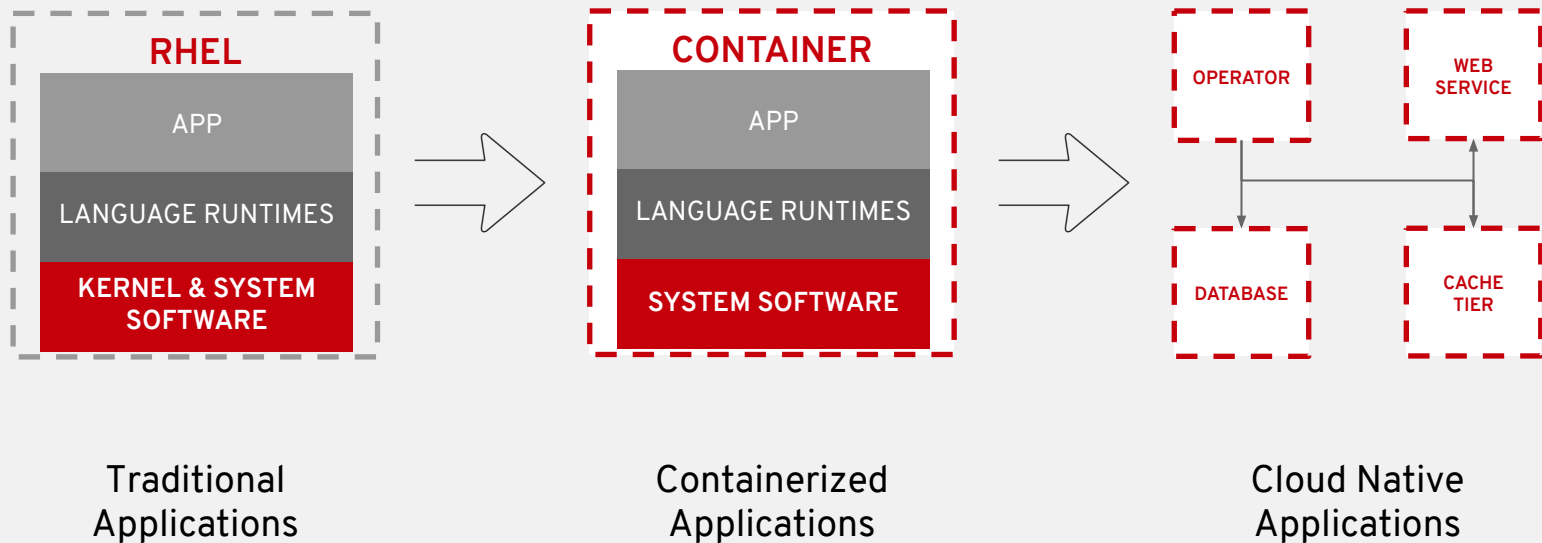
Pre-Built Language Images



Package Subset

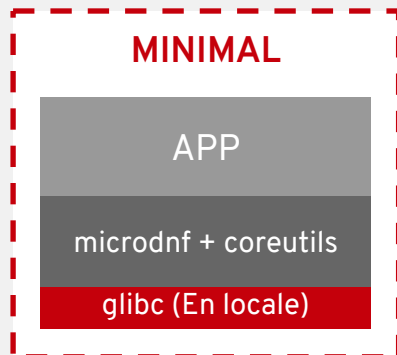
THE BASE IMAGE FOR ALL OF YOUR NEEDS

Bringing the value of RHEL to cloud native applications



WHAT IS THE RED HAT UNIVERSAL BASE IMAGE?

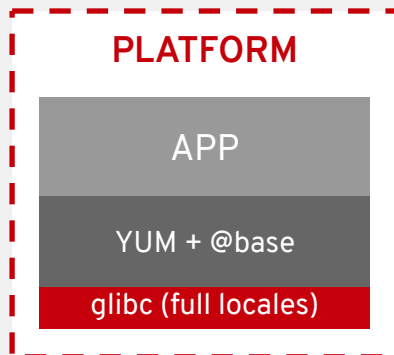
Providing the right level of content for application stability via the RHEL API/ABI



ubi8/ubi-minimal

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

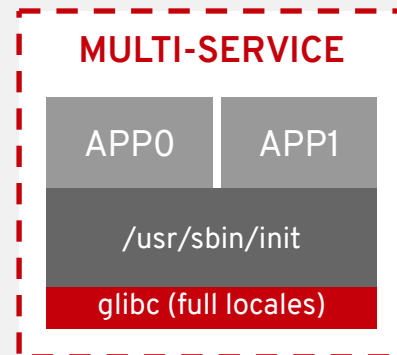
- Minimized content set
- No suid binaries
- Minimal package manager (install, update, remove)



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)



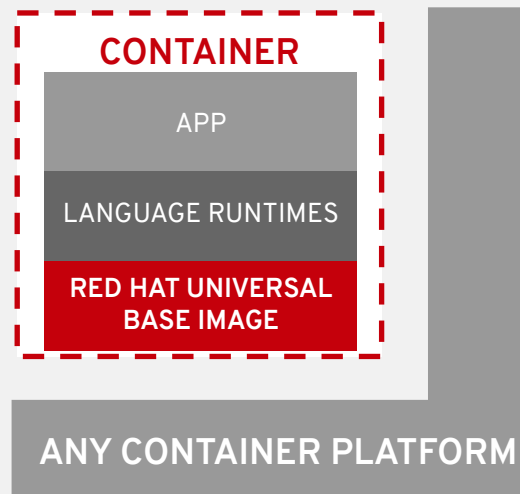
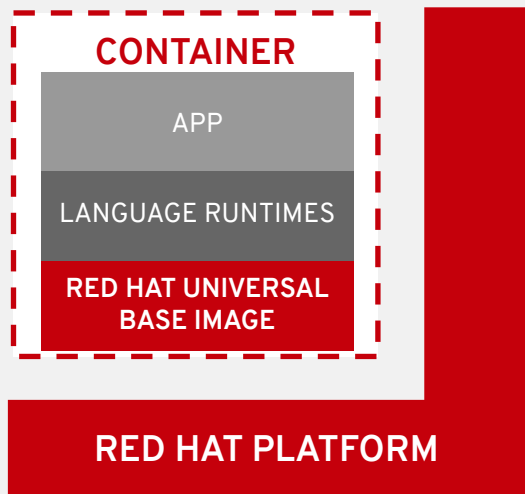
ubi8/ubi-init

Eases running multiple services in a single container

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

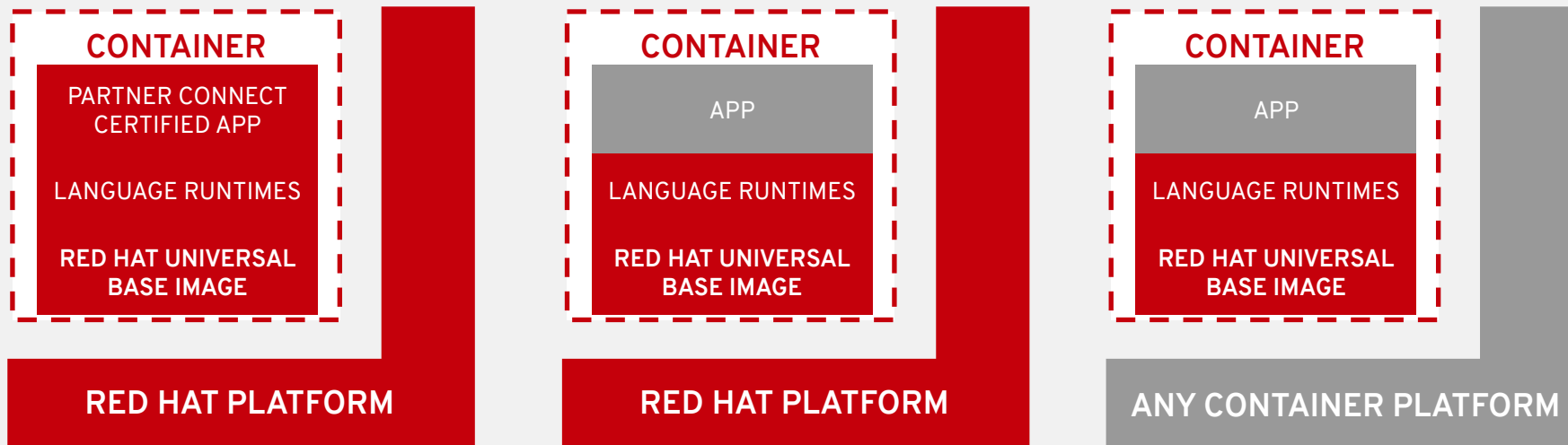
CAN BE BUILT & DEPLOYED ANYWHERE

On OpenShift and RHEL, or any container platform of your choice



CAN BE BUILT & DEPLOYED ANYWHERE

Building on UBI is the first step



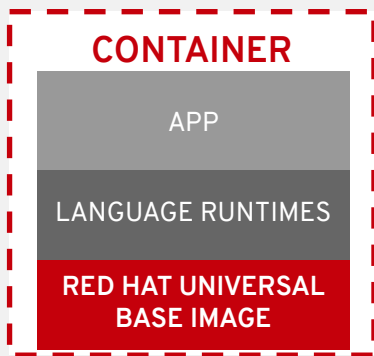
Certification provides the highest level of support

Enterprise support when run on Red Hat platforms

Trusted base for any environment

TWO WAYS TO GET UPDATES

Red Hat provides updated base images & RPM updates so you can rebuild any time you want



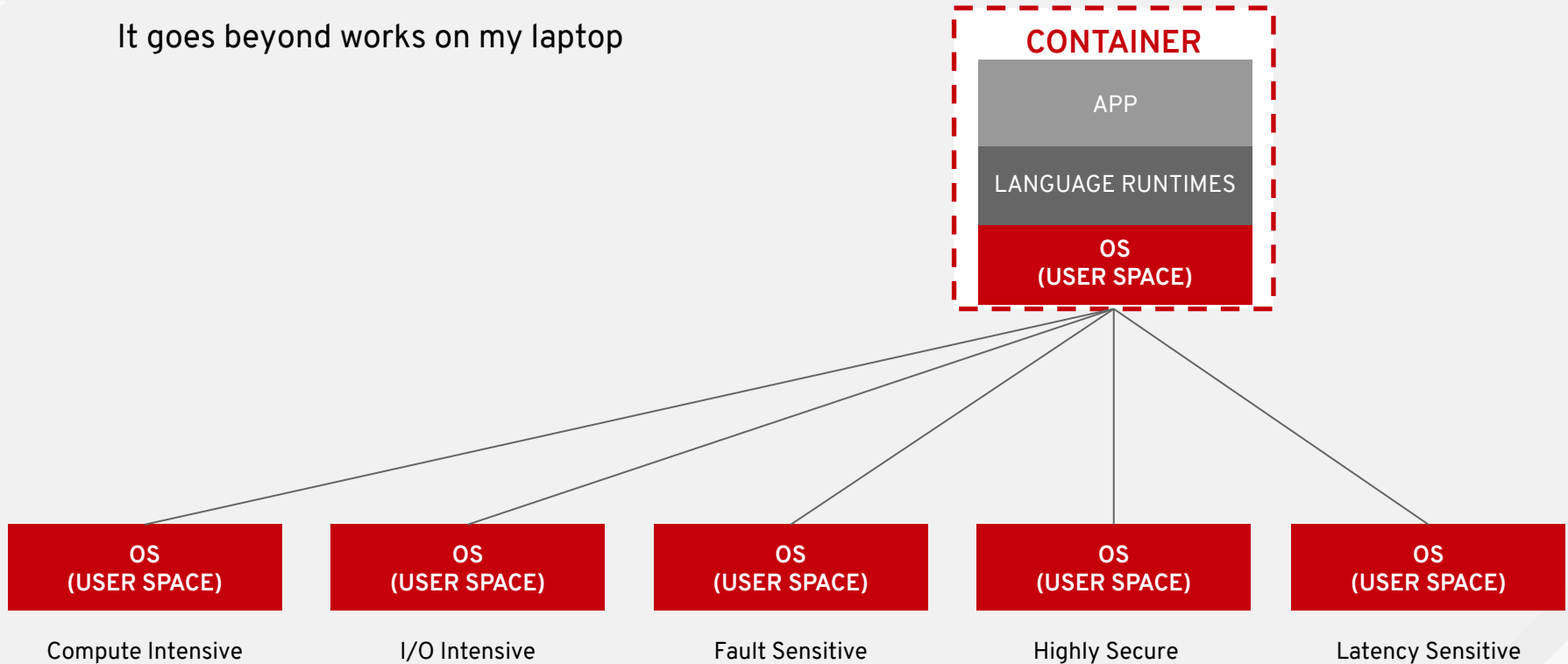
Base Image Updates



Associated RPM Updates

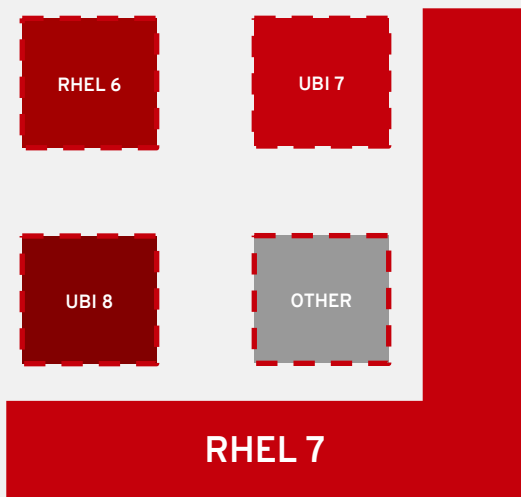
SAME BITS USED IN MISSION CRITICAL WORKLOADS

It goes beyond works on my laptop

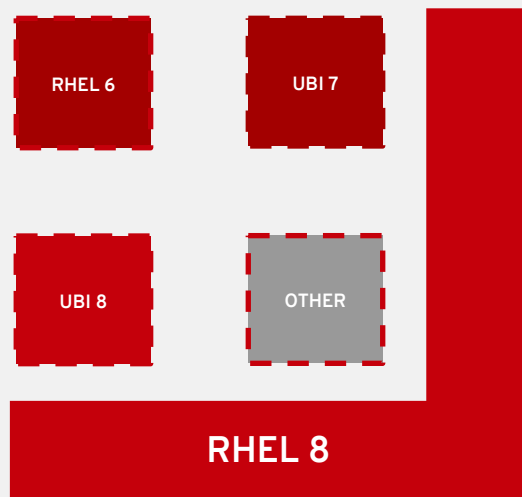


SUPPORTABILITY MATRIX

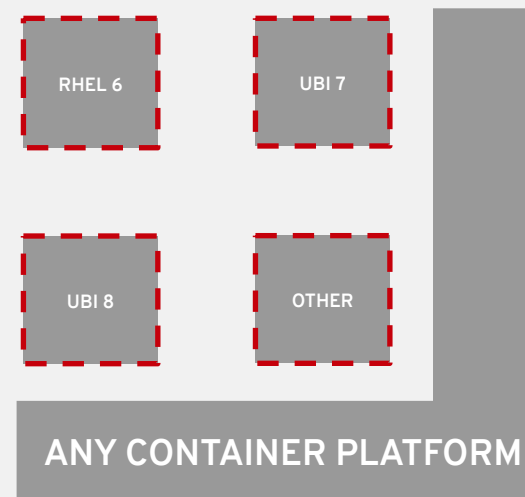
Tiered support model



Red Hat Enterprise Linux 7



Red Hat Enterprise Linux 8



Like any upstream project



THANK YOU



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