



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

December 8, 2015

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:

SA2015-139

DATE(S) ISSUED:

12/08/2015

SUBJECT:

Cumulative Security Update for Microsoft Edge (MS15-125)

OVERVIEW:

Multiple vulnerabilities have been discovered in Microsoft Edge that could allow for remote code execution, elevation of privilege, information disclosure, and security feature bypass. Microsoft has replaced Internet Explorer with Edge as the default browser on Windows 10.

Successful exploitation of these vulnerabilities could result in an attacker gaining the same privileges as the logged on user. Depending on the privileges associated with the user, an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights.

THREAT INTELLIGENCE

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

SYSTEM AFFECTED:

- Windows 10

RISK:

Government:

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

Businesses:

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

Home users: High

TECHNICAL SUMMARY:

Multiple vulnerabilities exist in Microsoft Edge due to the way objects in memory are improperly accessed. The vulnerabilities are as follows:

- Ten memory corruption vulnerabilities (CVE-2015-6140, CVE-2015-6142, CVE-2015-6148, CVE-2015-6151, CVE-2015-6153, CVE-2015-6154, CVE-2015-6155, CVE-2015-6158, CVE-2015-6159, CVE-2015-6168)
- One address space layout randomization vulnerability (CVE-2015-6161)
- Two elevation of privilege vulnerabilities (CVE-2015-6139, CVE-2015-6170)
- One spoofing vulnerability (CVE-2015-6169)
- One XSS filter bypass vulnerability (CVE-2015-6176)

These vulnerabilities could allow an attacker to execute remote code by luring a victim to a malicious website. Successful exploitation of these vulnerabilities could result in an attacker gaining the same rights as the current user. If the current user is logged on with administrative user rights an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights.

RECOMMENDATIONS:

We recommend the following actions be taken:

- Apply appropriate patches provided by Microsoft 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 those from un-trusted sources.

REFERENCES:

Microsoft:

<https://technet.microsoft.com/en-us/library/security/ms15-125.aspx>

CVE:

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6139>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6140>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6142>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6148>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6151>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6153>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6154>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6155>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6158>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6159>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6161>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6168>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6169>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6170>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-6176>