



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

**June 19, 2015**

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**ADVISORY NUMBER:  
SA2015-068**

**DATE ISSUED:  
06/19/2015**

**SUBJECT:  
Multiple Vulnerabilities in PHP Could Allow Remote Code Execution**

**OVERVIEW:**  
Multiple vulnerabilities have been discovered in PHP which could allow an attacker to potentially execute arbitrary code. PHP is a programming language originally designed for use in web-based applications with HTML content. PHP supports a wide variety of platforms and is used by numerous web-based software applications.

Successfully exploiting these issues may allow remote attackers to execute arbitrary code in the context of a webserver.

**THREAT INTELLIGENCE:**  
There are currently no reports of these vulnerabilities being exploited in the wild. There are known proof-of-concept exploits for these vulnerabilities.

**SYSTEM AFFECTED:**

- PHP 5.4 prior to 5.4.42
- PHP 5.5 prior to 5.5.26
- PHP 5.6 prior to 5.6.10

**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: Low**

#### **TECHNICAL SUMMARY:**

Multiple remote code execution vulnerabilities were fixed in PHP versions 5.4.42, 5.5.26, and 5.6.10. These vulnerabilities include:

- **PCRE Library heap overflow vulnerabilities.** A carefully crafted regular expression may allow attackers to overflow heap variables, which could result in code execution. (CVE-2015-2325, CVE-2015-2326)
- **OS command injection vulnerability in escapeshellarg()** which could result in code execution. (CVE-2015-4642)
- **The ftp\_genlist() function of the ftp extension is prone to an integer overflow,** which may result in remote code execution. (CVE-2015-4643)

Successful exploitation of these vulnerabilities may allow remote attackers to execute arbitrary code in the context of a webserver.

Other Bugs Fixed in the PHP Core for these versions may be found below.

#### **Version 5.4.42**

- **Bug 69719 – Incorrect handling of paths with NULLs.**

#### **Versions 5.5.26**

- **Bug 69566 – Conditional jump or move depends on uninitialized value in extension trait.**
- **Bug 69048 – Temp directory is cached during multiple requests.**
- **Bug 69628 – Complex GLOB\_BRACE fails on Windows.**
- **Bug 69719 – Incorrect handling of paths with NULLs.**

#### **Versions 5.6.10**

- **Bug 69048 – Temp directory is cached during multiple requests.**
- **Bug 69566 – Conditional jump or move depends on uninitialized value in extension trait.**
- **Bug 69599 – Strange generator exception variadic crash.**
- **Bug 69628 – Complex GLOB\_BRACE fails on Windows**
- **Fixed POST data processing slowdown due to small input buffer size on Windows.**

#### **RECOMMENDATIONS:**

We recommend the following actions be taken:

- **Upgrade to the latest version of PHP immediately, after appropriate testing.**
- **Apply the principle of Least Privilege to all systems and services.**
- **Remind users not to visit websites or follow links provided by unknown or untrusted sources.**
- **Do not open email attachments from unknown or untrusted sources.**
- **Limit user account privileges to only those required.**

#### **REFERENCES:**

**PHP:**

<http://php.net/ChangeLog-5.php#5.4.42>

<http://php.net/ChangeLog-5.php#5.5.26>

<http://php.net/ChangeLog-5.php#5.6.10>

**CVE:**

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-2325>

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-2326>

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-4642>

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2015-4643>