



Green University of Bangladesh
Department of Computer Science and Engineering
Faculty of Sciences and Engineering
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Lab Report :02
Course Title: Computer Networking Lab
Course Code: CSE 312
Section: 211 D2

Experiment Name:
Configuration of SMTP and FTP Server for the given network

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<u>Status</u>	
Marks:	Signature:
Comments:	Date:

0.1 Introduction

In today's interconnected world, the effective sharing and transfer of data are essential for businesses and individuals alike. Two key technologies that facilitate this exchange of information are the Simple Mail Transfer Protocol (SMTP) and File Transfer Protocol (FTP). In a networked environment, configuring these servers plays a crucial role in ensuring efficient communication and data sharing. This document outlines the configuration of SMTP and FTP servers in the context of a network, providing an overview of the setup and its importance.

0.2 Objectives

1. To build and design a network using Cisco Packet Tracer
2. To learn about step-by-step configuration of SMTP Server using Cisco Packet Tracer
3. To learn how to transfer mail from one client to another client.
4. To build different mail server and communicate through router
5. To learn about step-by-step configuration of FTP Server using Cisco Packet Tracer.
6. To learn how to upload a file ,rename , delete to the FTP Server.

0.3 Implementation

Configuration of SMTP and FTP Server for the above network of Figure

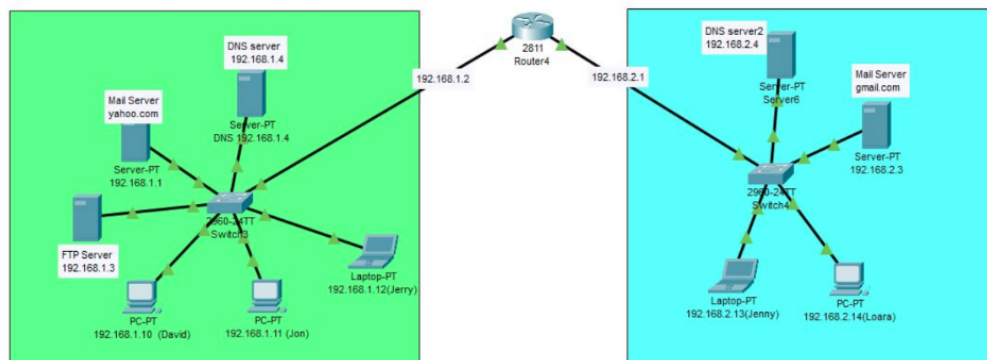


Figure 1: given figure

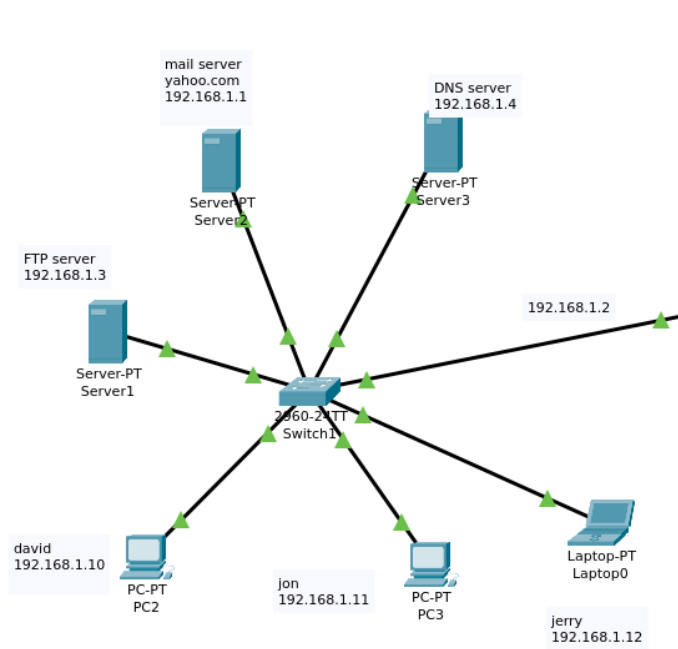


Figure 2: Left side configuration

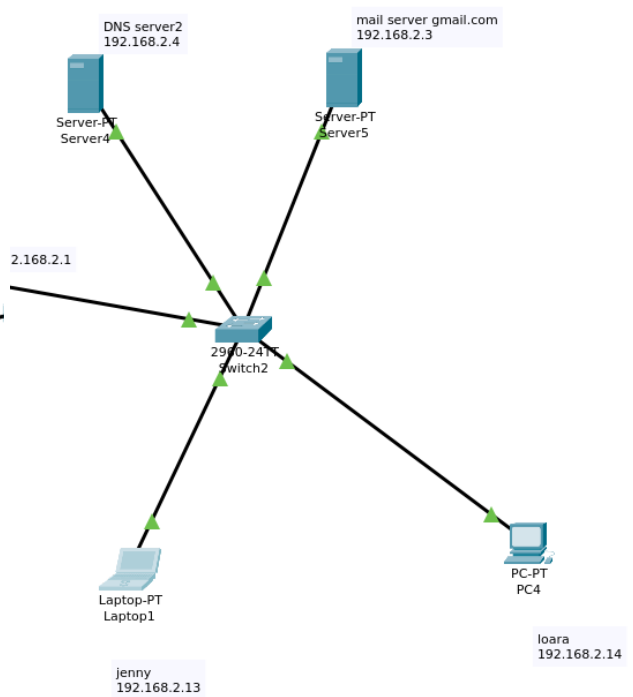


Figure 3: Right side configuration

Server1 configuration window showing IP and IPv6 settings. The IP Configuration tab is active, showing Static IP settings for IPv4 and IPv6.

Configuration	Static
IPv4 Address	192.168.1.3
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::230:F2FF:FEDD:3294
Default Gateway	
DNS Server	

802.1X Security: ☐ Use 802.1X Security

Figure 4: FTP server configuration

PC2 configuration window showing IP and IPv6 settings. The IP Configuration tab is active, showing Static IP settings for IPv4 and IPv6.

Configuration	Static
IPv4 Address	192.168.1.10
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.2
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::2E0:8FFF:FE07:E87
Default Gateway	
DNS Server	

802.1X Security: ☐ Use 802.1X Security

Figure 5: Pc2 configuration

DNS server configuration window showing IP and IPv6 settings. The IP Configuration tab is active, showing Static IP settings for IPv4 and IPv6.

Configuration	Static
IPv4 Address	192.168.1.4
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.2
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::20C:85FF:FEDD:5C45
Default Gateway	
DNS Server	

802.1X Security: ☐ Use 802.1X Security

Authentication: ☐ MDS

Figure 6: DNS server configuration

Router configuration window showing FastEthernet0/0 settings. The Config tab is active, showing interface configuration for FastEthernet0/0.

FastEthernet0/0					
Port Status	<input checked="" type="checkbox"/> On				
Bandwidth	<input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto				
Duplex	<input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto				
MAC Address	00D0.FF13.E301				
IP Configuration	<table border="1"> <tr> <td>IPv4 Address</td> <td>192.168.1.2</td> </tr> <tr> <td>Subnet Mask</td> <td>255.255.255.0</td> </tr> </table>	IPv4 Address	192.168.1.2	Subnet Mask	255.255.255.0
IPv4 Address	192.168.1.2				
Subnet Mask	255.255.255.0				
Tx Ring Limit	10				

equivalent IOS Commands

```

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
  
```

Figure 7: router configuration for left side connection

Router configuration window showing FastEthernet0/1 settings. The Config tab is active, showing interface configuration for FastEthernet0/1.

FastEthernet0/1					
Port Status	<input checked="" type="checkbox"/> On				
Bandwidth	<input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto				
Duplex	<input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto				
MAC Address	00D0.FF13.E302				
IP Configuration	<table border="1"> <tr> <td>IPv4 Address</td> <td>192.168.2.1</td> </tr> <tr> <td>Subnet Mask</td> <td>255.255.255.0</td> </tr> </table>	IPv4 Address	192.168.2.1	Subnet Mask	255.255.255.0
IPv4 Address	192.168.2.1				
Subnet Mask	255.255.255.0				
Tx Ring Limit	10				

equivalent IOS Commands

```

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
  
```

Router>enable

Figure 8: router configuration for right side connection

0.4 Result

Final structure

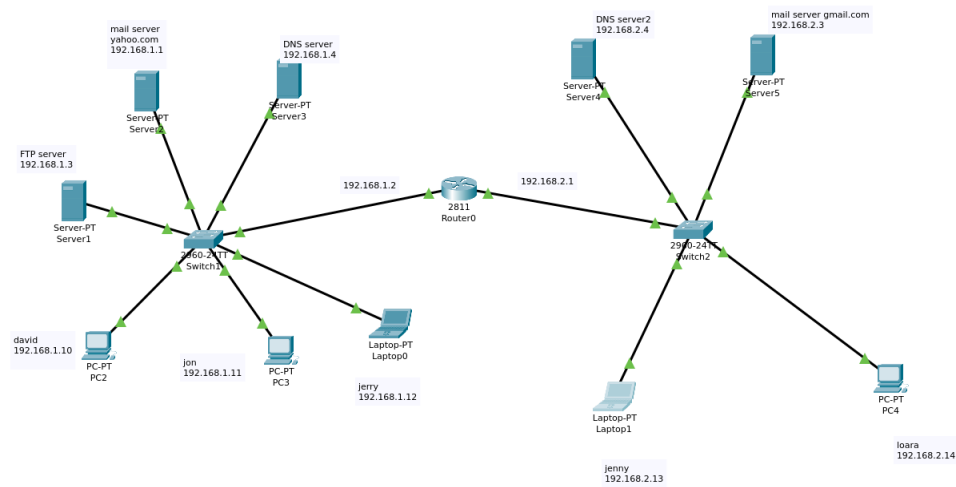


Figure 9: Final result

Email send form david pc to jenny pc

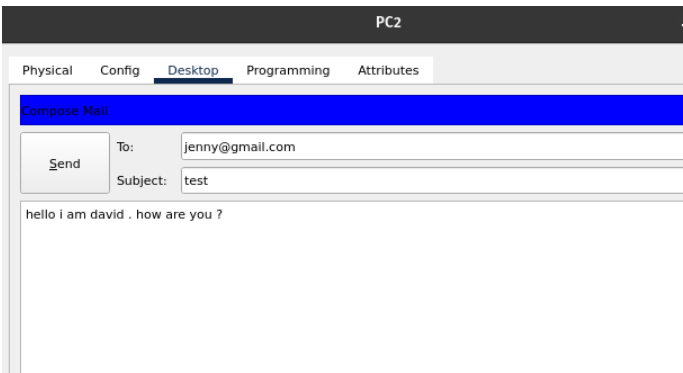


Figure 10: email send to jenny

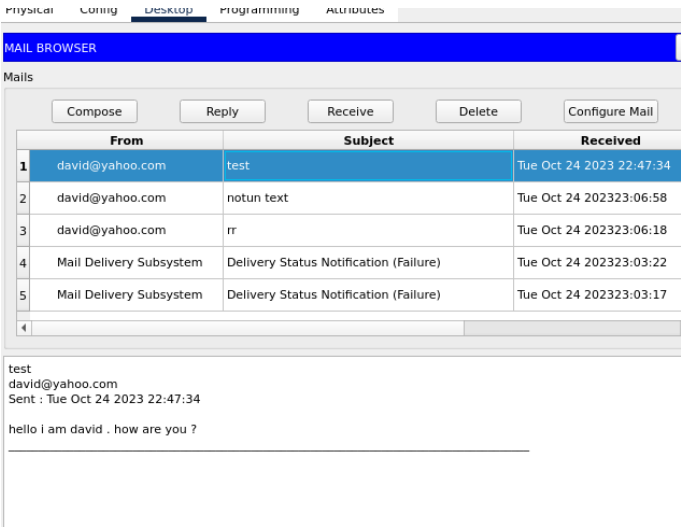


Figure 11: email received jenny from david

Ftp connection

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ftp 192.168.1.3
Trying to connect...192.168.1.3
Connected to 192.168.1.3
220- Welcome to FT Ftp server
Username:admin
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>dir

Listing /ftp directory from 192.168.1.3:
0  : asa842-k8.bin                    5571584
1  : asa923-k8.bin                    30468096
2  : c1841-advipservicesk9-mz.124-15.T1.bin  33591768
3  : c1841-ipbase-mz.123-14.T7.bin    13832032
4  : c1841-ipbasek9-mz.124-12.bin     16599160
5  : c1900-universalk9-mz.SPA.155-3.M4a.bin  33591768
6  : c2600-advipservicesk9-mz.124-15.T1.bin  33591768
7  : c2600-i-mz.122-28.bin            5571584
8  : c2600-ipbasek9-mz.124-8.bin      13169700
9  : c2800nm-advipservicesk9-mz.124-15.T1.bin  50938004
10 : c2800nm-advipservicesk9-mz.151-4.M4.bin  33591768
11 : c2800nm-ipbase-mz.123-14.T7.bin    5571584
12 : c2800nm-ipbasek9-mz.124-8.bin     15522644
13 : c2900-universalk9-mz.SPA.155-3.M4a.bin  33591768
14 : c2950-i6q412-mz.121-22.EA4.bin    3058048
15 : c2950-i6q412-mz.121-22.EA8.bin    3117390
16 : c2960-lanbase-mz.122-25.FX.bin    4414921
17 : c2960-lanbase-mz.122-25.SEE1.bin   4670455
18 : c2960-lanbasek9-mz.150-2.SE4.bin   4670455
19 : c3560-advipservicesk9-mz.122-37.SE1.bin  8662192
20 : c3560-advipservicesk9-mz.122-46.SE.bin  10713279
21 : c800-universalk9-mz.SPA.152-4.M4.bin  33591768
22 : c800-universalk9-mz.SPA.154-3.M6a.bin  83029236
23 : cat3k_caa-universalk9.16.03.02.SPA.bin  505532849
24 : cgr1000-universalk9-mz.SPA.154-2.CG  159487552
```

☐ Top

Figure 12: Ftp connection

0.5 Conclusion

Based on the focused objective(s) to learn the step-by-step configuration of an SMTP server. This will help learn the principles of networking with hands-on experience as well as develop Cisco technology-specific skills. The additional lab exercise will help us to practice SMTP network configuration and also help us to be confident towards the fulfillment of the objectives(s).

Based on the focused objective(s) to learn the step-by-step configuration of FTP server. This task will also help us to learn how to use the FTP services to transfer files between clients and the server.