PROGETTO FINALE W12D4

TRACCIA:

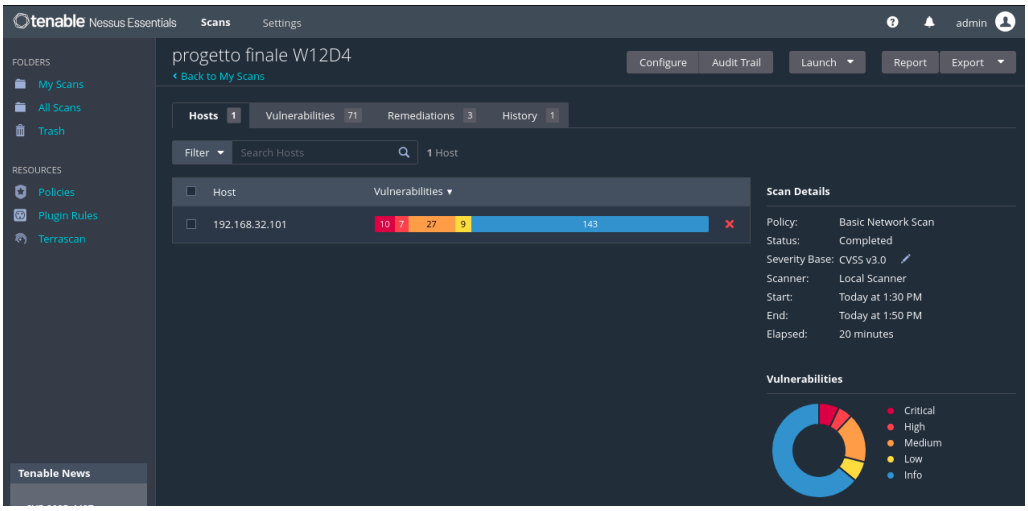
Effettuare una scansione completa sul target Metasploitable 2 con Nessus.
Scegliere da 2 a 4 vulnerabilità critiche (facoltativo: una 5 a scelta) e provare ad implementare delle azioni di rimedio. Consegnare:

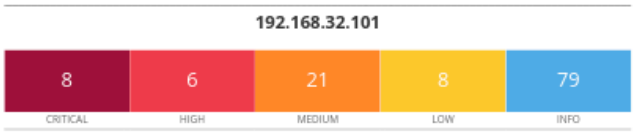
1. Scansione Inizio: scansione iniziale dove si vede il grafico con tutte le vulnerabilità
2. Remediation Meta: spiegazione dei passaggi della remediation
3. Scansione Fine: scansione dopo le modifiche che evidenzia la risoluzione dei problemi/vulnerabilità

SOLUZIONE:

1. SCANSIONE INZIO

Create new scan → basic network scan → *dare un nome e l'indirizzo del target* → discovery → port scan (all ports) → save → *cliccare su play*
Risultati:





Vulnerabilities — Total: 122

SEVERITY	CVSS V3.0	VPR SCORE	EPSS SCORE	PLUGIN	NAME
CRITICAL	9.8	8.9	0.9447	134862	Apache Tomcat AJP Connector Request Injection (Ghostcat)
CRITICAL	9.8	-	-	20007	SSL Version 2 and 3 Protocol Detection
CRITICAL	10.0	-	-	171340	Apache Tomcat SEoL (<= 5.5.x)
CRITICAL	10.0	-	-	201352	Canonical Ubuntu Linux SEoL (8.04.x)
CRITICAL	10.0*	5.1	0.0165	32314	Debian OpenSSH/OpenSSL Package Random Number Genera Weakness
CRITICAL	10.0*	5.1	0.0165	32321	Debian OpenSSH/OpenSSL Package Random Number Genera Weakness (SSL check)
CRITICAL	10.0*	7.4	0.6132	46882	UnrealIRCd Backdoor Detection
CRITICAL	10.0*	-	-	61708	VNC Server 'password' Password
HIGH	8.6	5.2	0.0334	136769	ISC BIND Service Downgrade / Reflected DoS
HIGH	7.5	-	-	42256	NFS Shares World Readable
HIGH	7.5	6.1	0.406	42873	SSL Medium Strength Cipher Suites Supported (SWEET32)
HIGH	7.5	5.9	0.7865	90509	Samba Badlock Vulnerability
HIGH	7.5*	8.4	0.4664	10205	rlogin Service Detection
HIGH	7.5*	8.4	0.4664	10245	rsh Service Detection
MEDIUM	6.8	6.0	0.9211	33447	Multiple Vendor DNS Query ID Field Prediction Cache Poisoni
MEDIUM	6.5	4.4	0.0045	139915	ISC BIND 9.x < 9.11.22, 9.12.x < 9.16.6, 9.17.x < 9.17.4 DoS
MEDIUM	6.5	-	-	51192	SSL Certificate Cannot Be Trusted
MEDIUM	6.5	-	-	57582	SSL Self-Signed Certificate

MEDIUM	6.5	-	-	104743	TLS Version 1.0 Protocol Detection
MEDIUM	6.5	-	-	42263	Unencrypted Telnet Server
MEDIUM	5.9	4.4	0.9234	136808	ISC BIND Denial of Service
MEDIUM	5.9	4.4	0.027	31705	SSL Anonymous Cipher Suites Supported
MEDIUM	5.9	3.6	0.8991	89058	SSL DROWN Attack Vulnerability (Decrypting RSA with Obsole and Weakened eNcryption)
MEDIUM	5.9	7.3	0.9303	65821	SSL RC4 Cipher Suites Supported (Bar Mitzvah)
MEDIUM	5.3	-	-	12085	Apache Tomcat Default Files
MEDIUM	5.3	-	-	12217	DNS Server Cache Snooping Remote Information Disclosure
MEDIUM	5.3	4.0	0.8269	11213	HTTP TRACE / TRACK Methods Allowed
MEDIUM	5.3	-	-	57608	SMB Signing not required
MEDIUM	5.3	-	-	15901	SSL Certificate Expiry
MEDIUM	5.3	-	-	45411	SSL Certificate with Wrong Hostname
MEDIUM	5.3	-	-	26928	SSL Weak Cipher Suites Supported
MEDIUM	5.0*	4.4	0.8222	10595	DNS Server Zone Transfer Information Disclosure (AXFR)
MEDIUM	4.0*	7.3	0.6945	52611	SMTP Service STARTTLS Plaintext Command Injection
MEDIUM	4.3*	-	-	90317	SSH Weak Algorithms Supported
MEDIUM	4.3*	1.4	0.9243	81606	SSL/TLS EXPORT_RSA <= 512-bit Cipher Suites Supported (FRE
LOW	3.7	1.4	0.0307	70658	SSH Server CBC Mode Ciphers Enabled
LOW	3.7	-	-	153953	SSH Weak Key Exchange Algorithms Enabled
LOW	3.7	4.5	0.9403	83875	SSL/TLS Diffie-Hellman Modulus <= 1024 Bits (Logjam)
LOW	3.7	4.5	0.9403	83738	SSL/TLS EXPORT_DHE <= 512-bit Export Cipher Suites Suppor (Logjam)
LOW	3.4	5.1	0.942	78479	SSLv3 Padding Oracle On Downgraded Legacy Encryption Vulnerability (POODLE)
LOW	2.1*	2.2	0.0037	10114	ICMP Timestamp Request Remote Date Disclosure
LOW	2.6*	-	-	71049	SSH Weak MAC Algorithms Enabled
LOW	2.6*	-	-	10407	X Server Detection
INFO	N/A	-	-	10223	RPC portmapper Service Detection
INFO	N/A	-	-	21186	AJP Connector Detection
INFO	N/A	-	-	18261	Apache Banner Linux Distribution Disclosure
INFO	N/A	-	-	48204	Apache HTTP Server Version
INFO	N/A	-	-	39446	Apache Tomcat Detection
INFO	N/A	-	-	39519	Backported Security Patch Detection (FTP)
INFO	N/A	-	-	84574	Backported Security Patch Detection (PHP)
INFO	N/A	-	-	39520	Backported Security Patch Detection (SSH)
INFO	N/A	-	-	39521	Backported Security Patch Detection (WWW)
INFO	N/A	-	-	45590	Common Platform Enumeration (CPE)
INFO	N/A	-	-	10028	DNS Server BIND version Directive Remote Version Detection
INFO	N/A	-	-	11002	DNS Server Detection
INFO	N/A	-	-	72779	DNS Server Version Detection
INFO	N/A	-	-	35371	DNS Server hostname.bind Map Hostname Disclosure
INFO	N/A	-	-	54615	Device Type
INFO	N/A	-	-	35716	Ethernet Card Manufacturer Detection
INFO	N/A	-	-	86420	Ethernet MAC Addresses
INFO	N/A	-	-	10092	FTP Server Detection
INFO	N/A	-	-	10107	HTTP Server Type and Version
INFO	N/A	-	-	24260	HyperText Transfer Protocol (HTTP) Information
INFO	N/A	-	-	11156	IRC Daemon Version Detection
INFO	N/A	-	-	10397	Microsoft Windows SMB LanMan Pipe Server Listing Disclosur
INFO	N/A	-	-	10785	Microsoft Windows SMB NativeLanManager Remote System Information Disclosure
INFO	N/A	-	-	11011	Microsoft Windows SMB Service Detection

INFO	N/A	-	-	100871	Microsoft Windows SMB Versions Supported (remote check)
INFO	N/A	-	-	106716	Microsoft Windows SMB2 and SMB3 Dialects Supported (rem check)
INFO	N/A	-	-	10719	MySQL Server Detection
INFO	N/A	-	-	10437	NFS Share Export List
INFO	N/A	-	-	11219	Nessus SYN scanner
INFO	N/A	-	-	19506	Nessus Scan Information
INFO	N/A	-	-	209654	OS Fingerprints Detected
INFO	N/A	-	-	11936	OS Identification
INFO	N/A	-	-	117886	OS Security Patch Assessment Not Available
INFO	N/A	-	-	181418	OpenSSH Detection
INFO	N/A	-	-	50845	OpenSSL Detection
INFO	N/A	-	-	48243	PHP Version Detection
INFO	N/A	-	-	66334	Patch Report
INFO	N/A	-	-	118224	PostgreSQL STARTTLS Support
INFO	N/A	-	-	26024	PostgreSQL Server Detection
INFO	N/A	-	-	22227	RMI Registry Detection
INFO	N/A	-	-	11111	RPC Services Enumeration
INFO	N/A	-	-	53335	RPC portmapper (TCP)
INFO	N/A	-	-	10263	SMTP Server Detection
INFO	N/A	-	-	42088	SMTP Service STARTTLS Command Support
INFO	N/A	-	-	70657	SSH Algorithms and Languages Supported
INFO	N/A	-	-	149334	SSH Password Authentication Accepted
INFO	N/A	-	-	10881	SSH Protocol Versions Supported
INFO	N/A	-	-	153588	SSH SHA-1 HMAC Algorithms Enabled
INFO	N/A	-	-	10267	SSH Server Type and Version Information
INFO	N/A	-	-	56984	SSL / TLS Versions Supported
INFO	N/A	-	-	45410	SSL Certificate 'commonName' Mismatch
INFO	N/A	-	-	10863	SSL Certificate Information
INFO	N/A	-	-	70544	SSL Cipher Block Chaining Cipher Suites Supported
INFO	N/A	-	-	21643	SSL Cipher Suites Supported
INFO	N/A	-	-	62563	SSL Compression Methods Supported
INFO	N/A	-	-	57041	SSL Perfect Forward Secrecy Cipher Suites Supported
INFO	N/A	-	-	51891	SSL Session Resume Supported
INFO	N/A	-	-	156899	SSL/TLS Recommended Cipher Suites
INFO	N/A	-	-	25240	Samba Server Detection
INFO	N/A	-	-	104887	Samba Version
INFO	N/A	-	-	96982	Server Message Block (SMB) Protocol Version 1 Enabled (uncredentialed check)
INFO	N/A	-	-	22964	Service Detection
INFO	N/A	-	-	17975	Service Detection (GET request)
INFO	N/A	-	-	11153	Service Detection (HELP Request)
INFO	N/A	-	-	25220	TCP/IP Timestamps Supported
INFO	N/A	-	-	11819	TFTP Daemon Detection
INFO	N/A	-	-	110723	Target Credential Status by Authentication Protocol - No Credentials Provided
INFO	N/A	-	-	10281	Telnet Server Detection
INFO	N/A	-	-	10287	Traceroute Information
INFO	N/A	-	-	11154	Unknown Service Detection: Banner Retrieval
INFO	N/A	-	-	19288	VNC Server Security Type Detection
INFO	N/A	-	-	65792	VNC Server Unencrypted Communication Detection
INFO	N/A	-	-	10342	VNC Software Detection
INFO	N/A	-	-	135860	WMI Not Available
INFO	N/A	-	-	20108	Web Server / Application favicon.ico Vendor Fingerprinting
INFO	N/A	-	-	11422	Web Server Unconfigured - Default Install Page Present
INFO	N/A	-	-	11424	WebDAV Detection
INFO	N/A	-	-	10150	Windows NetBIOS / SMB Remote Host Information Disclosur
INFO	N/A	-	-	52703	vsftpd Detection

2. REMEDIATION META

1. Il server VNC è protetto da una password debole, bisogna cambiarla con una più complessa tramite il comando *vncpasswd*

61708 - VNC Server 'password' Password

Synopsis

A VNC server running on the remote host is secured with a weak password.

Description

The VNC server running on the remote host is secured with a weak password. Nessus was able to login using VNC authentication and a password of 'password'. A remote, unauthenticated attacker could exploit this to take control of the system.

Solution

Secure the VNC service with a strong password.

Risk Factor

Critical

CVSS v2.0 Base Score

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

Plugin Information

Published: 2012/08/29, Modified: 2015/09/24

Plugin Output

tcp/5900/vnc

```
Nessus logged in using a password of "password".
```

→

```
msfadmin@metasploitable:~$ sudo su
[sudo] password for msfadmin:
root@metasploitable:/home/msfadmin# vncpasswd
Using password file /root/.vnc/passwd
Password:
Verify:
Would you like to enter a view-only password (y/n)? y
Password:
Verify:
root@metasploitable:/home/msfadmin#
```

2. Il server IRC remoto contiene una backdoor che consente ad un aggressore di eseguire codice arbitrario, bisogna chiudere le porte interessate attraverso il comando

sudo iptables -A INPUT -p tcp –dport 6697 -j DROP
sudo iptables -A INPUT -p tcp –dport 6667 -j DROP

46882 - UnrealIRCd Backdoor Detection

Synopsis

The remote IRC server contains a backdoor.

Description

The remote IRC server is a version of UnrealIRCd with a backdoor that allows an attacker to execute arbitrary code on the affected host.

See Also

https://seclists.org/fulldisclosure/2010/Jun/277
https://seclists.org/fulldisclosure/2010/Jun/284
http://www.unrealircd.com/txt/unrealsecadvisory.20100612.txt

Solution

Re-download the software, verify it using the published MD5 / SHA1 checksums, and re-install it.

Risk Factor

Critical

VPR Score

7.4

EPSS Score

0.6132

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	40820
CVE	CVE-2010-2075

Exploitable With

CANVAS (true) Metasploit (true)

Plugin Information

Published: 2010/06/14, Modified: 2022/04/11

Plugin Output

tcp/6697/irc

```
The remote IRC server is running as :
uid=0(root) gid=0(root)
```

Plugin Output

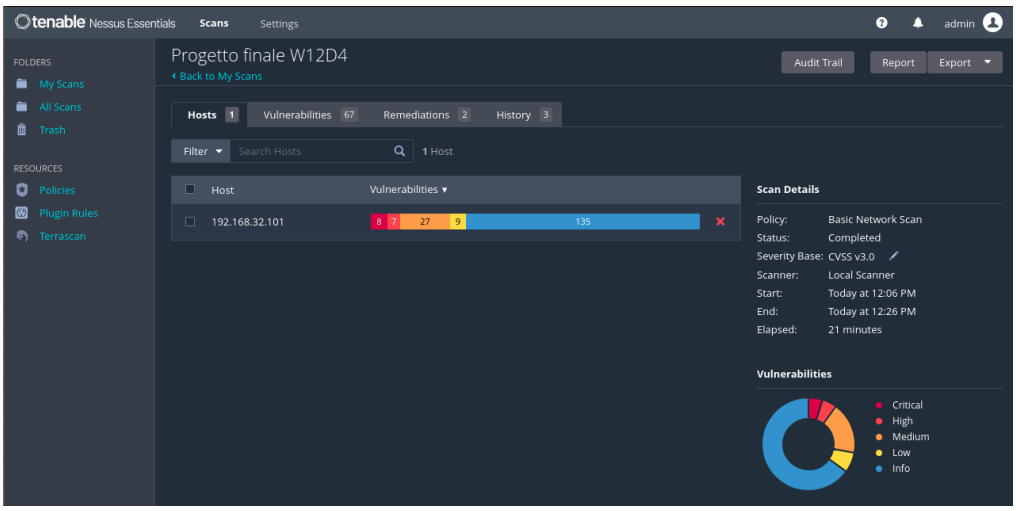
tcp/6667/irc

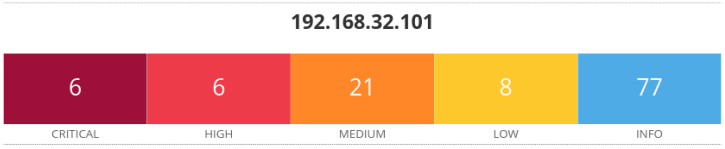
```
The remote IRC server is running as :
uid=0(root) gid=0(root)
```

→

```
msfadmin@metasploitable:~$ sudo iptables -A INPUT -p tcp --dport 6697 -j DROP
[sudo] password for msfadmin:
msfadmin@metasploitable:~$ sudo iptables -A INPUT -p tcp --dport 6667 -j DROP
[sudo] password for msfadmin:
```

3. SCANSIONE FINE





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CONCLUSIONE:

La scansione finale dimostra la rimozione di 2 vulnerabilità, rimanendone 6 critiche e tutte le altre non.