

What's New with Virtualization



Red Hat

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Where Red Hat Virtualization (RHV) is now

- RHV 4.4.10 shipping.
- A couple of async updates coming with bug fixes.
- 4.4 SP1 due late May.
- Maybe a couple of z-streams after that.
- ...aaaaand that's it.



But there's more to the story.



Images from Wikipedia





RHV product life cycle as of RHV 4.4 GA

| YEAR | RHV 4.2 (2 yr EUS) | RHV 4.3 (2 yr EUS) | RHV 4.4 (2 yr EUS) |
|------|---|---|---|
| 2018 | GA (May 2018) | | |
| 2019 | End Full Support (May 2019) | GA (April 2019) | |
| 2020 | End EUS (May 2020) | End Full Support (May 2020) | GA (August 2020) |
| 2021 | | End EUS Support (May 2021) | |
| 2022 | End Maintenance (May 2022) | | End Full/ EUS Support (August 2022) |
| 2023 | | End Maintenance (April 2023) | |
| 2024 | End Extended Life Support (May 2024) | | End of Maintenance (2024) |
| 2025 | | End Extended Life Support (May 2025) | |
| 2026 | | | End of Extended Life Support (August 2026) |

New with 4.4 SP1

- Rebased on RHEL 8.6
- Backup API fully supported
- iSCSI Gateway
- RHEL 9, Windows 11 guests
- SAP HANNA drove a few performance enhancements
 - dynamic hugepages to simplify allocation



Deprecated with 4.4 SP1

- Export domains; storage domains now do everything export domains did.
- aaa LDAP extensions in favor of Keycloak / SSO
- POWER support - Nobody cares. (That's why we're deprecating it.)



Certificates

- New industry standard - certificates only last 398 days.
 - <https://blog.mozilla.org/security/2020/07/09/reducing-tls-certificate-lifespans-to-398-days/>
- We'll warn you 120 days in advance.
- We'll nag you 30 days in advance.
- Renew RHVM certificate with engine-setup.
- Renew host certificates in the GUI.
 - Compute > Hosts > Select a host.
 - Migrate all VMs away.
 - Management > Maintenance.
 - And then Installation > Enroll Certificate.



- Dashboard
- Compute
- Network
- Storage
- Administration
- Events

General Virtual Machines Network Interfaces Host Devices Host Hooks Permissions Affinity

| | | | | | |
|---------------------------|--------------------------------------|-----------------------|--|---------------------------------|---------------------|
| Hostname/IP: | 10.10.10.22 | iSCSI Initiator Name: | iqn.1994-05.com:redhat:c08f169906db | Max free Memory new VMs: | 330 MB |
| SPM Priority: | Medium | Kdump Status: | Disabled | Memory Page Sharing: | Inactive |
| Active VMs: | 5 | Physical Memory: | 64048 MB total, 43553 MB used, 20495 MB free | Automatic Large Pages: | Always |
| Logical CPU Cores: | 12 | Swap Size: | 23847 MB total, 0 MB used, 23847 MB free | Free Huge Pages (size: amount): | 2048: 0, 1048576: 0 |
| Online Logical CPU Cores: | 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 | Shared Memory: | 0% | SELinux mode: | Enforcing |
| Boot Time: | Feb 17, 2022, 12:48:47 AM | Device Passthrough: | Disabled | Cluster Compatibility Version: | 4.2,4.3,4.4,4.5,4.6 |
| Hosted Engine HA: | [N/A] | | | | |

Action Items

- A new version is available. [Upgrade](#)
- Power Management is not configured for this Host. [Enable Power Management](#)
- Host needs to be reinstalled as important configuration changes were applied on it.

Hardware

| | | | | | |
|-----------------------|---------------------------------------|-------------------------|--------------------------------------|----------------|----------------------|
| Manufacturer: | Supermicro | Family: | To be filled by O.E.M. | Product Name: | Super Server |
| Version: | 0123456789 | UUID: | 00000000-0000-0000-0000-0CC47AC4A750 | Serial Number: | 0123456789 |
| CPU Model Name: | Intel(R) Xeon(R) CPU D-1528 @ 1.90GHz | CPU Type: | Secure Intel Broadwell Family | CPU Number: | 1 |
| CPU Cores per Socket: | 6 | CPU Threads per Socket: | 2 (SMT Enabled) | Sockets: | 1 |
| | | | | TSC: | 1800007000 (scaling) |





Virtualization Strategy and Plan



Traditional Virtualization
Roadmap converged with
OpenShift Virtualization



NFV & Private Cloud
Remains under active
development, separate
roadmap

Modernization

Containers | VMs | Serverless Apps



- Rock solid stability, performance and scale for current long life use cases and MMS migrations from VMw to RH infrastructure
- Provide customers with path, services, tooling to modernize current applications and workloads
 - To VMs and containers running on OpenShift
- Integration with Red Hat OpenShift, OpenShift Virtualization

- Application modernization, zero technical debt migrations from VMw, RHV, RHOSP
- **Strategy, continuity, and roadmap** for Virtualization from Red Hat across all footprints

The future of virtualization is bright

2020 2021 2022 2023 2024 2025 2026 2027 2028

Red Hat
Virtualization
4.4 GA

- Regular Support through 2026
- Incentive pricing to keep cost low
- Enable customers to migrate to OpenShift Virtualization when ready.

OpenShift and
OpenShift
Virtualization

- What we sell today. Strategic to RH's mission to win hybrid cloud by winning the platform
 - Suitable for production workloads, rapid maturity, enable customers to migrate when ready
- Release with OpenShift (~every 3 months)
Virtualization roadmap continuity from Red Hat across all footprints.

OpenStack
Platform

- Remains under active development
Maintains separate roadmap, beyond 2026, focus on long life releases
Convergence with OpenShift Virtualization is TBD.

Modernization
and Migration
Solutions
Tooling

Migrations from VMware to RHV, OSP, OpenShift Virtualization
Migrations from RHV to OpenShift Virtualization
Migration analytics to help target workloads
Roadmap delivery well in advance of 2026.

I stole enough of Ben's Openshift Virtualization thunder

Queue cheap
Special effects

