AMRITA VISHWA VIDHYAPEETHAM
AMRITA SCHOOL OF ENGINEERING

IMPLEMENTATION OF NETWORK VIRTUALIZATION FOR

DISASTER RECOVERY

TEAM MEMBERS

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INTRODUCTION

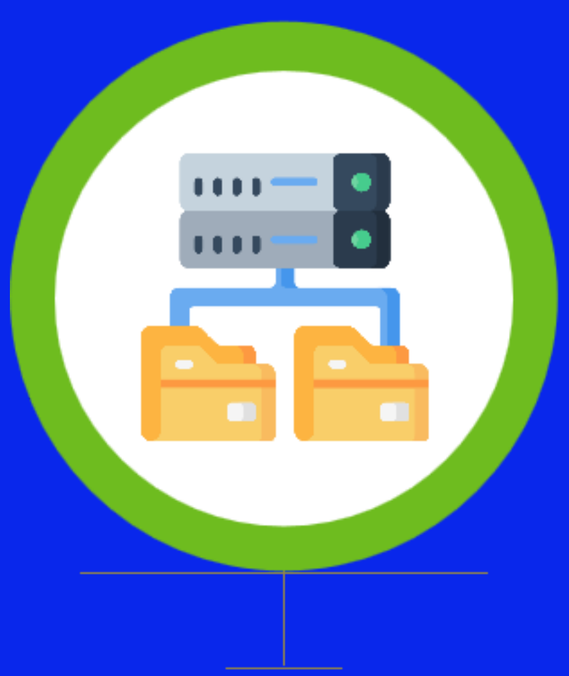
In the world filled with numerous cybercrimes, it is imperative for all organizations to be prepared to face disasters that could affect their systems at any time.

There are many options to safeguard your systems against the various threats, the best one being virtualization. It helps reduce the time required to get your systems up and running after they’ve been hit by a disaster.

PROBLEM STATEMENT

A virtualization disaster recovery plan is a plan that outlines the steps that should be taken to recover a virtualized IT infrastructure in the event of a disaster. The goal of such a plan is to minimize downtime and ensure that critical systems and services are quickly restored to operation.

WHY NETWORKING IS IMPORTANT



01
Resource Sharing

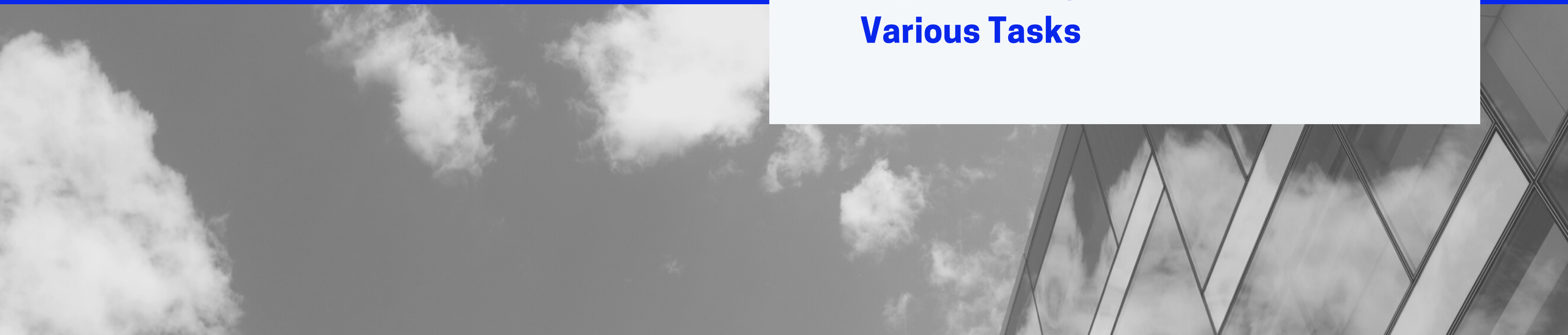
02
Communication

03
Data Security

04
Productivity

PLAN FOR VIRTUALIZED DISASTER RECOVERY

- Identifying Your Critical Virtual Machines
- Defining a Backup and Recovery Strategy
- Ensuring Proper Connectivity Between the Primary Site and the Disaster Recovery Site
- Testing the Disaster Recovery Process Thoroughly
- Implementing Automation for Various Tasks



NETWORK REQUIREMENTS

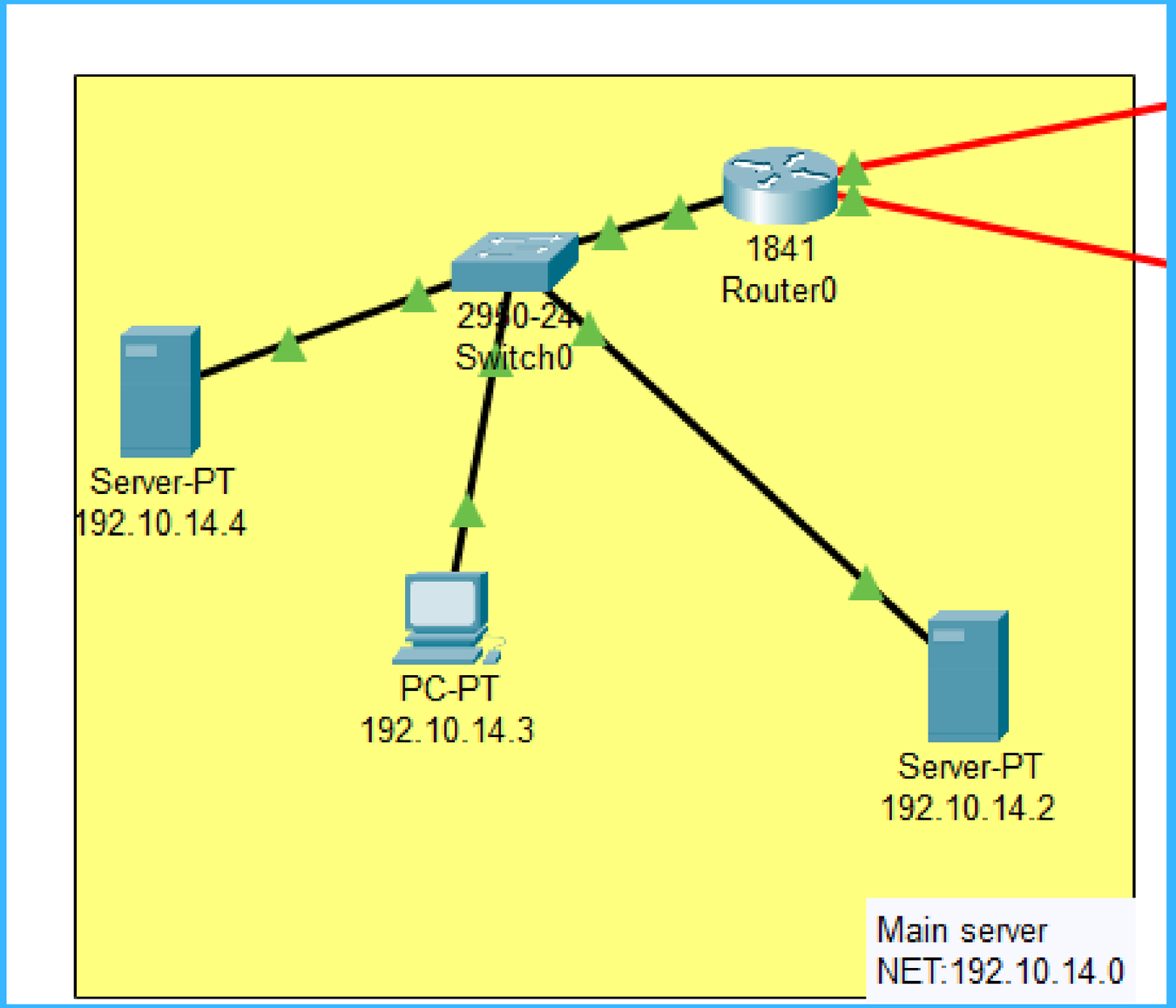
SWITCHES-1
PC-1
ROUTER-1
SERVER-2

SWITCHES-1
PC-1
ROUTER-1
SERVER-2

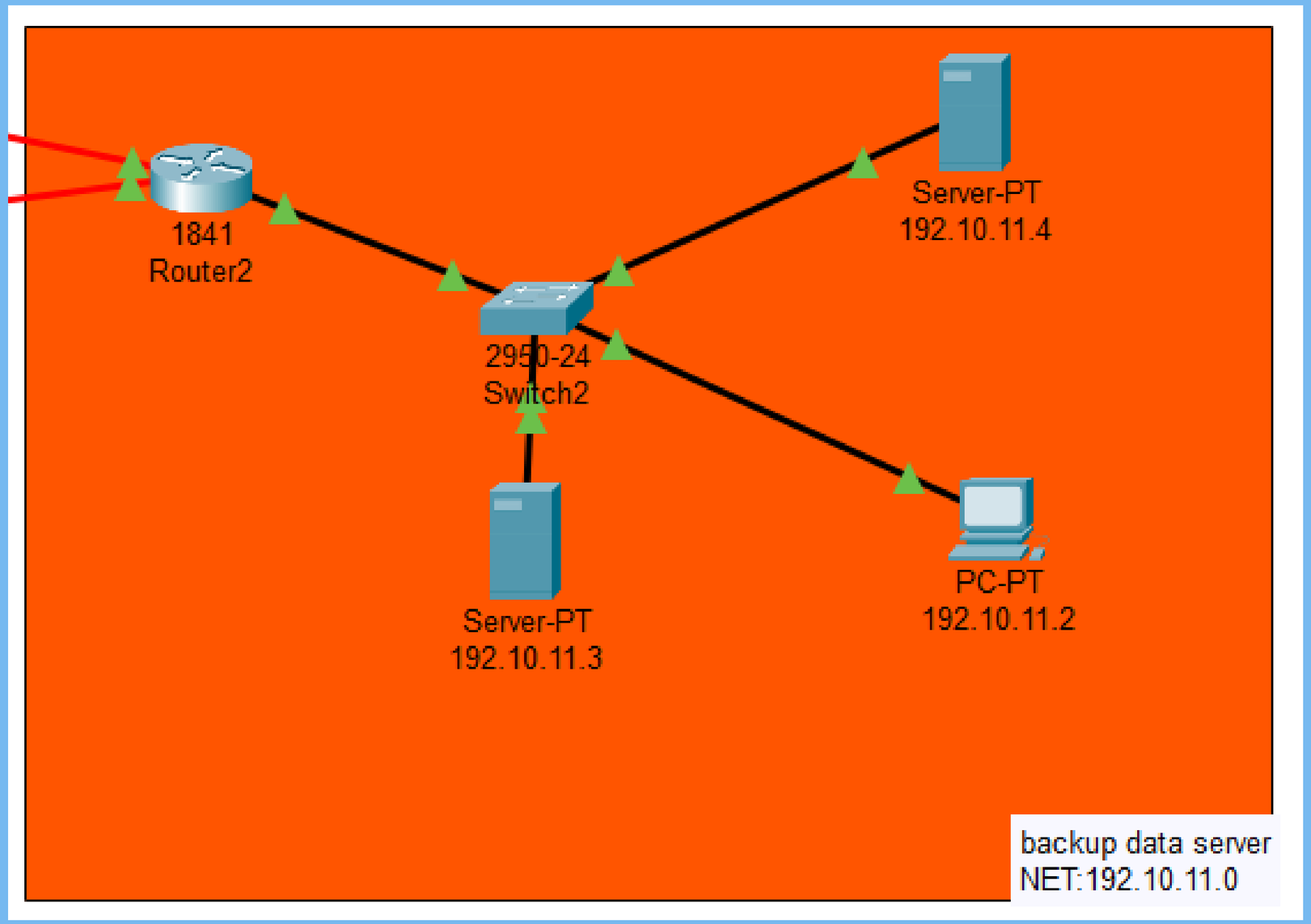
SWITCHES-1
PC-2
ROUTER-1

SWITCHES-1
PC-2
ROUTER-1

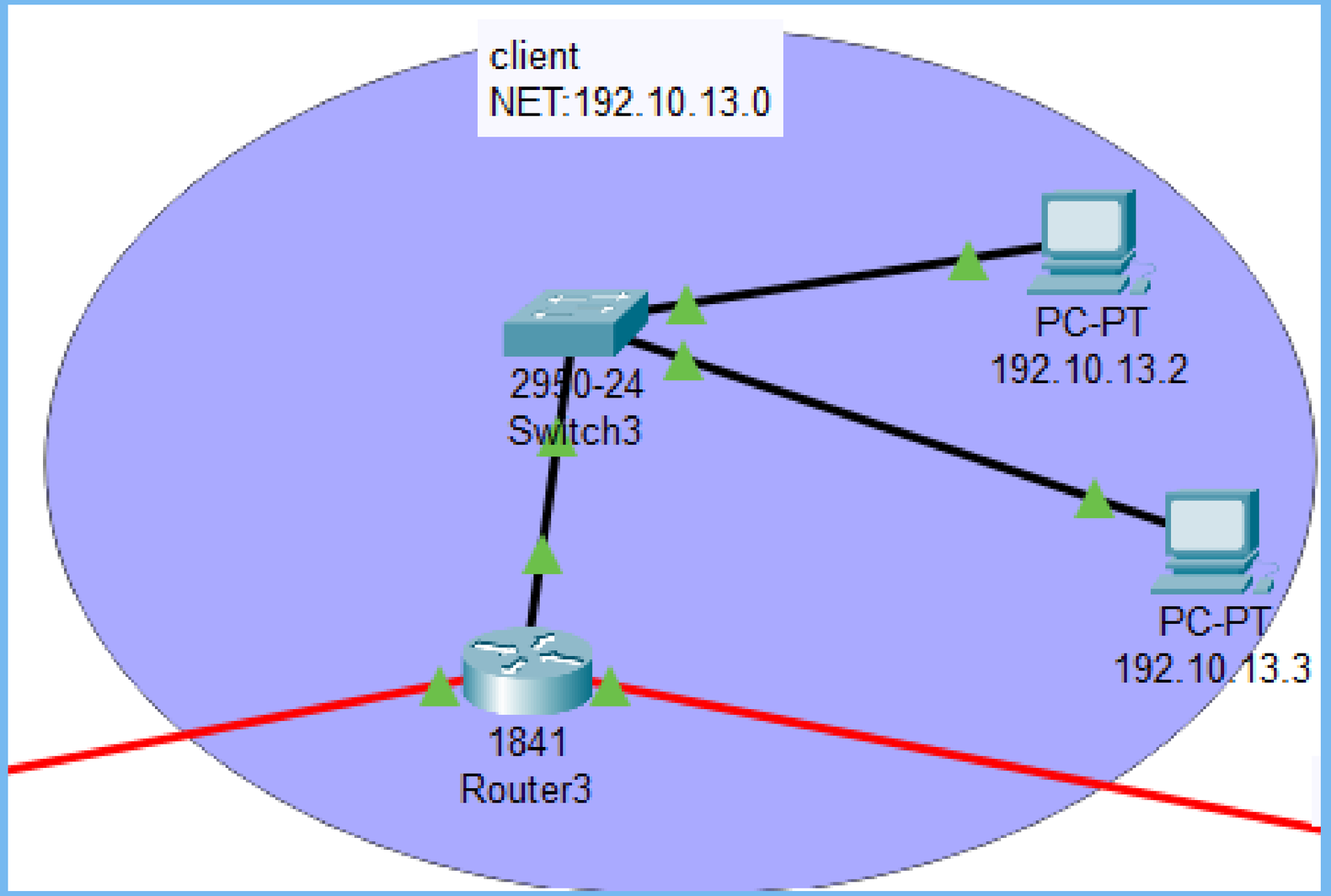
MAIN SERVER


1841
Router0
2960-24
Switch0
Server-PT
192.10.14.4
PC-PT
192.10.14.3
Server-PT
192.10.14.2
Main server
NET:192.10.14.0

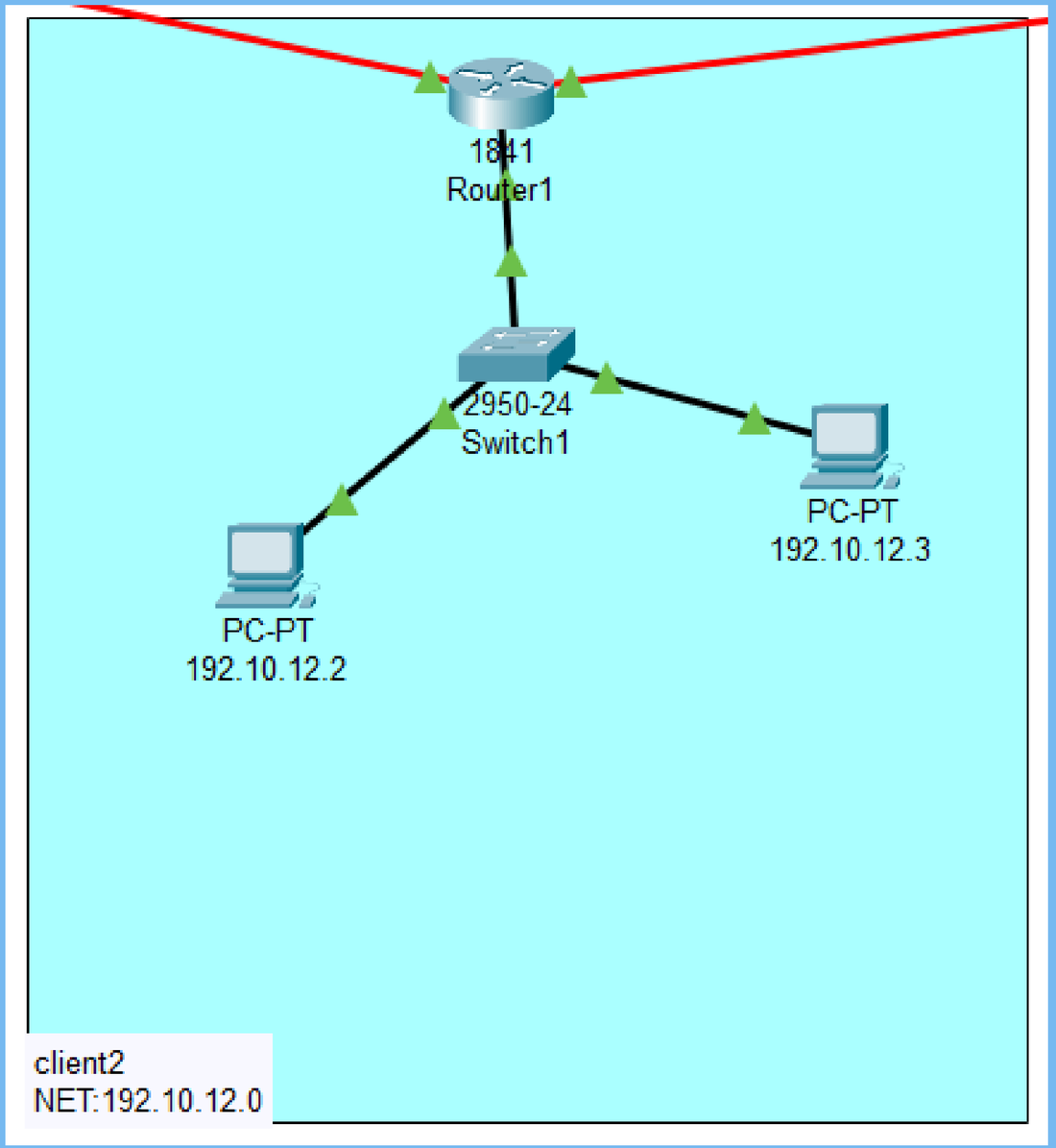
BACKUP SERVER



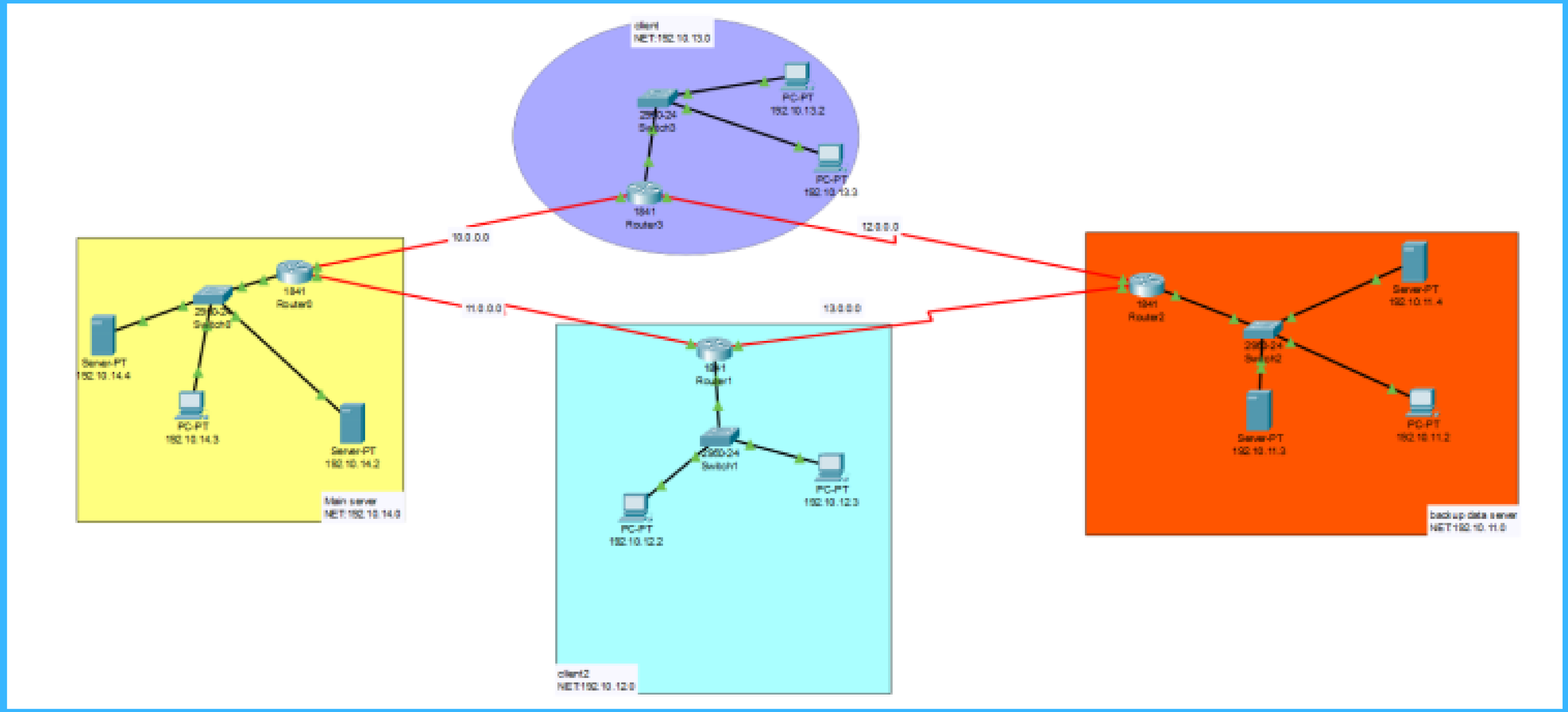
CLIENT 1


client
NET:192.10.13.0
PC-PT
192.10.13.2
2950-24
Switch3
PC-PT
192.10.13.3
1841
Router3

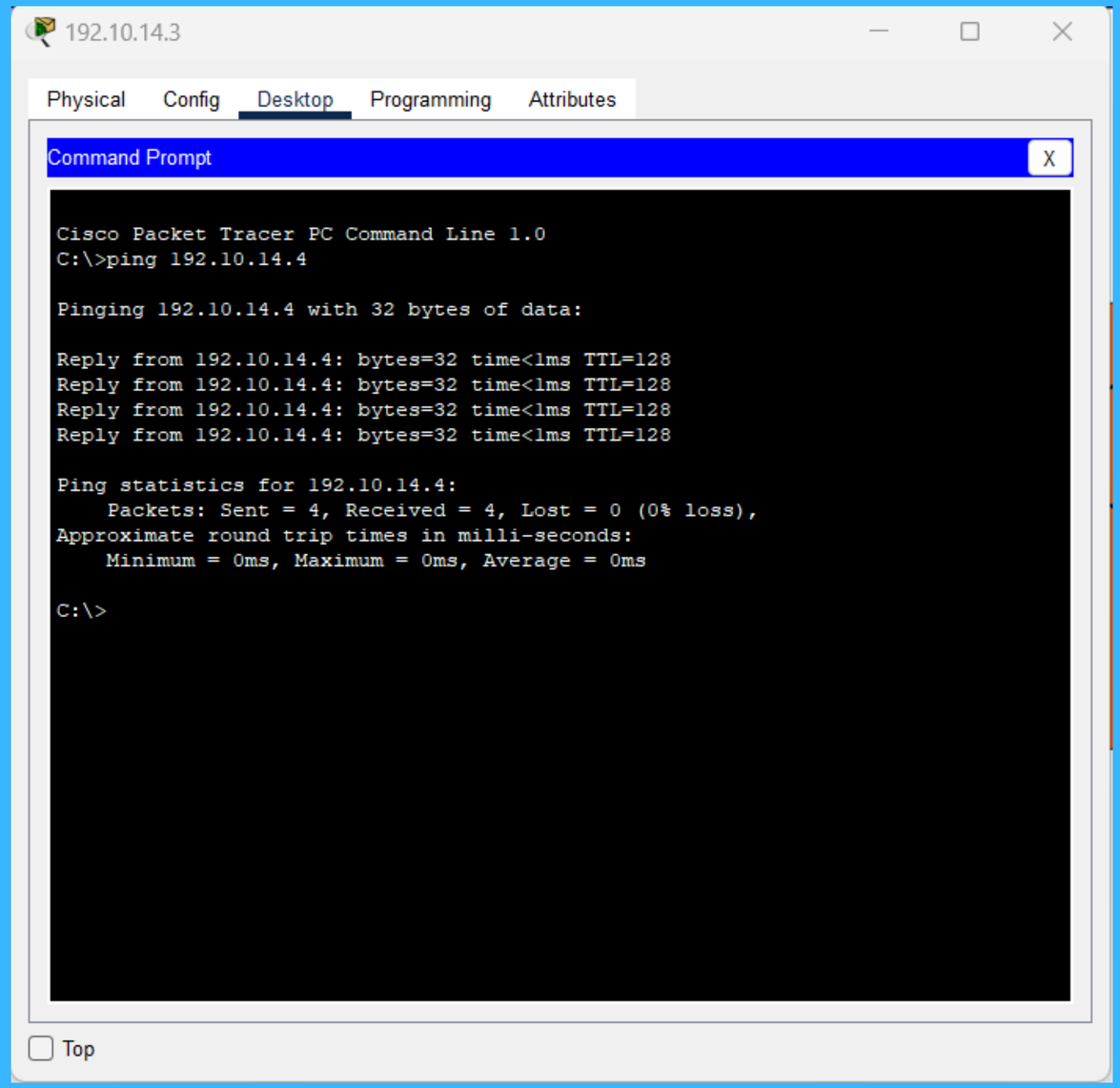
CLIENT 2


1841
Router1
2950-24
Switch1
PC-PT
192.10.12.3
PC-PT
192.10.12.2
client2
NET:192.10.12.0

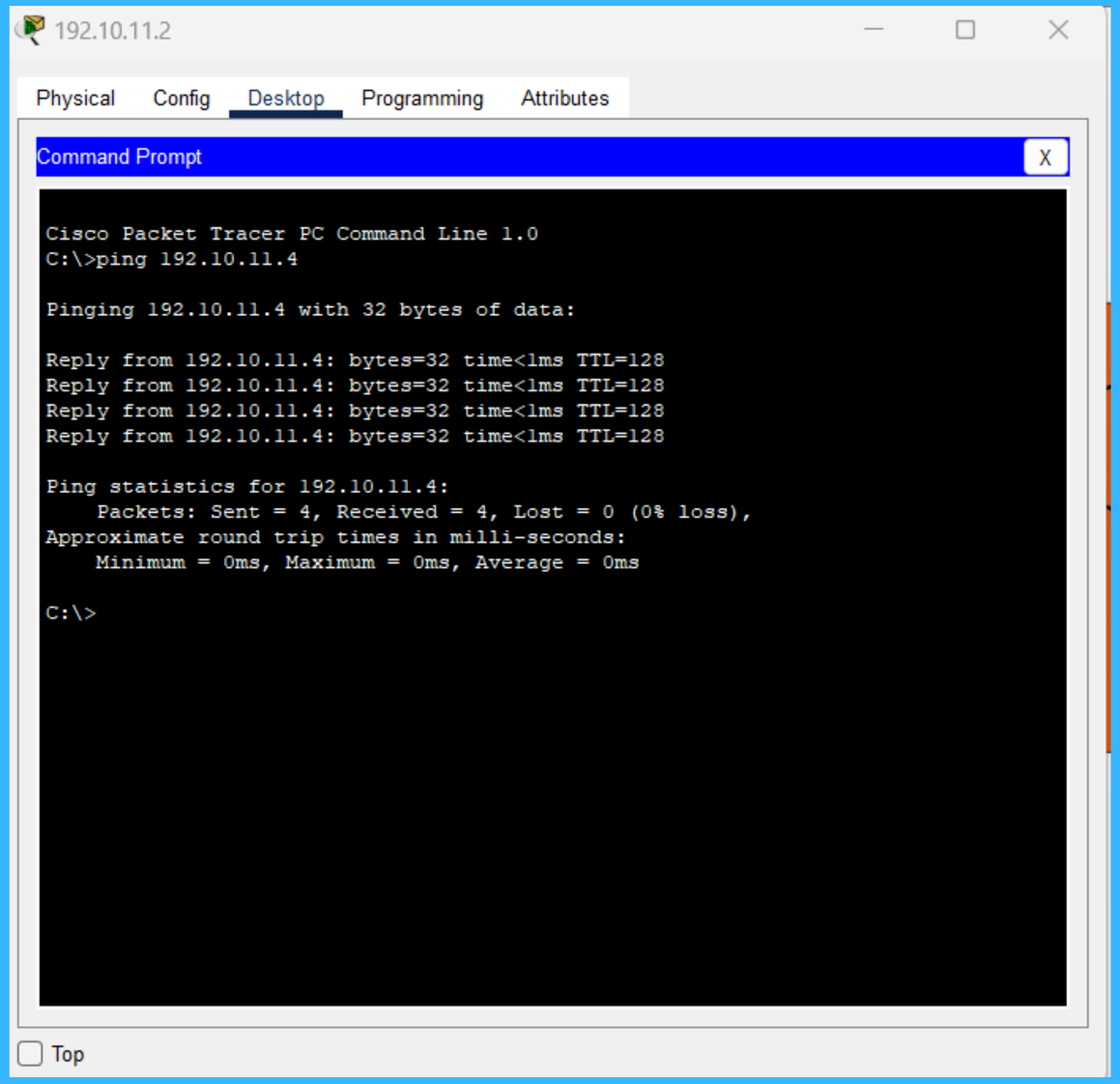
FINAL SIMULATION



Ping Test for DNS Server



Ping Test for WEB Server



CONCLUSION:

Virtualization can be an effective tool for disaster recovery because it allows an organization to quickly and easily spin up virtual copies of their servers and applications in the event of a disaster. This can help minimize downtime and keep the business running smoothly. In addition, virtualization allows for the creation of backup copies of servers and applications, which can be used to restore the system in the event of a disaster. Overall, virtualization can provide a cost-effective and flexible solution for disaster recovery, making it an attractive option for many organizations.

One of the key benefits of using virtualization for disaster recovery is that it allows organizations to easily replicate their entire IT infrastructure in a virtual environment. This means that if a disaster strikes and physical resources are lost or damaged, the virtual infrastructure can be quickly brought online to take its place. This can help to ensure that essential business functions are maintained and that there is minimal disruption to operations.

THE END