



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

April 14, 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:
SA2015-042**

**DATE(S) ISSUED:
04/14/2015**

**SUBJECT:
Vulnerability in Microsoft HTTP.sys Could Allow Remote Code Execution (MS15-034)**

OVERVIEW:
A vulnerability has been discovered in the HTTP protocol stack (HTTP.sys) that could allow remote code execution. An attacker who successfully exploited this vulnerability could execute arbitrary code in the context of the System account. 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 this vulnerability being exploited in the wild.

SYSTEMS AFFECTED:

- Windows 7
- Windows Server 2008 R2
- Windows 8
- Windows 8.1
- Windows Server 2012
- Windows Server 2012 R2

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:

A vulnerability has been discovered in the HTTP protocol stack (HTTP.sys) that could allow remote code execution.

HTTP.sys provides the following services in IIS:

- Routing HTTP requests to the correct request queue.
- Caching of responses in kernel mode.
- Performing all text-based logging for the WWW service.
- Implementing Quality of Service (QoS) functionality, which includes connection limits, connection timeouts, queue-length limits, and bandwidth throttling.

This vulnerability can be triggered by sending a specially crafted HTTP request to an affected system. Successful exploitation of this vulnerability could result in an attacker executing arbitrary code in the context of the System account when parsed by HTTP.sys. 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 from un-trusted sources.

REFERENCES:

Microsoft:

<https://technet.microsoft.com/library/security/MS15-034>

CVE:

<http://www.cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-1635>