



Report generated by Nessus™

scan metasploitable finale

Sun, 30 Aug 2023 10:26:06 EDT

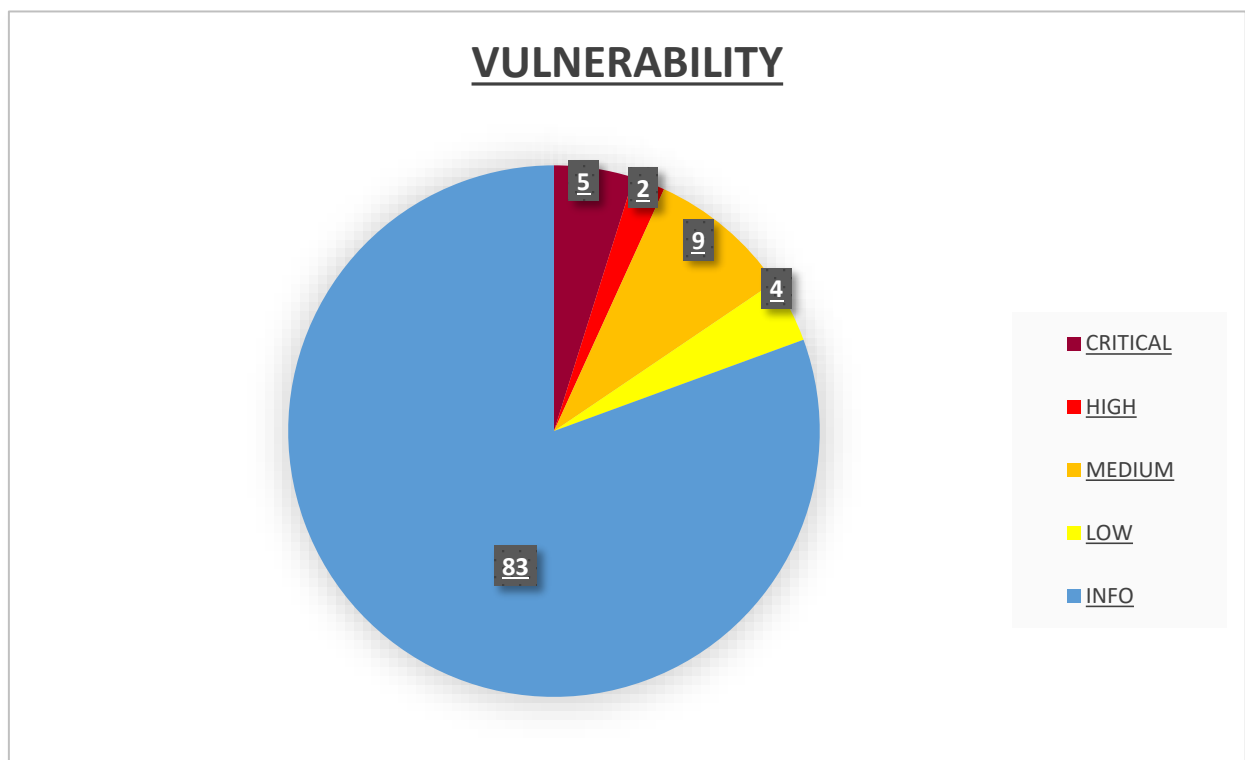
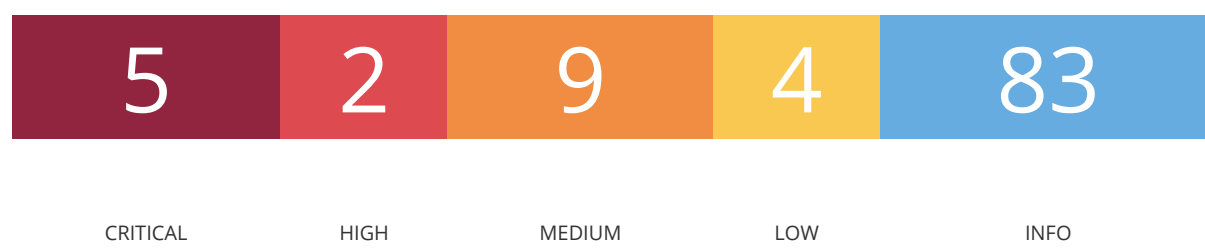


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Vulnerabilities by Host

192.168.31.100



Scan Information

Start time: Sun Aug 30 10:13:45 2023

End time: Sun Aug 30 10:26:06 2023

Host Information

Netbios Name: METASPLOITABLE

IP: 192.168.31.100

OS: Linux Kernel 2.6 on Ubuntu 8.04 (hardy)

56134862 - Apache Tomcat AJP 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).

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)

VPR Score 9.2

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)

32314 - Debian OpenSSH/OpenSSL Package Random Number Generator Weakness

Synopsis : The remote SSH host keys are weak.

Description

The remote SSH host key 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 set up decipher the remote session or set up a man in the middle attack.

Solution

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

Risk Factor Critical

VPR Score 7.4

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)

Exploitable With Core Impact (true)

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.

Solution

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

Risk Factor Critical

VPR Score 7.4

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)

Exploitable With Core Impact (true)

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'.

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)

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.³

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)

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.

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)

VPR Score 5.2

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)

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.

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)

VPR Score 6.1

CVSS v2.0 Base Score 5.0 (CVSS2#AV:N/AC:L/Au:N/C:P/I:N/A:N)

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.

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)

VPR Score 4.0

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)

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.

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)

VPR Score 3.6

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)

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.

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)

VPR Score 5.1

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)

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)

90317 - SSH Weak Algorithms Supported

Synopsis

The remote SSH server is configured to allow weak encryption algorithms or no algorithm at all.

Description

Nessus has detected that the remote SSH server is configured to use the Arcfour stream cipher or no cipher at all. RFC 4253 advises against using Arcfour due to an issue with weak keys.

Solution

Contact the vendor or consult product documentation to remove the weak ciphers.

Risk Factor Medium

CVSS v2.0 Base Score 4.3 (CVSS2#AV:N/AC:M/Au:N/C:P/I:N/A:N)

51192 - SSL Certificate Cannot Be Trusted

Synopsis

The SSL certificate for this service cannot be trusted.

Description

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.

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)

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)

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.

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)

VPR Score 3.6

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)

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)

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.

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:I/I:P/A:N)

70658 - SSH Server CBC Mode Ciphers Enabled

Synopsis

The SSH server is configured to use Cipher Block Chaining.

Description

The SSH server is configured to support Cipher Block Chaining (CBC) encryption. This may allow an attacker to recover the plaintext message from the ciphertext.

Note that this plugin only checks for the options of the SSH server and does not check for vulnerable software versions.

Solution

Contact the vendor or consult product documentation to disable CBC mode cipher encryption, and enable CTR or GCM cipher mode encryption.

Risk Factor Low

VPR Score 2.5

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)

71049 - SSH Weak MAC Algorithms Enabled

Synopsis

The remote SSH server is configured to allow MD5 and 96-bit MAC algorithms.

Description

The remote SSH server is configured to allow either MD5 or 96-bit MAC algorithms, both of which are considered weak.

Note that this plugin only checks for the options of the SSH server, and it does not check for vulnerable software versions.

Solution

Contact the vendor or consult product documentation to disable MD5 and 96-bit MAC algorithms.

Risk Factor Low

CVSS v2.0 Base Score 2.6 (CVSS2#AV:N/AC:H/Au:N/C:P/I:N/A:N)

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.

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

CVSS v3.0 Temporal Score 3.1 (CVSS:3.0/E:P/RL:O/RC:C)

VPR Score 5.3

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

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).

Vulnerabilità " Info "

Le vulnerabilità "Info" rilevate da Nessus non corrispondono a una minaccia immediata per la sicurezza, ma forniscono informazioni rilevanti alla configurazione della macchina o del sistema come ad esempio : banner di servizio / informazioni sui certificati / note generali , o info in generale.
