

# About the security content of Security Update 2021-002 Catalina

This document describes the security content of Security Update 2021-002 Catalina.

## About Apple security updates

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## Security Update 2021-002 Catalina

Released April 26, 2021

### APFS

Available for: macOS Catalina

Impact: A local user may be able to read arbitrary files

Description: The issue was addressed with improved permissions logic.

CVE-2021-1797: Thomas Tempelmann

### Archive Utility

Available for: macOS Catalina

Impact: A malicious application may bypass Gatekeeper checks

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

CVE-2021-1810: Rasmus Sten (@pajp) of F-Secure

### Audio

Available for: macOS Catalina

Impact: An application may be able to read restricted memory

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

CVE-2021-1808: JunDong Xie of Ant Security Light-Year Lab

### CFNetwork

Available for: macOS Catalina

Impact: Processing maliciously crafted web content may disclose sensitive user information

Description: A memory initialization issue was addressed with improved memory handling.

CVE-2021-1857: an anonymous researcher

#### **CoreAudio**

Available for: macOS Catalina

Impact: A malicious application may be able to read restricted memory

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

CVE-2021-1809: JunDong Xie of Ant Security Light-Year Lab

#### **CoreAudio**

Available for: macOS Catalina

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

Description: Processing a maliciously crafted audio file may disclose restricted memory.

CVE-2021-1846: JunDong Xie of Ant Security Light-Year Lab

Entry added July 21, 2021

#### **CoreGraphics**

Available for: macOS Catalina

Impact: Opening a maliciously crafted file may lead to unexpected application termination or arbitrary code execution

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

CVE-2021-1847: Xuwei Liu of Purdue University

#### **CoreText**

Available for: macOS Catalina

Impact: Processing a maliciously crafted font may result in the disclosure of process memory

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

CVE-2021-1811: Xingwei Lin of Ant Security Light-Year Lab

#### **curl**

Available for: macOS Catalina

Impact: A malicious server may be able to disclose active services

Description: This issue was addressed with improved checks.

CVE-2020-8284: Marian Rehak

Entry added May 6, 2021

#### **curl**

Available for: macOS Catalina

Impact: A remote attacker may be able to cause a denial of service

Description: A buffer overflow was addressed with improved input validation.

CVE-2020-8285: xnynx

#### **curl**

Available for: macOS Catalina

Impact: An attacker may provide a fraudulent OCSP response that would appear valid

Description: This issue was addressed with improved checks.

CVE-2020-8286: an anonymous researcher

### **DiskArbitration**

Available for: macOS Catalina

Impact: A malicious application may be able to modify protected parts of the file system

Description: A permissions issue existed in DiskArbitration. This was addressed with additional ownership checks.

CVE-2021-1784: Mikko Kenttälä (@Turmio\_) of SensorFu, Csaba Fitzl (@theevilbit) of Offensive Security, and an anonymous researcher

### **FontParser**

Available for: macOS Catalina

Impact: Processing a maliciously crafted font file may lead to arbitrary code execution

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

CVE-2021-1881: Hou JingYi (@hgy79425575) of Qihoo 360, an anonymous researcher, Xingwei Lin of Ant Security Light-Year Lab, and Mickey Jin of Trend Micro

### **FontParser**

Available for: macOS Catalina

Impact: Processing a maliciously crafted font file may lead to arbitrary code execution

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

CVE-2020-27942: an anonymous researcher

### **Foundation**

Available for: macOS Catalina

Impact: A malicious application may be able to gain root privileges

Description: A validation issue was addressed with improved logic.

CVE-2021-1813: Cees Elzinga

### **Foundation**

Available for: macOS Catalina

Impact: An application may be able to gain elevated privileges

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

CVE-2021-1882: Gabe Kirkpatrick (@gabe\_k)

### **ImageIO**

Available for: macOS Catalina

Impact: Processing a maliciously crafted image may lead to arbitrary code execution

Description: This issue was addressed with improved checks.

CVE-2021-1843: Ye Zhang of Baidu Security

**ImageIO**

Available for: macOS Catalina

Impact: An out-of-bounds write issue was addressed with improved bounds checking

Description: Processing a maliciously crafted image may lead to arbitrary code execution.

CVE-2021-1858: Mickey Jin and Qi Sun of Trend Micro working with Trend Micro's Zero Day Initiative

Entry added July 21, 2021

**Intel Graphics Driver**

Available for: macOS Catalina

Impact: A malicious application may be able to execute arbitrary code with kernel privileges

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

CVE-2021-1834: ABC Research s.r.o. working with Trend Micro Zero Day Initiative

**Intel Graphics Driver**

Available for: macOS Catalina

Impact: An out-of-bounds write issue was addressed with improved bounds checking

Description: A malicious application may be able to execute arbitrary code with kernel privileges.

CVE-2021-1841: Jack Dates of RET2 Systems, Inc.

Entry added July 21, 2021

**Kernel**

Available for: macOS Catalina

Impact: A malicious application may be able to disclose kernel memory

Description: A memory initialization issue was addressed with improved memory handling.

CVE-2021-1860: @0xalsr

**Kernel**

Available for: macOS Catalina

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

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

CVE-2021-1851: @0xalsr

**Kernel**

Available for: macOS Catalina

Impact: A local attacker may be able to elevate their privileges

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

CVE-2021-1840: Zuozhi Fan (@pattern\_F\_) of Ant Group Tianqiong Security Lab

**Kernel**

Available for: macOS Catalina

Impact: The issue was addressed with improved permissions logic

Description: Copied files may not have the expected file permissions.

CVE-2021-1832: an anonymous researcher

Entry added July 21, 2021

**libxpc**

Available for: macOS Catalina

Impact: A malicious application may be able to gain root privileges

Description: A race condition was addressed with additional validation.

CVE-2021-30652: James Hutchins

**libxslt**

Available for: macOS Catalina

Impact: Processing a maliciously crafted file may lead to heap corruption

Description: A double free issue was addressed with improved memory management.

CVE-2021-1875: Found by OSS-Fuzz

**Login Window**

Available for: macOS Catalina

Impact: A malicious application with root privileges may be able to access private information

Description: This issue was addressed with improved entitlements.

CVE-2021-1824: Wojciech Reguła (@\_r3ggi) of SecuRing

**NSRemoteView**

Available for: macOS Catalina

Impact: Processing maliciously crafted web content may lead to arbitrary code execution

Description: A use after free issue was addressed with improved memory management.

CVE-2021-1876: Matthew Denton of Google Chrome

**Preferences**

Available for: macOS Catalina

Impact: A local user may be able to modify protected parts of the file system

Description: A parsing issue in the handling of directory paths was addressed with improved path validation.

CVE-2021-1739: Zhipeng Huo (@R3dF09) and Yuebin Sun (@yuebinsun2020) of Tencent Security Xuanwu Lab (xlab.tencent.com)

CVE-2021-1740: Zhipeng Huo (@R3dF09) and Yuebin Sun (@yuebinsun2020) of Tencent Security Xuanwu Lab (<https://xlab.tencent.com>)

**smbx**

Available for: macOS Catalina

Impact: An attacker in a privileged network position may be able to leak sensitive user information

Description: An integer overflow was addressed with improved input validation.

CVE-2021-1878: Aleksandar Nikolic of Cisco Talos (talosintelligence.com)

### **System Preferences**

Available for: macOS Catalina

Impact: A malicious application may bypass Gatekeeper checks. Apple is aware of a report that this issue may have been actively exploited.

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

CVE-2021-30657: Cedric Owens (@cedowens)

Entry added April 27, 2021, updated April 30, 2021

### **Tailspin**

Available for: macOS Catalina

Impact: A local attacker may be able to elevate their privileges

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

CVE-2021-1868: Tim Michaud of Zoom Communications

### **tcpdump**

Available for: macOS Catalina

Impact: A remote attacker may be able to cause a denial of service

Description: This issue was addressed with improved checks.

CVE-2020-8037: an anonymous researcher

### **Time Machine**

Available for: macOS Catalina

Impact: A local attacker may be able to elevate their privileges

Description: The issue was addressed with improved permissions logic.

CVE-2021-1839: Tim Michaud(@TimGMichaud) of Zoom Video Communications and Gary Nield of ECSC Group plc

### **Wi-Fi**

Available for: macOS Catalina

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

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

CVE-2021-1828: ZuoZhi Fan (@pattern\_F\_) of Ant Group Tianqiong Security Lab

### **Wi-Fi**

Available for: macOS Catalina

Impact: The issue was addressed with improved permissions logic

Description: An application may be able to execute arbitrary code with system privileges.

CVE-2021-30655: Gary Nield of ECSC Group plc and Tim Michaud (@TimGMichaud) of Zoom Video Communications, Wojciech Reguła (@\_r3ggi) of SecuRing

Entry added July 21, 2021

### **wifivelocityd**

Available for: macOS Catalina

Impact: An application may be able to execute arbitrary code with system privileges

Description: The issue was addressed with improved permissions logic.

CVE-2020-3838: Dayton Pidhirney (@\_watbulb)

### **WindowServer**

Available for: macOS Catalina

Impact: A malicious application may be able to unexpectedly leak a user's credentials from secure text fields

Description: An API issue in Accessibility TCC permissions was addressed with improved state management.

CVE-2021-1873: an anonymous researcher

Entry updated April 27, 2021

## **Additional recognition**

### **CoreCrypto**

We would like to acknowledge Andy Russon of Orange Group for their assistance.

Entry added May 6, 2021

### **Intel Graphics Driver**

We would like to acknowledge Jack Dates of RET2 Systems, Inc. for their assistance.

Entry added May 6, 2021

### **Kernel**

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Entry added May 6, 2021

### **Mail**

We would like to acknowledge Petter Flink, SecOps of Bonnier News and an anonymous researcher for their assistance.

Entry added May 6, 2021

### **Safari**

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

Entry added May 6, 2021

### **Security**

We would like to acknowledge Xingwei Lin of Ant Security Light-Year Lab and john (@nyan\_satan) for their assistance.

Entry added May 6, 2021


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Helpful?

Yes

No

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