

Sri Lanka Institute of Information Technology

Faculty of Computing

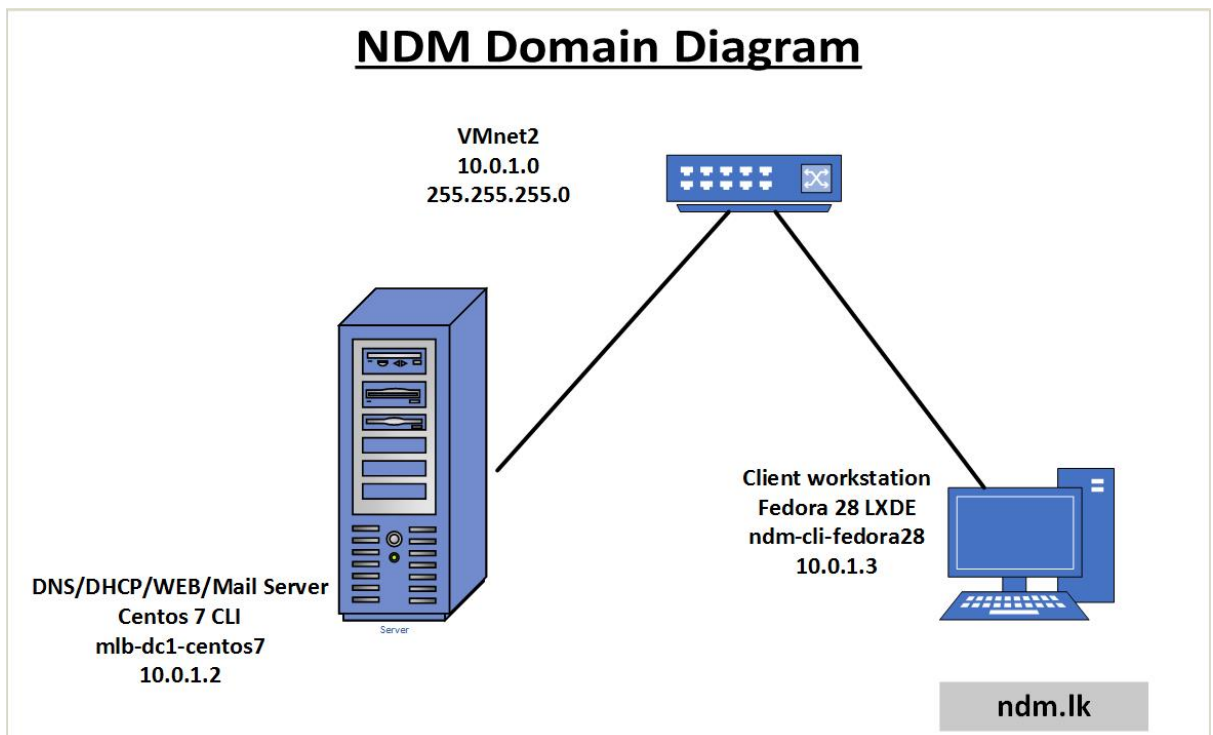
Network Design & Management - IT3010

Practical 1

- You need to create two VMs;
 - Server – CentOS7 with no GUI
 - Client – Fedora 28 LXDE interface

All the needed ISOs will be provided for you. You have the freedom to use any of the two Virtualization Software. (VirtualBox / VMWare)

Topology Diagram to be used;



1. Create a Directory called **NDM** in E drive of your PC.
2. Create another two sub-directories called **NDM-Server** and **NDM-Client**.

- Creating the Server – Specifications
 - Configuration Type: Typical
 - VM Name/Machine Name: MLB-DC1-CentOs7
 - Location: E:\NDM\NDM-Server
 - ISO Image: CentOS-7-x86_64-DVD
 - RAM: 1.5 GB
 - HDD: 15 GB

- Processors: 1
 - Partitioning: Automatic (In CentOS 7 Installation Process)
 - Root Password – root
 - Username/Password: svr1/svr1
 - Hostname (Under Network Settings): mlb-dc1-centos7.ndm.lk
 - Network Adapter 1: VMnet2
 - Network Adapter 2: NAT
- Creating the Client – Specifications
 - Configuration Type: Typical
 - VM Name/Machine Name: NDM-CLI-Fedora28
 - Location: E:\NDM\NDM - Client
 - ISO Image: Fedora-LXDE-Live-x86_64-28-1.1
 - RAM: 1.5 GB
 - HDD: 15 GB
 - Processors: 1
 - Partitioning: Automatic (In Fedora Installation Process)
 - Root Password – root
 - Username/Password: client1/client1
 - Hostname (Under Network Settings): ndm-cli-fedora28.ndm.lk
 - Network Adapter 1: VMnet2
 - Network Adapter 2: NAT

Network Configurations

Use the command **ifconfig** to list down all the installed Network adapters of the VM. Identify the adapters used by NAT and VMnet2.

Hint: Adapter used by NAT may already have an IP in 192.168 range.

Server;

- For the Server Network Configurations use the command '**nmtui**'
- In the window opened select **edit connection**.
- Select the adapter used in VMnet2; select edit.
- Navigate to IPv4 settings and select the type as Manual and enter the IP configurations given below.

IP address: - 10.0.1.2/24
Gateway: - 10.0.1.1

- Save the configurations. (Select OK)

Connection Activation can be done using same command '**nmtui**'.

- Select **Activate Connection**.
- Select the Adapter to be activated.

Client:

Configure the Network Adapter connected to VMnet2 using following details and activate the connection. You can use the GUI.

IP address: - 10.0.1.3/24

Gateway: - 10.0.1.1

Make a report on configuring the Network settings on Fedora Client by only using CLI commands.

You need to complete the activity given and submit the report to the Courseweb link which will be activated day after the practical. Completion of this part is essential for the next practical and won't be done again in the lab itself.