



Red Hat Enterprise Linux 8

Technical highlights

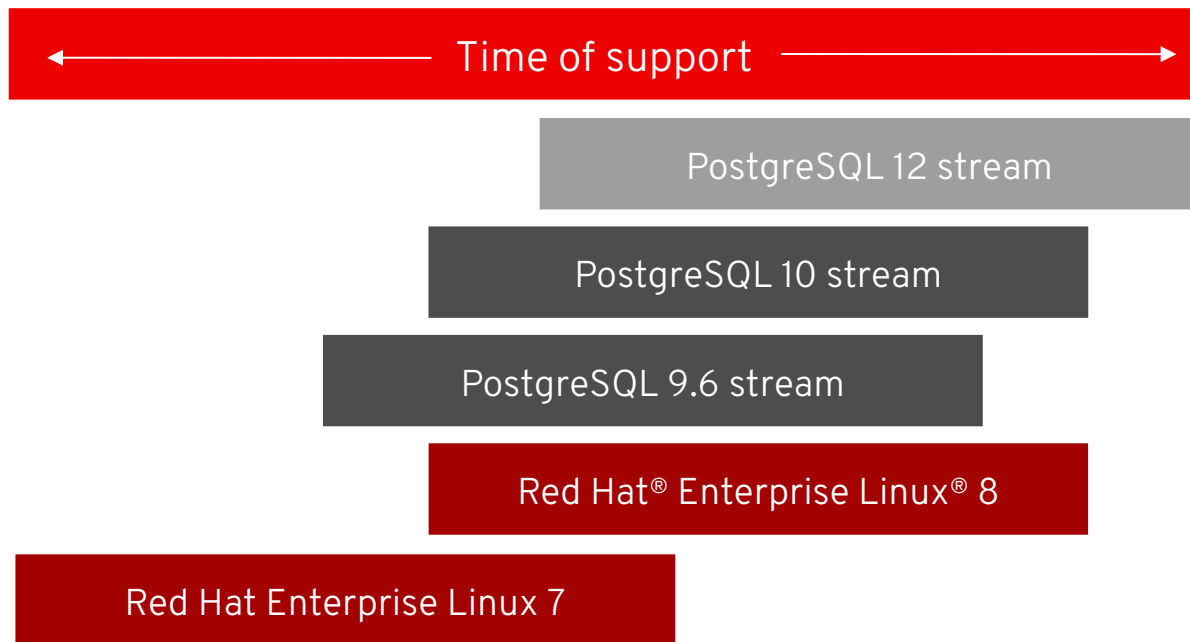
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Senior Technical Account Manager

At a glance

<i>KERNEL VERSION</i>	4.18+
<i>SYSTEM COMPILER</i>	GCC 8.2, LLVM 6.0
<i>HARDWARE ARCHITECTURES</i>	Intel/AMD 64-bit, IBM Power LE, IBM z Systems, ARM 64-bit
<i>DEFAULT FILE SYSTEM</i>	XFS
<i>PACKAGE MANAGEMENT</i>	Yum v4
<i>TIME SYNCHRONIZATION</i>	Chrony
<i>NETWORKING</i>	NetworkManager

Application streams



More choice

Offers versions of the open source tools and frameworks developers need

Newer versions

Provides access to newer versions as they stabilize

Simpler access

Maintains standard locations for tools and libraries

Simplified access to software

Red Hat Enterprise Linux 7 repositories

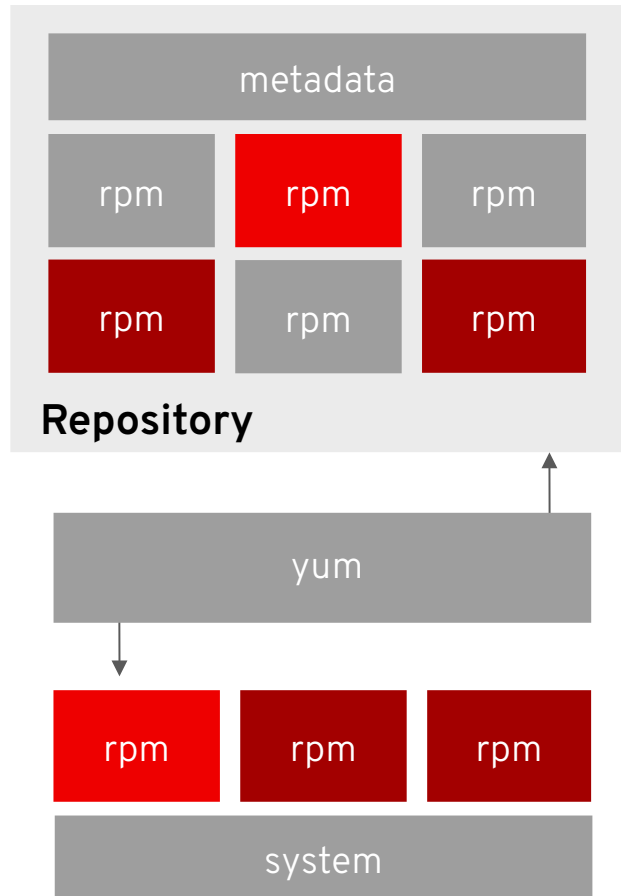


Red Hat Enterprise Linux 8 repositories



Also, no more content gating based on workstation/server/etc

The newest yum package manager: version 4



New technology

Maintains the same experience while adding new tools

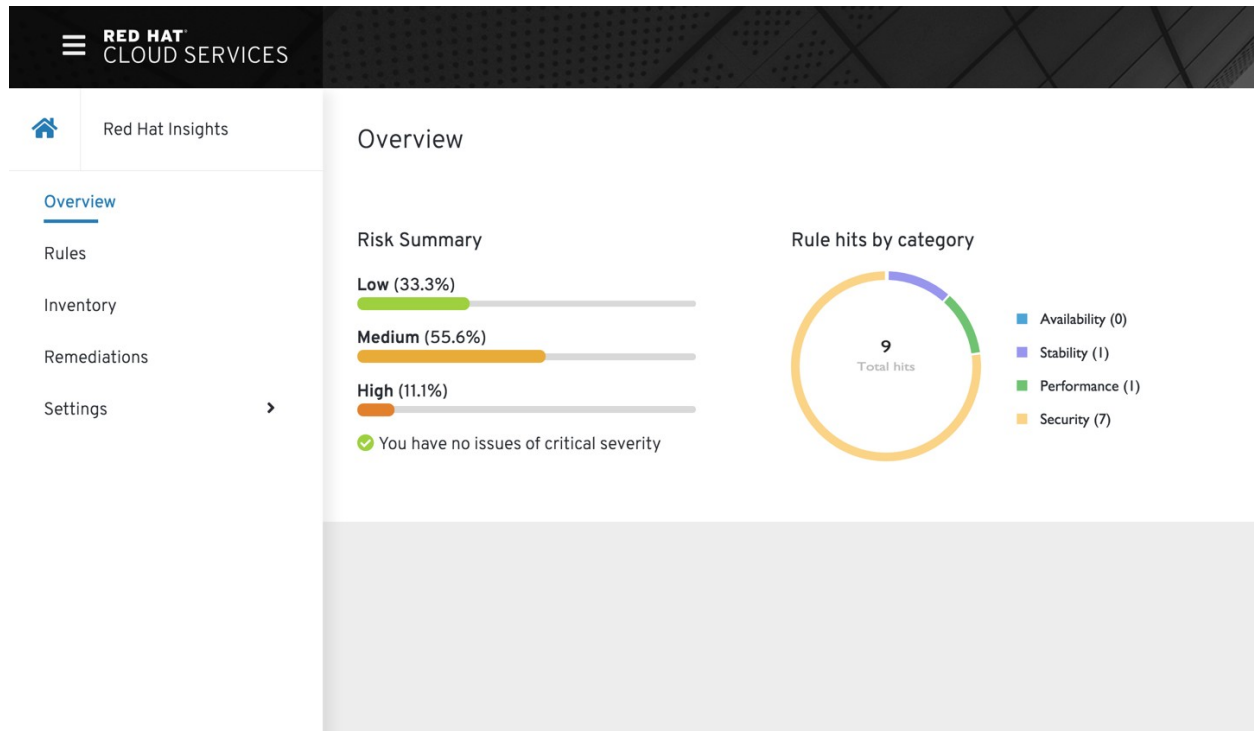
Better dependency management

Offers faster resolution and easier minimization of what's installed

Stable API

Provides new application programming interface (API) for extending yum that will progress into the future

Detect and fix issues with Red Hat Insights



Proactive advice

Identification of issues before they become problems

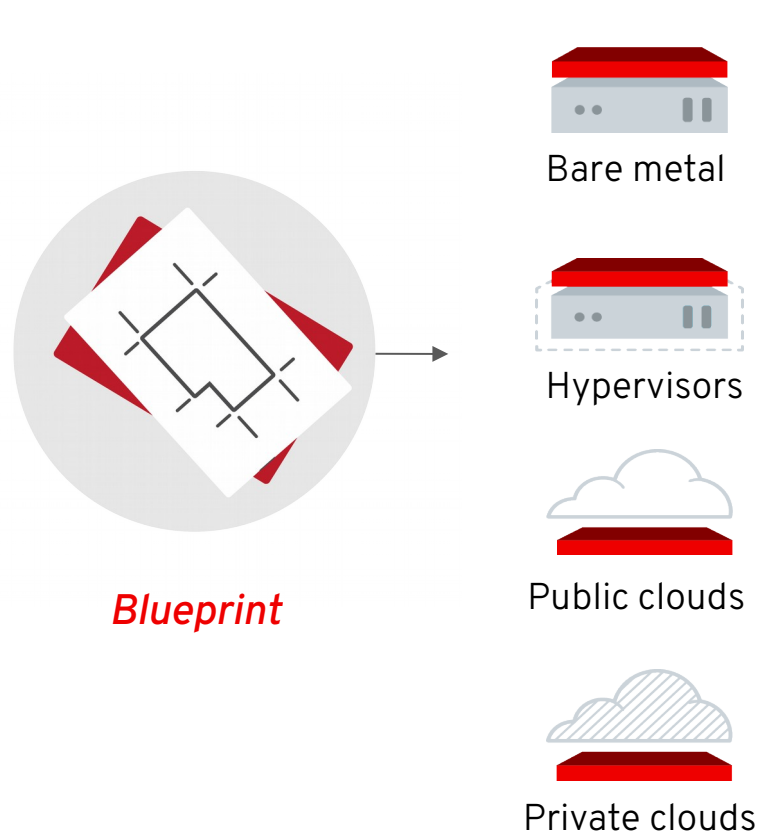
Continuous assessment

Real-world results to help find new risks

Simpler remediations

Tailored results at the host level

Create images for all your environments with image builder



Single source

Lets you create gold images for any environment from the same blueprint increasing stability and consistency

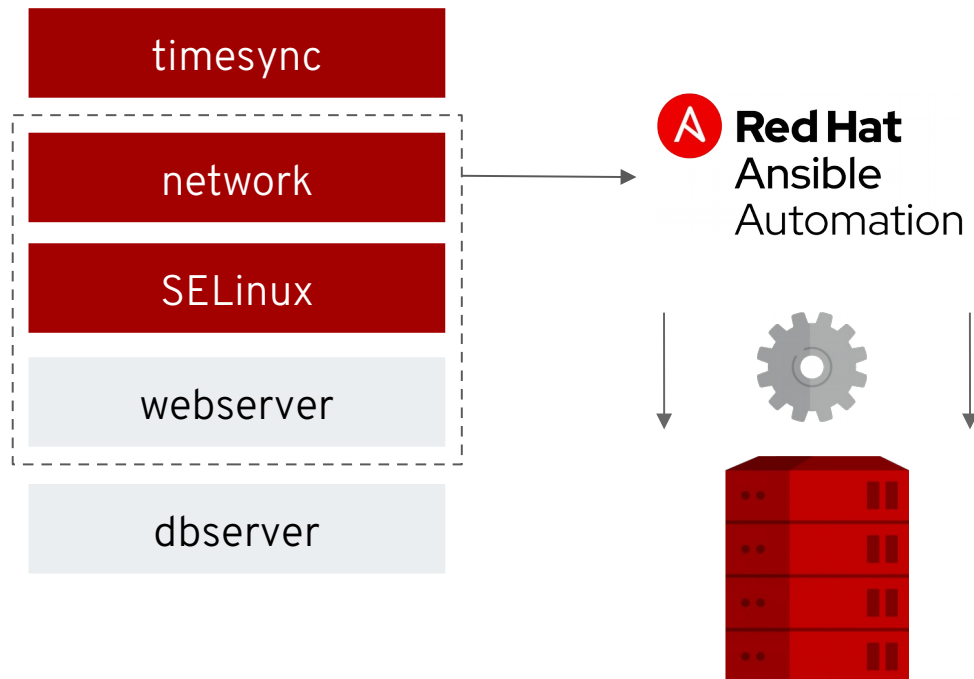
Any footprint

Supports public cloud, private cloud, enterprise hypervisors, and bare metal

Simple interface

Provides web-based view within the web console for selecting packages and creating blueprints

Speed automation creation with system roles



Common automation

Manage multiple versions of Red Hat Enterprise Linux from a single role

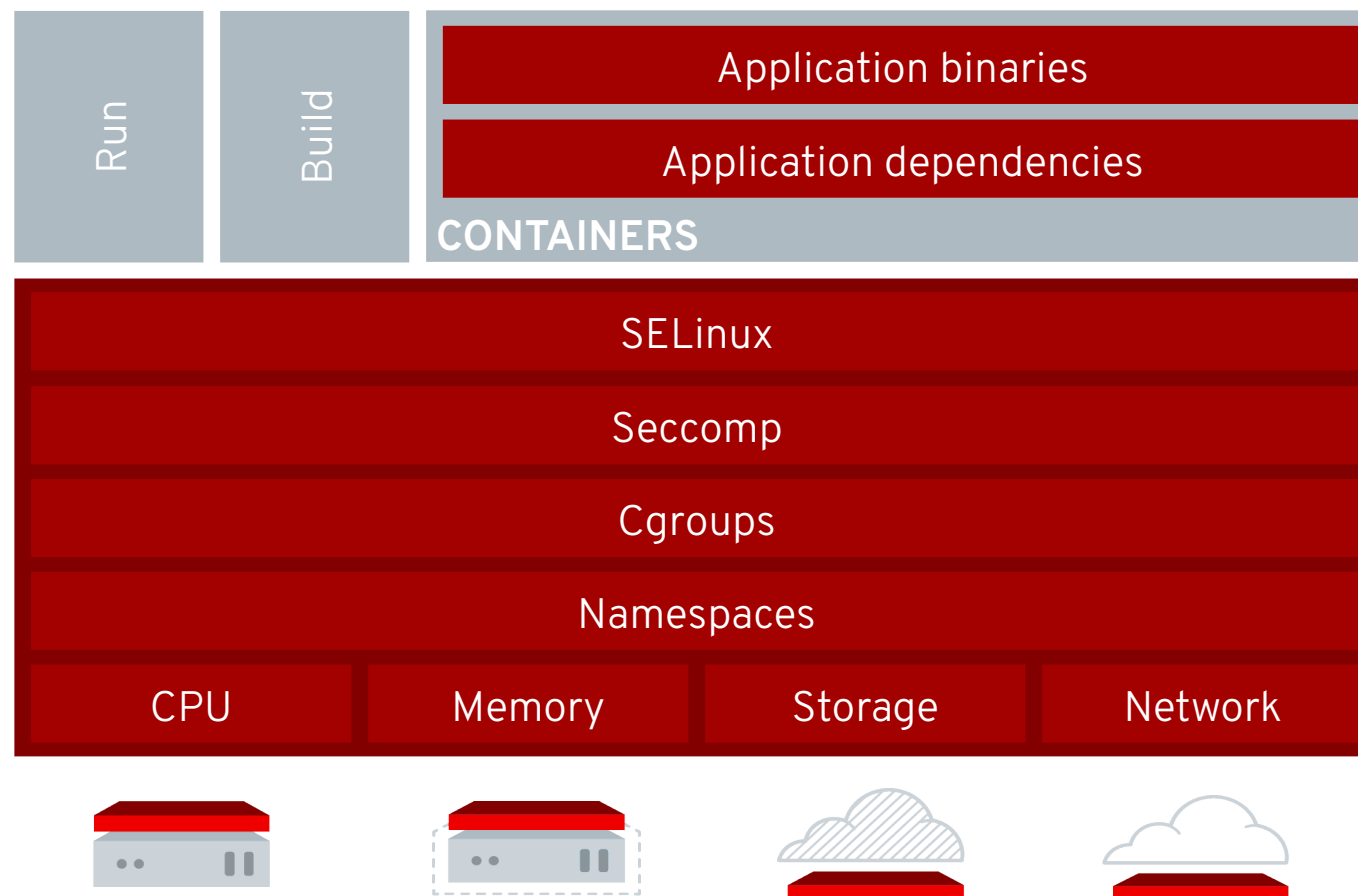
Reduced rework

Import provided roles to eliminate task creation in playbooks

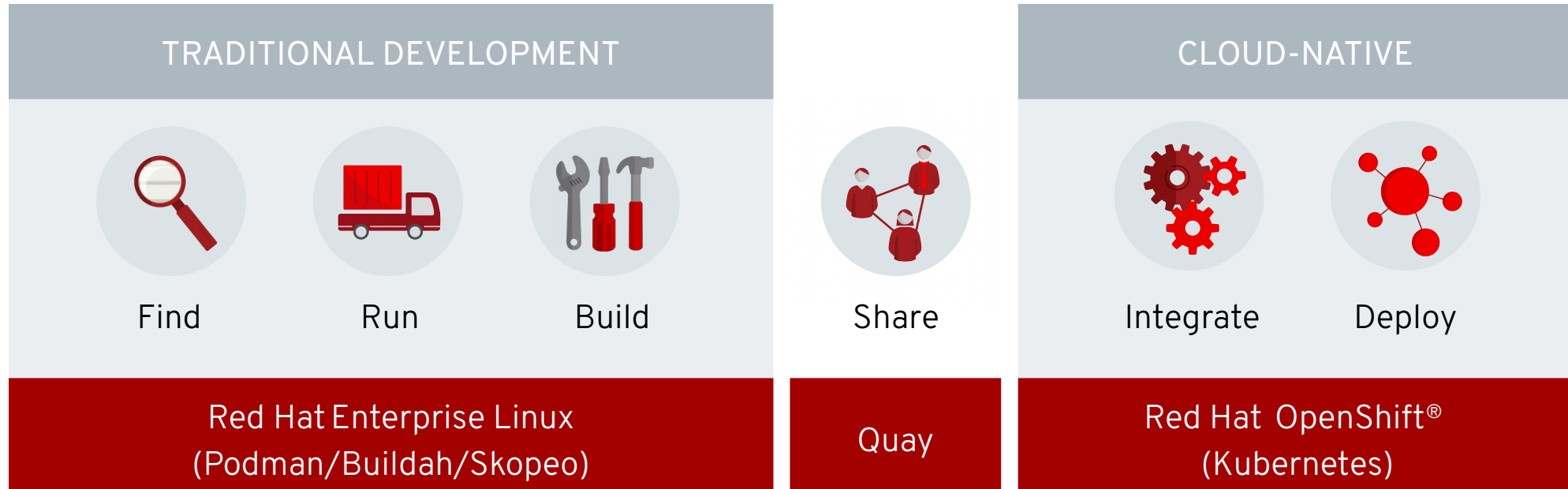
Easy switching of providers

Change between default and optional tools quickly and safely

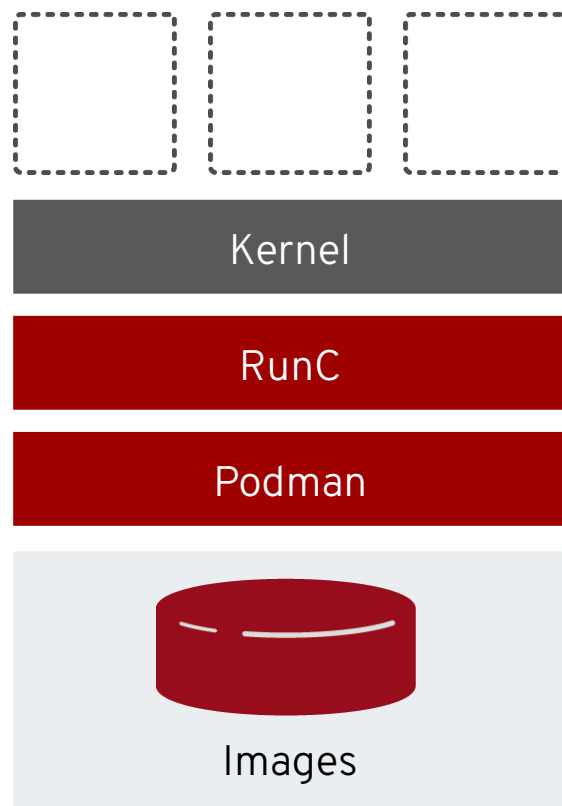
Containers are Linux



Powering the adoption of containerized workloads



Manage containers with Podman



Fast and lightweight

No daemons required

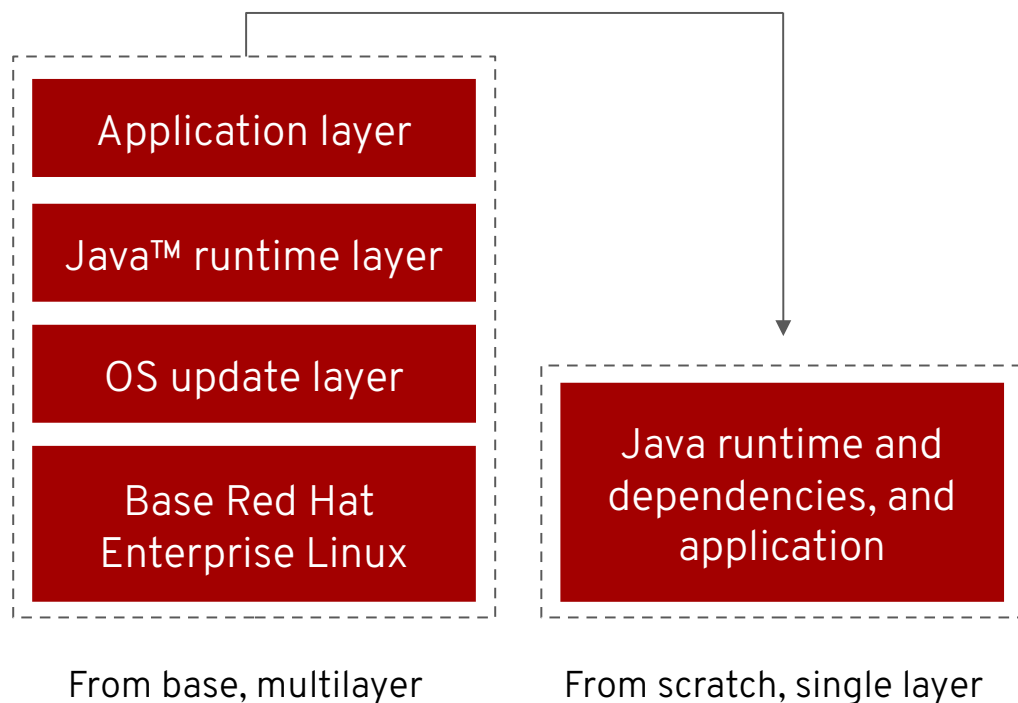
Advanced namespace isolation

Rootless operations for container run and build

Open standards compliant

Creates and maintains any standard Open Containers Initiative (OCI) - compliant containers and pods

Create images with Buildah



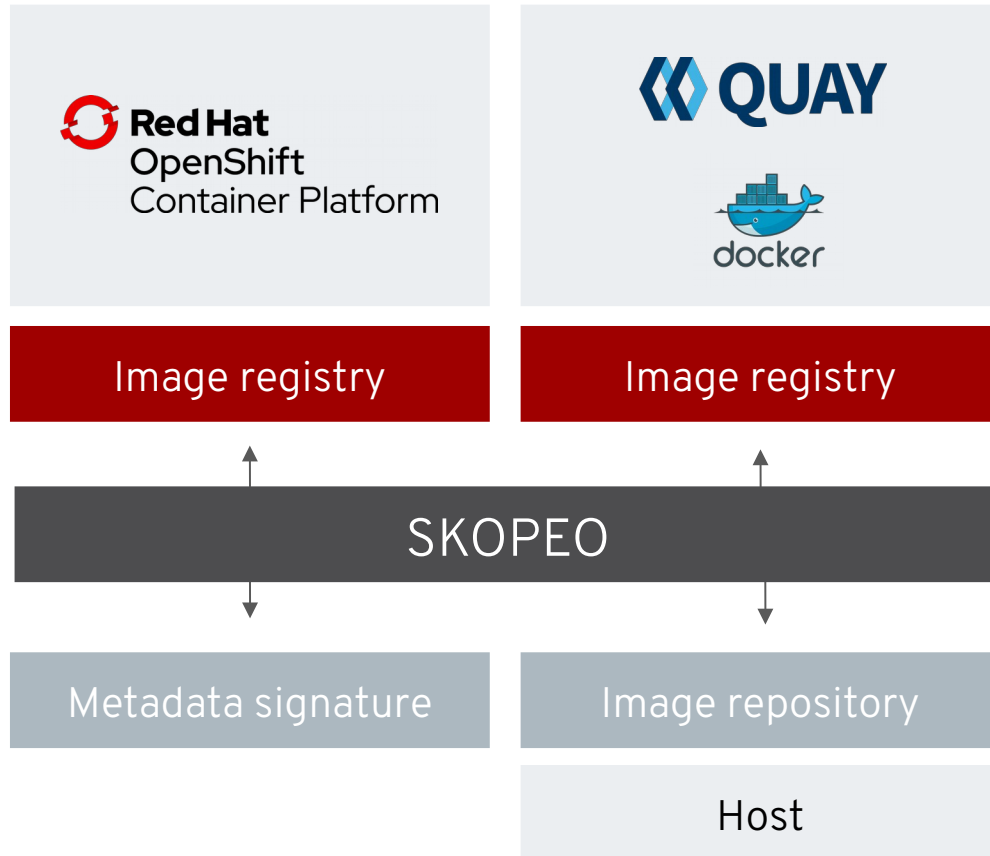
More control

Scriptable tooling for fine-grained image control, and maximum control starting from base or scratch images

Minimization of images

Elimination of unneeded dependencies by using host-based tools

Inspect and transport images with Skopeo



Inspect images remotely

Examine image metadata without needing to download

Publish and transfer images

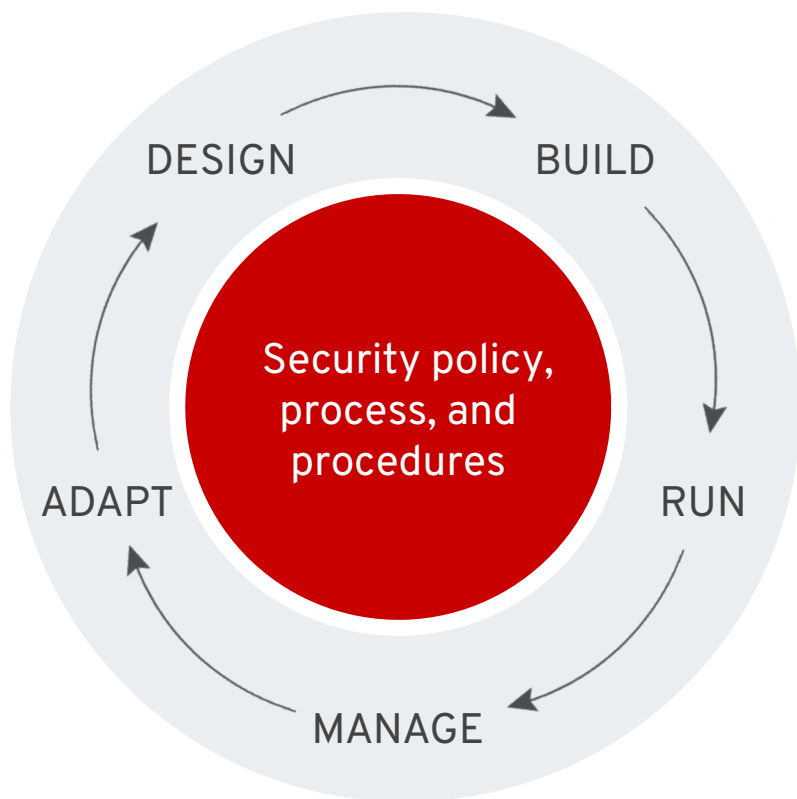
Copy images from registries to hosts or directly between registries

Sign and verify images

Supports GPG key signing on publish

New capabilities can't
come at the expense
of security

A highly secure platform



Latest protocol support

Including TLS 1.3 via OpenSSL 1.1.1

Hardened code

Including PIE and RELRO binaries and code analysis in our pipelines

Integrated identity management

As a stand-alone provider or trusted member of an Active Directory, with expanded integrations to tools like the web console

Updated tools

Including the LUKS v2 on-disk format for encryption

Configuring systemwide cryptographic policies



Central configuration

Set acceptable algorithms from a single tool

Improved consistency

Covers multiple cryptographic providers and consumers like TLS, kerberos, and Java

Built-in policies

Including legacy systems requiring 64-bit security and FIPS allowed or approved algorithms

Recording user terminal sessions

The image displays two screenshots from the Red Hat Enterprise Linux 8 graphical user interface. The left screenshot shows the 'General Configuration' window for 'rhel8-1.examp...', with the 'Session Recording' section expanded. The 'Log User's Input' and 'Log User's Output' checkboxes are checked. The 'Logging Limit Action' is set to 'Pass'. The 'Writer' is set to 'Journal'. A 'Save' button is visible at the bottom. The right screenshot shows the 'Session Recording' window, displaying a playback interface for a session. The player shows a terminal window with the following commands and output:

```
[cloud-user@rhel8-1 ~]$ sudo ls /etc/sss/conf.d
sssd-session-recording.conf
[cloud-user@rhel8-1 ~]$ sudo cat /etc/sss/
[session_recording]
scope=some
users=cloud-user
groups=
[cloud-user@rhel8-1 ~]$ exit
logout
```

Below the screenshots is a terminal window showing the session recording process:

```
$ ssh cloud-user@rhel8-1.example.com
Activate the web console with: systemctl enable --now cockpit.socket

Last login: Tue Apr  2 13:10:47 2019 from 192.168.122.1

ATTENTION! Your session is being recorded!

[cloud-user@rhel8-1 ~]$ sudo ls /etc/sss/conf.d
sssd-session-recording.conf
[cloud-user@rhel8-1 ~]$ sudo cat /etc/sss/conf.d/sssd-session_recording
[session_recording]
scope=some
users=cloud-user
groups=
[cloud-user@rhel8-1 ~]$ exit
logout

Connection to rhel8-1.example.com closed.
$
```

Audit activities

Create a record of actions taken for review against security policies

Create visual guides

Build run books and training materials with demonstrations

Record and play back

Logged via standard channels with multiple playback options

Improved firewall management with nftables



Consolidated filtering

Supports IPv4, IPv6, ARP, and Bridge filtering in a single tool

Simpler rule creation

Multiple matches and actions reduce the number of rules required

Improved tracing

Provides easier debugging and verification of actions taken on any packet

Improved service
delivery brings Linux
to more new users

Remote single-system views in the web console

The screenshot displays the Red Hat Enterprise Linux web console interface for a remote system named 'rhel8-1.exempl...'. The interface is divided into several sections:

- System Information:** Shows 'rhel8-1.exempl...' and user roles 'Privileged' and 'Cloud User'.
- Storage Overview:** Includes two line graphs for 'Reading' and 'Writing' speeds (KIB/s) over time (13:25 to 13:29).
- Filesystems Table:**

Name	Mount Point	Size
/dev/vda1	/	1.63 / 9.99 GiB
cidata	-	366 KiB
- NFS Mounts:** Shows 'No NFS mounts set up' with a '+ ' button.
- Storage Logs:**

April 2, 2019

 - 13:16 g_object_notify: object class 'UDisksObjectS... udisksd
 - 13:16 g_object_notify: object class 'UDisksObjectS... udisksd
 - 13:16 Loading module libudisks2_lvm2.so... udisksd
 - 13:16 Loading module libudisks2_iscsi.so... udisksd
 - 13:16 Acquired the name org.freedesktop.UDisks2 on... udisksd
 - 13:16 udisks daemon version 2.8.0 starting udisksd
- RAID Devices:** Shows 'No storage set up as RAID' with a '+ ' button.
- Volume Groups:** Shows 'No volume groups created' with a '+ ' button.
- VDO Devices:** Shows 'VDO support not installed' with an 'Install VDO support' button.
- iSCSI Targets:** Shows 'No iSCSI targets set up' with a '+ ' button.
- Drives:**
 - VirtIO Disk: 10 GiB Hard Disk (R: 0 B/s, W: 0 B/s)
 - QEMU DVD-ROM (QM00001): Optical Drive (R: 0 B/s, W: 0 B/s)

Browser-based interface

Offers remotely accessible user interface using host security mechanisms

Consolidated view

Provides single view of tasks to speed understanding and completion

Standard management tools

Uses system tools to change state, not a separate workflow

New in the web console

The screenshot shows the Red Hat Enterprise Linux web console interface. The top navigation bar includes the system name 'rhel8-1.exempl...', user status 'Privileged', and 'Cloud User'. The left sidebar lists various system management categories: System, Logs, Storage (highlighted), Networking, Virtual Machines, Accounts, Services, Session Recording, Applications, Diagnostic Reports, Kernel Dump, SELinux, Software Updates, Subscriptions, and Terminal.

The main content area is divided into several sections:

- Performance:** Two line graphs showing 'Reading' and 'Writing' speeds in KIB/s over time (13:25 to 13:29).
- Filesystems:** A table listing mounted filesystems:

Name	Mount Point	Size
/dev/vda1	/	1.63 / 9.99 GiB
cidata	-	366 KiB
- NFS Mounts:** A section indicating 'No NFS mounts set up' with a '+' button.
- Storage Logs:** A log viewer for 'Storage Logs' dated 'April 2, 2019'. The log entries are:


```

13:16 g_object_notify: object class 'UDisksObjectS... udisksd
13:16 g_object_notify: object class 'UDisksObjectS... udisksd
13:16 Loading module libudisks2_lvm2.so... udisksd
13:16 Loading module libudisks2_iscsi.so... udisksd
13:16 Acquired the name org.freedesktop.UDisks2 on... udisksd
13:16 udisks daemon version 2.8.0 starting udisksd
            
```
- RAID Devices:** A section showing 'No storage set up as RAID' with a '+' button.
- Volume Groups:** A section showing 'No volume groups created' with a '+' button.
- VDO Devices:** A section showing 'VDO support not installed' with an 'Install VDO support' button.
- iSCSI Targets:** A section showing 'No iSCSI targets set up' with an edit icon and a '+' button.
- Drives:** A list of detected drives:
 - VirtIO Disk: 10 GiB Hard Disk (R: 0 B/s, W: 0 B/s)
 - QEMU DVD-ROM (QM00001): Optical Drive (R: 0 B/s, W: 0 B/s)

Virtual machines

Create and manage virtual machines

Network-bound disk encryption

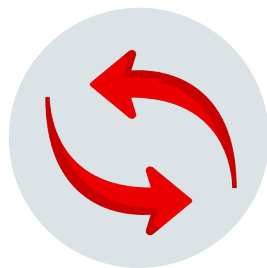
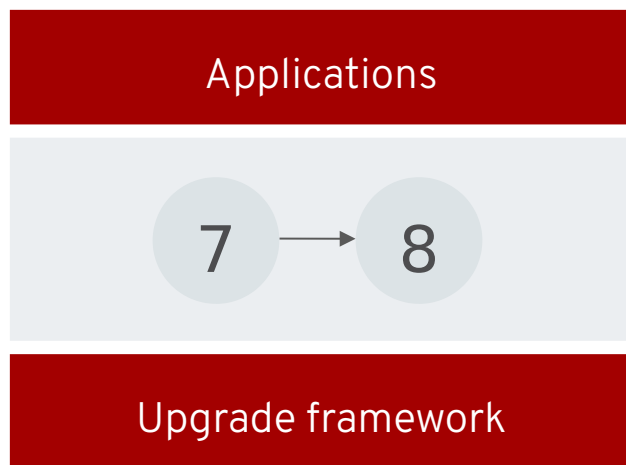
Enroll disks with Tang server and manage LUKS keys

Single sign-on configuration

Automatically configure when joining a domain

Gain new capabilities
while giving up nothing

In-place upgrades for your systems



Reduced migrations

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

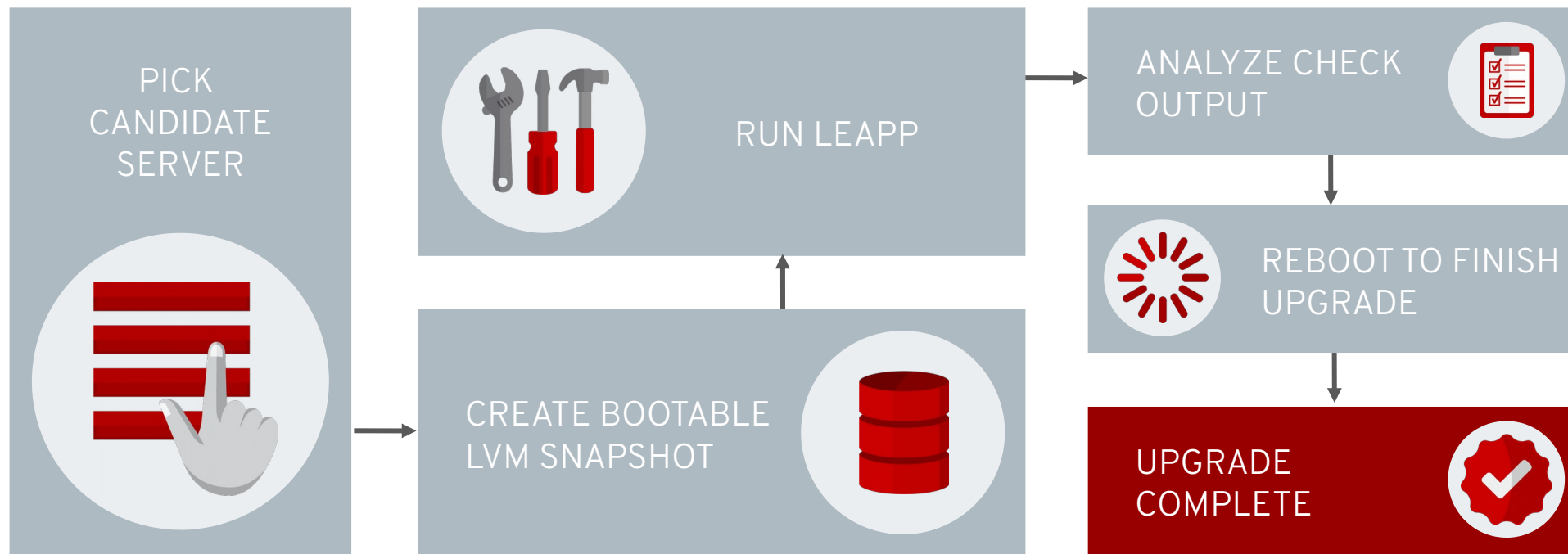
Easy rollback options

Combine with bootable LVM snapshots for safety

Improved framework

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

Can I upgrade this host?



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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