

Setup DNS

Contents :

- Setup DNS using HOSTS.txt File
- Setup DNS in Windows and Linux
- Using DNS TOOLS - nslookup
- Exercise

Lab : Setup DNS using HOSTS.txt File

Objectives

After completing this Lab, you will :

- Able to setup DNS using HOSTS.txt file

Prerequisites

- Understand TCP/IP Model
- Understand IP Addressing
- Understand DNS Concept

Lab 1 : Setup DNS using HOSTS.txt File on Windows

HOSTS.txt File Location :

[SYSTEM DRIVE]\WINDOWS\system32\drivers\etc\hosts

1. Mapping IP Address to Hostname:

Available Network Address : 130.30.0.0/16

Group Name	HostName	IP Address
e.g : Kelompok 5	Anggota 1	130.30.5.1/16
	Anggota 2	130.30.5.2/16

2. On **every host**, edit file HOSTS.txt so the file content look like below :

```
130.30.5.1      anggota1.kelompok5.net
130.30.5.2      anggota2.kelompok5.net
130.30.5.3      anggota3.kelompok5.net
```

3. On **every host**, Ping hostname instead of ip address. Adjust to your group and ip address

Ping Command	Result
C:\>Ping 130.30.5.1	
C:\>Ping anggota1.kelompok5.net	

Sample Resolved Query :

```
C:\Users\Suhendra>ping server.polman.edu

Pinging server.polman.edu [10.5.0.63] with 32 bytes of data:
Reply from 10.5.0.63: bytes=32 time=2ms TTL=127
Reply from 10.5.0.63: bytes=32 time=2ms TTL=127
```

Hostname server.polman.edu mapped from ip 10.5.0.63.

4. Conclusion

Lab 2 : Setup DNS using HOSTS.txt File on Linux Ubuntu

HOSTS.txt File Location :

/etc/hosts

1. Mapping IP Address to Hostname:

Available Network Address : 130.30.0.0/16

Group Name	HostName	IP Address
e.g : Kelompok 5	Anggota 1	130.30.5.1/16
	Anggota 2	130.30.5.2/16

2. Edit file HOSTS.txt so the file content look like below :

```
130.30.5.1      anggota1.kelompok5.net
130.30.5.2      anggota2.kelompok5.net
130.30.5.3      anggota3.kelompok5.net
130.30.5.3      anggota3.kelompok5.net
```

3. Ping hostname instead of ip address. Adjust to your group and ip address

Ping Command	Result
C:\>Ping 130.30.5.1	
C:\>Ping anggota1.kelompok5.net	

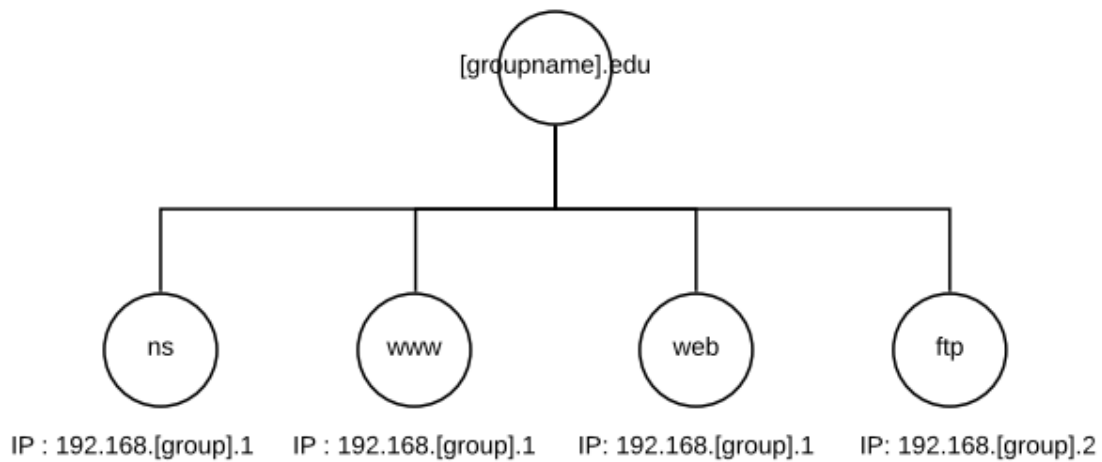
--	--

4. Conclusion

--

Lab EXERCISE 1: Setup DNS in Windows Server and Linux Ubuntu

Pay attention to the following figure :



Task :

Using Windows and Linux, setup the DNS. Capture screenshot, the file configuration, and ping result.

Hosts File Configuration :

Windows:

Linux:

Ping Result :

Lab : Using DNS Tools

Objectives

After completing this Lab, you will :

- Able to get DNS information

Prerequisites

- Understand DNS Concept

Lab 3 : Get DNS Information using nslookup

1. Find IP Address of a host.

- Get IP Address of host www.detik.com

Command	Result
C:\Users\lab_mi>nslookup detik.com	

- Get IP Address of host www.astra.co.id

Command	Result

- Get IP Address of host www.kompas.com

Command	Result

2. Find the host name of an IP Address

- Reverse lookup, Get hostname of IP Address 203.190.242.211

Command		Result
C:\Users\lab_mi>nslookup 203.190.242.211		

- Reverse lookup, Get hostname of IP Address 8.8.8.8

Command	Result

3. Find resource record in a domain

- Run nslookup

```
C:\Users\Suhendra>nslookup
Default Server:  pdc-w2k12.polman.astra.ac.id
Address:  10.5.0.63

>
```

Pdc-w2k12.polman.astra.ac.id with ip 10.5.0.63 is your current dns server.

- Change dns server, try using open dns (see <https://use.opendns.com/>). Open dns allow us to learn about dns.

```
> server 208.67.222.222
DNS request timed out.
    timeout was 2 seconds.
Default Server:  [208.67.222.222]
Address:  208.67.222.222
```

Get information of hostname www.polman.astra.ac.id :

```
> www.polman.astra.ac.id
Server:  [208.67.222.222]
Address:  208.67.222.222

DNS request timed out.
    timeout was 2 seconds.
Non-authoritative answer:
Name:    www.polman.astra.ac.id
Address:  103.10.253.142
```

Query name server of domain astra.ac.id :

Command	Result
<pre>> set query=ns > astra.ac.id</pre>	

Query resource record type mx record name server of astra.ac.id :

Command	Result
<pre>> set querytype=mx > astra.ac.id</pre>	

4. Conclusion :

--

Lab EXERCISE 3 : Get DNS Information using nslookup

Task :

From your dns that you create in exercise no.1.

No	Task	Command	Output
1	List all resource of your domain [groupname].edu		
2	Get IP address of www.[groupname].edu		
3	Get hostname of 192.168.[groupname].1		
4	List all resource with type CNAME		