



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

**May 10, 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:**

SA2016-075

**SUBJECT:**

Multiple Vulnerabilities in Microsoft Jscript and VBScript Could Allow for Arbitrary Code Execution (MS16-053)

**OVERVIEW:**

Multiple vulnerabilities have been discovered in Microsoft Jscript and VBScript engines that could allow for arbitrary code execution. Successful exploitation could result in the attacker gaining the same user rights 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. Users whose accounts are configured to have fewer user rights on the system could be less impacted than those who operate with administrative user rights.

**THREAT INTELLIGENCE**

Microsoft is aware of a report that CVE-2016-0189 is being exploited in the wild.

**SYSTEMS AFFECTED:**

- VBScript 5.7 on Windows Vista installations using Service Pack 2, Windows Server 2008 installations using Service Pack 2, including Server Core
- Jscript 5.8 and VBScript 5.8 on Windows Server 2008 R2 for x64-based Systems Service Pack 1 (Server Core Installation Only)

**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:**

Multiple vulnerabilities exist in Microsoft Jscript and VBScript engines that could allow for arbitrary code execution when handling objects in memory in Internet Explorer. These vulnerabilities could corrupt memory in such a way that an attacker could execute arbitrary code in the context of the current user.

Successful exploitation could result in the attacker gaining the same user rights 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. Users whose accounts are configured to have fewer user rights on the system could be less impacted than those who operate with administrative 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 from untrusted sources.

#### **REFERENCES:**

##### **Microsoft:**

<https://technet.microsoft.com/en-us/library/security/ms16-053.aspx>

##### **CVE:**

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2016-0187>

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2016-0189>