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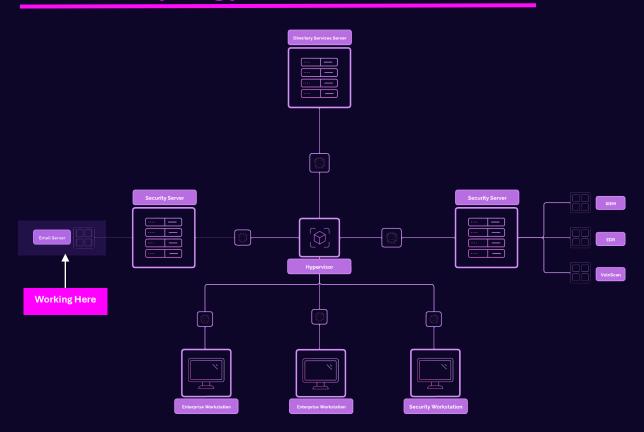
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Prerequisites

- 1. Virtual Box Installed.
- 2. Virtual Machine with Kali Linux ISO has been configured and provisioned (the ISO should be attached to the new VM).

Network Topology



Kali Linux Overview

What is Kali Linux?

Kali Linux is a specialized Linux distribution tailored for cybersecurity professionals and ethical hackers. Developed by Offensive Security, it is a Debian-based operating system preloaded with tools designed for penetration testing, ethical hacking, and digital forensics. Kali Linux is widely used for assessing system vulnerabilities, testing network security, and investigating cyber incidents.

Kali comes with a suite of security tools to assist in the operations.

How is Kali Linux Used?

Kali Linux serves multiple purposes in the cybersecurity field, including:

1. Penetration Testing:

Professionals use Kali Linux to simulate real-world cyberattacks and identify vulnerabilities in systems, networks, and applications. Tools like Metasploit and Burp Suite are often employed in these scenarios.

2. Vulnerability Assessment:

It provides tools to scan and identify weaknesses in infrastructure, ensuring they are addressed before exploitation.

3. Cybersecurity Training:

Kali Linux is widely used in cybersecurity training programs, competitions, and certifications.

Security Implications

Leveraging an operating system like Kali Linux carries certain benefits and risks.

Benefits

- Can be used by trained professionals to help understand their organizational security controls and identify vulnerabilities before actors can exploit them.
- Offers a platform to safely practice offense security techniques in controlled environments.
- Tools are aggregated in one centralized ecosystem.

Risks

- This tool can also be used maliciously by attackers if accessed by unauthorized individuals.
- Kali Linux is not meant to be a production environment without isolation. Be careful.

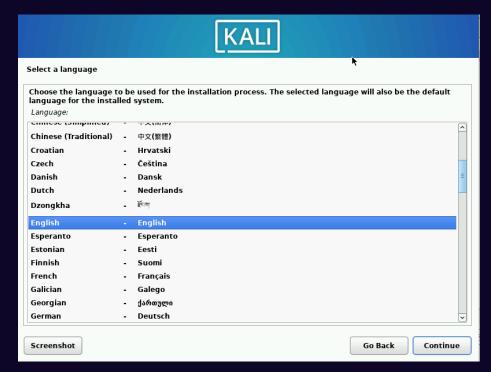
Configure Kali Linux

Step 1

Choose the default "Graphical install".



Choose Language → "Continue".



Choose the Country and Keyboard layout.

Change the hostname from Kali to attacker -> "Continue".



Configure the network

Please enter the hostname for this system.

The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here.

Hostname:

attacker

Leave the domain name empty → "Continue".



Configure the network

The domain name is the part of your Internet address to the right of your host name. It is often something that ends in .com, .net, .edu, or .org. If you are setting up a home network, you can make something up, but make sure you use the same domain name on all your computers.

Domain name:

Add "attacker" as the new user and username.



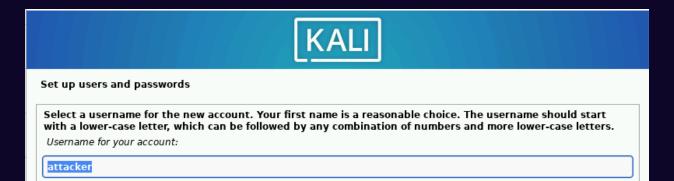
Set up users and passwords

A user account will be created for you to use instead of the root account for non-administrative activities.

Please enter the real name of this user. This information will be used for instance as default origin for emails sent by this user as well as any program which displays or uses the user's real name. Your full name is a reasonable choice.

Full name for the new user:

attacker



Enter "attacker" as the default password \rightarrow "Continue".

 ☐ Refer to the "Project Overview" guide for more information on default usernames and passwords.

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 ☐ Project Overvie



Choose time zone of your choice for the clock option \rightarrow "Continue."

Select "Guided – use entire disk" \rightarrow "Continue." Keep all defaults selected.



Partition disks

The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results.

If you choose guided partitioning for an entire disk, you will next be asked which disk should be used. Partitioning method:

Guided - use entire disk

Guided - use entire disk and set up LVM

Guided - use entire disk and set up encrypted LVM

Manual



Partition disks

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.

Select disk to partition:

SCSI3 (0,0,0) (sda) - 53.7 GB ATA VBOX HARDDISK



Partition disks

Selected for partitioning:

SCSI3 (0,0,0) (sda) - ATA VBOX HARDDISK: 53.7 GB

The disk can be partitioned using one of several different schemes. If you are unsure, choose the first one.

Partitioning scheme:

All files in one partition (recommended for new users)

Separate /home partition

Separate /home, /var, and /tmp partitions



Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

Configure software RAID

Configure the Logical Volume Manager

Configure encrypted volumes

Configure iSCSI volumes

> #1 primary 52.7 GB f ext4

> #5 logical 1.0 GB f swap swap

Undo changes to partitions

Finish partitioning and write changes to disk

Change "Write the changes to disks?" to "Yes" → "Continue."



Partition disks

If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.

The partition tables of the following devices are changed: SCSI3 (0,0,0) (sda)

The following partitions are going to be formatted: partition #1 of SCSI3 (0,0,0) (sda) as ext4

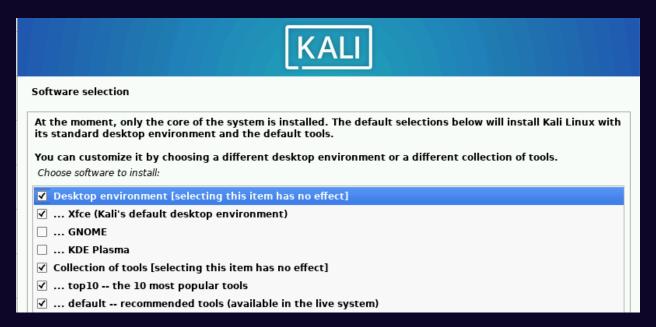
partition #5 of SCSI3 (0,0,0) (sda) as swap

Write the changes to disks?

O No

Yes

Keep defaults selected \rightarrow "Continue". Wait for the software to install.



Install the GRUB Loader.





Install the GRUB boot loader

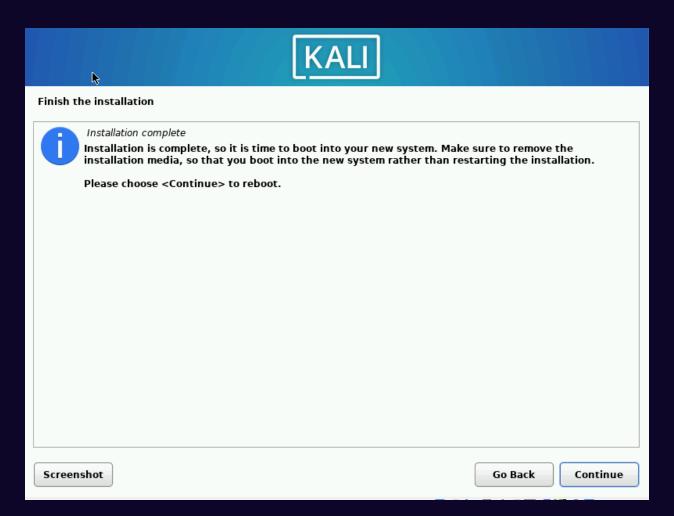
You need to make the newly installed system bootable, by installing the GRUB boot loader on a bootable device. The usual way to do this is to install GRUB to your primary drive (UEFI partition/boot record). You may instead install GRUB to a different drive (or partition), or to removable media.

Device for boot loader installation:

Enter device manually

/dev/sda (ata-VBOX_HARDDISK_VB5d61cf98-74d412e5)

Select "Continue" and allow the system to reboot.



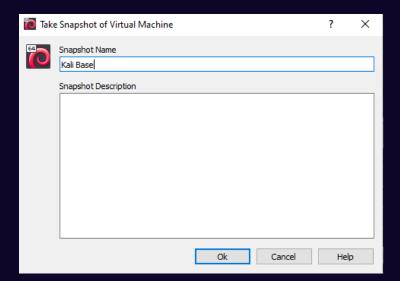
Login as the under the attacker account.



Success!



Take Snapshot!



Optional

Disable Default Logoff

Go to the Menu Bar \rightarrow "Power Manager".



Navigate to "Display" tab → Drag Toggle to the left.

