

[Updates](#) / Virtualization updates

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.


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## 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**  
Learn about important changes in App Clips.
-  **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.