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Article

Virtualization updates

Learn about important changes to Virtualization.



Overview

Browse notable changes in [Virtualization](#).

June 2025

- Take advantage of more efficient storage utilization in virtual machine (VM) images using the Apple Sparse Image Format (ASIF). Its space-saving allocation results in a smaller disk footprint and optimized transfer for VM disk images with [`VZDiskImageStorageDeviceAttachment`](#).
- Support vmnet custom network topologies to enable VM-to-VM communications based on a logical network with customized configuration.
- Easily discover a VM's on-process [`queue`](#) using this new property on [`VZVirtualMachine`](#).

June 2024

- Adopt nested VMs to run Linux VMs in virtualized Linux VM hosts.
- Allow emulated USB Mass Storage devices to attach to and detach from a running VM using Extensible Host Controller Interface (XHCI) controller hot-plug capabilities.
- Access iCloud from macOS 15 VMs.

See Also

Technology updates

Accelerate updates

Learn about important changes to Accelerate.

Accessibility updates

Learn about important changes to Accessibility.

ActivityKit updates

Learn about important changes in ActivityKit.

AdAttributionKit Updates

Learn about important changes to AdAttributionKit.

App Clips updates

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App Intents updates

Learn about important changes in App Intents.

AppKit updates

Learn about important changes to AppKit.

Apple Intelligence updates

Learn about important changes to Apple Intelligence.

AppleMapsServerAPI Updates

Learn about important changes to AppleMapsServerAPI.

Apple Pencil updates

Learn about important changes to Apple Pencil.

ARKit updates

Learn about important changes to ARKit.

Audio Toolbox updates

Learn about important changes to Audio Toolbox.

AuthenticationServices updates

Learn about important changes to AuthenticationServices.

 AVFAudio updates

Learn about important changes to AVFAudio.

 AVFoundation updates

Learn about important changes to AVFoundation.