

# About the security content of Safari 10.1

This document describes the security content of Safari 10.1.

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## Safari 10.1

Released March 27, 2017

### CoreGraphics

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed through improved input validation.

CVE-2017-2444: Mei Wang of 360 GearTeam

### **JavaScriptCore**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

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

CVE-2017-2491: Apple

Entry added May 2, 2017

### **JavaScriptCore**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing a maliciously crafted web page may lead to universal cross site scripting

Description: A prototype issue was addressed through improved logic.

## CVE-2017-2492: lokihardt of Google Project Zero

Entry updated April 24, 2017

### Safari

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Visiting a malicious website may lead to address bar spoofing

Description: A state management issue was addressed by disabling text input until the destination page loads.

CVE-2017-2376: an anonymous researcher, Chris Hlady of Google Inc, Yuyang Zhou of Tencent Security Platform Department (security.tencent.com), Muneaki Nishimura (nishimunea) of Recruit Technologies Co., Ltd., Michal Zalewski of Google Inc, an anonymous researcher

### Safari

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may present authentication sheets over arbitrary web sites

Description: A spoofing and denial-of-service issue existed in the handling of HTTP authentication. This issue was addressed through making HTTP authentication sheets non-modal.

CVE-2017-2389: ShenYeYinJiu of Tencent Security Response Center, TSRC

## **Safari**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Visiting a malicious website by clicking a link may lead to user interface spoofing

Description: A spoofing issue existed in the handling of FaceTime prompts. This issue was addressed through improved input validation.

CVE-2017-2453: xisigr of Tencent's Xuanwu Lab (tencent.com)

## **Safari Login AutoFill**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: A local user may be able to access locked keychain items

Description: A keychain handling issue was addressed through improved keychain item management.

CVE-2017-2385: Simon Woodside of MedStack

## **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Dragging and dropping a maliciously crafted link may lead to bookmark spoofing or arbitrary code execution

Description: A validation issue existed in bookmark creation. This issue was addressed through improved input validation.

CVE-2017-2378: xisigr of Tencent's Xuanwu Lab (tencent.com)

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may exfiltrate data cross-origin

Description: A prototype access issue was addressed through improved exception handling.

CVE-2017-2386: André Bargull

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed through improved input validation.

CVE-2017-2394: Apple

CVE-2017-2396: Apple

CVE-2016-9642: Gustavo Grieco

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed through improved memory handling.

CVE-2017-2395: Apple

CVE-2017-2454: Ivan Fratric of Google Project Zero, Zheng Huang of the Baidu Security Lab working with Trend Micro's Zero Day Initiative

CVE-2017-2455: Ivan Fratric of Google Project Zero

CVE-2017-2459: Ivan Fratric of Google Project Zero

CVE-2017-2460: Ivan Fratric of Google Project Zero

CVE-2017-2464: Jeonghoon Shin, Natalie Silvanovich of Google Project Zero

CVE-2017-2465: Zheng Huang and Wei Yuan of Baidu Security Lab

CVE-2017-2466: Ivan Fratric of Google Project Zero

CVE-2017-2468: lokihardt of Google Project Zero

CVE-2017-2469: lokihardt of Google Project Zero

CVE-2017-2470: lokihardt of Google Project Zero

CVE-2017-2476: Ivan Fratric of Google Project Zero

CVE-2017-2481: 0011 working with Trend Micro's Zero Day Initiative

Entry updated June 20, 2017

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: A type confusion issue was addressed through improved memory handling.

CVE-2017-2415: Kai Kang of Tencent's Xuanwu Lab (tencent.com)

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may lead to unexpectedly unenforced Content Security Policy

Description: An access issue existed in Content Security Policy. This issue was addressed through improved access restrictions.

CVE-2017-2419: Nicolai Grødum of Cisco Systems

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may lead to high memory consumption

Description: An uncontrolled resource consumption issue was addressed through improved regex processing.

CVE-2016-9643: Gustavo Grieco

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may result in the disclosure of process memory

Description: An information disclosure issue existed in the processing of OpenGL shaders. This issue was addressed through improved memory management.

CVE-2017-2424: Paul Thomson (using the GLFuzz tool) of the Multicore Programming Group, Imperial College London



## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: A memory corruption issue was addressed through improved input validation.

CVE-2017-2433: Apple

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may exfiltrate data cross-origin

Description: Multiple validation issues existed in the handling of page loading. This issue was addressed through improved logic.

CVE-2017-2364: l0kihardt of Google Project Zero

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: A malicious website may exfiltrate data cross-origin

Description: A validation issue existed in the handling of page loading. This issue was addressed through improved logic.

CVE-2017-2367: lokihardt of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may lead to universal cross site scripting

Description: A logic issue existed in the handling of frame objects. This issue was addressed with improved state management.

CVE-2017-2445: lokihardt of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: A logic issue existed in the handling of strict mode functions. This issue was addressed with improved state management.

CVE-2017-2446: Natalie Silvanovich of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Visiting a maliciously crafted website may compromise user information

Description: A memory corruption issue was addressed through improved memory handling.

CVE-2017-2447: Natalie Silvanovich of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed through improved memory handling.

CVE-2017-2463: Kai Kang (4B5F5F4B) of Tencent's Xuanwu Lab (tencent.com) working with Trend Micro's Zero Day Initiative

Entry added March 28, 2017

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

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

CVE-2017-2471: Ivan Fratric of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may lead to universal cross site scripting

Description: A logic issue existed in frame handling. This issue was addressed through improved state management.

CVE-2017-2475: lokihardt of Google Project Zero

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may exfiltrate data cross-origin

Description: A validation issue existed in element handling. This issue was addressed through improved validation.

CVE-2017-2479: lokihardt of Google Project Zero

Entry added March 28, 2017

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may exfiltrate data cross-origin

Description: A validation issue existed in element handling. This issue was addressed through improved validation.

CVE-2017-2480: lokihardt of Google Project Zero

CVE-2017-2493: lokihardt of Google Project Zero

Entry updated April 24, 2017

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Visiting a malicious website may lead to address bar spoofing

Description: An inconsistent user interface issue was addressed through improved state management.

CVE-2017-2486: an anonymous researcher

Entry added March 30, 2017

## WebKit

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: An application may be able to execute arbitrary code

Description: A memory corruption issue was addressed through improved memory handling.

CVE-2017-2392: Max Bazaliy of Lookout

Entry added March 30, 2017

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed through improved memory handling.

CVE-2017-2457: lokihardt of Google Project Zero

Entry added March 30, 2017

### **WebKit**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: Multiple memory corruption issues were addressed with improved memory handling.

CVE-2017-7071: Kai Kang (4B5F5F4B) of Tencent's Xuanwu Lab (tencent.com) working with Trend Micro's Zero Day Initiative

Entry added August 23, 2017

### **WebKit JavaScript Bindings**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Processing maliciously crafted web content may exfiltrate data cross-origin

Description: Multiple validation issues existed in the handling of page loading. This issue was addressed through improved logic.

CVE-2017-2442: lokihardt of Google Project Zero

### **WebKit Web Inspector**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

Impact: Closing a window while paused in the debugger may lead to unexpected application termination

Description: A memory corruption issue was addressed through improved input validation.

CVE-2017-2377: Vicki Pfau

### **WebKit Web Inspector**

Available for: OS X Yosemite v10.10.5, OS X El Capitan v10.11.6, and macOS Sierra 10.12.4

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

Description: A memory corruption issue was addressed through improved input validation.

CVE-2017-2405: Apple

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## **Additional recognition**

### **Safari**

We would like to acknowledge Flyin9 (ZhenHui Lee) for their assistance.

### **Webkit**

We would like to acknowledge Yosuke HASEGAWA of Secure Sky Technology Inc. for their assistance.



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Helpful?

Yes


No

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