

# **VIRTUAL MACHINE METASPLOITABLE 2**

Report generated by Nessus™ **TABLE OF CONTENTS** 

Fri, 02 Jun 2023 13:43:55 EDT

# **Vulnerabilities by Host**

# 192.168.50.101



## Scan Information

Start time: Fri Jun 2 12:57:34 2023 End time: Fri Jun 2 13:43:54 2023

## **Host Information**

Netbios Name: METASPLOITABLE
IP: 192.168.50.101
MAC Address: 08:00:27:E2:A5:69

OS: Linux Kernel 2.6 on Ubuntu 8.04 (gutsy)

## **Vulnerabilities**

# 134862 - Apache Tomcat A JP Connector Request Injection (Ghostcat)

# Synopsis

There is a vulnerable AJP connector listening on the remote host.

## Description

A file read/inclusion vulnerability was found in AJP connector. A remote, unauthenticated attacker could

exploit this vulnerability to read web application files from a vulnerable server. In instances where the vulnerable server allows file uploads, an attacker could upload malicious JavaServer Pages (JSP) code within a variety of file types and gain remote code execution (RCE).

## See Also

http://www.nessus.org/u?8ebe6246

http://www.nessus.org/u?4e287adb

http://www.nessus.org/u?cbc3d54e

https://access.redhat.com/security/cve/CVE-2020-1745

https://access.redhat.com/solutions/4851251

http://www.nessus.org/u?dd218234

http://www.nessus.org/u?dd772531

http://www.nessus.org/u?2a01d6bf

http://www.nessus.org/u?3b5af27e

http://www.nessus.org/u?9dab109f

http://www.nessus.org/u?5eafcf70

## Solution

Update the AJP configuration to require authorization and/or upgrade the Tomcat server to 7.0.100, 8.5.51, 9.0.31 or later.

## Risk Factor

High

CVSS v3.0 Base Score

9.8 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H)

CVSS v3.0 Temporal Score

9.4 (CVSS:3.0/E:H/RL:O/RC:C)

CVSS v2.0 Base Score

7.5 (CVSS2#AV:N/AC:L/Au:N/C:P/I:P/A:P)

CVSS v2.0 Temporal Score

6.5 (CVSS2#E:H/RL:OF/RC:C)

## References

CVE CVE-2020-1745 CVE CVE-2020-1938

## XREF CISA-KNOWN-EXPLOITED:2022/03/17

XREF CEA-ID:CEA-2020-0021

## Plugin Information

Published: 2020/03/24, Modified: 2023/05/24

## Plugin Output

tcp/8009/ajp13

Nessus was able to exploit the issue using the following request :

```
0 02 02 00 08 48 54 54 50 2F 31 2E 31 00 00 0F 2F ....HTTP/1.1.../
x0000:
0x0010: 61
            73 64 66 2F 78 78 78 78 78 2E 6A 73 70 00 00 asdf/xxxxx.jsp..
0x0020: 09
            6C 6F 63 61 6C 68 6F 73 74 00 FF FF 00 09 6C .localhost.... 1
                                                            ocalhost..P....
0x0030: 6F
0x0040: 00
              63 61 6C 68 6F 73 74 00 00 50 00 00 09 A0 06
              OA 6B 65 65 70 2D 61 6C 69 76 65 00 00 0F 41
                                                              ..keep-alive...A
0x0050: 63 63 65 70 74 2D 4C 61 6E 67 75 61 67 65 00 00
                                                              ccept-Language..
0x0060: 0E 65 6E 2D 55 53 2C 65 6E 3B 71 3D 30 2E 35 00 .en-US,en;q=0.5.
                                                             ....O...Accept-E
0x0070: A0 08 00 01 30 00 00 0F 41 63 63 65 70 74 2D 45
0x0080: 6E 63 6F 64 69 6E 67 00 00 13 67 7A 69 70 2C 20 0x0090: 64 65 66 6C 61 74 65 2C 20 73 64 63 68 00 00 0D
                                                             ncoding ... gzip,
                                                              deflate, sdch...
0x00A0: 43
              61 63 68 65 2D 43 6F 6E 74 72 6F 6C 00 00 09
                                                             Cache-Control...
0x00B0: 6D 61 78 2D 61 67 65 3D 30 00 A0 0E 00 07 4D 6F max-age=0.... Mo
0x00CO: 7A 69 6C 6C 61 00 00 19 55 70 67 72 61 64 65 2D zilla...Upgrade-
0x00D0: 49 6E 73 65 63 75 72 65 2D 52 65 71 75 65 73 74 Insecure-Request 0x00E0: 73 00 00 01 31 00 A0 01 00 09 74 65 78 74 2F 68 s...1.... text/h 0x00F0: 74 6D 6C 00 A0 0B 00 09 6C 6F 63 61 6C 68 6F 73 tml.... localhos
                                                              s...1.... text/h
                                                              tml.... localhos
t...!javax.servl
0x0110: 65 74 2E 69 6E 63 6C 75 64 65 2E 72 65 71 75 65 et.include.reque
0x0120: 73 74 5F 75 72 69 00 00 01 31 00 0A 00 1F 6A 61 st_uri...1...ja
                                                           vax.servlet.incl
0x0130: 76 61 78 2E 73 65 72 76 6C 65 74 2E 69 6E 63 6C 0x0140: 75 64 65 2E 70 61 74 68 5F 69 6E 66 6F 00 00 10
                                                              ude.path info...
0x0150: 2F 57 45 42 2D 49 4E 46 2F 77 65 62 2E 78 6D 6C
                                                             /WEB-INF/web.xml
..."javax.servle
t.include.servle
0x0180: 74
            5F 70 61 74 68 00 00 00 00 FF
                                                              t_path....
  This produced the following truncated output (limite [...]
```

# 32321 - Debian OpenSSH/OpenSSL Package Random Number Generator Weakness (SSL check)

## Synopsis

The remote SSL certificate uses a weak key.

## Description

The remote x509 certificate on the remote SSL server has been generated on a Debian or Ubuntu system which contains a bug in the random number generator of its OpenSSL library.

The problem is due to a Debian packager removing nearly all sources of entropy in the remote version of OpenSSL.

An attacker can easily obtain the private part of the remote key and use this to decipher the remote session or set up a man in the middle attack.

## See Also

http://www.nessus.org/u?107f9bdc

http://www.nessus.org/u?f14f4224

## Solution

Consider all cryptographic material generated on the remote host to be guessable. In particuliar, all SSH, SSL and OpenVPN key material should be re-generated.

## Risk Factor

Critical

## CVSS v2.0 Base Score

10.0 (CVSS2#AV:N/AC:L/Au:N/C:C/I:C/A:C)

## CVSS v2.0 Temporal Score

8.3 (CVSS2#E:F/RL:OF/RC:C)

## References

BID 29179

CVE CVE-2008-0166

XREF CWE:310

## **Exploitable With**

## Core Impact (true)

# Plugin Information

Published: 2008/05/15, Modified: 2020/11/16

Plugin Output

tcp/25/smtp

# 32321 - Debian OpenSSH/OpenSSL Package Random Number Generator Weakness (SSL check)

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The problem is due to a Debian packager removing nearly all sources of entropy in the remote version of OpenSSL.

An attacker can easily obtain the private part of the remote key and use this to decipher the remote session or set up a man in the middle attack.

## See Also

http://www.nessus.org/u?107f9bdc

http://www.nessus.org/u?f14f4224

## Solution

Consider all cryptographic material generated on the remote host to be guessable. In particuliar, all SSH, SSL and OpenVPN key material should be re-generated.

## Risk Factor

Critical

## CVSS v2.0 Base Score

10.0 (CVSS2#AV:N/AC:L/Au:N/C:C/I:C/A:C)

## CVSS v2.0 Temporal Score

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## References

BID 29179

CVE CVE-2008-0166

XREF CWE:310

## **Exploitable With**

## Core Impact (true)

# Plugin Information

Published: 2008/05/15, Modified: 2020/11/16

# Plugin Output

tcp/5432/postgresql

## 20007 - SSL Version 2 and 3 Protocol Detection

## Synopsis

The remote service encrypts traffic using a protocol with known weaknesses.

## Description

The remote service accepts connections encrypted using SSL 2.0 and/or SSL 3.0. These versions of SSL are affected by several cryptographic flaws, including:

- An insecure padding scheme with CBC ciphers.
- Insecure session renegotiation and resumption schemes.

An attacker can exploit these flaws to conduct man-in-the-middle attacks or to decrypt communications between the affected service and clients.

Although SSL/TLS has a secure means for choosing the highest supported version of the protocol (so that these versions will be used only if the client or server support nothing better), many web browsers implement this in an unsafe way that allows an attacker to downgrade a connection (such as in POODLE). Therefore, it is recommended that these protocols be disabled entirely.

NIST has determined that SSL 3.0 is no longer acceptable for secure communications. As of the date of enforcement found in PCI DSS v3.1, any version of SSL will not meet the PCI SSC's definition of 'strong cryptography'.

## See Also

https://www.schneier.com/academic/paperfiles/paper-ssl.pdf

http://www.nessus.org/u?b06c7e95

http://www.nessus.org/u?247c4540

https://www.openssl.org/~bodo/ssl-poodle.pdf

http://www.nessus.org/u?5d15ba70

https://www.imperialviolet.org/2014/10/14/poodle.html

https://tools.ietf.org/html/rfc7507

https://tools.ietf.org/html/rfc7568

## Solution

Consult the application's documentation to disable SSL 2.0 and 3.0.

Use TLS 1.2 (with approved cipher suites) or higher instead.

## Risk Factor

## Critical

## CVSS v3.0 Base Score

# 9.8 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H)

# CVSS v2.0 Base Score

# 10.0 (CVSS2#AV:N/AC:L/Au:N/C:C/I:C/A:C)

# Plugin Information

Published: 2005/10/12, Modified: 2022/04/04

# Plugin Output

## tcp/25/smtp

Low Strength Ciphers (<= 64	-bit key)				
Name	Code	KEX	Auth	Encryption	
EXP-RC2-CBC-MD5		RSA(512)	RSA	RC2-CBC(40)	
export EXP-RC4-MD5 export		RSA(512)	RSA	RC4 (40)	
Medium Strength Ciphers (>	64-bit and < 112	-bit key, or 3DES	)		
Name	Code	KEX	Auth	Encryption	
DES-CBC3-MD5		RSA	RSA		
High Strength Ciphers (>= 1	12-bit key)				
Name	Code	KEX	Auth	± ±	
RC4-MD5		RSA	RSA	RC4 (128)	
e fields above are :					
{Tenable ciphername} {Cipher ID code}					
Auth={authentication} Encrypt={symmetric encryption MAC={message authentication {export flag} SSLv3 is enabled and the se	<pre>code} rver supports at</pre>				
Auth={authentication} Encrypt={symmetric encryptic MAC={message authentication {export flag} SSLv3 is enabled and the se planation: TLS 1.0 and SSL	code} rver supports at 3.0 cipher suite				
Auth={authentication} Encrypt={symmetric encryption MAC={message authentication {export flag}  SSLv3 is enabled and the se planation: TLS 1.0 and SSL  Low Strength Ciphers (<= 64-  Name	<pre>code} rver supports at 3.0 cipher suite -bit key)</pre>	s may be used wit KEX	h SSLv3 Auth	Encryption	
<pre>Kex={key exchange} Auth={authentication} Encrypt={symmetric encryptic MAC={message authentication} {export flag}  SSLv3 is enabled and the serplanation: TLS 1.0 and SSL  Low Strength Ciphers (&lt;= 64- Name</pre>	<pre>code} rver supports at 3.0 cipher suite -bit key)</pre>	s may be used wit	h SSLv3	Encryption DES-CBC(40)	

## 20007 - SSL Version 2 and 3 Protocol Detection

## Synopsis

The remote service encrypts traffic using a protocol with known weaknesses.

## Description

The remote service accepts connections encrypted using SSL 2.0 and/or SSL 3.0. These versions of SSL are affected by several cryptographic flaws, including:

- An insecure padding scheme with CBC ciphers.
- Insecure session renegotiation and resumption schemes.

An attacker can exploit these flaws to conduct man-in-the-middle attacks or to decrypt communications between the affected service and clients.

Although SSL/TLS has a secure means for choosing the highest supported version of the protocol (so that these versions will be used only if the client or server support nothing better), many web browsers implement this in an unsafe way that allows an attacker to downgrade a connection (such as in POODLE). Therefore, it is recommended that these protocols be disabled entirely.

NIST has determined that SSL 3.0 is no longer acceptable for secure communications. As of the date of enforcement found in PCI DSS v3.1, any version of SSL will not meet the PCI SSC's definition of 'strong cryptography'.

## See Also

https://www.schneier.com/academic/paperfiles/paper-ssl.pdf

http://www.nessus.org/u?b06c7e95

http://www.nessus.org/u?247c4540

https://www.openssl.org/~bodo/ssl-poodle.pdf

http://www.nessus.org/u?5d15ba70

https://www.imperialviolet.org/2014/10/14/poodle.html

https://tools.ietf.org/html/rfc7507

https://tools.ietf.org/html/rfc7568

## Solution

Consult the application's documentation to disable SSL 2.0 and 3.0.

Use TLS 1.2 (with approved cipher suites) or higher instead.

## Risk Factor

## Critical

## CVSS v3.0 Base Score

## 9.8 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H)

## CVSS v2.0 Base Score

10.0 (CVSS2#AV:N/AC:L/Au:N/C:C/I:C/A:C)

## Plugin Information

Published: 2005/10/12, Modified: 2022/04/04

## Plugin Output

## tcp/5432/postgresql

```
- SSLv3 is enabled and the server supports at least one cipher.
Explanation: TLS 1.0 and SSL 3.0 cipher suites may be used with SSLv3
 Medium Strength Ciphers (> 64-bit and < 112-bit key, or 3DES)
                                                    KEX
                                                                           Encryption
                                                                  Auth
                                                                                                   MAC
    Name
                                  Code
                                                                            3DES-CBC (168)
    EDH-RSA-DES-CBC3-SHA
                                                    DH
                                                                  RSA
   DES-CBC3-SHA
                                                    RSA
                                                                  RSA
                                                                            3DES-CBC (168)
 SHA1
 High Strength Ciphers (>= 112-bit key)
                                   Code
                                                    KEX
                                                                  Auth
                                                                           Encryption
                                                                                                   MAC
    Name
                                                                           AES-CBC (128)
    DHE-RSA-AES128-SHA
                                                    DH
                                                                  RSA
                                                                  RSA
    DHE-RSA-AES256-SHA
                                                    DH
                                                                           AES-CBC (256)
   AES128-SHA
                                                    RSA
                                                                  RSA
                                                                           AES-CBC(128)
 SHA1
   AES256-SHA
                                                    RSA
                                                                  RSA
                                                                           AES-CBC (256)
 SHA1
   RC4-SHA
                                                                  RSA
                                                                           RC4 (128)
                                                    RSA
The fields above are :
  {Tenable ciphername}
 {Cipher ID code}
 Kex={key exchange}
 Auth={authentication}
 Encrypt={symmetric encryption method}
 MAC={message authentication code}
  {export flag}
```

# 33850 - Unix Operating System Unsupported Version Detection

## Synopsis

The operating system running on the remote host is no longer supported.

## Description

According to its self-reported version number, the Unix operating system running on the remote host is no longer supported.

Lack of support implies that no new security patches for the product will be released by the vendor. As a result, it is likely to contain security vulnerabilities.

## Solution

Upgrade to a version of the Unix operating system that is currently supported.

Risk Factor

Critical

CVSS v3.0 Base Score

10.0 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:C/C:H/I:H/A:H)

CVSS v2.0 Base Score

10.0 (CVSS2#AV:N/AC:L/Au:N/C:C/I:C/A:C)

## References

XREF IAVA:0001-A-0502 XREF IAVA:0001-A-0648

## Plugin Information

Published: 2008/08/08, Modified: 2023/05/18

## Plugin Output

## tcp/0

Ubuntu 8.04 support ended on 2011-05-12 (Desktop) / 2013-05-09 (Server). Upgrade to Ubuntu 21.04 / LTS 20.04 / LTS 18.04.

For more information, see : https://wiki.ubuntu.com/Releases

# 136769 - ISC BIND Service Downgrade / Reflected DoS

Synopsis
The remote name server is affected by Service Downgrade / Reflected DoS vulnerabilities.
Description
According to its self-reported version, the instance of ISC BIND 9 running on the remote name server is affected by performance downgrade and Reflected DoS vulnerabilities. This is due to BIND DNS not sufficiently limiting the number fetches which may be performed while processing a referral response.
An unauthenticated, remote attacker can exploit this to cause degrade the service of the recursive server or to use the affected server as a reflector in a reflection attack.
See Also
https://kb.isc.org/docs/cve-2020-8616
Solution
Upgrade to the ISC BIND version referenced in the vendor advisory.
Risk Factor
Medium
CVSS v3.0 Base Score
8.6 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:C/C:N/I:N/A:H)
CVSS v3.0 Temporal Score
7.5 (CVSS:3.0/E:U/RL:O/RC:C)
CVSS v2.0 Base Score
5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:N/A:P)
CVSS v2.0 Temporal Score
3.7 (CVSS2#E:U/RL:OF/RC:C)
STIG Severity
I
References

CVE CVE-2020-8616 XREF IAVA:2020-A-0217-S

Plugin Information

Published: 2020/05/22, Modified: 2020/06/26

Plugin Output

udp/53/dns

Installed version : 9.4.2
Fixed version : 9.11.19

# 42873 - SSL Medium Strength Cipher Suites Supported (SWEET32)

# Synopsis The remote service supports the use of medium strength SSL ciphers. Description The remote host supports the use of SSL ciphers that offer medium strength encryption. Nessus regards medium strength as any encryption that uses key lengths at least 64 bits and less than 112 bits, or else that uses the 3DES encryption suite. Note that it is considerably easier to circumvent medium strength encryption if the attacker is on the same physical network. See Also https://www.openssl.org/blog/blog/2016/08/24/sweet32/ https://sweet32.info Solution Reconfigure the affected application if possible to avoid use of medium strength ciphers. Risk Factor Medium CVSS v3.0 Base Score 7.5 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N) CVSS v2.0 Base Score 5.0 (CVSS2#AV:N/AC:L/Au:N/C:P/I:N/A:N) References CVE CVE-2016-2183 Plugin Information Published: 2009/11/23, Modified: 2021/02/03 Plugin Output tcp/25/smtp

## Medium Strength Ciphers (> 64-bit and < 112-bit key, or 3DES)

	Name	Code		KEX	Auth	Encryption	MAC
	DES-CBC3-MD5	0x07, 0	0x00, 0xC	0 RSA	RSA	3DES-CBC (168)	MD5
	EDH-RSA-DES-CBC3-SHA	0x00, 0	)x16	DH	RSA	3DES-CBC(168)	
SF	HA1						
	ADH-DES-CBC3-SHA	0x00, 0	0x1B	DH	None	3DES-CBC(168)	
SF	HA1						
	DES-CBC3-SHA	0x00, 0	0x0A	RSA	RSA	3DES-CBC(168)	
SF	HA1						

## The fields above are :

{Tenable ciphername}
{Cipher ID code}
Kex={key exchange}
Auth={authentication}
Encrypt={symmetric encryption method}
MAC={message authentication code}
{export flag}

# 42873 - SSL Medium Strength Cipher Suites Supported (SWEET32)

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Medium Strength Ciphers (> 64-bit and < 112-bit key, or 3DES)

Name	Code	KEX	Auth	Encryption	MAC
EDH-RSA-DES-CBC3-SHA SHA1	0x00, 0x16	DH	RSA	3DES-CBC(168)	
DES-CBC3-SHA SHA1	0x00, 0x0A	RSA	RSA	3DES-CBC (168)	

## The fields above are :

{Tenable ciphername}
{Cipher ID code}
Kex={key exchange}
Auth={authentication}
Encrypt={symmetric encryption method}
MAC={message authentication code}
{export flag}

## 90509 - Samba Badlock Vulnerability

## Synopsis

An SMB server running on the remote host is affected by the Badlock vulnerability.

## Description

The version of Samba, a CIFS/SMB server for Linux and Unix, running on the remote host is affected by a flaw, known as Badlock, that exists in the Security Account Manager (SAM) and Local Security Authority (Domain Policy) (LSAD) protocols due to improper authentication level negotiation over Remote Procedure Call (RPC) channels. A man-in-the-middle attacker who is able to able to intercept the traffic between a client and a server hosting a SAM database can exploit this flaw to force a downgrade of the authentication level, which allows the execution of arbitrary Samba network calls in the context of the intercepted user, such as viewing or modifying sensitive security data in the Active Directory (AD) database or disabling critical services.

## See Also

http://badlock.org

https://www.samba.org/samba/security/CVE-2016-2118.html

## Solution

Upgrade to Samba version 4.2.11 / 4.3.8 / 4.4.2 or later.

## Risk Factor

Medium

## CVSS v3.0 Base Score

7.5 (CVSS:3.0/AV:N/AC:H/PR:N/UI:R/S:U/C:H/I:H/A:H)

## CVSS v3.0 Temporal Score

6.5 (CVSS:3.0/E:U/RL:O/RC:C)

#### CVSS v2.0 Base Score

6.8 (CVSS2#AV:N/AC:M/Au:N/C:P/I:P/A:P)

## CVSS v2.0 Temporal Score

5.0 (CVSS2#E:U/RL:OF/RC:C)

#### References

BID 86002

CVE CVE-2016-2118
XREF CERT:813296

Plugin Information

Published: 2016/04/13, Modified: 2019/11/20

Plugin Output

tcp/445/cifs

Nessus detected that the Samba Badlock patch has not been applied.

## 11213 - HTTP TRACE / TRACK Methods Allowed

## Synopsis

Debugging functions are enabled on the remote web server.

## Description

The remote web server supports the TRACE and/or TRACK methods. TRACE and TRACK are HTTP methods that are used to debug web server connections.

## See Also

https://www.cgisecurity.com/whitehat-mirror/WH-WhitePaper\_XST\_ebook.pdf

http://www.apacheweek.com/issues/03-01-24

https://download.oracle.com/sunalerts/1000718.1.html

## Solution

Disable these HTTP methods. Refer to the plugin output for more information.

## Risk Factor

Medium

## CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N)

## CVSS v3.0 Temporal Score

4.6 (CVSS:3.0/E:U/RL:O/RC:C)

## CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:P/I:N/A:N)

## CVSS v2.0 Temporal Score

3.7 (CVSS2#E:U/RL:OF/RC:C)

## References

BID	9506
BID	9561
BID	11604
BID	33374

BID 37995

CVE CVE-2003-1567
CVE CVE-2004-2320
CVE CVE-2010-0386
XREF CERT:288308
XREF CERT:867593
XREF CWE:16
XREF CWE:200

## Plugin Information

Published: 2003/01/23, Modified: 2020/06/12

## Plugin Output

## tcp/80/www

```
To disable these methods, add the following lines for each virtual
 host in your configuration file :
    RewriteEngine on
    RewriteCond %{REQUEST METHOD} ^(TRACE|TRACK)
    RewriteRule .* - [F]
 Alternatively, note that Apache versions 1.3.34, 2.0.55, and 2.2
 support disabling the TRACE method natively via the 'TraceEnable'
 directive.
 Nessus sent the following TRACE request:
 ----- snip
 TRACE /Nessus1877062687.html HTTP/1.1
 Connection: Close
 Host: 192.168.50.101
 Pragma: no-cache
 User-Agent: Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 5.1; Trident/4.0)
 Accept: image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, image/png, */*
 Accept-Language: en
 Accept-Charset: iso-8859-1,*,utf-8
 ------ snip
 and received the following response from the remote server :
 ----- snip -----
 HTTP/1.1 200 OK
 Date: Fri, 02 Jun 2023 16:51:39 GMT
 Server: Apache/2.2.8 (Ubuntu) DAV/2
 Keep-Alive: timeout=15, max=100
 Connection: Keep-Alive
 Transfer-Encoding: chunked
 Content-Type: message/http
 TRACE /Nessus1877062687.html HTTP/1.1
 Connection: Keep-Alive
 Host: 192.168.50.101
 Pragma: no-cache
 User-Agent: Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 5.1; Trident/4.0)
Accept: image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, image/png, */*
```

# 139915 - ISC BIND 9.x < 9.11.22, 9.12.x < 9.16.6, 9.17.x < 9.17.4 DoS

Synopsis

# The remote name server is affected by a denial of service vulnerability. Description According to its self-reported version number, the installation of ISC BIND running on the remote name server is version 9.x prior to 9.11.22, 9.12.x prior to 9.16.6 or 9.17.x prior to 9.17.4. It is, therefore, affected by a denial of service (DoS) vulnerability due to an assertion failure when attempting to verify a truncated response to a TSIG-signed request. An authenticated, remote attacker can exploit this issue by sending a truncated response to a TSIG-signed request to trigger an assertion failure, causing the server to exit. Note that Nessus has not tested for this issue but has instead relied only on the application's self-reported version number. See Also https://kb.isc.org/docs/cve-2020-8622 Solution Upgrade to BIND 9.11.22, 9.16.6, 9.17.4 or later. Risk Factor Medium CVSS v3.0 Base Score 6.5 (CVSS:3.0/AV:N/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H) CVSS v3.0 Temporal Score 5.7 (CVSS:3.0/E:U/RL:O/RC:C) CVSS v2.0 Base Score 4.0 (CVSS2#AV:N/AC:L/Au:S/C:N/I:N/A:P) CVSS v2.0 Temporal Score 3.0 (CVSS2#E:U/RL:OF/RC:C) STIG Severity Ī

## References

CVE CVE-2020-8622 XREF IAVA:2020-A-0385-S

Plugin Information

Published: 2020/08/27, Modified: 2021/06/03

Plugin Output

udp/53/dns

Installed version : 9.4.2
Fixed version : 9.11.22, 9.16.6, 9.17.4 or later

# 136808 - ISC BIND Denial of Service

Synopsis
The remote name server is affected by an assertion failure vulnerability.
Description
A denial of service (DoS) vulnerability exists in ISC BIND versions 9.11.18 / 9.11.18-S1 / 9.12.4-P2 / 9.13 / 9.14.11 / 9.15 / 9.16.2 / 9.17 / 9.17.1 and earlier. An unauthenticated, remote attacker can exploit this issue, via a specially-crafted message, to cause the service to stop responding.
Note that Nessus has not tested for this issue but has instead relied only on the application's self-reported version number.
See Also
https://kb.isc.org/docs/cve-2020-8617
Solution
Upgrade to the patched release most closely related to your current version of BIND.
Risk Factor
Medium
CVSS v3.0 Base Score
5.9 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:N/I:N/A:H)
CVSS v3.0 Temporal Score
5.3 (CVSS:3.0/E:P/RL:O/RC:C)
CVSS v2.0 Base Score
4.3 (CVSS2#AV:N/AC:M/Au:N/C:N/I:N/A:P)
CVSS v2.0 Temporal Score
3.4 (CVSS2#E:POC/RL:OF/RC:C)
STIG Severity
I
References

CVE CVE-2020-8617 XREF IAVA:2020-A-0217-S

Plugin Information

Published: 2020/05/22, Modified: 2023/03/23

Plugin Output

udp/53/dns

Installed version : 9.4.2
Fixed version : 9.11.19

## 57608 - SMB Signing not required

## Synopsis

Signing is not required on the remote SMB server.

## Description

Signing is not required on the remote SMB server. An unauthenticated, remote attacker can exploit this to conduct man-in-the-middle attacks against the SMB server.

## See Also

http://www.nessus.org/u?df39b8b3

http://technet.microsoft.com/en-us/library/cc731957.aspx

http://www.nessus.org/u?74b80723

https://www.samba.org/samba/docs/current/man-html/smb.conf.5.html

http://www.nessus.org/u?a3cac4ea

## Solution

Enforce message signing in the host's configuration. On Windows, this is found in the policy setting 'Microsoft network server: Digitally sign communications (always)'. On Samba, the setting is called 'server signing'. See the 'see also' links for further details.

Risk Factor

Medium

CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N)

CVSS v3.0 Temporal Score

4.6 (CVSS:3.0/E:U/RL:O/RC:C)

CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:P/A:N)

CVSS v2.0 Temporal Score

3.7 (CVSS2#E:U/RL:OF/RC:C)

## Plugin Information

Published: 2012/01/19, Modified: 2022/10/05

Plugin Output

tcp/445/cifs

# **52611 - SMTP Service STARTTLS Plaintext Command Injection**

## Synopsis

The remote mail service allows plaintext command injection while negotiating an encrypted communications channel.

## Description

The remote SMTP service contains a software flaw in its STARTTLS implementation that could allow a remote, unauthenticated attacker to inject commands during the plaintext protocol phase that will be executed during the ciphertext protocol phase.

Successful exploitation could allow an attacker to steal a victim's email or associated SASL (Simple Authentication and Security Layer) credentials.

## See Also

https://tools.ietf.org/html/rfc2487

https://www.securityfocus.com/archive/1/516901/30/0/threaded

## Solution

Contact the vendor to see if an update is available.

## Risk Factor

## Medium

## CVSS v2.0 Base Score

4.0 (CVSS2#AV:N/AC:H/Au:N/C:P/I:P/A:N)

## CVSS v2.0 Temporal Score

3.1 (CVSS2#E:POC/RL:OF/RC:C)

## References

BID	46767
CVE	CVE-2011-0411
CVE	CVE-2011-1430
CVE	CVE-2011-1431
CVE	CVE-2011-1432
CVE	CVE-2011-1506
CVE	CVE-2011-2165
XREF	CERT:555316

# Plugin Information

Published: 2011/03/10, Modified: 2019/03/06

# Plugin Output

# tcp/25/smtp

```
Nessus sent the following two commands in a single packet:

STARTTLS\r\nRSET\r\n

And the server sent the following two responses:

220 2.0.0 Ready to start TLS
250 2.0.0 Ok
```

# 31705 - SSL Anonymous Cipher Suites Supported

## Synopsis

The remote service supports the use of anonymous SSL ciphers.

## Description

The remote host supports the use of anonymous SSL ciphers. While this enables an administrator to set up a service that encrypts traffic without having to generate and configure SSL certificates, it offers no way to verify the remote host's identity and renders the service vulnerable to a man-in-the-middle attack.

Note: This is considerably easier to exploit if the attacker is on the same physical network.

See Also

http://www.nessus.org/u?3a040ada

## Solution

Reconfigure the affected application if possible to avoid use of weak ciphers.

Risk Factor

Low

CVSS v3.0 Base Score

5.9 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.2 (CVSS:3.0/E:U/RL:O/RC:C)

CVSS v2.0 Base Score

2.6 (CVSS2#AV:N/AC:H/Au:N/C:P/I:N/A:N)

CVSS v2.0 Temporal Score

1.9 (CVSS2#E:U/RL:OF/RC:C)

## References

BID 28482

CVE CVE-2007-1858

## Plugin Information

# Plugin Output

# tcp/25/smtp

Low Strength Ciphers (<= 6	14-DIC Key)				
Name	Code	KEX	Auth	Encryption	M.
EXP-ADH-DES-CBC-SHA	0x00, 0x19	DH (512)	None	DES-CBC(40)	
SHA1 export EXP-ADH-RC4-MD5	0x00, 0x17	DH (512)	None	RC4(40)	MI
export ADH-DES-CBC-SHA SHA1	0x00, 0x1A	DH	None	DES-CBC(56)	
Medium Strength Ciphers (>	> 64-bit and < 112-b	it key, or 3DES	5)		
Name	Code	KEX	Auth	- 41	
ADH-DES-CBC3-SHA	0x00, 0x1B	KEX  DH	Auth  None	Encryption  3DES-CBC(168)	
ADH-DES-CBC3-SHA SHA1 High Strength Ciphers (>=	0x00, 0x1B  112-bit key)  Code	DH KEX	None None	3DES-CBC (168)  Encryption	
ADH-DES-CBC3-SHA SHA1 High Strength Ciphers (>=	0x00, 0x1B	DH	None	3DES-CBC (168)	
ADH-DES-CBC3-SHA SHA1  High Strength Ciphers (>=  Name  ADH-AES128-SHA SHA1  ADH-AES256-SHA	0x00, 0x1B  112-bit key)  Code	DH  KEX	None  Auth	3DES-CBC (168)  Encryption	
ADH-DES-CBC3-SHA SHA1  High Strength Ciphers (>=  Name  ADH-AES128-SHA SHA1  ADH-AES256-SHA	0x00, 0x1B  112-bit key)  Code  0x00, 0x34	DH  KEX  DH	None  Auth  None	3DES-CBC (168)  Encryption AES-CBC (128)	M2
ADH-DES-CBC3-SHA SHA1  High Strength Ciphers (>=  Name  ADH-AES128-SHA SHA1  ADH-AES256-SHA SHA1  ADH-RC4-MD5	0x00, 0x1B  112-bit key)  Code  0x00, 0x34  0x00, 0x3A	DH  KEX  DH  DH	None  Auth  None  None	Encryption  AES-CBC (128)  AES-CBC (256)	M2
ADH-DES-CBC3-SHA SHA1  High Strength Ciphers (>=  Name  ADH-AES128-SHA SHA1  ADH-AES256-SHA SHA1	0x00, 0x1B  112-bit key)  Code  0x00, 0x34  0x00, 0x3A	DH  KEX  DH  DH	None  Auth  None  None	Encryption  AES-CBC (128)  AES-CBC (256)	ΜZ

## 51192 - SSL Certificate Cannot Be Trusted

## Synopsis

The SSL certificate for this service cannot be trusted.

## Description

CVSS v2.0 Base Score

6.4 (CVSS2#AV:N/AC:L/Au:N/C:P/I:P/A:N)

The server's X.509 certificate cannot be trusted. This situation can occur in three different ways, in which the chain of trust can be broken, as stated below:

- First, the top of the certificate chain sent by the server might not be descended from a known public certificate authority. This can occur either when the top of the chain is an unrecognized, self-signed certificate, or when intermediate certificates are missing that would connect the top of the certificate chain to a known public certificate authority.
- Second, the certificate chain may contain a certificate that is not valid at the time of the scan. This can occur either when the scan occurs before one of the certificate's 'notBefore' dates, or after one of the certificate's 'notAfter' dates.
- Third, the certificate chain may contain a signature that either didn't match the certificate's information or could not be verified. Bad signatures can be fixed by getting the certificate with the bad signature to be re-signed by its issuer. Signatures that could not be verified are the result of the certificate's issuer using a signing algorithm that Nessus either does not support or does not recognize.

If the remote host is a public host in production, any break in the chain makes it more difficult for users to verify the authenticity and identity of the web server. This could make it easier to carry out man-in-the-middle attacks against the remote host.

# See Also https://www.itu.int/rec/T-REC-X.509/en https://en.wikipedia.org/wiki/X.509 Solution Purchase or generate a proper SSL certificate for this service. Risk Factor Medium CVSS v3.0 Base Score 6.5 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:N)

## Plugin Information

Published: 2010/12/15, Modified: 2020/04/27

## Plugin Output

## tcp/25/smtp

The following certificate was part of the certificate chain sent by the remote host, but it has expired:

|-Subject : C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

|-Not After : Apr 16 14:07:45 2010 GMT

The following certificate was at the top of the certificate chain sent by the remote host, but it is signed by an unknown certificate authority:

 $\label{local_condition} $$I-Subject: C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain$ 

|-Issuer: C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

## 51192 - SSL Certificate Cannot Be Trusted

## Synopsis

The SSL certificate for this service cannot be trusted.

## Description

CVSS v2.0 Base Score

6.4 (CVSS2#AV:N/AC:L/Au:N/C:P/I:P/A:N)

The server's X.509 certificate cannot be trusted. This situation can occur in three different ways, in which the chain of trust can be broken, as stated below:

- First, the top of the certificate chain sent by the server might not be descended from a known public certificate authority. This can occur either when the top of the chain is an unrecognized, self-signed certificate, or when intermediate certificates are missing that would connect the top of the certificate chain to a known public certificate authority.
- Second, the certificate chain may contain a certificate that is not valid at the time of the scan. This can occur either when the scan occurs before one of the certificate's 'notBefore' dates, or after one of the certificate's 'notAfter' dates.
- Third, the certificate chain may contain a signature that either didn't match the certificate's information or could not be verified. Bad signatures can be fixed by getting the certificate with the bad signature to be re-signed by its issuer. Signatures that could not be verified are the result of the certificate's issuer using a signing algorithm that Nessus either does not support or does not recognize.

If the remote host is a public host in production, any break in the chain makes it more difficult for users to verify the authenticity and identity of the web server. This could make it easier to carry out man-in-the-middle attacks against the remote host.

# See Also https://www.itu.int/rec/T-REC-X.509/en https://en.wikipedia.org/wiki/X.509 Solution Purchase or generate a proper SSL certificate for this service. Risk Factor Medium CVSS v3.0 Base Score 6.5 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:N)

#### Plugin Information

Published: 2010/12/15, Modified: 2020/04/27

#### Plugin Output

#### tcp/5432/postgresql

```
The following certificate was part of the certificate chain sent by the remote host, but it has expired:
```

|-Subject : C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

|-Not After : Apr 16 14:07:45 2010 GMT

The following certificate was at the top of the certificate chain sent by the remote host, but it is signed by an unknown certificate authority:

 $\label{local_condition} $$I-Subject: C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain$ 

|-Issuer: C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

## 15901 - SSL Certificate Expiry

## Synopsis

The remote server's SSL certificate has already expired.

## Description

This plugin checks expiry dates of certificates associated with SSL- enabled services on the target and reports whether any have already expired.

#### Solution

Purchase or generate a new SSL certificate to replace the existing one.

Risk Factor

Medium

CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N)

CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:P/A:N)

#### Plugin Information

Published: 2004/12/03, Modified: 2021/02/03

## Plugin Output

#### tcp/25/smtp

```
The SSL certificate has already expired:

Subject : C=XX, ST=There is no such thing outside US, L=Everywhere, O=OCOSA, OU=Office for Complication of Otherwise Simple Affairs, CN=ubuntu804-base.localdomain, emailAddress=root@ubuntu804-base.localdomain

Issuer : C=XX, ST=There is no such thing outside US, L=Everywhere, O=OCOSA, OU=Office for Complication of Otherwise Simple Affairs, CN=ubuntu804-base.localdomain, emailAddress=root@ubuntu804-base.localdomain

Not valid before : Mar 17 14:07:45 2010 GMT

Not valid after : Apr 16 14:07:45 2010 GMT
```

## 15901 - SSL Certificate Expiry

## Synopsis

The remote server's SSL certificate has already expired.

## Description

This plugin checks expiry dates of certificates associated with SSL- enabled services on the target and reports whether any have already expired.

#### Solution

Purchase or generate a new SSL certificate to replace the existing one.

Risk Factor

Medium

CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N)

CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:P/A:N)

Plugin Information

Published: 2004/12/03, Modified: 2021/02/03

## Plugin Output

#### tcp/5432/postgresql

```
The SSL certificate has already expired:

Subject : C=XX, ST=There is no such thing outside US, L=Everywhere, O=OCOSA,
OU=Office for Complication of Otherwise Simple Affairs, CN=ubuntu804-base.localdomain,
emailAddress=root@ubuntu804-base.localdomain
Issuer : C=XX, ST=There is no such thing outside US, L=Everywhere, O=OCOSA,
OU=Office for Complication of Otherwise Simple Affairs, CN=ubuntu804-base.localdomain,
emailAddress=root@ubuntu804-base.localdomain
Not valid before : Mar 17 14:07:45 2010 GMT
Not valid after : Apr 16 14:07:45 2010 GMT
```

# 45411 - SSL Certificate with Wrong Hostname

Synopsis

The SSL certificate for this service is for a different host.

Description

The 'commonName' (CN) attribute of the SSL certificate presented for this service is for a different machine.

Solution

Purchase or generate a proper SSL certificate for this service.

Risk Factor

Medium

CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N)

CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:P/A:N)

Plugin Information

Published: 2010/04/03, Modified: 2020/04/27

Plugin Output

tcp/25/smtp

```
The identities known by Nessus are:

192.168.50.101

192.168.50.101

The Common Name in the certificate is:

ubuntu804-base.localdomain
```

# 45411 - SSL Certificate with Wrong Hostname

Synopsis

The SSL certificate for this service is for a different host.

Description

The 'commonName' (CN) attribute of the SSL certificate presented for this service is for a different machine.

Solution

Purchase or generate a proper SSL certificate for this service.

Risk Factor

Medium

CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N)

CVSS v2.0 Base Score

5.0 (CVSS2#AV:N/AC:L/Au:N/C:N/I:P/A:N)

Plugin Information

Published: 2010/04/03, Modified: 2020/04/27

Plugin Output

tcp/5432/postgresql

```
The identities known by Nessus are:

192.168.50.101

192.168.50.101

The Common Name in the certificate is:

ubuntu804-base.localdomain
```

# 89058 - SSL DROWN Attack Vulnerability (Decrypting RSA with Obsolete and Weakened **eNcryption**)

#### Synopsis

The remote host may be affected by a vulnerability that allows a remote attacker to potentially decrypt captured TLS traffic.

#### Description

The remote host supports SSLv2 and therefore may be affected by a vulnerability that allows a cross-protocol Bleichenbacher padding oracle attack known as DROWN (Decrypting RSA with Obsolete and Weakened eNcryption). This vulnerability exists due to a flaw in the Secure Sockets Layer Version 2 (SSLv2) implementation, and it allows captured TLS traffic to be decrypted. A man-in-the-middle attacker can exploit this to decrypt the TLS connection by utilizing previously captured traffic and weak cryptography along with a series of specially crafted connections to an SSLv2 server that uses the same private key.

#### See Also

https://drownattack.com/

https://drownattack.com/drown-attack-paper.pdf

#### Solution

Disable SSLv2 and export grade cryptography cipher suites. Ensure that private keys are not used anywhere with server software that supports SSLv2 connections.

#### Risk Factor

Medium

CVSS v3.0 Base Score

5.9 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.2 (CVSS:3.0/E:U/RL:O/RC:C)

CVSS v2.0 Base Score

4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

CVSS v2.0 Temporal Score

3.2 (CVSS2#E:U/RL:OF/RC:C)

#### References

BID 83733

CVE CVE-2016-0800 XREF CERT:583776

#### Plugin Information

Published: 2016/03/01, Modified: 2019/11/20

## Plugin Output

#### tcp/25/smtp

The remote host is affected by SSL DROWN and supports the following vulnerable cipher suites :

Low Strength Ciphers (<= 64-bit key)

Name	Code	KEX	Auth	Encryption	MAC
EXP-RC2-CBC-MD5	0x04, 0x00, 0x80	RSA(512)	RSA	RC2-CBC(40)	MD5
export EXP-RC4-MD5	0x02, 0x00, 0x80	RSA(512)	RSA	RC4 (40)	MD5
export.					

High Strength Ciphers (>= 112-bit key)

Name	Code	KEX	Auth	Encryption	MAC
RC4-MD5	0x01, 0x00,	0x80 RSA	RSA	RC4 (128)	MD5

The fields above are :

{export flag}

{Tenable ciphername}
{Cipher ID code}
Kex={key exchange}
Auth={authentication}
Encrypt={symmetric encryption method}
MAC={message authentication code}

## 65821 - SSL RC4 Cipher Suites Supported (Bar Mitzvah)

### Synopsis

The remote service supports the use of the RC4 cipher.

#### Description

The remote host supports the use of RC4 in one or more cipher suites.

The RC4 cipher is flawed in its generation of a pseudo-random stream of bytes so that a wide variety of small biases are introduced into the stream, decreasing its randomness.

If plaintext is repeatedly encrypted (e.g., HTTP cookies), and an attacker is able to obtain many (i.e., tens of millions) ciphertexts, the attacker may be able to derive the plaintext.

#### See Also

https://www.rc4nomore.com/

http://www.nessus.org/u?ac7327a0

http://cr.yp.to/talks/2013.03.12/slides.pdf

http://www.isg.rhul.ac.uk/tls/

https://www.imperva.com/docs/HII\_Attacking\_SSL\_when\_using\_RC4.pdf

#### Solution

Reconfigure the affected application, if possible, to avoid use of RC4 ciphers. Consider using TLS 1.2 with AES-GCM suites subject to browser and web server support.

#### Risk Factor

Medium

CVSS v3.0 Base Score

5.9 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.4 (CVSS:3.0/E:U/RL:X/RC:C)

CVSS v2.0 Base Score

4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

CVSS v2.0 Temporal Score

3.7 (CVSS2#E:U/RL:ND/RC:C)

#### References

BID 58796 BID 73684

CVE CVE-2013-2566 CVE CVE-2015-2808

#### Plugin Information

Published: 2013/04/05, Modified: 2021/02/03

## Plugin Output

#### tcp/25/smtp

List of RC4 cipher suites supported by the remote server :

Low Strength Ciphers (<= 64-bit key)

Name	Code	KEX	Auth	Encryption	MAC
EXP-RC4-MD5 export	0x02, 0x00, 0x8	0 RSA(512)	RSA	RC4 (40)	MD5
EXP-ADH-RC4-MD5	0x00, 0x17	DH (512)	None	RC4 (40)	MD5
export EXP-RC4-MD5 export	0x00, 0x03	RSA(512)	RSA	RC4 (40)	MD5

High Strength Ciphers (>= 112-bit key)

Name	Code	KEX	Auth	Encryption	MAC
RC4-MD5	0x01, 0x00, 0x80	RSA	RSA	RC4(128)	MD5
ADH-RC4-MD5	0x00, 0x18	DH	None	RC4 (128)	MD5
RC4-MD5	0x00, 0x04	RSA	RSA	RC4 (128)	MD5
RC4-SHA	0x00, 0x05	RSA	RSA	RC4 (128)	
SHA1					

The fields above are :

{Tenable ciphername} {Cipher ID code} Kex={key exchange} Auth={authentication}

Encrypt={symmetric encryption method}
MAC={message authentication code}

{export flag}

## 65821 - SSL RC4 Cipher Suites Supported (Bar Mitzvah)

### Synopsis

The remote service supports the use of the RC4 cipher.

#### Description

The remote host supports the use of RC4 in one or more cipher suites.

The RC4 cipher is flawed in its generation of a pseudo-random stream of bytes so that a wide variety of small biases are introduced into the stream, decreasing its randomness.

If plaintext is repeatedly encrypted (e.g., HTTP cookies), and an attacker is able to obtain many (i.e., tens of millions) ciphertexts, the attacker may be able to derive the plaintext.

#### See Also

https://www.rc4nomore.com/

http://www.nessus.org/u?ac7327a0

http://cr.yp.to/talks/2013.03.12/slides.pdf

http://www.isg.rhul.ac.uk/tls/

https://www.imperva.com/docs/HII\_Attacking\_SSL\_when\_using\_RC4.pdf

#### Solution

Reconfigure the affected application, if possible, to avoid use of RC4 ciphers. Consider using TLS 1.2 with AES-GCM suites subject to browser and web server support.

#### Risk Factor

Medium

CVSS v3.0 Base Score

5.9 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.4 (CVSS:3.0/E:U/RL:X/RC:C)

CVSS v2.0 Base Score

4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

CVSS v2.0 Temporal Score

3.7 (CVSS2#E:U/RL:ND/RC:C)

#### References

BID 58796 BID 73684

CVE CVE-2013-2566 CVE CVE-2015-2808

#### Plugin Information

Published: 2013/04/05, Modified: 2021/02/03

## Plugin Output

#### tcp/5432/postgresql

```
List of RC4 cipher suites supported by the remote server :
 High Strength Ciphers (>= 112-bit key)
   Name
                                 Code
                                                  KEX
                                                                Auth
                                                                         Encryption
                                                                                                MAC
                                 0x00, 0x05
   RC4-SHA
                                                RSA
                                                                RSA
                                                                         RC4 (128)
SHA1
The fields above are :
 {Tenable ciphername}
 {Cipher ID code}
 Kex={key exchange}
 Auth={authentication}
  Encrypt={symmetric encryption method}
 MAC={message authentication code}
 {export flag}
```

## 57582 - SSL Self-Signed Certificate

#### Synopsis

The SSL certificate chain for this service ends in an unrecognized self-signed certificate.

#### Description

The X.509 certificate chain for this service is not signed by a recognized certificate authority. If the remote host is a public host in production, this nullifies the use of SSL as anyone could establish a man-in-the-middle attack against the remote host.

Note that this plugin does not check for certificate chains that end in a certificate that is not self-signed, but is signed by an unrecognized certificate authority.

#### Solution

Purchase or generate a proper SSL certificate for this service.

Risk Factor

Medium

CVSS v3.0 Base Score

6.5 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:N)

CVSS v2.0 Base Score

6.4 (CVSS2#AV:N/AC:L/Au:N/C:P/I:P/A:N)

Plugin Information

Published: 2012/01/17, Modified: 2022/06/14

#### Plugin Output

#### tcp/25/smtp

The following certificate was found at the top of the certificate chain sent by the remote host, but is self-signed and was not found in the list of known certificate authorities:

|-Subject : C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

## 57582 - SSL Self-Signed Certificate

#### Synopsis

The SSL certificate chain for this service ends in an unrecognized self-signed certificate.

#### Description

The X.509 certificate chain for this service is not signed by a recognized certificate authority. If the remote host is a public host in production, this nullifies the use of SSL as anyone could establish a man-in-the-middle attack against the remote host.

Note that this plugin does not check for certificate chains that end in a certificate that is not self-signed, but is signed by an unrecognized certificate authority.

#### Solution

Purchase or generate a proper SSL certificate for this service.

Risk Factor

Medium

CVSS v3.0 Base Score

6.5 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:N)

CVSS v2.0 Base Score

6.4 (CVSS2#AV:N/AC:L/Au:N/C:P/I:P/A:N)

Plugin Information

Published: 2012/01/17, Modified: 2022/06/14

Plugin Output

tcp/5432/postgresql

The following certificate was found at the top of the certificate chain sent by the remote host, but is self-signed and was not found in the list of known certificate authorities:

|-Subject : C=XX/ST=There is no such thing outside US/L=Everywhere/O=OCOSA/OU=Office for Complication of Otherwise Simple Affairs/CN=ubuntu804-base.localdomain/E=root@ubuntu804-base.localdomain

# 26928 - SSL Weak Cipher Suites Supported

#### Synopsis

The remote service supports the use of weak SSL ciphers.

## Description

The remote host supports the use of SSL ciphers that offer weak encryption.

Note: This is considerably easier to exploit if the attacker is on the same physical network.

#### See Also

http://www.nessus.org/u?6527892d

#### Solution

Reconfigure the affected application, if possible to avoid the use of weak ciphers.

#### Risk Factor

Medium

#### CVSS v3.0 Base Score

5.3 (CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N)

#### CVSS v2.0 Base Score

4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

#### References

XREF	CWE:326
XREF	CWE:327
XREF	CWE:720
XREF	CWE:753
XREF	CWE:803
XREF	CWE:928
XREF	CWE:934

#### Plugin Information

Published: 2007/10/08, Modified: 2021/02/03

## Plugin Output

# tcp/25/smtp

Name	Code			KEX	Auth	Encryption	M
EXP-RC2-CBC-MD5 export		0x00,		RSA (512)	RSA	RC2-CBC(40)	
EXP-RC4-MD5 export	0x02,	0x00,	0x80	RSA(512)	RSA	RC4 (40)	M
EXP-EDH-RSA-DES-CBC-SHA SHA1 export	0x00,	0x14		DH(512)	RSA	DES-CBC(40)	
EDH-RSA-DES-CBC-SHA SHA1	0x00,	0x15		DH	RSA	DES-CBC(56)	
EXP-ADH-DES-CBC-SHA SHA1 export	0x00,	0x19		DH (512)	None	DES-CBC(40)	
EXP-ADH-RC4-MD5 export	0x00,	0x17		DH(512)	None	RC4 (40)	M
ADH-DES-CBC-SHA SHA1	0x00,	0x1A		DH	None	DES-CBC(56)	
EXP-DES-CBC-SHA SHA1 export	0x00,	0x08		RSA(512)	RSA	DES-CBC(40)	
EXP-RC2-CBC-MD5 export	0x00,	0x06		RSA(512)	RSA	RC2-CBC(40)	M
EXP-RC4-MD5 export	0x00,	0x03		RSA(512)	RSA	RC4(40)	M
DES-CBC-SHA SHA1	0x00,	0x09		RSA	RSA	DES-CBC(56)	
ne fields above are :							
{Tenable ciphername}							

## 81606 - SSL/TLS EXPORT\_RSA <= 512-bit Cipher Suites Supported (FREAK)

#### Synopsis

The remote host supports a set of weak ciphers.

#### Description

The remote host supports EXPORT\_RSA cipher suites with keys less than or equal to 512 bits. An attacker can factor a 512-bit RSA modulus in a short amount of time.

A man-in-the middle attacker may be able to downgrade the session to use EXPORT\_RSA cipher suites (e.g. CVE-2015-0204). Thus, it is recommended to remove support for weak cipher suites.

#### See Also

https://www.smacktls.com/#freak

https://www.openssl.org/news/secadv/20150108.txt

http://www.nessus.org/u?b78da2c4

#### Solution

Reconfigure the service to remove support for EXPORT\_RSA cipher suites.

#### Risk Factor

Medium

#### CVSS v2.0 Base Score

4.3 (CVSS2#AV:N/AC:M/Au:N/C:N/I:P/A:N)

#### CVSS v2.0 Temporal Score

3.2 (CVSS2#E:U/RL:OF/RC:C)

#### References

BID 71936

CVE CVE-2015-0204 XREF CERT:243585

#### Plugin Information

Published: 2015/03/04, Modified: 2021/02/03

## Plugin Output

## tcp/25/smtp

```
EXPORT RSA cipher suites supported by the remote server :
 Low Strength Ciphers (<= 64-bit key)
                                             KEX
                                                          Auth Encryption
                                                                                        MAC
  Name
                              0x00, 0x08
                                             RSA(512)
                                                           RSA
                                                                   DES-CBC(40)
   EXP-DES-CBC-SHA
SHA1 export
   EXP-RC2-CBC-MD5
                             0x00, 0x06
                                                                   RC2-CBC(40)
                                              RSA(512)
                                                           RSA
                                                                                        MD5
     export
                                                                 RC4 (40)
                             0x00, 0x03
   EXP-RC4-MD5
                                            RSA(512)
                                                          RSA
                                                                                       MD5
    export
The fields above are :
 {Tenable ciphername}
 {Cipher ID code}
 Kex={key exchange}
 Auth={authentication}
 Encrypt={symmetric encryption method}
 MAC={message authentication code}
 {export flag}
```

#### 78479 - SSLv3 Padding Oracle On Downgraded Legacy Encryption Vulnerability (POODLE)

#### Synopsis

It is possible to obtain sensitive information from the remote host with SSL/TLS-enabled services.

#### Description

The remote host is affected by a man-in-the-middle (MitM) information disclosure vulnerability known as POODLE. The vulnerability is due to the way SSL 3.0 handles padding bytes when decrypting messages encrypted using block ciphers in cipher block chaining (CBC) mode.

MitM attackers can decrypt a selected byte of a cipher text in as few as 256 tries if they are able to force a victim application to repeatedly send the same data over newly created SSL 3.0 connections.

As long as a client and service both support SSLv3, a connection can be 'rolled back' to SSLv3, even if TLSv1 or newer is supported by the client and service.

The TLS Fallback SCSV mechanism prevents 'version rollback' attacks without impacting legacy clients; however, it can only protect connections when the client and service support the mechanism. Sites that cannot disable SSLv3 immediately should enable this mechanism.

This is a vulnerability in the SSLv3 specification, not in any particular SSL implementation. Disabling SSLv3 is the only way to completely mitigate the vulnerability.

#### See Also

https://www.imperialviolet.org/2014/10/14/poodle.html

https://www.openssl.org/~bodo/ssl-poodle.pdf

https://tools.ietf.org/html/draft-ietf-tls-downgrade-scsv-00

#### Solution

Disable SSLv3.

Services that must support SSLv3 should enable the TLS Fallback SCSV mechanism until SSLv3 can be disabled.

Risk Factor

Medium

CVSS v3.0 Base Score

6.8 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:C/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.9 (CVSS:3.0/E:U/RL:O/RC:C)

#### CVSS v2.0 Base Score

## 4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

#### CVSS v2.0 Temporal Score

#### 3.2 (CVSS2#E:U/RL:OF/RC:C)

#### References

BID 70574

CVE CVE-2014-3566 XREF CERT:577193

## Plugin Information

Published: 2014/10/15, Modified: 2020/06/12

## Plugin Output

## tcp/25/smtp

Nessus determined that the remote server supports SSLv3 with at least one CBC cipher suite, indicating that this server is vulnerable.

It appears that TLSv1 or newer is supported on the server. However, the Fallback SCSV mechanism is not supported, allowing connections to be "rolled back" to SSLv3.

#### 78479 - SSLv3 Padding Oracle On Downgraded Legacy Encryption Vulnerability (POODLE)

#### **Synopsis**

It is possible to obtain sensitive information from the remote host with SSL/TLS-enabled services.

#### Description

The remote host is affected by a man-in-the-middle (MitM) information disclosure vulnerability known as POODLE. The vulnerability is due to the way SSL 3.0 handles padding bytes when decrypting messages encrypted using block ciphers in cipher block chaining (CBC) mode.

MitM attackers can decrypt a selected byte of a cipher text in as few as 256 tries if they are able to force a victim application to repeatedly send the same data over newly created SSL 3.0 connections.

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The TLS Fallback SCSV mechanism prevents 'version rollback' attacks without impacting legacy clients; however, it can only protect connections when the client and service support the mechanism. Sites that cannot disable SSLv3 immediately should enable this mechanism.

This is a vulnerability in the SSLv3 specification, not in any particular SSL implementation. Disabling SSLv3 is the only way to completely mitigate the vulnerability.

#### See Also

https://www.imperialviolet.org/2014/10/14/poodle.html

https://www.openssl.org/~bodo/ssl-poodle.pdf

https://tools.ietf.org/html/draft-ietf-tls-downgrade-scsv-00

#### Solution

Disable SSLv3.

Services that must support SSLv3 should enable the TLS Fallback SCSV mechanism until SSLv3 can be disabled.

Risk Factor

Medium

CVSS v3.0 Base Score

6.8 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:C/C:H/I:N/A:N)

CVSS v3.0 Temporal Score

5.9 (CVSS:3.0/E:U/RL:O/RC:C)

#### CVSS v2.0 Base Score

## 4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

#### CVSS v2.0 Temporal Score

#### 3.2 (CVSS2#E:U/RL:OF/RC:C)

#### References

BID 70574

CVE CVE-2014-3566 XREF CERT:577193

## Plugin Information

Published: 2014/10/15, Modified: 2020/06/12

## Plugin Output

## tcp/5432/postgresql

Nessus determined that the remote server supports SSLv3 with at least one CBC cipher suite, indicating that this server is vulnerable.

It appears that TLSv1 or newer is supported on the server. However, the Fallback SCSV mechanism is not supported, allowing connections to be "rolled back" to SSLv3.

## 104743 - TLS Version 1.0 Protocol Detection

#### Synopsis

The remote service encrypts traffic using an older version of TLS.

#### Description

The remote service accepts connections encrypted using TLS 1.0. TLS 1.0 has a number of cryptographic design flaws. Modern implementations of TLS 1.0 mitigate these problems, but newer versions of TLS like 1.2 and 1.3 are designed against these flaws and should be used whenever possible.

As of March 31, 2020, Endpoints that aren't enabled for TLS 1.2 and higher will no longer function properly with major web browsers and major vendors.

PCI DSS v3.2 requires that TLS 1.0 be disabled entirely by June 30, 2018, except for POS POI terminals (and the SSL/TLS termination points to which they connect) that can be verified as not being susceptible to any known exploits.

#### See Also

https://tools.ietf.org/html/draft-ietf-tls-oldversions-deprecate-00

#### Solution

Enable support for TLS 1.2 and 1.3, and disable support for TLS 1.0.

#### Risk Factor

Medium

#### CVSS v3.0 Base Score

6.5 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:L/A:N)

#### CVSS v2.0 Base Score

6.1 (CVSS2#AV:N/AC:H/Au:N/C:C/I:P/A:N)

#### References

XREF CWE:327

#### Plugin Information

Published: 2017/11/22, Modified: 2023/04/19

#### Plugin Output

192,168,50,101 61

# tcp/25/smtp

 ${\tt TLSv1}$  is enabled and the server supports at least one cipher.

## 104743 - TLS Version 1.0 Protocol Detection

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#### Description

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PCI DSS v3.2 requires that TLS 1.0 be disabled entirely by June 30, 2018, except for POS POI terminals (and the SSL/TLS termination points to which they connect) that can be verified as not being susceptible to any known exploits.

#### See Also

https://tools.ietf.org/html/draft-ietf-tls-oldversions-deprecate-00

#### Solution

Enable support for TLS 1.2 and 1.3, and disable support for TLS 1.0.

#### Risk Factor

Medium

#### CVSS v3.0 Base Score

6.5 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:L/A:N)

#### CVSS v2.0 Base Score

6.1 (CVSS2#AV:N/AC:H/Au:N/C:C/I:P/A:N)

#### References

XREF CWE:327

#### Plugin Information

Published: 2017/11/22, Modified: 2023/04/19

#### Plugin Output

# tcp/5432/postgresql

 $\ensuremath{\mathsf{TLSv1}}$  is enabled and the server supports at least one cipher.

## 83738 - SSL/TLS EXPORT\_DHE <= 512-bit Export Cipher Suites Supported (Logjam)

# Synopsis The remote host supports a set of weak ciphers. Description The remote host supports EXPORT\_DHE cipher suites with keys less than or equal to 512 bits. Through cryptanalysis, a third party can find the shared secret in a short amount of time. A man-in-the middle attacker may be able to downgrade the session to use EXPORT\_DHE cipher suites. Thus, it is recommended to remove support for weak cipher suites. See Also https://weakdh.org/ Solution Reconfigure the service to remove support for EXPORT\_DHE cipher suites. Risk Factor Low CVSS v3.0 Base Score 3.7 (CVSS:3.0/AV:N/AC:H/PR:N/UI:N/S:U/C:N/I:L/A:N) CVSS v3.0 Temporal Score 3.2 (CVSS:3.0/E:U/RL:O/RC:C) CVSS v2.0 Base Score 2.6 (CVSS2#AV:N/AC:H/Au:N/C:N/I:P/A:N)

#### References

BID 74733

CVSS v2.0 Temporal Score

2.2 (CVSS2#E:U/RL:ND/RC:C)

CVE CVE-2015-4000

XREF CEA-ID:CEA-2021-0004

Published: 2015/05/21, Modified: 2022/12/05

#### Plugin Output

#### tcp/25/smtp

```
EXPORT DHE cipher suites supported by the remote server :
 Low Strength Ciphers (<= 64-bit key)
                                          KEX
                             Code
                                                       Auth Encryption
   Name
                                                                                    MAC
                            0x00, 0x14
   EXP-EDH-RSA-DES-CBC-SHA
                                           DH(512)
                                                        RSA
                                                                DES-CBC(40)
SHA1
       export
  EXP-ADH-DES-CBC-SHA
                                                        None DES-CBC(40)
                            0x00, 0x19
                                           DH (512)
SHA1 export
                   0x00, 0x17 DH(512)
  EXP-ADH-RC4-MD5
                                                        None RC4 (40)
                                                                                    MD5
     export
The fields above are :
 {Tenable ciphername}
 {Cipher ID code}
 Kex={key exchange}
 Auth={authentication}
 Encrypt={symmetric encryption method}
 MAC={message authentication code}
 {export flag}
```

## 10407 - X Server Detection

## Synopsis

An X11 server is listening on the remote host

## Description

The remote host is running an X11 server. X11 is a client-server protocol that can be used to display graphical applications running on a given host on a remote client.

Since the X11 traffic is not ciphered, it is possible for an attacker to eavesdrop on the connection.

#### Solution

Restrict access to this port. If the X11 client/server facility is not used, disable TCP support in X11 entirely (nolisten tcp).

Risk Factor

Low

CVSS v2.0 Base Score

2.6 (CVSS2#AV:N/AC:H/Au:N/C:P/I:N/A:N)

Plugin Information

Published: 2000/05/12, Modified: 2019/03/05

Plugin Output

tcp/6000/x11

X11 Version : 11.0