#RedHatOSD

RED HAT FORUMS

RED HAT ENTERPRISE LINUX 8 : HELLO WORLD!

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Red Hat

Red Hat Enterprise Linux 8 - Big Picture

Easier adoption
for staff new to Linux® and plan with confidence due to predictable releases.

More subscription value
with Red Hat Insights, now included in all Red Hat Enterprise Linux subscriptions

Faster and easier deployment
with Image Builder and AppStreams

Flexible System Management
via Guest Kernel, Kernel Live Patching and System Roles

OS and Application Modernization
smooth transition to latest version thanks to in-place upgrade

TAM Powered
really?

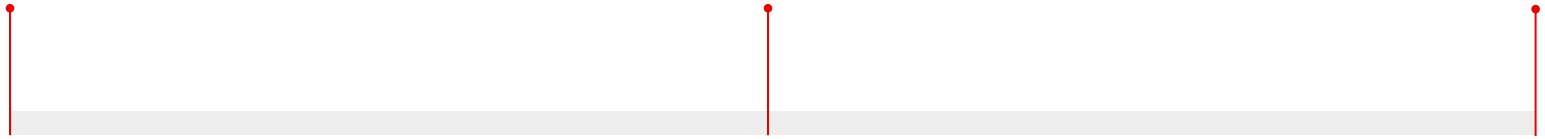
Red Hat

Predictable updates

3 years
Major releases

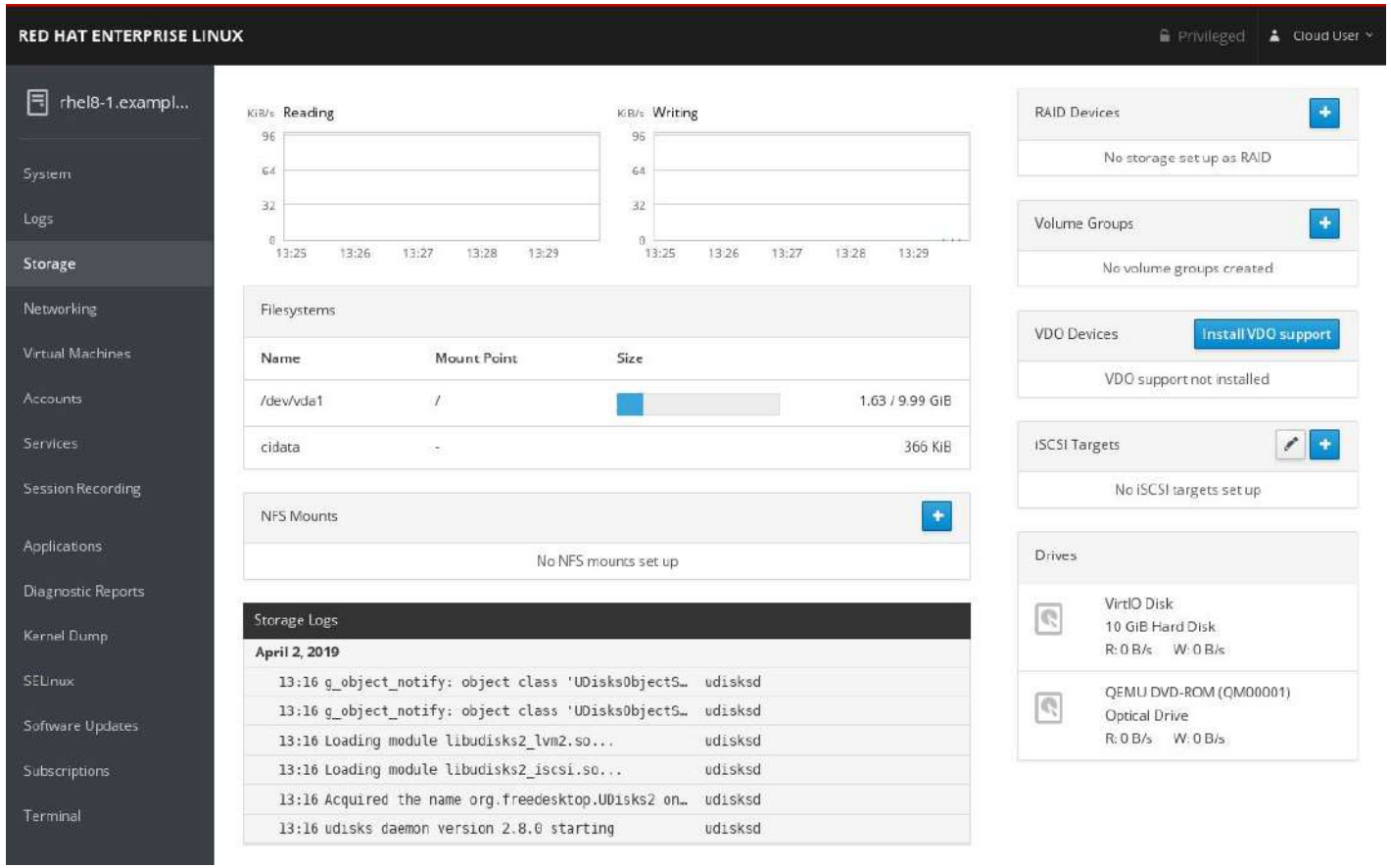
6 months
Minor updates

2 phases
Support life cycle



Red Hat

Cockpit: Remote system view in the web console



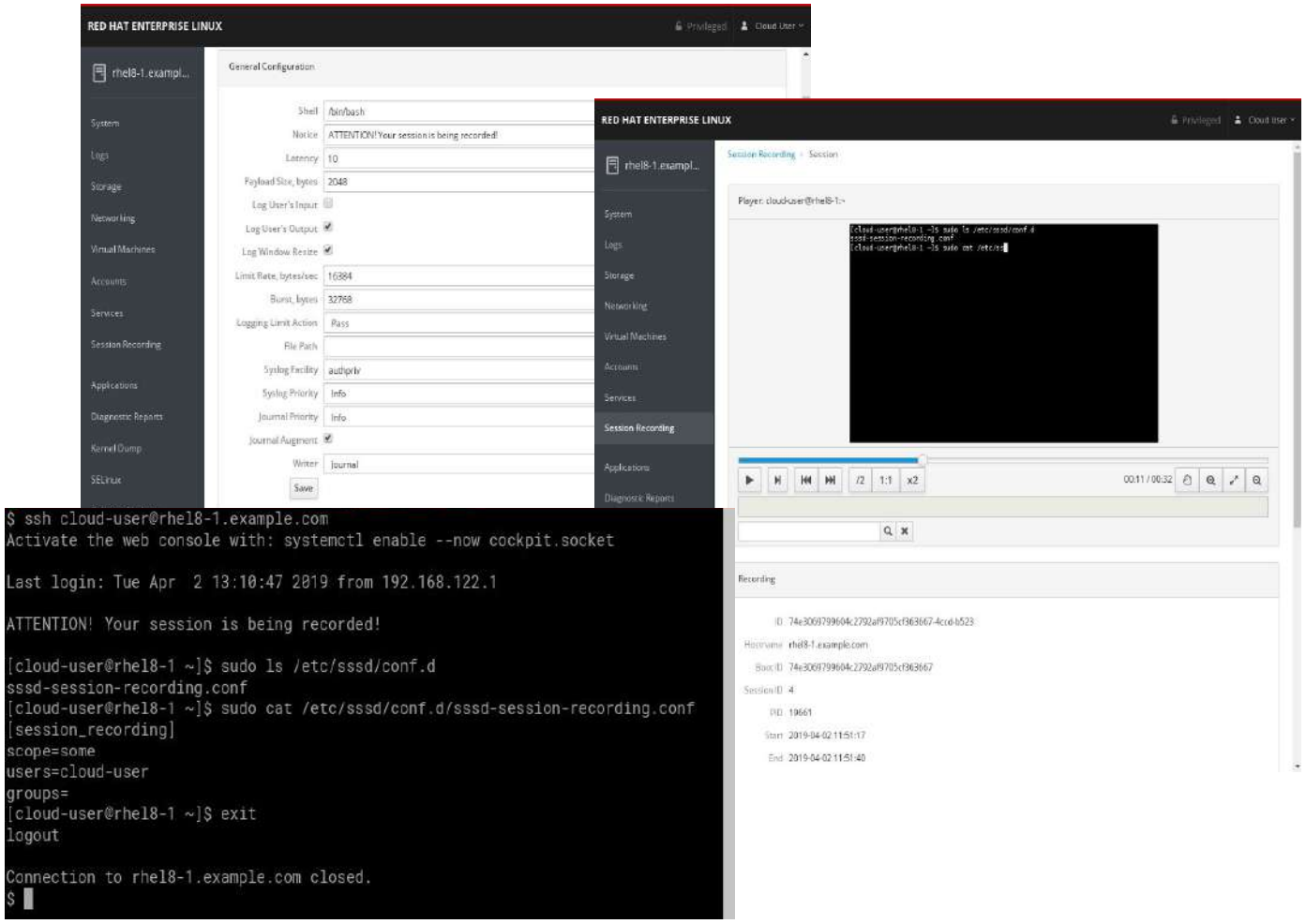
Browser-based interface
Offers remotely accessible user interface using host security mechanisms

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

Red Hat

Recording user terminal sessions



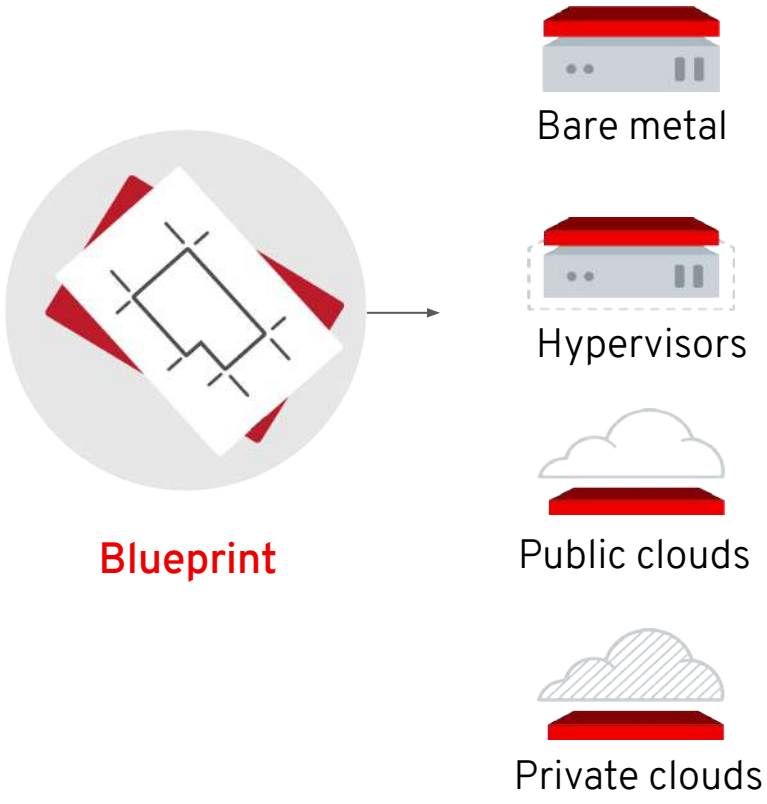
Audit activities
Create a record of actions taken for review against security policies

Create visual guides
Build run books and training materials with demonstrations

Record and play back
Logged via standard channels with multiple playback options

Red Hat

Image builder: create images for **all** your environments



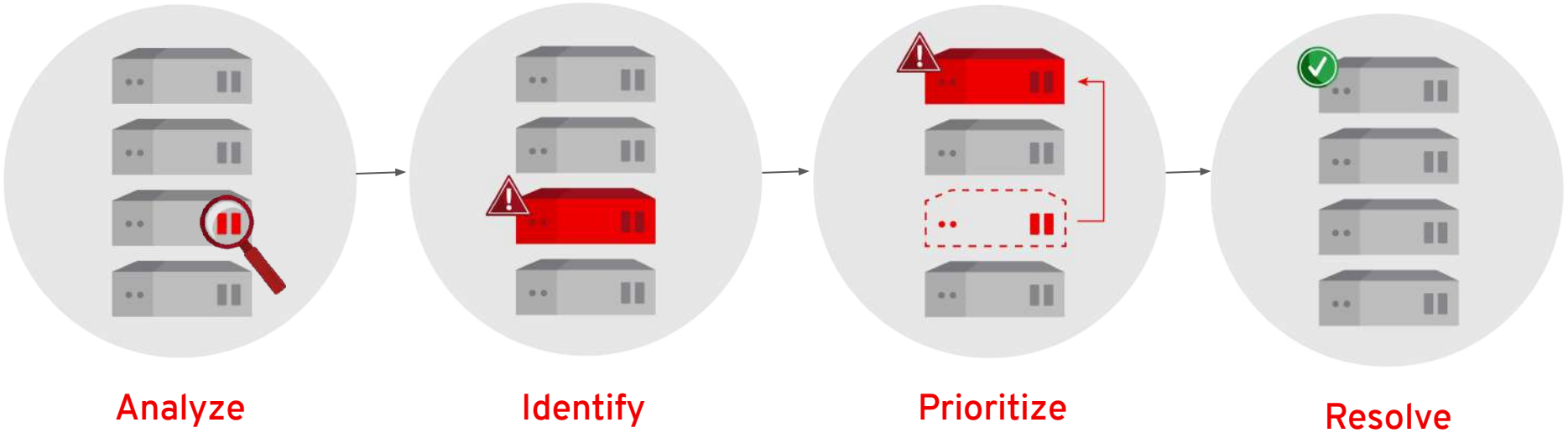
Single source
Lets you create gold images for any environment from the same blueprint increasing stability and consistency

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

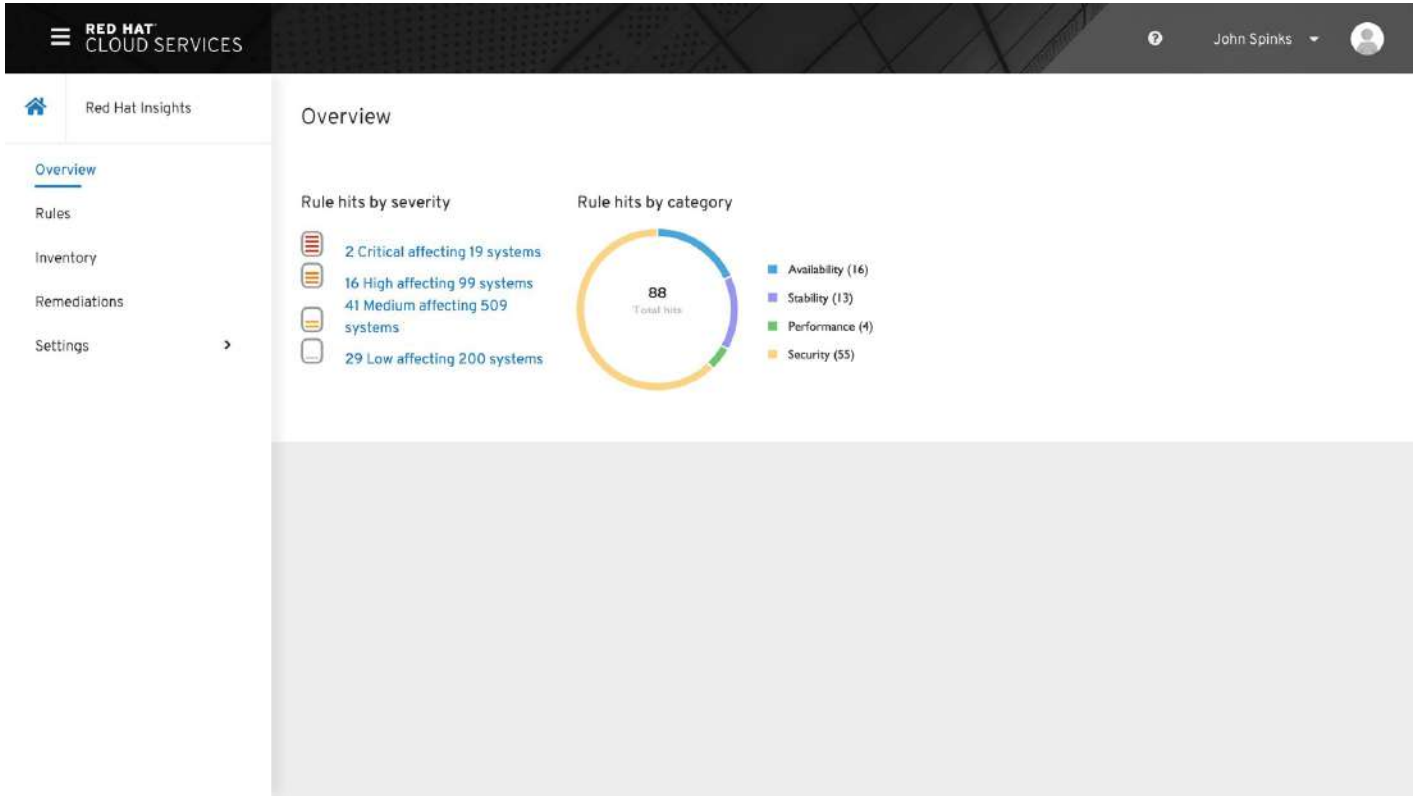
Red Hat

Gain operating intelligence with RED HAT® INSIGHTS



Red Hat

Detect and fix issues with RED HAT® INSIGHTS



Proactive advice
Identification of issues before they become problems

Continuous assesment
Real-world results to help find new risks

Simpler remediation
Tailored results at the host level

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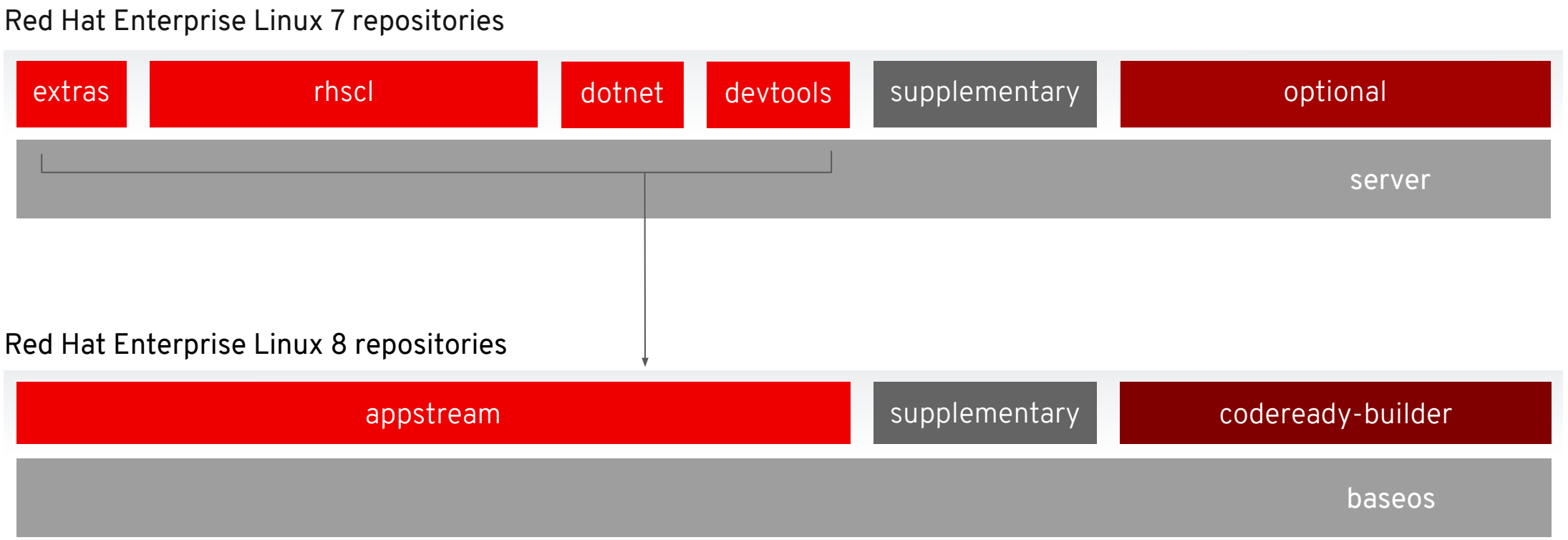
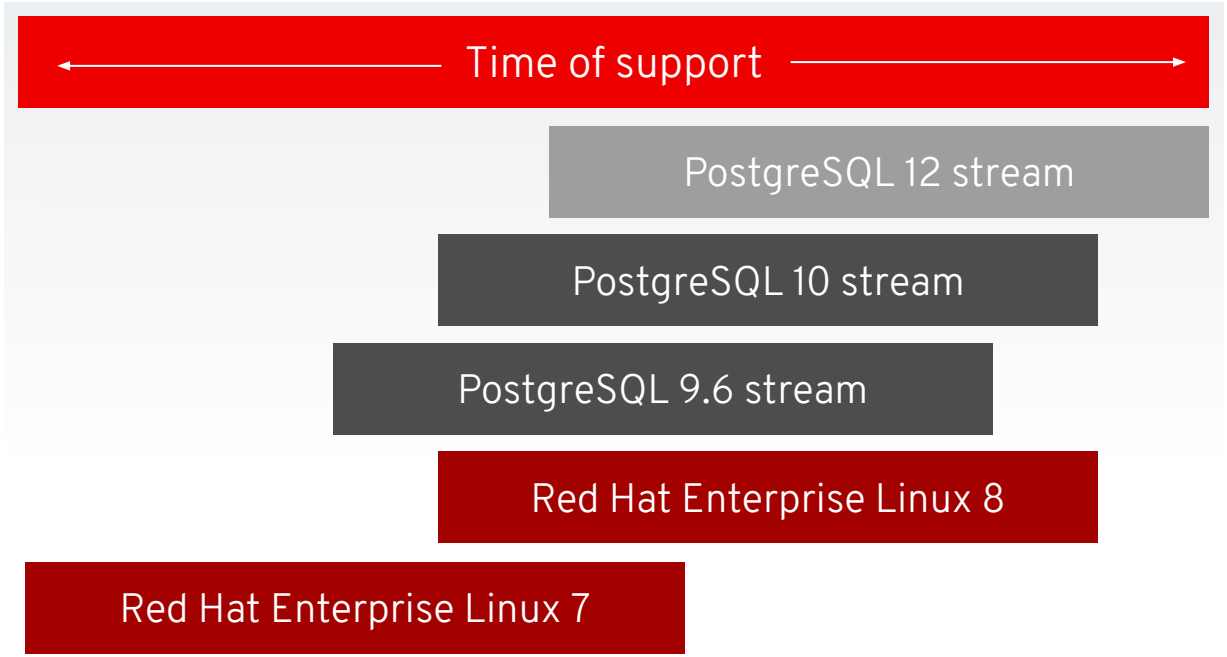
Simplified access to software



Red Hat

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

Red Hat

```
[root@rhel81 ~]#
[root@rhel81 ~]#
[root@rhel81 ~]#
[root@rhel81 ~]# yum module list nginx nodejs mariadb

Red Hat Enterprise Linux 8 for x86_64 - AppStream (RPMs)
Name      Stream       Profiles                                 Summary
mariadb   10.3 [d]     client, server [d], galera               MariaDB Module
nginx     1.14 [d]     common [d]                               nginx webserver
nginx     1.16         common [d]                               nginx webserver
nodejs    10 [d]       common [d], development, minimal, s2i   Javascript runtime
nodejs    12           common [d], development, minimal, s2i   Javascript runtime

Hint: [d]efault, [e]nabled, [x]disabled, [i]nstalled

[root@rhel81 ~]#
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[root@rhel81 ~]#
[root@rhel81 ~]#
```

```
[root@rhel81 ~]#
[root@rhel81 ~]#
[root@rhel81 ~]# yum module install mariadb nginx:1.16 nodejs:12/minimal
Dipendenze risolte.
================================================================================
 Package                Arch   Version          Repository                  Size
================================================================================
Installing group/module packages:
 nodejs                 x86_64 1:12.4.0-2.module+el8.1.0+3903+b7133459
                                                rhel-8-for-x86_64-appstream-rpms 9.8 M
 mariadb-server         x86_64 3:10.3.17-1.module+el8.1.0+3974+90eded84
                                                rhel-8-for-x86_64-appstream-rpms  16 M
 nginx                  x86_64 1:1.16.1-1.module+el8.1.0+4097+739b0d87
                                                rhel-8-for-x86_64-appstream-rpms 582 k
Installazione dipendenze:
[...]
Enabling module streams:
 mariadb                        10.3
 nginx                          1.16
 nodejs                         12
 perl-DBD-MySQL                 4.046
 perl-DBI                       1.641
```

```
[root@rhel81 ~]#
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nginx     1.16 [e]      common [d] [i]                            nginx webserver
nodejs    10 [d]        common [d], development, minimal, s2i    Javascript runtime
nodejs    12 [e]        common [d], development, minimal [i], s2i  Javascript runtime

Hint: [d]efault, [e]nabled, [x]disabled, [i]nstalled

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[root@rhel81 ~]#
[root@rhel81 ~]#
[root@rhel81 ~]#
```

Guest Kernel

Same Source

Identical binaries for core kernel functions.

Only the needed modules

Kernel drivers not required for guest instances have been moved to a separate package

Save resources

Smaller downloads, quicker updates, less disk space used

Optimized experiences for mission-critical databases

Microsoft SQL Server

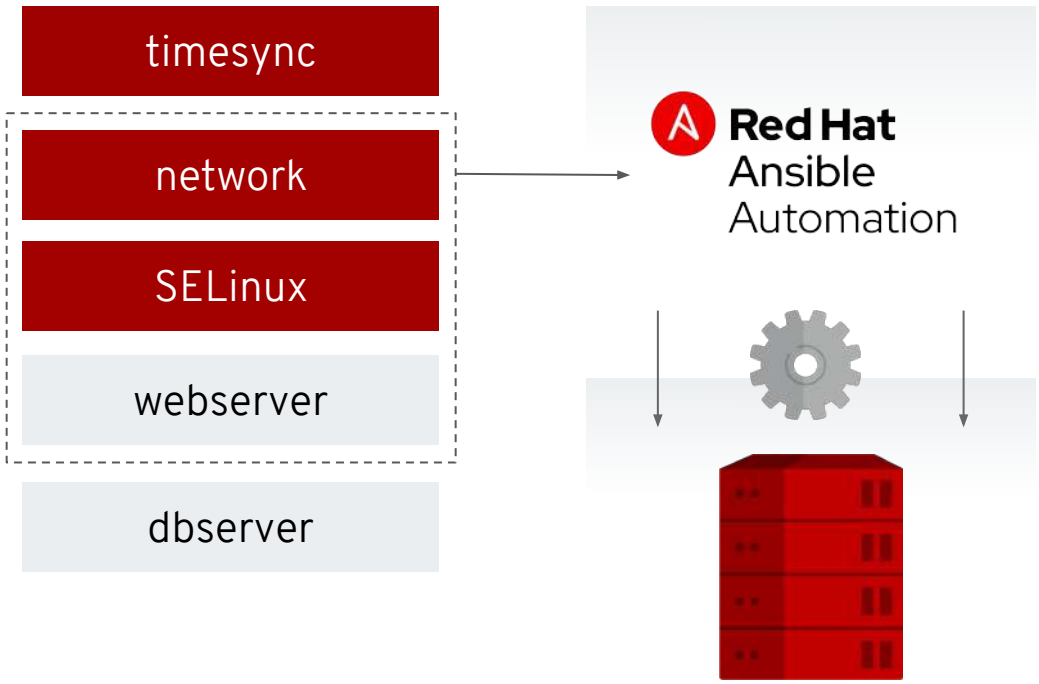
- Red Hat Enterprise Linux is the reference platform for SQL Server on Linux
- Benchmark-breaking performance
- Fast deployment and portability via containers

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

Red Hat

Speed automation creation with system roles



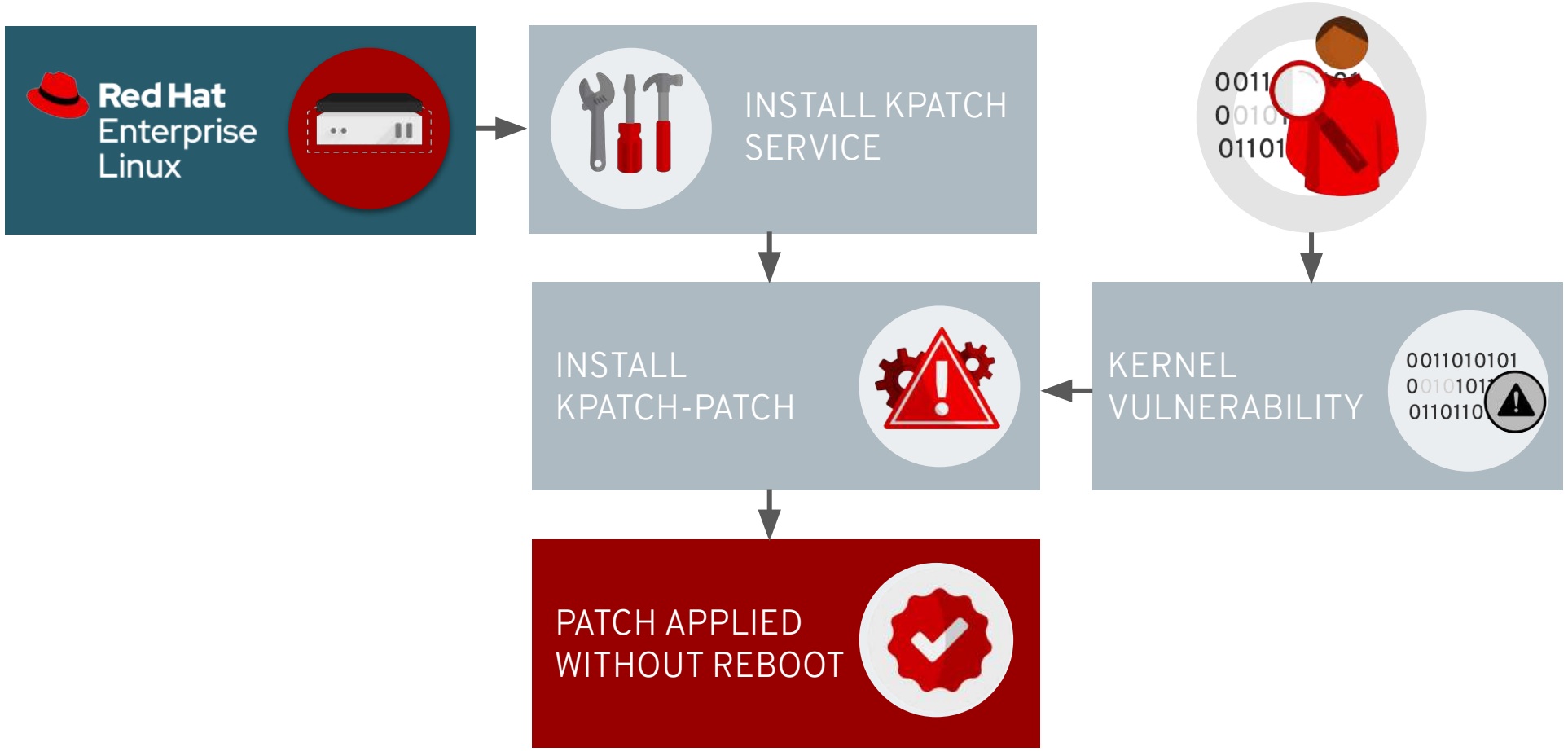
Common automation
Manage multiple versions of Red Hat Enterprise Linux from a single role

Reduced rework
Import provided roles to eliminate task creation in playbooks

Easy switching of providers
Change between default and optional tools quickly and safely

Red Hat

Kernel Live Patching



Red Hat

```
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]# yum -y install kpatch kpatch-patch

================================================================================
 Package                       Arch      Version              Repository      Size
================================================================================
Installing:
 kpatch                        noarch    0.6.1-5.el7_7        rhel-7-server-rpms  11 k
 kpatch-patch-3_10_0-1062      x86_64    0-0.el7              rhel-7-server-rpms 3.1 k

================================================================================
Install  2 Packages

Installed:
  kpatch.noarch 0:0.6.1-5.el7_7      kpatch-patch-3_10_0-1062.x86_64 0:0-0.el7

Complete!
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]# kpatch list
Loaded patch modules:

Installed patch modules:
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
```

```
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]# yum -y update

================================================================================
 Package                        Arch        Version      Repository          Size
================================================================================
Updating:
 kpatch-patch-3_10_0-1062       x86_64      1-5.el7      rhel-7-server-rpms  30 k

================================================================================
Upgrade  1 Package

  Updating   : kpatch-patch-3_10_0-1062-1-5.el7.x86_64                     1/2
loading patch module: /usr/lib/kpatch/3.10.0-1062.el7.x86_64/kpatch-3_10_0-1062-1-5.ko
installing /usr/lib/kpatch/3.10.0-1062.el7.x86_64/kpatch-3_10_0-1062-1-5.ko (3.10.0-10
62.el7.x86_64)
  Cleanup    : kpatch-patch-3_10_0-1062-0-0.el7.x86_64                     2/2

Updated:
  kpatch-patch-3_10_0-1062.x86_64 0:1-5.el7

Complete!
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
```

```
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]# kpatch list
Loaded patch modules:
kpatch_3_10_0_1062_1_5 [enabled]

Installed patch modules:
kpatch_3_10_0_1062_1_5 (3.10.0-1062.el7.x86_64)
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]# dmesg | tail
(...)
[  284.106127] livepatch: enabling patch 'kpatch_3_10_0_1062_1_5'
[  284.109428] livepatch: 'kpatch_3_10_0_1062_1_5': starting patching transition
[  285.269807] livepatch: 'kpatch_3_10_0_1062_1_5': patching complete
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
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[root@rhel-kpatch01 ~]#
[root@rhel-kpatch01 ~]#
```
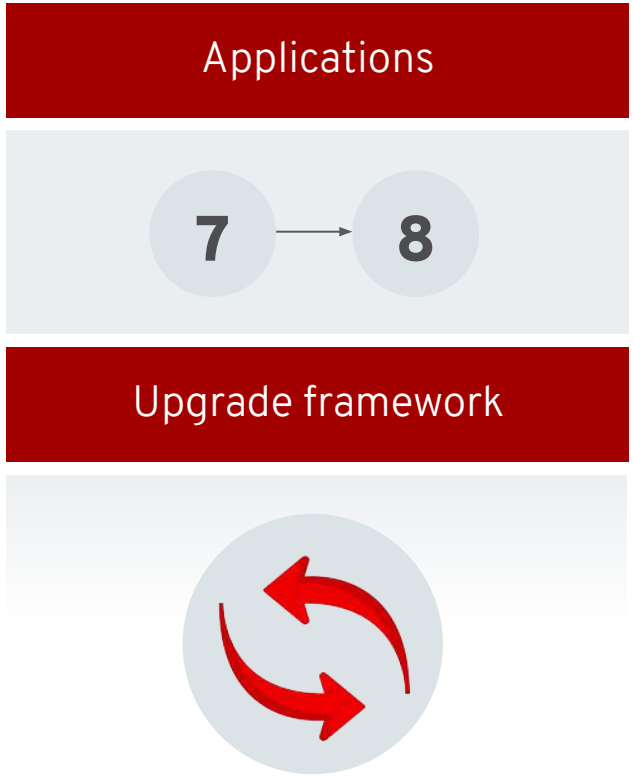

Major In-place upgrades for your RHEL systems



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

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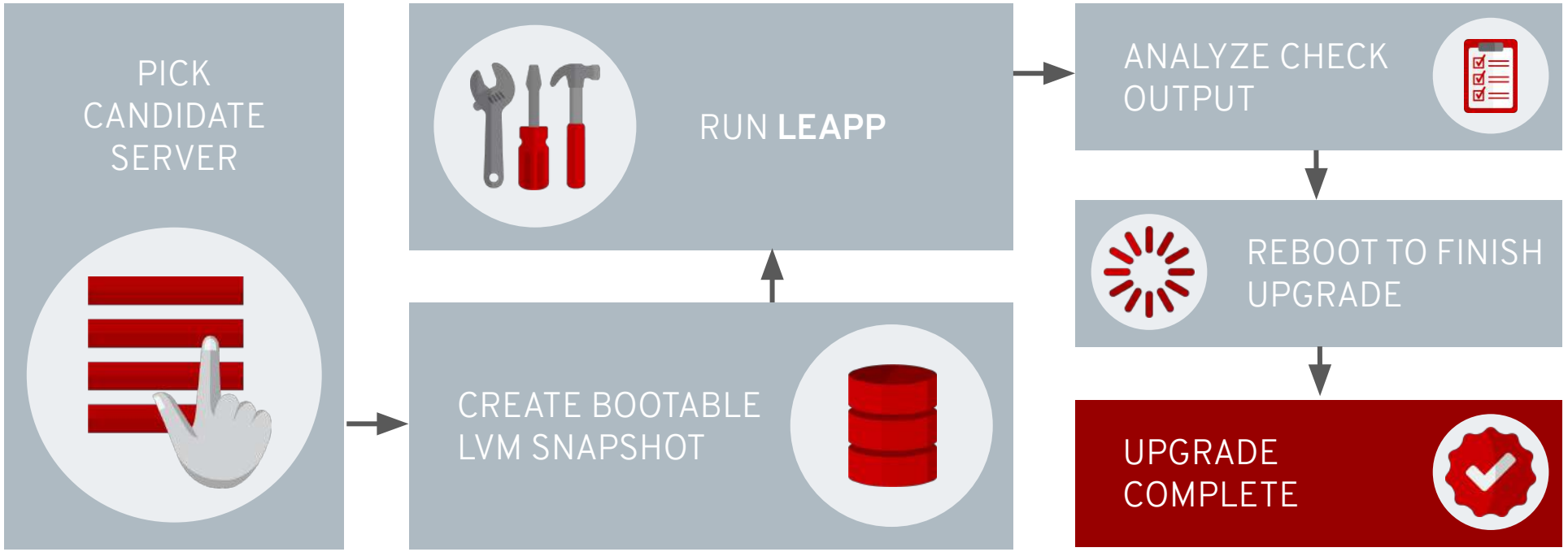
Can I upgrade to RHEL 8?



Red Hat

RHEL 7 TO RHEL 8 IN-PLACE UPGRADE DEMO

```
Installed:
  leapp.noarch 0:0.9.0-1.el7

Dependency Installed:
  audit-libs-python.x86_64 0:2.8.4-4.el7          bzip2.x86_64 0:1.0.6-13.el7
  checkpolicy.x86_64 0:2.5-8.el7                  dnf.noarch 0:4.0.9.2-1.el7_6
  dnf-data.noarch 0:4.0.9.2-1.el7_6               json-glib.x86_64 0:1.4.2-2.el7
  leapp-deps.noarch 0:0.9.0-1.el7                 leapp-repository.noarch 0:0.9.0-4.el7
  leapp-repository-deps.noarch 0:0.9.0-4.el7      leapp-repository-sos-plugin.noarch 0:0.9.0-4.el7
  libcgroup.x86_64 0:0.41-20.el7                  libcomps.x86_64 0:0.1.8-12.el7
  libdnf.x86_64 0:0.22.5-1.el7_6                  libmodulemd.x86_64 0:1.6.3-1.el7
  librepo.x86_64 0:1.8.1-7.el7                    libreport-filesystem.x86_64 0:2.1.11-42.el7
  librhsm.x86_64 0:0.0.3-2.el7_6                  libsemanage-python.x86_64 0:2.5-14.el7
  libsolv.x86_64 0:0.6.34-2.el7                   libyaml.x86_64 0:0.1.4-11.el7_0
  pciutils.x86_64 0:3.5.1-3.el7                   policycoreutils-python.x86_64 0:2.5-29.el7_6.1
  python-IPy.noarch 0:0.75-6.el7                  python-babel.noarch 0:0.9.6-8.el7
  python-enum34.noarch 0:1.0.4-1.el7              python-jinja2.noarch 0:2.7.2-3.el7_6
  python-markupsafe.x86_64 0:0.11-10.el7          python2-dnf.noarch 0:4.0.9.2-1.el7_6
  python2-futures.noarch 0:3.1.1-5.el7            python2-hawkey.x86_64 0:0.22.5-1.el7_6
  python2-leapp.noarch 0:0.9.0-1.el7              python2-libcomps.x86_64 0:0.1.8-12.el7
  python2-libdnf.x86_64 0:0.22.5-1.el7_6          setools-libs.x86_64 0:3.3.8-4.el7
  sos.noarch 0:3.6-20.el7_6

Complete!
[root@rhel-rhel76-leapp01 ~]#
```

RHEL 8: TAM Powered

Red Hat
Technical
Account Manager

Technical Account Manager what?

TAMs are senior technical experts, part of Support, who work proactively helping you to get the most out of Red Hat technologies and to solve your technical issues.

You have influenced RHEL8

TAMs help customers submitting Feature Requests and advocate for your use cases. Via private beta they can test them and provide feedbacks to Engineering

Plan, Deploy, Connect

TAMs guide you in the products adoption, help removing blockers during the deployment and connect you with the right persons in Red Hat.
All this to allow you to focus on your business, not on technology.

Red Hat