

# About the security content of macOS Sonoma 14.4

This document describes the security content of macOS Sonoma 14.4.

## About Apple security updates

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## macOS Sonoma 14.4

Released March 7, 2024

### Accessibility

Available for: macOS Sonoma

Impact: A malicious app may be able to observe user data in log entries related to accessibility notifications

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-23291

### Admin Framework

Available for: macOS Sonoma

Impact: An app may be able to elevate privileges

Description: A logic issue was addressed with improved checks.

CVE-2024-23276: Kirin (@Pwnrin)

### Airport

Available for: macOS Sonoma

Impact: An app may be able to read sensitive location information

Description: This issue was addressed with improved redaction of sensitive information.

CVE-2024-23227: Brian McNulty

### AppKit

Available for: macOS Sonoma

Impact: An unprivileged app may be able to log keystrokes in other apps including those using secure input mode

Description: A logic issue was addressed with improved restrictions.

CVE-2024-27886: Stephan Casas and an anonymous researcher

Entry added July 29, 2024

## AppleMobileFileIntegrity

Available for: macOS Sonoma

Impact: Entitlements and privacy permissions granted to this app may be used by a malicious app

Description: This issue was addressed with improved checks.

CVE-2024-23233: Mickey Jin (@patch1t)

## AppleMobileFileIntegrity

Available for: macOS Sonoma

Impact: An app may be able to modify protected parts of the file system

Description: A downgrade issue affecting Intel-based Mac computers was addressed with additional code-signing restrictions.

CVE-2024-23269: Mickey Jin (@patch1t)

## AppleMobileFileIntegrity

Available for: macOS Sonoma

Impact: An app may be able to elevate privileges

Description: This issue was addressed by removing the vulnerable code.

CVE-2024-23288: Wojciech Regula of SecuRing (wojciechregula.blog) and Kirin (@Pwnrin)

## Bluetooth

Available for: macOS Sonoma

Impact: An attacker in a privileged network position may be able to inject keystrokes by spoofing a keyboard

Description: The issue was addressed with improved checks.

CVE-2024-23277: Marc Newlin of SkySafe

## ColorSync

Available for: macOS Sonoma

Impact: Processing a file may lead to unexpected app termination or arbitrary code execution

Description: The issue was addressed with improved memory handling.

CVE-2024-23247: m4yfly with TianGong Team of Legendsec at Qi'anxin Group

## ColorSync

Available for: macOS Sonoma

Impact: Processing a file may lead to a denial-of-service or potentially disclose memory contents

Description: The issue was addressed with improved memory handling.

CVE-2024-23248: m4yfly with TianGong Team of Legendsec at Qi'anxin Group

CVE-2024-23249: m4yfly with TianGong Team of Legendsec at Qi'anxin Group

## CoreBluetooth - LE

Available for: macOS Sonoma

Impact: An app may be able to access Bluetooth-connected microphones without user permission

Description: An access issue was addressed with improved access restrictions.

CVE-2024-23250: Guilherme Rambo of Best Buddy Apps (rambo.codes)

## Disk Images

Available for: macOS Sonoma

Impact: An app may be able to break out of its sandbox

Description: The issue was addressed with improved checks.

CVE-2024-23299: an anonymous researcher

Entry added May 29, 2024

## Dock

Available for: macOS Sonoma

Impact: An app from a standard user account may be able to escalate privilege after admin user login

Description: A logic issue was addressed with improved restrictions.

CVE-2024-23244: Csaba Fitzl (@theevilbit) of OffSec

## ExtensionKit

Available for: macOS Sonoma

Impact: An app may be able to access sensitive user data

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-23205

## file

Available for: macOS Sonoma

Impact: Processing a file may lead to a denial-of-service or potentially disclose memory contents

Description: This issue was addressed with improved checks.

CVE-2022-48554

## Find My

Available for: macOS Sonoma

Impact: A malicious application may be able to access Find My data

Description: This issue was addressed with improved redaction of sensitive information.

CVE-2024-23229: Joshua Jewett (@JoshJewett33)

Entry added May 13, 2024

## Foundation

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A logic issue was addressed with improved checks.

CVE-2024-27789: Mickey Jin (@patch1t)

Entry added May 13, 2024

## Image Capture

Available for: macOS Sonoma

Impact: An app may be able to access a user's Photos Library

Description: A permissions issue was addressed with additional restrictions.

CVE-2024-23253: Mickey Jin (@patch1t)

## Image Processing

Available for: macOS Sonoma

Impact: An app may be able to execute arbitrary code with kernel privileges

Description: The issue was addressed with improved memory handling.

CVE-2024-23270: an anonymous researcher

## ImageIO

Available for: macOS Sonoma

Impact: Processing an image may result in disclosure of process memory

Description: The issue was addressed with improved memory handling.

CVE-2024-23257: Junsung Lee working with Trend Micro Zero Day Initiative

## ImageIO

Available for: macOS Sonoma

Impact: Processing an image may lead to arbitrary code execution

Description: An out-of-bounds read was addressed with improved input validation.

CVE-2024-23258: Zhenjiang Zhao of pangu team, Qianxin, and Amir Bazine and Karsten König of CrowdStrike Counter Adversary Operations

Entry updated May 29, 2024

## ImageIO

Available for: macOS Sonoma

Impact: Processing an image may lead to arbitrary code execution

Description: A buffer overflow issue was addressed with improved memory handling.

CVE-2024-23286: Junsung Lee working with Trend Micro Zero Day Initiative, Amir Bazine and Karsten König of CrowdStrike Counter Adversary Operations, Dohyun Lee (@l33d0hyun), and Lyutoon and Mr.R

Entry updated May 29, 2024

## Intel Graphics Driver

Available for: macOS Sonoma

Impact: An app may be able to execute arbitrary code with kernel privileges

Description: An out-of-bounds write issue was addressed with improved input validation.

CVE-2024-23234: Murray Mike

## Kerberos v5 PAM module

Available for: macOS Sonoma

Impact: An app may be able to modify protected parts of the file system

Description: The issue was addressed with improved checks.

CVE-2024-23266: Pedro Tórres (@t0rr3sp3dr0)

## Kernel

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A race condition was addressed with additional validation.

CVE-2024-23235

## Kernel

Available for: macOS Sonoma

Impact: An app may be able to cause unexpected system termination or write kernel memory

Description: A memory corruption vulnerability was addressed with improved locking.

CVE-2024-23265: Xinru Chi of Pangu Lab

## Kernel

Available for: macOS Sonoma

Impact: An attacker with arbitrary kernel read and write capability may be able to bypass kernel memory protections. Apple is aware of a report that this issue may have been exploited.

Description: A memory corruption issue was addressed with improved validation.

CVE-2024-23225

## libarchive

Available for: macOS Sonoma

Impact: A maliciously crafted ZIP archive may bypass Gatekeeper checks

Description: This issue was addressed with improved checks.

CVE-2024-27853: koocola

Entry added July 29, 2024

## libxpc

Available for: macOS Sonoma

Impact: An app may be able to break out of its sandbox

Description: The issue was addressed with improved checks.

CVE-2024-23278: an anonymous researcher

## libxpc

Available for: macOS Sonoma

Impact: An app may be able to execute arbitrary code out of its sandbox or with certain elevated privileges

Description: The issue was addressed with improved memory handling.

CVE-2024-0258: ali yabuz

## MediaRemote

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-23279: an anonymous researcher

## Messages

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A privacy issue was addressed with improved handling of temporary files.

CVE-2024-23287: Kirin (@Pwnrin)

## Metal

Available for: macOS Sonoma

Impact: An application may be able to read restricted memory

Description: A validation issue was addressed with improved input sanitization.

CVE-2024-23264: Meysam Firouzi @R00tkitsmm working with Trend Micro Zero Day Initiative

## Music

Available for: macOS Sonoma

Impact: An app may be able to create symlinks to protected regions of the disk

Description: This issue was addressed with improved handling of symlinks.

CVE-2024-23285: @08Tc3wBB of Jamf

## Music

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-27809: an anonymous researcher

Entry added July 29, 2024

## Notes

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-23283

## NSSpellChecker

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A path handling issue was addressed with improved validation.

CVE-2024-27887: Mickey Jin (@patch1t)

Entry added July 29, 2024

## OpenSSH

Available for: macOS Sonoma

Impact: Multiple issues in OpenSSH

Description: Multiple issues were addressed by updating to OpenSSH 9.6.

CVE-2023-48795

CVE-2023-51384

CVE-2023-51385

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to modify protected parts of the file system

Description: A logic issue was addressed with improved state management.

CVE-2022-42816: Mickey Jin (@patch1t)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to overwrite arbitrary files

Description: A path handling issue was addressed with improved validation.

CVE-2024-23216: Pedro Tôrres (@t0rr3sp3dr0)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to bypass certain Privacy preferences

Description: The issue was addressed with improved checks.

CVE-2024-23267: Mickey Jin (@patch1t)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to elevate privileges

Description: An injection issue was addressed with improved input validation.

CVE-2024-23268: Mickey Jin (@patch1t), Pedro Tôrres (@t0rr3sp3dr0)

CVE-2024-23274: Bohdan Stasiuk (@Bohdan\_Stasiuk)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A logic issue was addressed with improved checks.

CVE-2023-42853: Mickey Jin (@patch1t)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to access protected user data

Description: A race condition was addressed with additional validation.

CVE-2024-23275: Mickey Jin (@patch1t)

## PackageKit

Available for: macOS Sonoma

Impact: An app may be able to modify protected parts of the file system

Description: A permissions issue was addressed by removing vulnerable code and adding additional checks.

CVE-2024-27888: Mickey Jin (@patch1t)

Entry added July 29, 2024

## Photos

Available for: macOS Sonoma

Impact: Photos in the Hidden Photos Album may be viewed without authentication

Description: An authentication issue was addressed with improved state management.

CVE-2024-23255: Harsh Tyagi

## QuartzCore

Available for: macOS Sonoma

Impact: Processing malicious input may lead to code execution

Description: This issue was addressed by removing the vulnerable code.

CVE-2024-23294: Wojciech Regula of SecuRing (wojciechregula.blog)

## RTKit

Available for: macOS Sonoma

Impact: An attacker with arbitrary kernel read and write capability may be able to bypass kernel memory protections. Apple is aware of a report that this issue may have been exploited.

Description: A memory corruption issue was addressed with improved validation.

CVE-2024-23296

## Safari

Available for: macOS Sonoma

Impact: Processing web content may lead to a denial-of-service

Description: The issue was addressed with improved checks.

CVE-2024-23259: Lyra Rebane (rebane2001)

## Safari Private Browsing

Available for: macOS Sonoma

Impact: Private Browsing tabs may be accessed without authentication

Description: This issue was addressed through improved state management.

CVE-2024-23273: Matej Rabzelj

## Sandbox

Available for: macOS Sonoma

Impact: An app may be able to edit NVRAM variables

Description: An access issue was addressed with improved access restrictions.

CVE-2024-23238

## Sandbox

Available for: macOS Sonoma

Impact: An app may be able to leak sensitive user information

Description: A race condition was addressed with improved state handling.

CVE-2024-23239: Mickey Jin (@patch1t)

## Sandbox

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A logic issue was addressed with improved restrictions.

CVE-2024-23290: Wojciech Regula of SecuRing (wojciechregula.blog)

## Screen Capture

Available for: macOS Sonoma

Impact: An app may be able to capture a user's screen

Description: A privacy issue was addressed with improved handling of temporary files.

CVE-2024-23232: Yiğit Can YILMAZ (@yilmazcanyigit)

## Share Sheet

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: A privacy issue was addressed with improved private data redaction for log entries.

CVE-2024-23231: Kirin (@Pwnrin) and luckyu (@uuulucky)

## SharedFileList

Available for: macOS Sonoma

Impact: An app may be able to access sensitive user data

Description: This issue was addressed with improved file handling.

CVE-2024-23230: Mickey Jin (@patch1t)

## Shortcuts

Available for: macOS Sonoma

Impact: Third-party shortcuts may use a legacy action from Automator to send events to apps without user consent

Description: This issue was addressed by adding an additional prompt for user consent.

CVE-2024-23245: an anonymous researcher

## Shortcuts

Available for: macOS Sonoma

Impact: An app may be able to access information about a user's contacts

Description: This issue was addressed with improved data protection.

CVE-2024-23292: K宝 and LFY@secsys from Fudan University

## Siri

Available for: macOS Sonoma

Impact: A person with physical access to a device may be able to use Siri to access private calendar information

Description: A lock screen issue was addressed with improved state management.

CVE-2024-23289: Lewis Hardy

## Siri

Available for: macOS Sonoma

Impact: An attacker with physical access may be able to use Siri to access sensitive user data

Description: This issue was addressed through improved state management.

CVE-2024-23293: Bistrif Dahal

## Spotlight

Available for: macOS Sonoma

Impact: An app may be able to leak sensitive user information

Description: This issue was addressed through improved state management.

CVE-2024-23241

## Storage Services

Available for: macOS Sonoma

Impact: An attacker may gain access to protected parts of the file system

Description: A logic issue was addressed with improved checks.

CVE-2024-23272: Mickey Jin (@patch1t)

Entry updated May 13, 2024

## Synapse

Available for: macOS Sonoma

Impact: An app may be able to view Mail data

Description: A privacy issue was addressed by not logging contents of text fields.

CVE-2024-23242

## System Settings

Available for: macOS Sonoma

Impact: An app may be able to access sensitive user data

Description: This issue was addressed with improved state management.

CVE-2024-23281: Joshua Jewett (@JoshJewett33)

## TCC

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: This issue was addressed by adding an additional prompt for user consent.

CVE-2024-27792: Mickey Jin (@patch1t)

Entry added May 29, 2024

## Time Zone

Available for: macOS Sonoma

Impact: An attacker may be able to read information belonging to another user

Description: A logic issue was addressed with improved state management.

CVE-2024-23261: Matthew Loewen

Entry added July 29, 2024

## TV App

Available for: macOS Sonoma

Impact: An app may be able to access user-sensitive data

Description: This issue was addressed by removing additional entitlements.

CVE-2024-23260: Joshua Jewett (@JoshJewett33)

## UIKit

Available for: macOS Sonoma

Impact: An app may be able to break out of its sandbox

Description: This issue was addressed by removing the vulnerable code.

CVE-2024-23246: Deutsche Telekom Security GmbH sponsored by Bundesamt für Sicherheit in der Informationstechnik

## WebKit

Available for: macOS Sonoma

Impact: Processing web content may lead to a denial-of-service

Description: The issue was addressed with improved memory handling.

WebKit Bugzilla: 263758

CVE-2024-54658: anbu1024 of SecANT

Entry added February 5, 2025

## WebKit

Available for: macOS Sonoma

Impact: Processing web content may lead to arbitrary code execution

Description: The issue was addressed with improved memory handling.

WebKit Bugzilla: 259694

CVE-2024-23226: Pwn2car

WebKit Bugzilla: 263001

CVE-2024-27859: Pwn2car

Entry added March 7, 2024, updated February 5, 2025

## WebKit

Available for: macOS Sonoma

Impact: A malicious website may exfiltrate audio data cross-origin

Description: The issue was addressed with improved UI handling.

WebKit Bugzilla: 263795

CVE-2024-23254: James Lee (@Windowsrcer)

## WebKit

Available for: macOS Sonoma

Impact: Processing maliciously crafted web content may prevent Content Security Policy from being enforced

Description: A logic issue was addressed with improved validation.

WebKit Bugzilla: 264811

CVE-2024-23263: Johan Carlsson (joaxcar)

## WebKit

Available for: macOS Sonoma

Impact: A maliciously crafted webpage may be able to fingerprint the user

Description: An injection issue was addressed with improved validation.

WebKit Bugzilla: 266703

CVE-2024-23280: an anonymous researcher

## WebKit

Available for: macOS Sonoma

Impact: Processing maliciously crafted web content may prevent Content Security Policy from being enforced

Description: A logic issue was addressed with improved state management.

WebKit Bugzilla: 267241

CVE-2024-23284: Georg Felber and Marco Squarcina

## Additional recognition

### AppKit

We would like to acknowledge Stephan Casas and an anonymous researcher for their assistance.

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### CoreAnimation

We would like to acknowledge Junsung Lee for their assistance.

### CoreMotion

We would like to acknowledge Eric Dorphy of Twin Cities App Dev LLC for their assistance.

### Endpoint Security

We would like to acknowledge Matthew White for their assistance.

### Find My

We would like to acknowledge Meng Zhang (鲸落) of NorthSea for their assistance.

### ICU

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## Kernel

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## libxml2

We would like to acknowledge OSS-Fuzz, and Ned Williamson of Google Project Zero for their assistance.

## libxpc

We would like to acknowledge Rasmus Sten, F-Secure (Mastodon: @pajp@blog.dll.nu), and an anonymous researcher for their assistance.

## Messages

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## Model I/O

We would like to acknowledge Junsung Lee for their assistance.

## Photos

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## Power Management

We would like to acknowledge Pan ZhenPeng (@Peterpan0927) of STAR Labs SG Pte. Ltd. for their assistance.

## Safari

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## Sandbox

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## SharedFileList

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## Shortcuts

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## Siri

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## Storage Driver

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## SystemMigration

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## TCC

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## WebKit

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## WebRTC

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## XProtect

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Helpful?

Yes

No

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