



**State of Alaska Cyber Security &
Critical Infrastructure
Cyber Advisory**

February 12, 2016

The following cyber advisory was issued by the State of Alaska and was intended for State government entities. The information may or may not be applicable to the general public and accordingly, the State does not warrant its use for any specific purposes.

ADVISORY NUMBER:

SA2016-032

DATE(S) ISSUED:

02/12/2016

SUBJECT:

Multiple Vulnerabilities in Mozilla Firefox Could Allow for Arbitrary Code Execution

OVERVIEW:

Multiple vulnerabilities have been identified in Mozilla Firefox and Firefox ESR, which could allow for arbitrary code execution. Mozilla Firefox is a web browser used to access the Internet. Mozilla Firefox ESR is a version of the web browser intended to be deployed in large organizations. Exploitation of these issues could allow an attacker to bypass same-origin policy restrictions to access data, and execute arbitrary code in the context of the affected application.

THREAT INTELLIGENCE:

There are currently no reports of these vulnerabilities being exploited in the wild.

SYSTEMS AFFECTED:

- Mozilla Firefox versions prior to 44.0.2
- Mozilla Firefox ESR versions prior to 38.6.1

RISK:**Government:**

- Large and medium government entities: **High**
- Small government entities: **Medium**

Businesses:

- Large and medium business entities: **High**
- Small business entities: **Medium**

Home users: Low

TECHNICAL SUMMARY:

Mozilla has confirmed multiple vulnerabilities in Firefox and Firefox ESR. Exploitation of these vulnerabilities could allow for arbitrary code execution, bypass the same-origin policy and other security restrictions, and perform unauthorized actions. These vulnerabilities could be exploited if a user visits or is redirected to a specially-crafted webpage or opens a specially-crafted file. Details of these vulnerabilities are as follows:

- A Same-Origin-Bypass vulnerability occurs because service workers intercept responses to plugin network requests made through the browser. (CVE-2016-1949)
- Multiple vulnerabilities in the Graphite 2 “smart font” library could allow for arbitrary code execution in Firefox ESR by using a special CNTXT_ITEM instruction.(CVE-2016-1523)

RECOMMENDATIONS:

We recommend the following actions be taken:

- Apply appropriate updates provided by Mozilla to vulnerable systems, immediately after appropriate testing.
- Run all software as a non-privileged user (one without administrative privileges) to diminish the effects of a successful attack.
- Remind users not to visit un-trusted websites or follow links provided by unknown or un-trusted sources.

- Inform and educate users regarding the threats posed by hypertext links contained in emails or attachments especially from un-trusted sources.

REFERENCES:

Mozilla:

<https://www.mozilla.org/en-US/security/advisories/mfsa2016-13>

<https://www.mozilla.org/en-US/security/advisories/mfsa2016-14>

CVE:

<http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2016-1949>

<http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2016-1523>