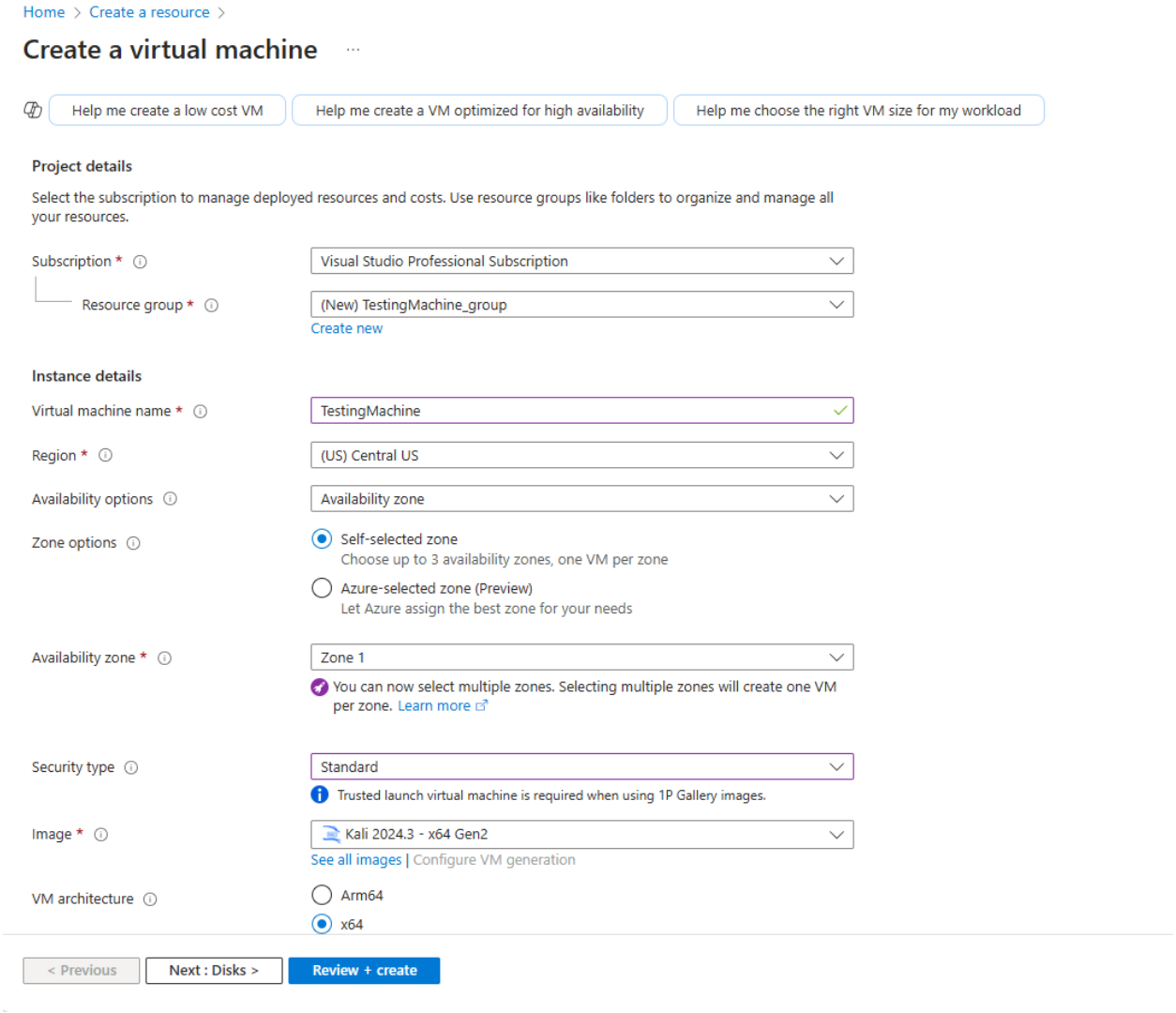
Installing a Graphical User Interface (GUI) on Kali Linux

This guide provides a step-by-step walkthrough of installing XRDP on a Kali Linux instance to establish remote desktop access with a graphical user interface.



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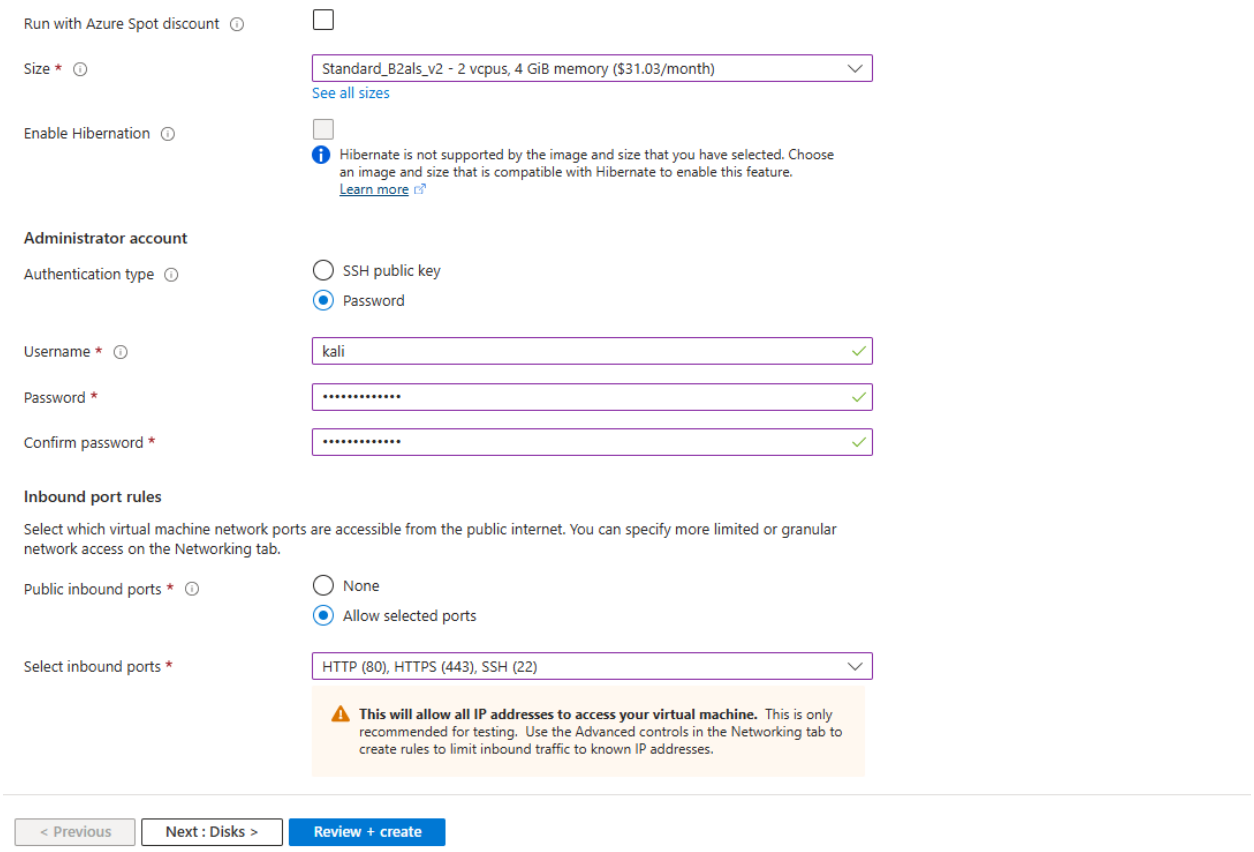


Select a virtual machine size that maximizes resources within the budget assigned and business requirements.

SecAdmin Notes:

- Azure's internal configurations necessitate specific inbound ports (HTTP 80, HTTPS 443, SSH 22, and RDP) based on VM size.
- RDP access is required to facilitate remote connection and management.

Hands-On

Launch your terminal application. No administrative privileges are required. Connect to the virtual machine via SSH using: ssh <Username>@<PublicIP>. After entering your password,

proceed with the system update and installation of necessary dependencies and packages.

```
>ssh kali@20.15.201.112
```

Public IP address : 20.15.201.112

We will install an update to the file with root privileges, and upgrade the system dependencies.

```
┌──(Run: "touch ~/.hushlogin" to hide this message)
┌──(kali㉿kali)-[~]
└─$ sudo apt update && sudo upgrade -y
```

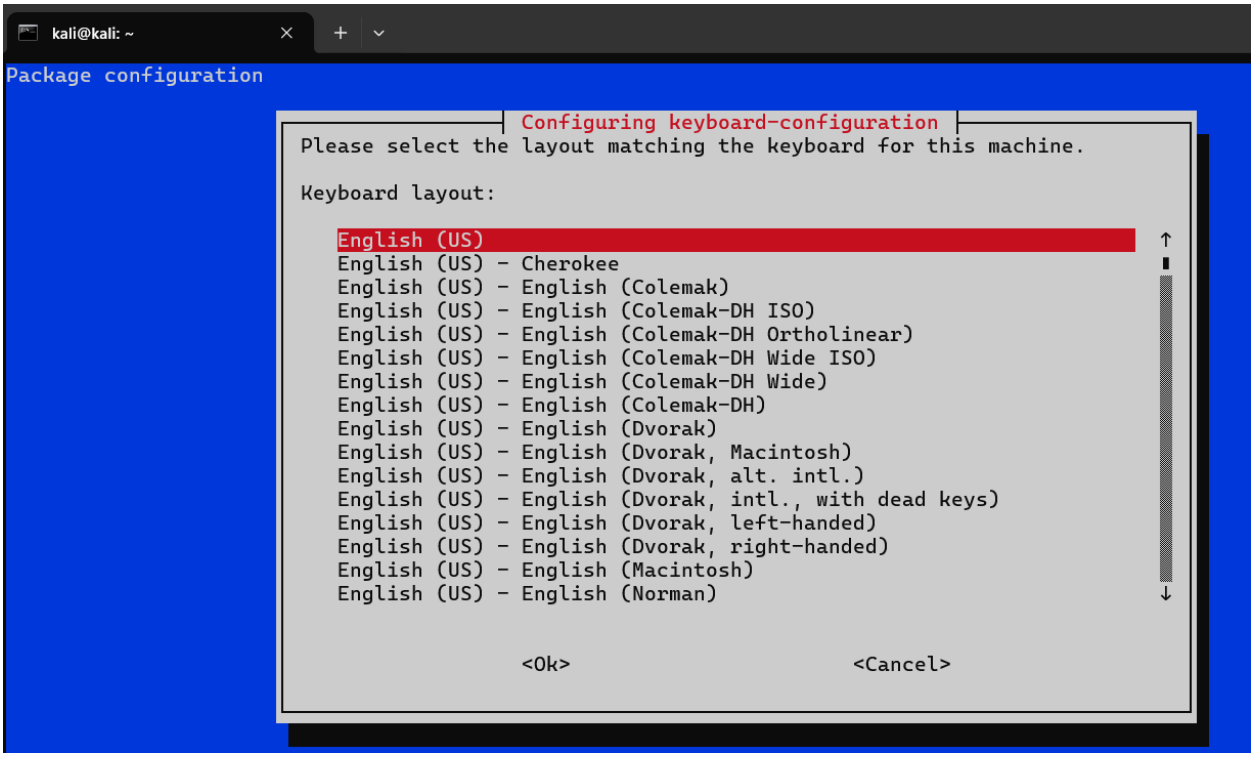
Use sudo apt-get install xfce4 xfce4-goodies -y to perform a root-level installation of the XFCE4 desktop environment and its "goodies" package. The -y flag automatically answers "yes" to all installation prompts, preventing interactive confirmation.

XFCE4: It's a lightweight and fast desktop environment that provides a graphical user interface (GUI).

xfce4-goodies: This is a package that contains extra utilities and plugins that enhance the XFCE4 desktop experience.

```
┌──(kali㉿kali)-[~]
└─$ sudo apt-get install xfce4 xfce4-goodies -y
```

Next, accept the package configuration by clicking OK.



We will begin by installing and updating XRDP. Subsequently, we will enable the service to start on boot using sudo systemctl enable xrdp. Finally, we will start the XRDP service immediately with sudo systemctl start xrdp.

XRDP acts as a bridge, enabling communication between RDP clients and the Linux X Window System (which is responsible for the graphical display). It essentially translates RDP signals into commands that the Linux desktop can understand, and vice versa.

```
┌──(kali㉿kali)-[~]
└─$ sudo apt-get install xrdp -y
```

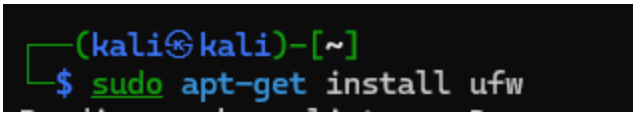
```
┌──(kali㉿kali)-[~]
└─$ sudo systemctl enable xrdp
```

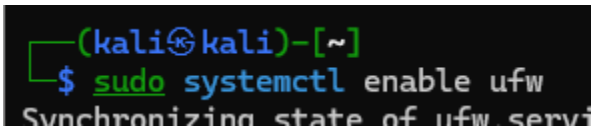
```
┌──(kali㉿kali)-[~]
└─$ sudo systemctl start xrdp
```

To ensure XFCE4 starts automatically upon user login, execute the following command: echo "startxfce4" > ~/.xsession. This writes the command to launch XFCE4 into the user's .xsession file.

systemctl enable ufw is a command used in Linux systems that utilize systemd (a system and service manager) to configure the Uncomplicated Firewall (UFW) to start automatically at system boot

First, install any missing UFW dependencies. Then, use systemctl enable ufw to activate your firewall on startup. This is an important security measure for Linux systems.

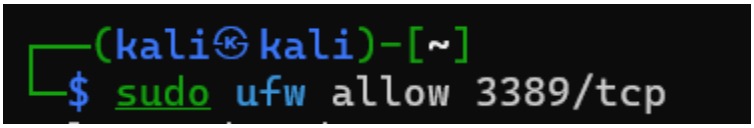




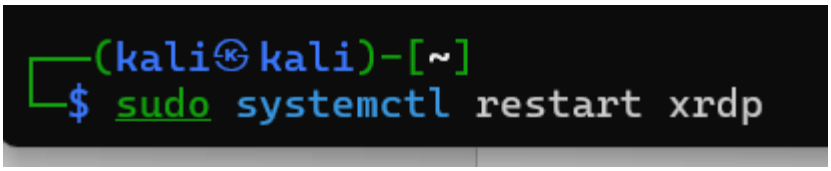
We will now configure the firewall to permit RDP connections by allowing traffic on port 3389.

Open Firewall Ports:

22- SSH (Secure Shell)
3389- RDP (Remote Desktop Protocol)
5985 - WinRM (Windows Remote Management - HTTP)
5986 - WinRM (Windows Remote Management - HTTPS)



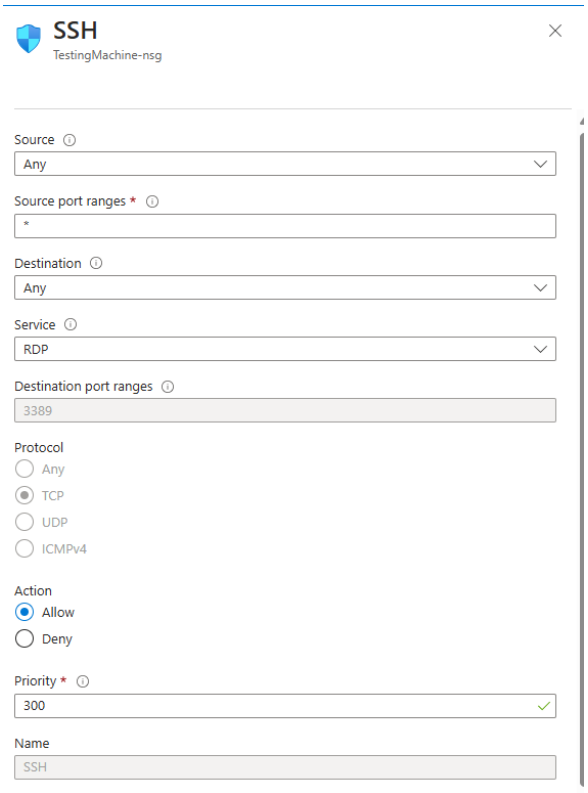
To finalize the configuration, we will restart the XRDP service and then exit.

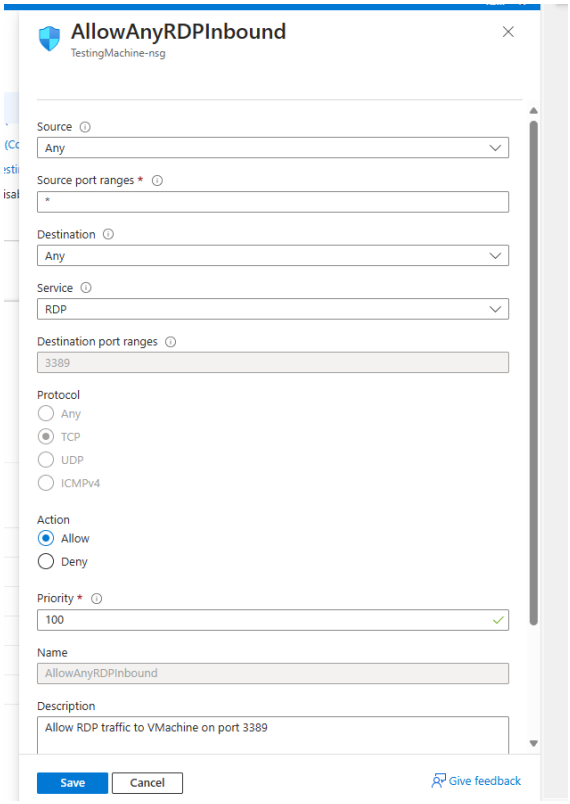


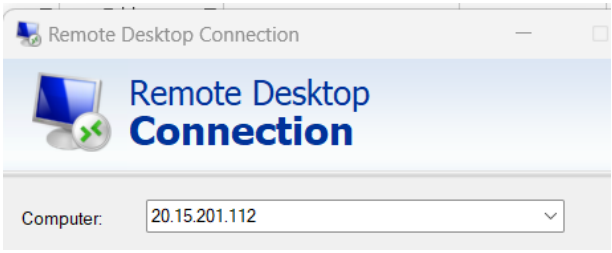
Next, access the instance's networking settings and add a new inbound rule. Specify the port, enable TCP, and ensure the service is running.

SecAdmin Notes: Depending on the instance size, you may need to modify the existing SSH rule to also allow RDP traffic.

Finally, we will open a remote desktop connection and log in using our installed distribution.







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