

vSphere with VCF 9.1 General FAQ



Table of Contents

[VMware vSphere Releases – Release 9.1](#)

[General / Pricing and Packaging](#)

[Operational Efficiency](#)

[Security and Compliance](#)

[Performance](#)

[Kubernetes and Supervisor Services](#)

[Miscellaneous](#)

vSphere Releases – Release 9.1

Q1. What are the new features in release 9.1?

A. Refer to the release notes for the definitive list including smaller features and bug fixes. The features listed below are the highlighted features for this release:

- Enhanced NVMe memory tiering
- Quick patching for vCenter
- Live patching support for TPM-enabled hosts
- vSphere elastic provisioning (Zero touch provisioning)
- DRS Parallel processing of vMotion
- Offload encrypted vMotion to Intel QAT
- Faster vMotion for GPU workloads
- Performance improvements with topology-aware resource scheduling
- Confidential computing*
- Endpoint detection and response (EDR) on ESX
- File integrity monitoring

General / Pricing and Packaging

Q2. What is vSphere?

A. vSphere is the enterprise workload engine that modernizes compute infrastructure, providing the best platform for modern workloads, while enabling security and compliance.

Q3. How can customers purchase vSphere?

A. VMware vSphere serves as a foundational component of VMware's two flagship offerings, VMware Cloud Foundation (VCF) and VMware vSphere Foundation (VVF). It is also available in two standalone editions, VMware vSphere Standard and VMware vSphere Enterprise Plus. Note that vSphere Standard and vSphere Enterprise Plus are limited to version 8 Update 3 and earlier. vSphere 9.0 and 9.1 features are only

available as part of VMware vSphere Foundation 9.0 and 9.1 and VMware Cloud Foundation 9.0 and 9.1. Some features are only available through the VMware Advanced Cyber Compliance (ACC) offering.

Q4. Is the free ESXi version still available for customers?

A. Customers can download Free ESXi versions up to version 8 Update 3. Versions 9.0 and 9.1 are not available to customers through the free version of ESXi.

Q5. Are all features available in all variations of vSphere?

A. No. Please refer to the a) [vSphere Version Comparison](#) and b) [vSphere Product Line Comparison](#) and c) [VCF Feature Comparison](#) docs for a detailed description of which features are available with which versions of vSphere, VVF, VCF and ACC.

Operational Efficiency

Q6. What is NVMe memory tiering and what are its benefits?

A. vSphere introduced Memory Tiering with NVMe in release 9.0, allowing users to add memory capacity to a host by using an NVMe device as a secondary memory tier that is installed locally in a host, thus resulting in an increase of available memory within the ESXi host.

NVMe tiering addresses core-to-memory imbalances and helps in better VM consolidation. With a 19% reduction in cores and offloading 20-25% of memory accesses, this feature can lead to up to 40% reduction in TCO.

Q7. What are the new enhancements for NVMe memory tiering?

A. vSphere 9.1 removes the reboot requirement for turning on memory tiering. It introduces UI notifications to easily identify eligible clusters and workloads while providing visibility into device health and wear to enable proactive replacement. It also expands. It also introduces RAID 1 mirroring for memory tiering, to provide more resiliency, and better protection against NVMe failure.

Q8. What is vCenter quick patching and what are its benefits?

A. vCenter updates often require significant maintenance windows and manual effort, leading to service interruptions that make it difficult for administrators to keep up with critical security patches. vCenter quick patching intelligently classifies vCenter services into those with and without workload impact. Services

without impact experience zero downtime during patching, while impactful services are restricted to a very short window.

Q8. What is vSphere elastic provisioning? What is Zero touch provisioning?

A. vSphere elastic provisioning is a collection of features aimed at scaling provisioning of ESX hosts and making them ready for easy consumption. The first phase of these features includes Zero touch provisioning (ZTP). It utilizes UEFI HTTP for secure bootstrapping of desired image and drives host state toward a desired configuration using vSphere Configuration Profiles.

Security and Compliance

Q9. What are the new improvements in Live Patching support?

A. vSphere expands Live Patching support to include hosts with TPM enabled. Additionally, this feature is turned on by default. These two features maximize the changes that customers can benefit from zero down time during patching.

Q10. What confidential computing capabilities are available to customers, and what benefits do they provide?

A. The base functionality includes turning on confidential computing on Intel and AMD based servers specifically for Intel TDX and AMD SEV-SNP respectively. In 9.0, VCF customers needed to go through an RPQ process in order to access the confidential computing functionality. In release 9.1, this functionality will become generally available as part of ACC. Additionally, incremental features such as Quick Boot for confidential VMs will be available.

Q11. Is confidential computing capability included with VCF, VVF and/or standalone vSphere?

A. No, confidential computing will be available with the ACC SKU.

Q12. Does ESX support EDR?

A. Yes, vSphere 9.1 introduces a secure, supported framework allowing third-party EDR agents to integrate *directly* into the ESX hypervisor. This enables leading EDR platforms to natively analyze process, file, and network events for suspicious activity right at the foundational layer.

Q13. What are the benefits of file integrity monitoring?

A. File integrity monitoring ensures continuous infrastructure security and compliance by enabling rapid detection of tampering. It alerts administrators to unauthorized modifications across critical assets, including vCenter configuration files, before they can be exploited.

Performance

Q14. How does vSphere help improve performance of all workloads in release 9.1?

A. vSphere 9.1 optimizes for the next generation of high-density processors through topology-aware scheduling. By updating the NUMA scheduler to be more like DRS, and using the same fairness models, vSphere enables customers to improve the performance of a wide variety of workloads by up to 68% on 4 socket systems and up to 44% on 2 socket systems.

Q15. How does vSphere boost performance for guest VMs?

A. vSphere leverages Intel's Quick Assist Technology (QAT) to offload encryption, decryption, and compression tasks from the host/destination CPU during the vMotion process. This feature delivers up to a 67% saving in source CPU consumption and a 22% saving in destination CPU usage. This boosts guest performance during migration and frees up critical resources for other applications.

Q16. How does vSphere improve performance for AI workloads?

A. vSphere introduces passthrough support for the latest class of high-performance accelerators, including Intel Gaudi 3, AMD MI300, and NVIDIA Blackwell HGX systems with NVSwitch for massive, multi-host AI model distribution. vSphere boosts efficiency by increasing GPU sharing capacity allowing up to 48 VMs per GPU and providing a unified monitoring dashboard to track capacity and utilization across different hardware vendors.

Kubernetes and Supervisor Services

Q17. What is VMware vSphere Kubernetes Service?

A. VMware vSphere Kubernetes Service (VKS) is a built-in Kubernetes runtime service in VCF. It orchestrates Kubernetes management, enabling enterprises to run modern applications alongside traditional workloads. Running modern applications on VKS within VMware Cloud Foundation (VCF) offers enterprises a powerful, unified platform that integrates with the broader VMware ecosystem, delivering a scalable, secure, and efficient foundation for modern workloads. For more information on VKS and new features in 9.1 please refer to the VCF FAQ.

Miscellaneous

Q18. Where can I get a definitive list of feature capabilities within vSphere?

A. Please refer to the a) [vSphere Version Comparison](#) and b) [vSphere Product Line Comparison](#) and c) [VCF Feature Comparison](#) docs for a detailed description of which features are available with which versions of vSphere, VVF, VCF and ACC.