Chapter 2

Installation of Kali Linux on Android Phone

TRANSFORMING YOUR ANDROID PHONE

Think of your Android phone not just as a device for texting, calling, or watching videos, but as a tool that can be supercharged into a hacking powerhouse. With Kali Linux, you can take the first step into ethical hacking, transforming your phone into a powerful tool for penetration testing and cybersecurity. In this tutorial, we'll guide you through installing Kali Linux on your Android phone in a step-by-step manner.

BREAKING THE MYTH OF EXPENSIVE SETUP

Many people believe that ethical hacking can only be done on expensive laptops or computers. But that's just a misconception. With this course, we'll break that idea and prove that even your Android phone can handle the tools and tasks.

WHY DO WE NEED KALI LINUX FOR ETHICAL HACKING

Kali Linux is the go-to operating system for ethical hackers, and for good reason. It comes pre-installed with a variety of powerful tools and applications designed specifically for:

- **Penetration Testing**: Testing the security of systems and networks.
- **Vulnerability Analysis**: Identifying weaknesses that could be exploited by attackers.
- **Digital Forensics**: Analyzing and recovering data from devices in a secure manner.

These tools save a lot of time and effort. Instead of spending hours setting up and configuring individual tools, Kali Linux provides a ready-to-use environment. This allows ethical hackers to focus on the actual task at hand—improving system security—without worrying about technical barriers.

PREPARING TERMUX FOR KALI LINUX INSTALLATION

Before installing Kali Linux, we need to update and upgrade the Termux, the terminal emulator app, repository to ensure everything runs smoothly. Use the following commands:

Step 1: Update the Termux Repository

- Open Termux and type: `apt update`
- Press **Enter** and wait for the process to complete. This updates the list of available packages.

Step 2: Upgrade the Repository

- Next, type: `apt upgrade`

- Press **Enter**. During the upgrade process, you may be asked 3–4 times to keep the current version of certain packages. Type N each time and press Enter.

INSTALLING KALI LINUX

Once Termux is updated and upgraded, we can proceed to install Kali Linux. To install Kali Linux, follow these steps:

Step 1: Set Up Storage in Termux

- First, give Termux permission to access your phone's internal storage. Type the following command:
  `termux-setup-storage`
- Press **Enter**. Termux will request permission to access your phone's storage. Tap **Allow** to grant the permission.

Step 2: Install wget Package

- Next, we need to install the *wget* package, which allows us to download files directly from the internet. Type:
  `pkg install wget`
- Press Enter and wait for the installation to complete.

Step 3: Downloading the Kali NetHunter Installer

- The Kali NetHunter installer is a script that helps set up Kali Linux on Termux. Download it by typing:
  `wget -O install-nethunter-termux`
  `https://offs.ec/2MceZWr`
- This command will download the installer and save it as *install-nethunter-termux* in Termux.

Step 4: Granting Execute Permissions to the Installer

- The downloaded script needs permission to run. Grant it execute permissions using:
  `chmod +x install-nethunter-termux`

- This command makes the script executable.

Step 5: Running the Installer

- Now it's time to install Kali NetHunter. Execute the installer script by typing:
  `./install-nethunter-termux`
- The installation process will begin.

Step 6: Start the Installation Process

- After entering the commands, you will be asked to type **1** to begin the installation.
- This will download the Kali Linux file, which is approximately 2 GB in size. The download time will vary depending on your internet speed.
- Once the download is complete, the extraction process will start automatically. This may take 5–10 minutes.

Step 5: Delete the Downloaded File

- After extraction, Termux will ask if you want to delete the downloaded file. Type `Y` (Yes) and press Enter to free up space.

STARTING AND STOPPING KALI LINUX

Once installed, you can start or stop Kali Linux easily:

- `nh -r` (to start)
- `kex stop` (to stop)

SETTING A PASSWORD FOR KALI LINUX

It's important to set a password for security. Use the following command:
`kex passwd`

You will be prompted to enter and confirm a password. Choose a password of your choice and press Enter.

ENABLING THE GRAPHICAL INTERFACE

By default, Kali Linux runs in a command-based environment. To make it more user-friendly, we will enable the **Graphical User Interface** (GUI).

Step 1: Start the VNC Server

- Type the following command to start the VNC server:
  `kex &`
- Press **Enter**. This will start the VNC server, which enables GUI access.

Step 2: Install and Set Up VNC Viewer

- Download the VNC Viewer app from the link: [Click Here].
- Open the app and click on the **+** icon.
- In the Address field, type: `localhost:5902`
- In the Name field, you can enter anything (e.g., “Kali”).
- Click **Create**, then **Connect**.
- Enter the password you set earlier in Kali Linux and click **Continue**.

Step 3: Optimize Display Settings

For a better experience, adjust the picture quality in VNC Viewer to **High**.

FIXING COMMON INTERNET ERRORS

Sometimes, you may encounter errors like "Server Not Found" when trying to browse the internet in Kali Linux. Here’s how to fix them:

Step 1: Browser Settings

- Open the browser and type:
  `about:config`
- Search for Sandbox.
- Set Media Sandbox from *true* to *false*.
- Change security sandbox content level from *4* to *0*.

Step 2: Modify Nameserver Configuration

- Run the following commands in the terminal:
  - *cd /etc/*
  - *nano resolv.conf*
- Scroll to the bottom and locate the nameserver. Change its value to: *8.8.8.8*
- Save the changes by pressing *Ctrl+X*, then *Y*, and Enter.

By following these commands, you'll successfully install and set up Kali Linux on your Android phone using Termux.

CONCLUSION

Congratulations! You've turned your Android phone into a powerful tool by installing Kali Linux. With this setup, you now have access to all the tools needed for ethical hacking, like testing security and finding vulnerabilities. This is just the first step in your learning journey. Keep practicing and exploring to improve your skills. Always use your knowledge responsibly to make the internet safer for everyone.

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