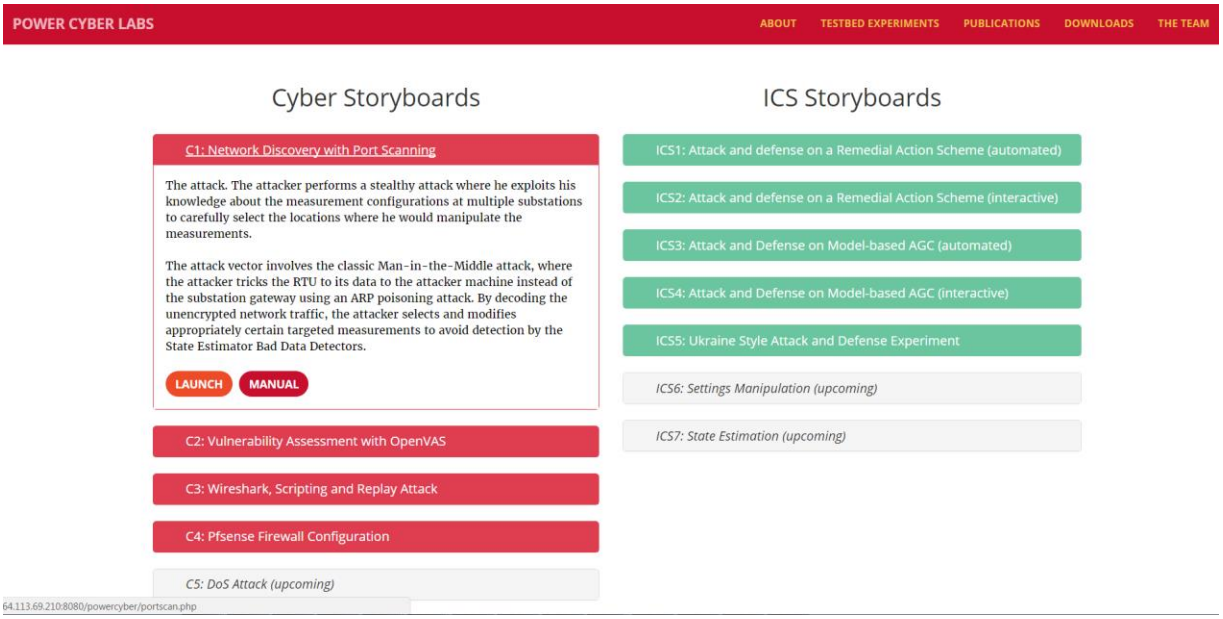
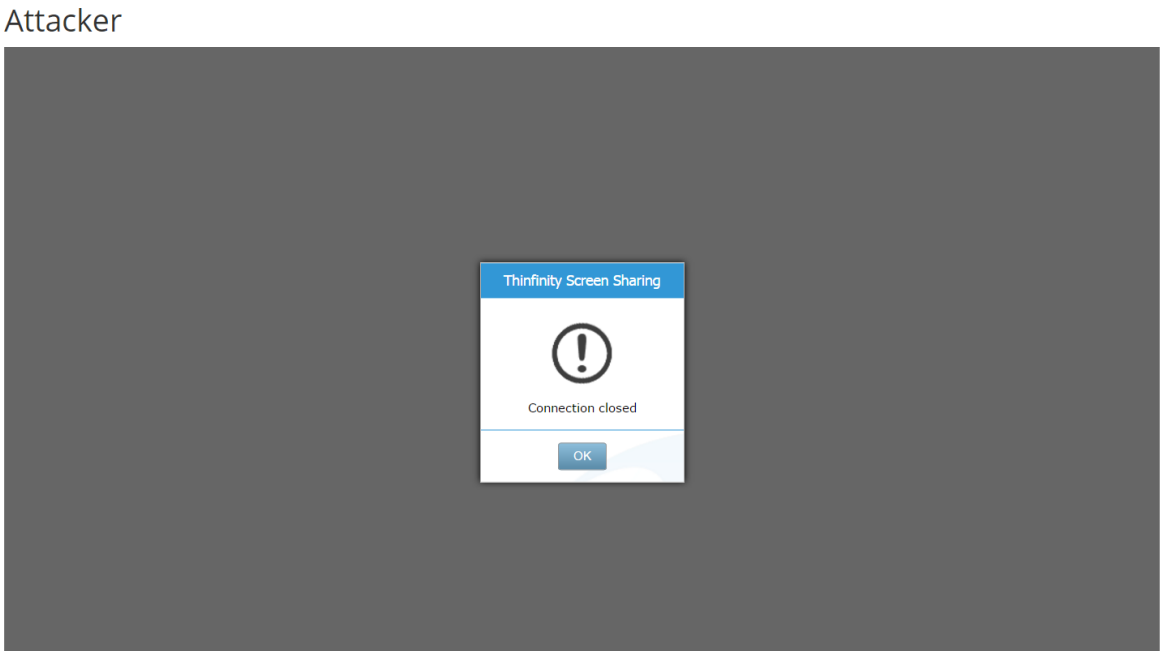
Preliminary steps before starting the experiment:

1) Click the Launch button to start the experiment.

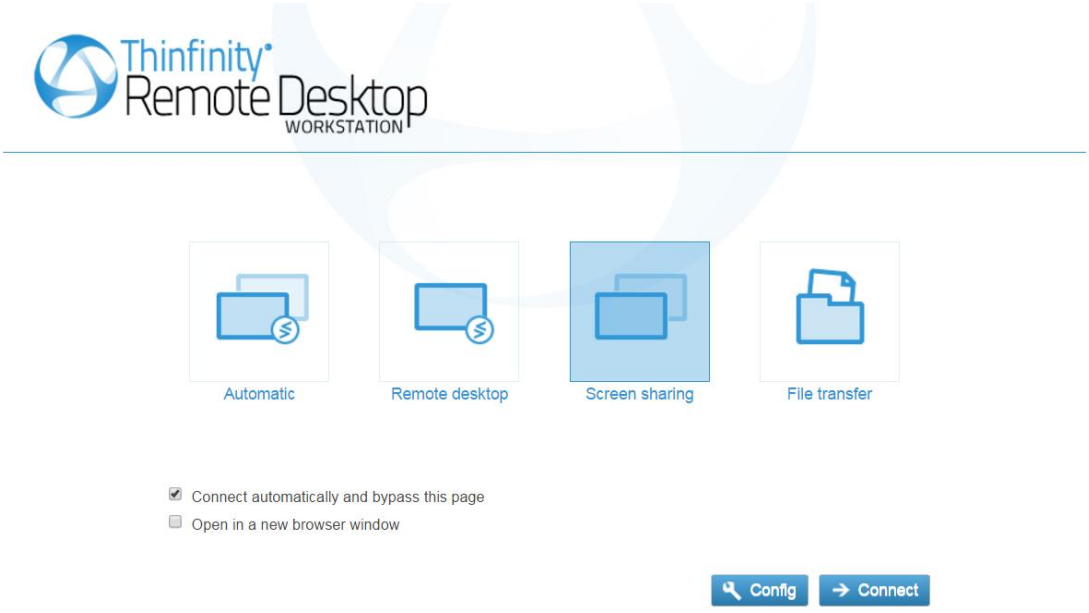


2) Click OK to create a new session



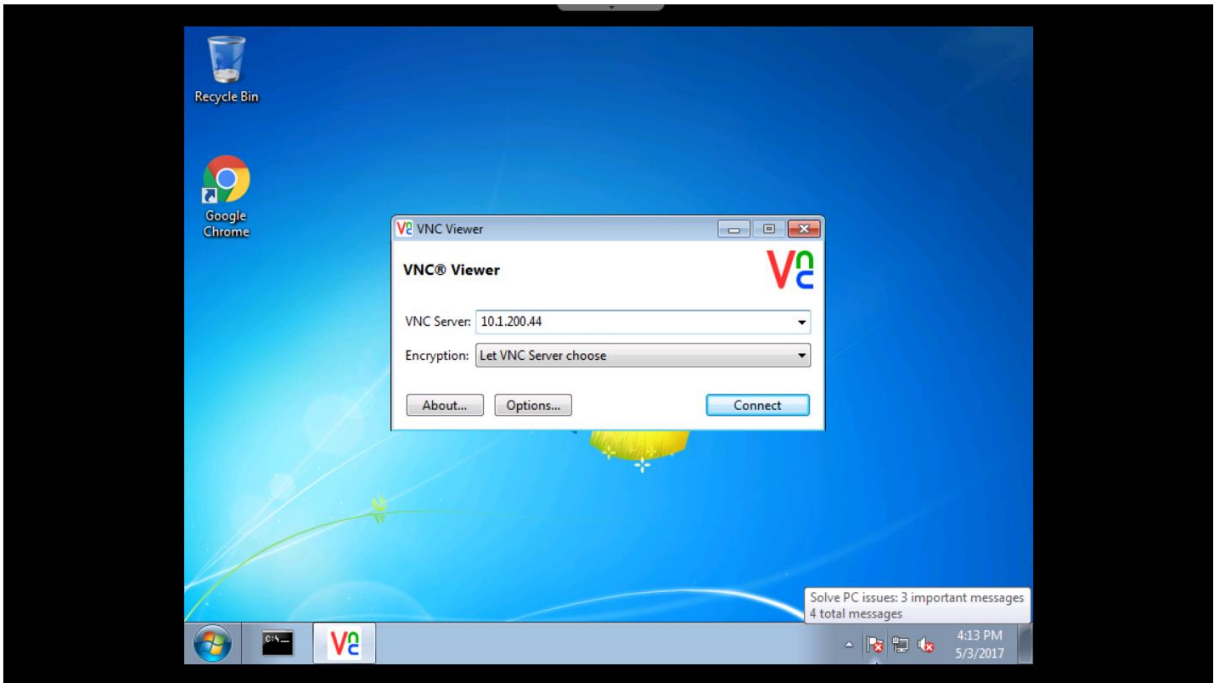
3) Click the **Screen Sharing** option and click connect to establish the session

Attacker

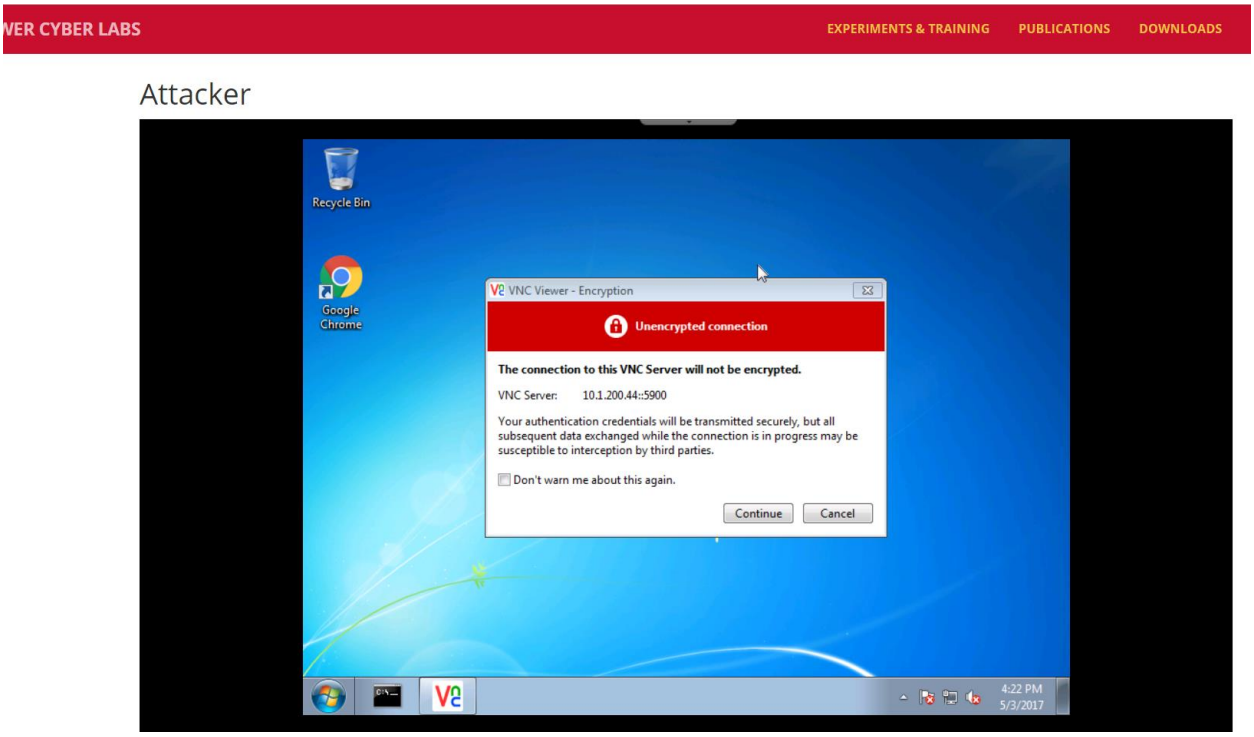


4) Click the **VNC viewer** button on the taskbar of the Windows 7 host that opens soon after and enter **10.1.200.44** as the ip address of the VNC server. Click connect to establish the session

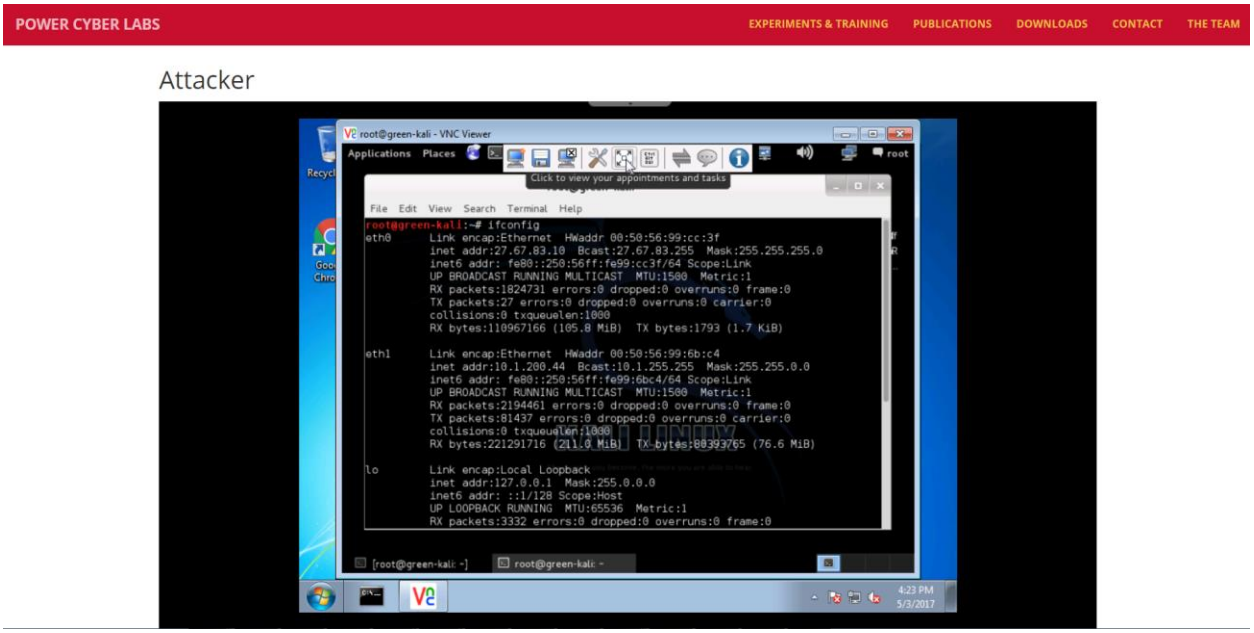
Attacker



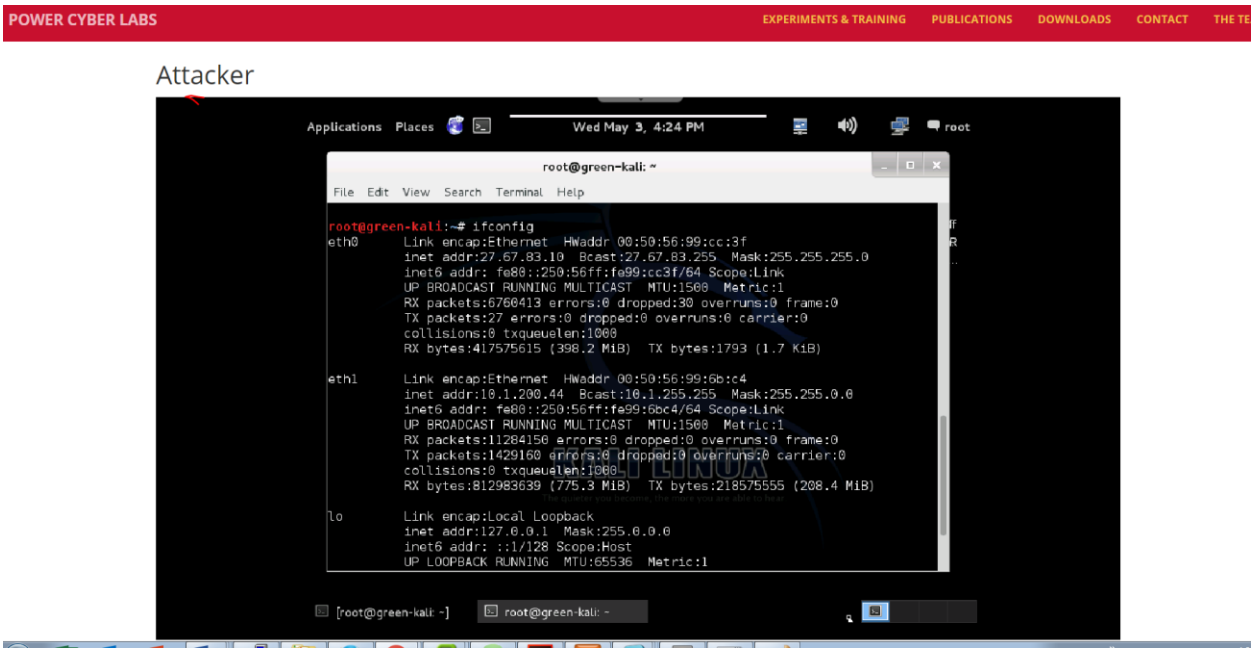
5) Click Continue to connect to the kali box.



6) Gently hover over the center of the VNC viewer window to find the menu with options. Click the **Full Screen View** button (fifth from the left) for a better experience.



7) This is how a full screen Kali box looks like.



Actual Experiment:

Vulnerability Assessment with OpenVAS

Learning Outcomes

- Understand the importance of discovering system vulnerabilities using detailed scans.
- Analyze the severity of their impacts and potential solutions to patch critical vulnerabilities.

Starting OpenVAS

To start OpenVAS, open the terminal and type “openvas-start”. In case you see any “error” while it’s startup, try “openvas-stop” and then start the OpenVAS again.

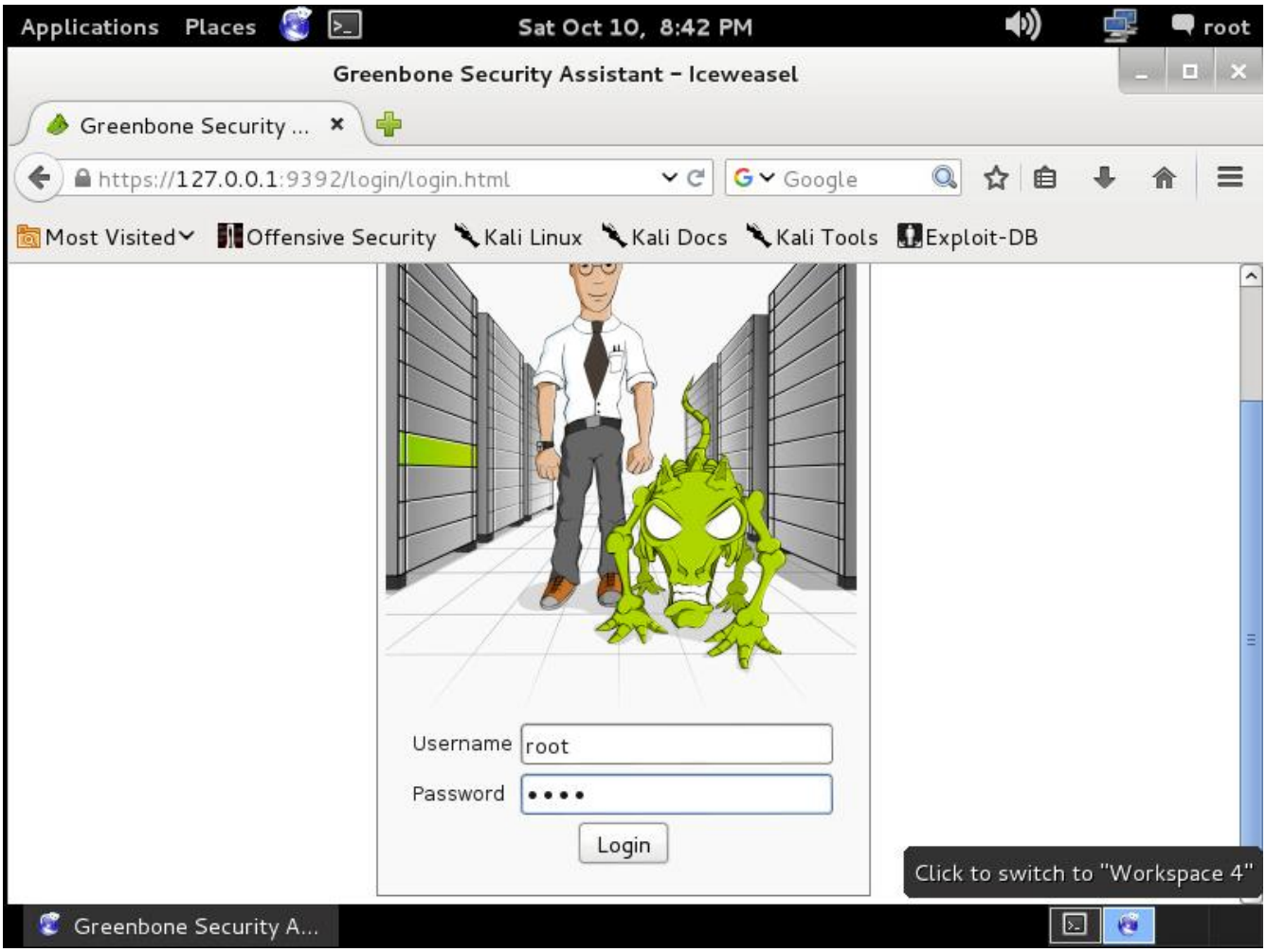
Login and Starting a Scan

Open a web browser and navigate to “https://127.0.0.1:9392/login/login.html”

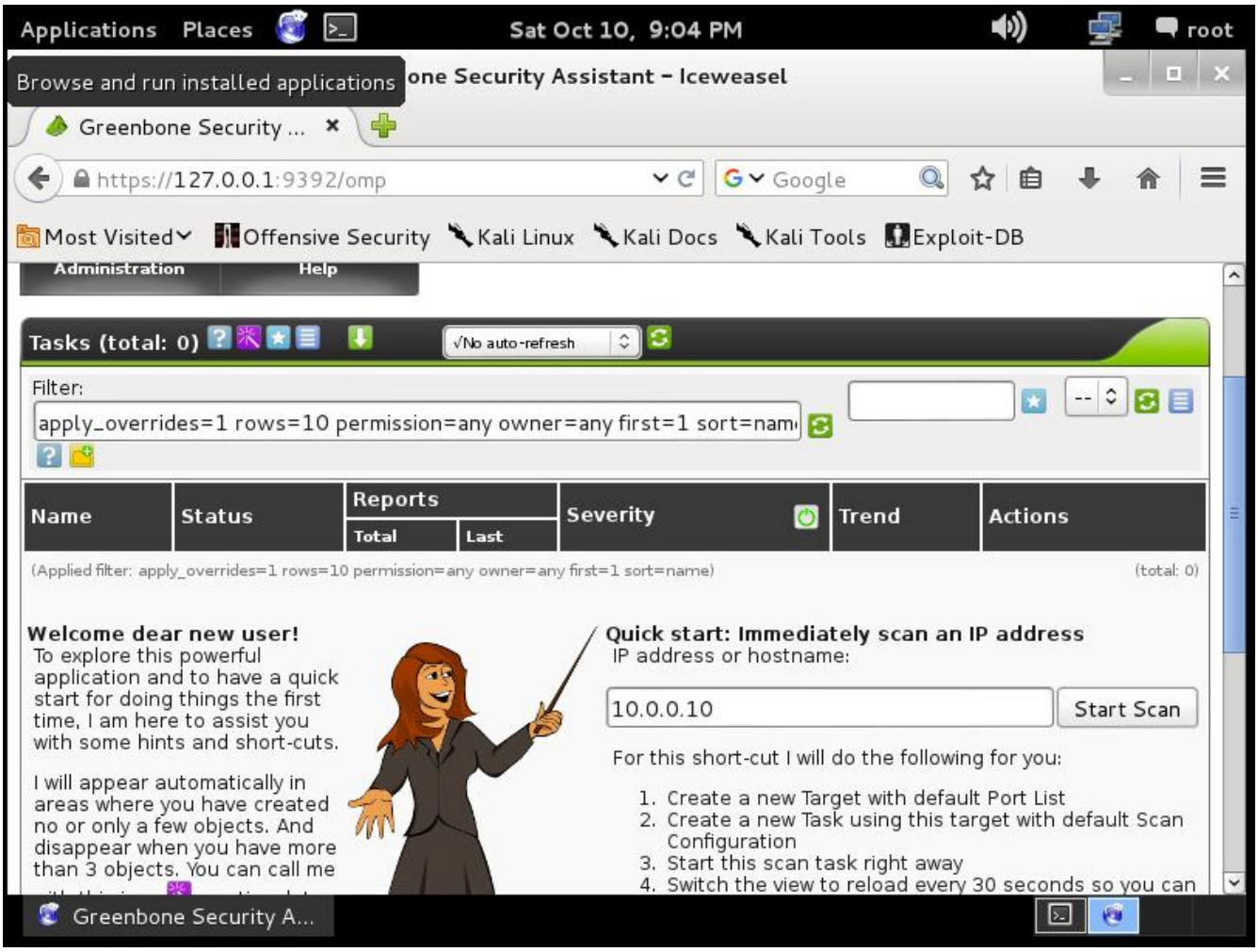
We have placed a bookmark on the browser's toolbar with a link to this page.

The login credentials are as follows:

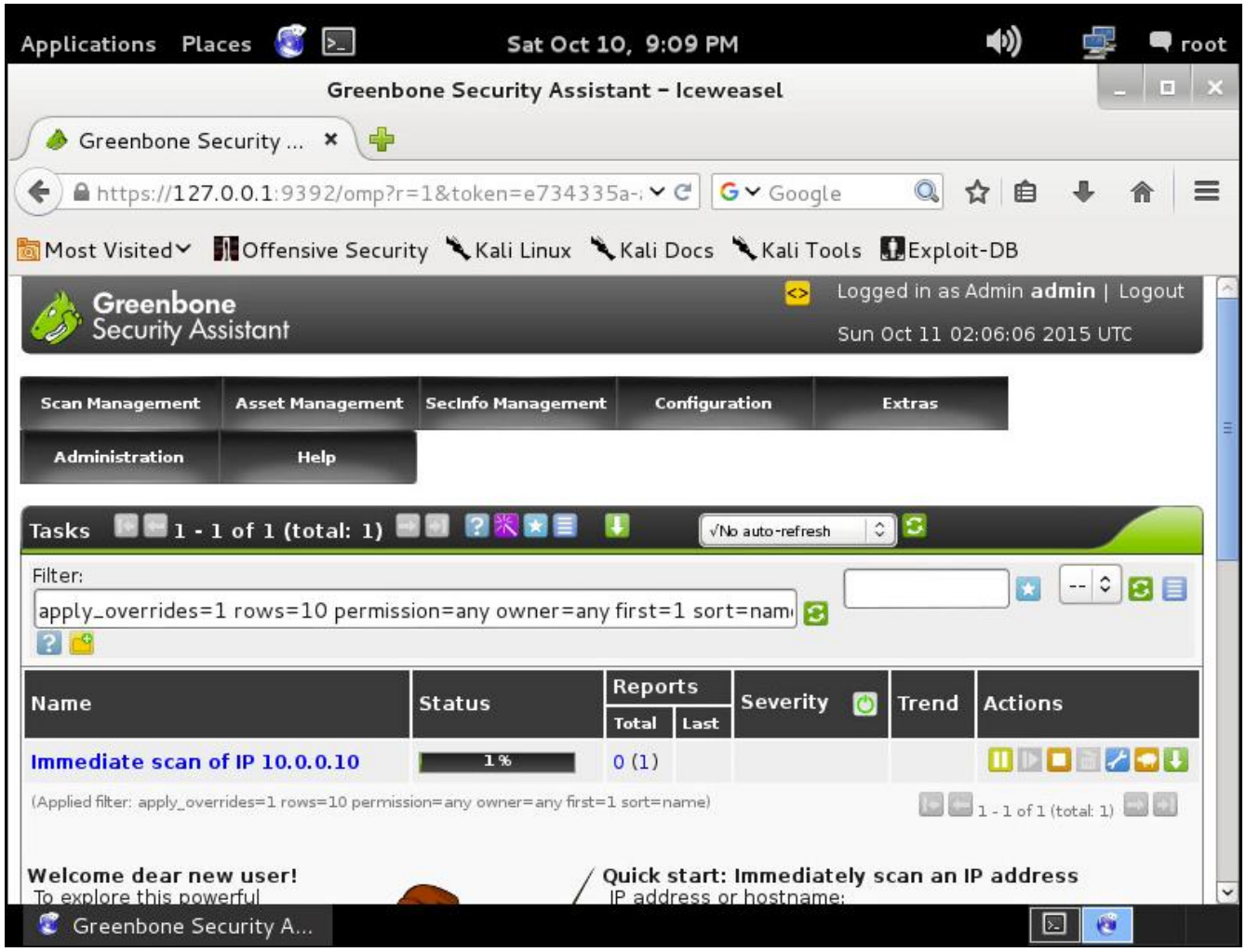
username: root
password: root



To start a scan, enter an IP address in the Quick Start field and click “Start Scan”


Applications Places Sat Oct 10, 9:04 PM root
Browse and run installed applications
one Security Assistant - Iceweasel
Greenbone Security ...
https://127.0.0.1:9392/omp
Google
Most Visited Offensive Security Kali Linux Kali Docs Kali Tools Exploit-DB
Administration Help
Tasks (total: 0)
No auto-refresh
Filter:
apply_overrides=1 rows=10 permission=any owner=any first=1 sort=nam
Name Status Reports Total Last Severity Trend Actions
(Applied filter: apply_overrides=1 rows=10 permission=any owner=any first=1 sort=name)
(total: 0)
Welcome dear new user!
To explore this powerful application and to have a quick start for doing things the first time, I am here to assist you with some hints and short-cuts.
I will appear automatically in areas where you have created no or only a few objects. And disappear when you have more than 3 objects. You can call me
Quick start: Immediately scan an IP address
IP address or hostname:
10.0.0.10
Start Scan
For this short-cut I will do the following for you:
1. Create a new Target with default Port List
2. Create a new Task using this target with default Scan Configuration
3. Start this scan task right away
4. Switch the view to reload every 30 seconds so you can
Greenbone Security A...

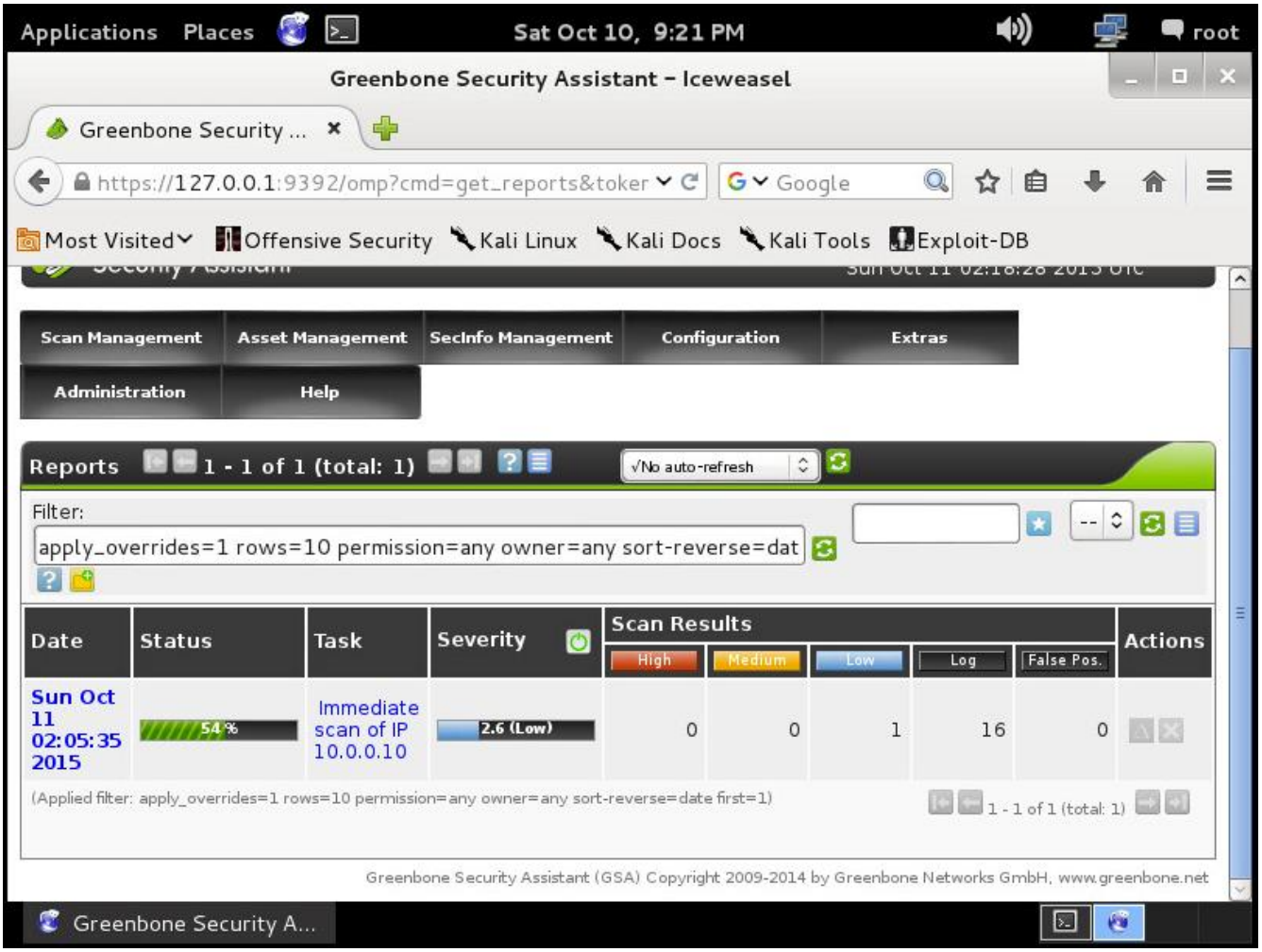
You should then see a new scan appear in progress in the list of tasks.



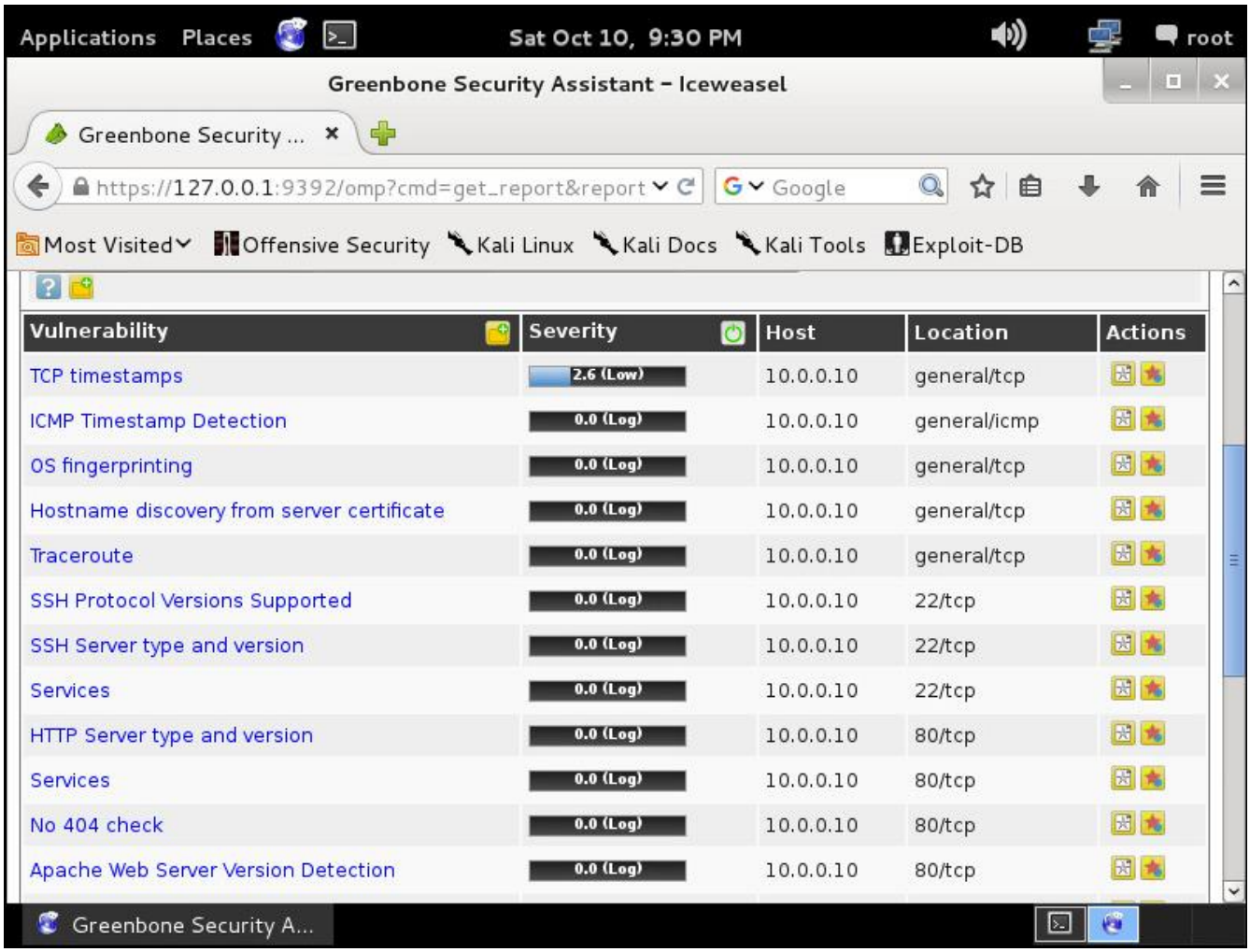
To view the report of the scan, go to Scan Management → Reports

Then, click on the date of the scan to view its details.

This can be done even if the scan is not complete yet.



From this screen you can investigate the different results from the scan.



Vulnerability	Severity	Host	Location	Actions
TCP timestamps	2.6 (Low)	10.0.0.10	general/tcp	
ICMP Timestamp Detection	0.0 (Log)	10.0.0.10	general/icmp	
OS fingerprinting	0.0 (Log)	10.0.0.10	general/tcp	
Hostname discovery from server certificate	0.0 (Log)	10.0.0.10	general/tcp	
Traceroute	0.0 (Log)	10.0.0.10	general/tcp	
SSH Protocol Versions Supported	0.0 (Log)	10.0.0.10	22/tcp	
SSH Server type and version	0.0 (Log)	10.0.0.10	22/tcp	
Services	0.0 (Log)	10.0.0.10	22/tcp	
HTTP Server type and version	0.0 (Log)	10.0.0.10	80/tcp	
Services	0.0 (Log)	10.0.0.10	80/tcp	
No 404 check	0.0 (Log)	10.0.0.10	80/tcp	
Apache Web Server Version Detection	0.0 (Log)	10.0.0.10	80/tcp	

Tasks:

1. Once you get familiar with the procedure to scan a particular host, please try to scan other hosts that you had identified earlier in each of the corporate, control and substation networks.

2. Take some time to look through the various types of results from each scan to understand the type of vulnerabilities hosts have and how those could potentially affect the overall system availability/reliability.

3. With the scan results obtained from the first two labs and any other information you might have collected from the SCADA system, try to come up with one or two possible attacks as a penetration tester (Do not need to implement it).

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Internet access from your kali box:

Some of you complained that the Kali does not have access to the internet. Have asked your classmate Jacob Drahos to set up one proxy server for all the Kalis. Please check following notes from him to use the web proxy.

Configure Iceweasel (Firefox) for the Kali as follows:

- Open Iceweasel
- Go to connection settings
- Edit -> Preferences -> Advanced Tab -> Network Tab (within advanced tab) -> Settings
- Enter proxy settings for the workaround keyhole
- 27.67.83.253:3128
- Use for all protocols (see attached image)
- Save settings and exit (Enter works if it is cut-off due to screen resolution)

You should now be able to browse the web with Iceweasel.

If you want command-line tools to be able to access the internet, you will have to set the http_proxy and https_proxy environment variables:

export http_proxy="http://27.67.83.253:3128"
export https_proxy="$http_proxy"

Now command-line tools (in that shell session) will work through the proxy, for example curl or wget. This might not be particularly useful for now, but if you need to do it, you know how.