RHEL 7.6 Highlights

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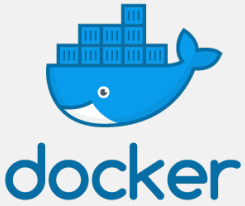
Red Hat Enterprise Linux 7.6

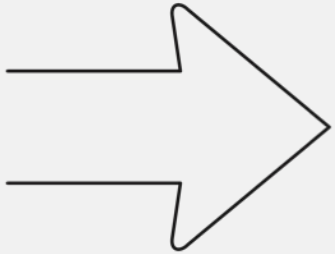
Beta Availability on Aug 22, 2018
General Availability on Oct 30, 2018

- Red Hat Enterprise Linux 7 launched in June, 2014
- Red Hat Enterprise Linux 7.6 is a Full Support release
  - Feature enablement
  - Hardware enablement
  - All security errata advisories (RHSAs) and bug fix errata advisories (RHBAs) are candidates for inclusion, as long as they do not violate our commitment to ABI/KABI stability.

Please see https://access.redhat.com/support/policy/updates/errata for details on content by production phase for Red Hat Enterprise Linux.

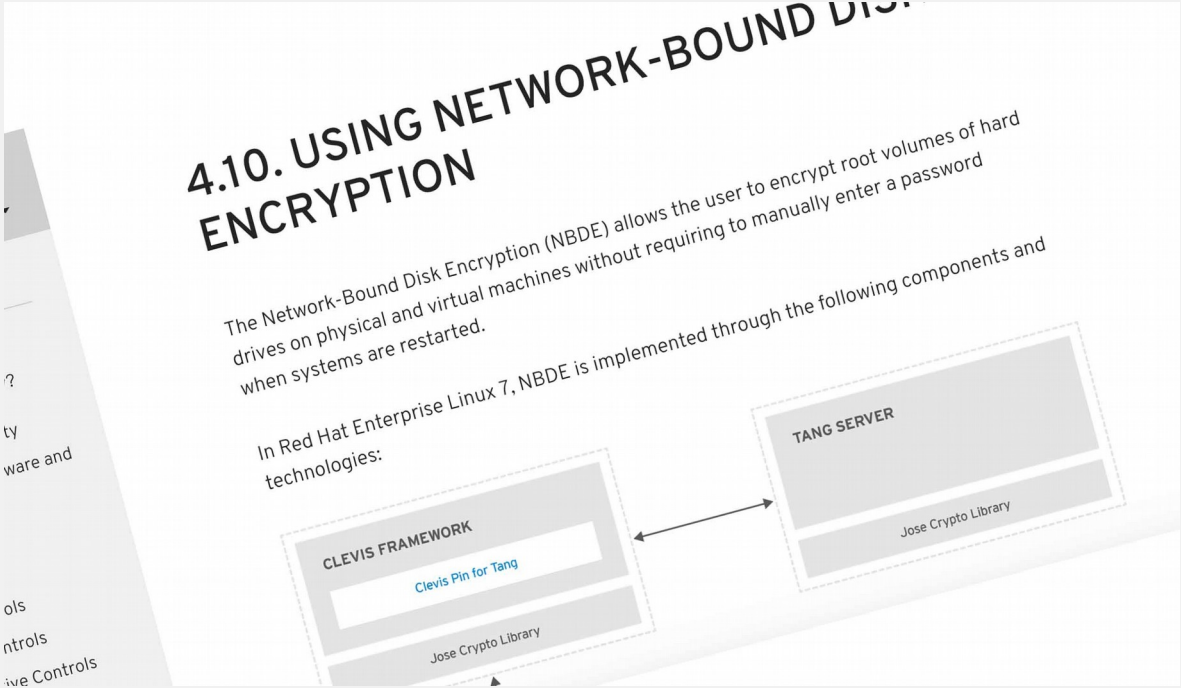
Container Engine/Runtime Strategy





So What's New?

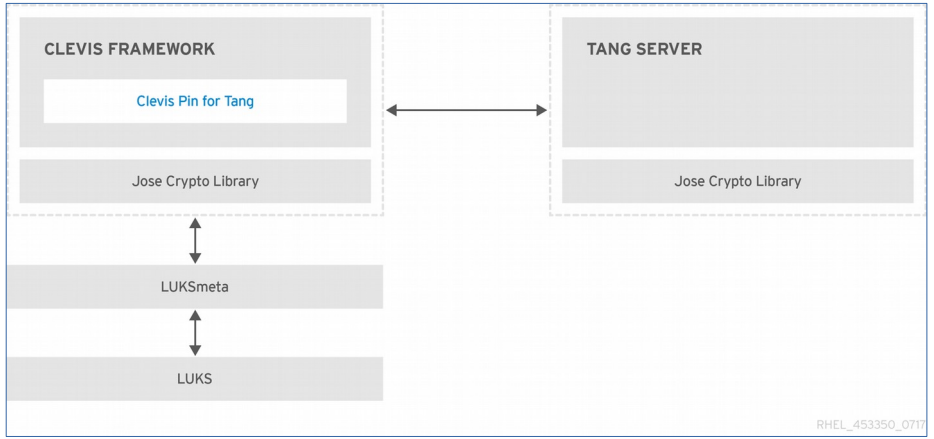
Data protection - from server to cloud with NBDE - now with TPM support



NBDE :: Overview

Network-Bound Disk Encryption (NBDE)
Linux Unified Key Setup-on-disk-format (LUKS)

- Enables LUKS disk encryption of root/non-root disks without requiring manual passphrase
- CLEVIS Framework (client)
- TANG Server (server)



Network Bound Disk Encryption

Preventing data leaks and automating disk unlocking

Allows unlocking of LUKS only when service can be contacted

- TPM “Trusted Platform Module” 2.0 PIN fully support
- Can be chained with other PINs

NFTables fully supported

Enterprise improvements to security and usability

- Replaces iptables, ip6tables, arptables, ebtables
- Uses “nft” userspace tool
- Improved performance
- Dynamic rules updates
- Complex rule set matching
- Atomic transactions
- Better Debuggability
- Supported by firewalld

New tracing subsystem with eBPF “enhanced Berkely Packet Filter”

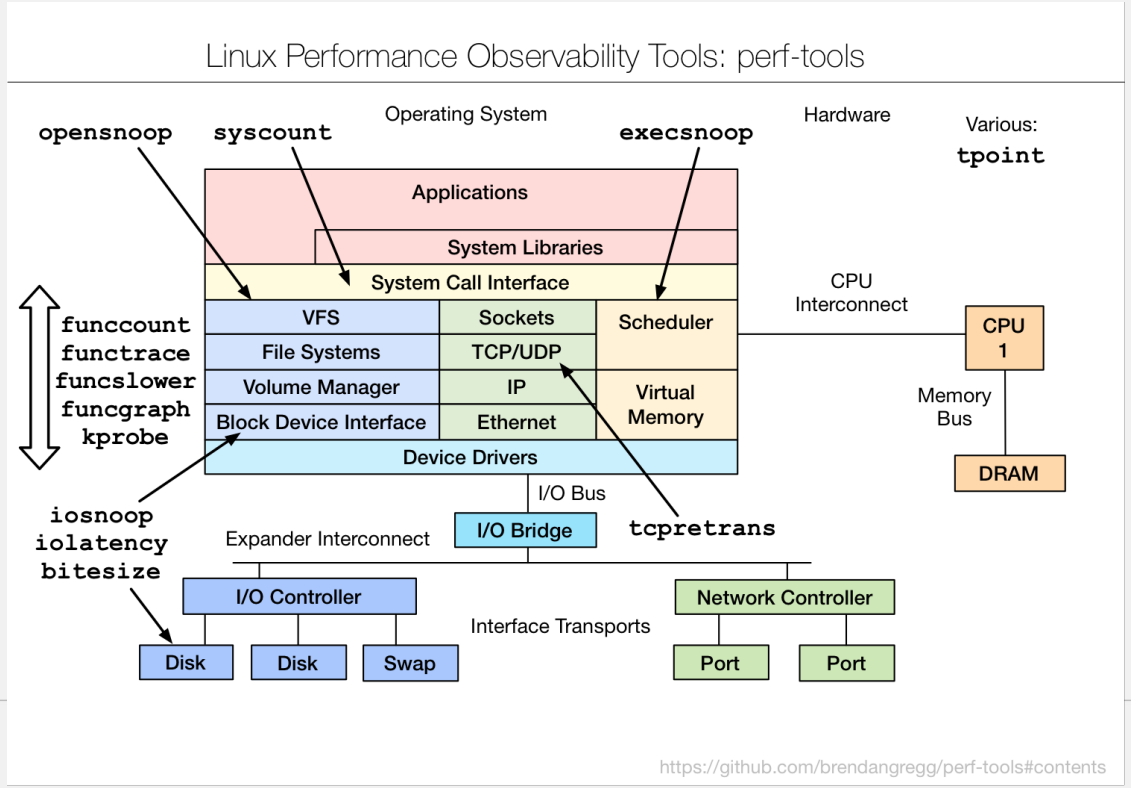
Performance monitoring and observability

New kernel tracepoints backported from 4.x

- Dynamic and static tracing at kernel and user level
- Includes kernel level verifier for code safety
- PCP and systemtap support shipped

So What's New?

Performance Tracing with eBPF



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Web console enhancements

Graphical single system management called Cockpit

- Firewall management
- Improvements to the System summary page
- Single Sign-on configuration for IPA users
- Extensive plugin-architecture
  - Container
  - Storage
  - Virtualization

Additional Features

- SR-IOV and DPDK support for public and private clouds
  - SR-IOV “Single-Root Input/Output Virtualization”
  - DPDK “Data Plane Development Kit”
- Live patching (Kpatch) fully supported on POWER LE
- LUKSv2 format support – not backward compatible
- HA support extended to Google Cloud and Alibaba

YUM v4 tech preview

Why?

- Faster
- Improved dependency resolver
- Reduced verification times
- Compatible with YUM v3
- DNF based

How?

- Distributed in Extras Channel

```
#yum install nextgen-yum4 dnf-plugins-core
yum-utils
```

- Test

```
#yum4 install myRPM
#yum4 repolist
```

Test it out

- One way move, not for production use
- Preview upcoming changes
- Testing existing workflows for compatibility
- Direct CLI usage only

RHEL 8 Beta Sneak

RHEL 8 Beta

- Public beta open: 11/14/18
- High Touch beta open
- Code name : Ootpa
- Kernel – 4.18 with back ports from 4.19
- BaseOS and Application Streams
- Open standards-based container tools
- Composer
- Yum 4
- Stratis

RHEL 8 Deep Dive

- Q1 RHUG 2/12/19

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