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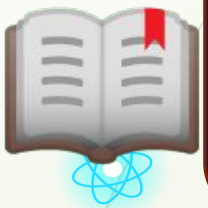

Hardware and networking services are acquired

Presented By :
Md Mahmudul Hasan
ID: 201015083
Green University of Bangladesh

Industrial Supervisor :
Mst Naznin Akter
Senior IT officer
Express one ltd

Academic Supervisor :
Md Rafiqul Islam
Lecturer
Green University of Bangladesh

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Introduction

- As an intern in Hardware and Networking Operations Department On May 01, 2023 at the behest of my Intership Supervisor MST Nazneen Akhter Let's start with hardware and networking.

- Hardware and networking training is very helpful to build our career in hardware and networking. The need of computer or the need of computer in our daily life is increasing day by day. Computers are also very essential in the field of information technology.

- The computer is made up of various parts each of which has a different type of function called hardware. And networking is simply a method of exchange Data on computer.

- How to connect to remote sites over wide area networks, the need for wireless networks, and how to mitigate security attacks should also be learned in hardware and networking training.

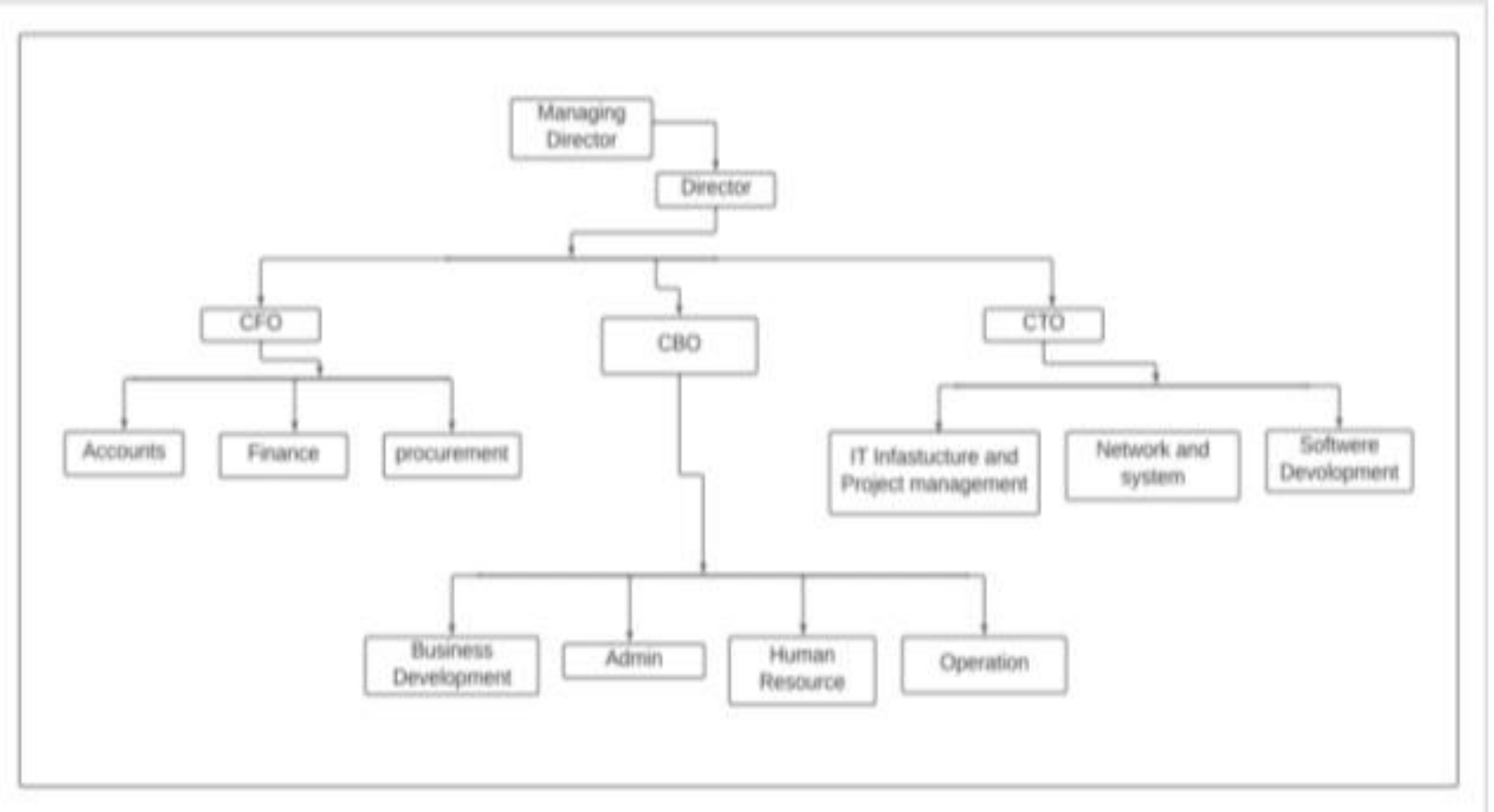
Objectives

- The main objective of Hardware and Networking training is to provide in-depth knowledge about various technologies of hardware and networking.
- Your job objective should highlight your knowledge as well as your knowledge in the field Desire to learn more.
- Various work disciplines including architecture, engineering, healthcare, etc Economics, advertising and more use internships.
- Some internships are used to give people an opportunity to study science,Others are specifically designed to give them real-world job opportunities experience.

Motivation

- Connectivity: Hardware networking enables the establishment of reliable and efficient communication channels between devices and systems.
- Resource Sharing: Networking allows sharing of hardware resources such as printers, storage devices and Internet connections.
- Data Security: Hardware networking plays an important role in establishing secure communication channels and protecting sensitive data.
- Internet Connectivity: Networking allows organizations and individuals to connect to the Internet, accessing a vast array of online resources, services, and information.

Organizational structure



Tools & Techniques

- Networking
- Network Cables
- Network Switches
- Routers
- Network Protocols
- IP Addressing

- Hardware
- Screwdrivers
- Pliers
- Wire Cutters
- Multimeter
- Power Supply Tester
- Cable Tester

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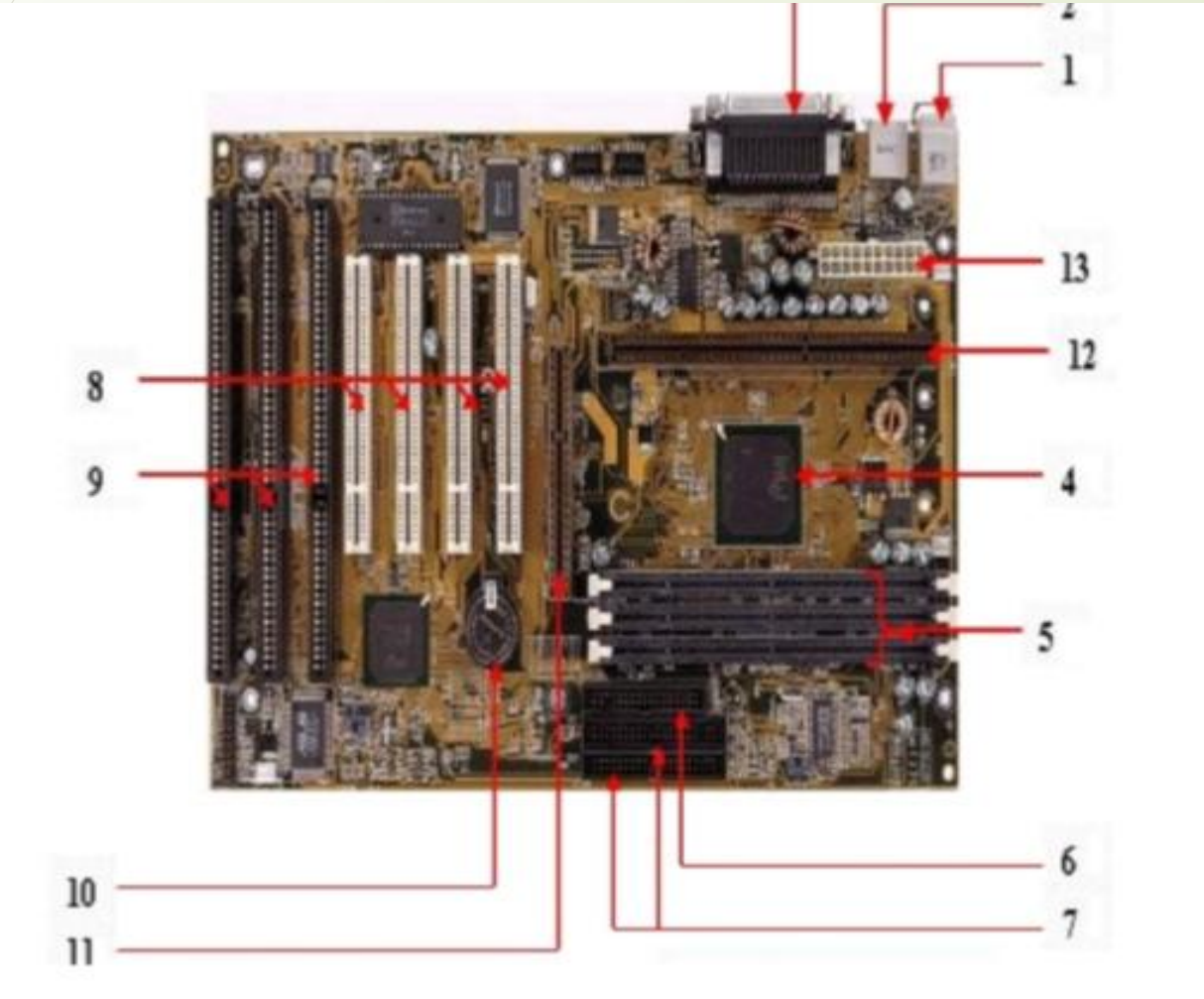
Motherboard, CPU Box, Processor problem solving :



A motherboard is a circuit on which all the electronic components of a computer reside Connected includes both the internal parts of the system unit such as processor, display Card Connectors for external components like monitor, sound card, memory etc. and mouse, Keyboard, hard disk, floppy disk etc. Ports and slots, which connect them Components, also present on the motherboard. Circuits on the motherboard support the data Transition between components. Bios, RAM slots and chipset are mounted too Motherboard.

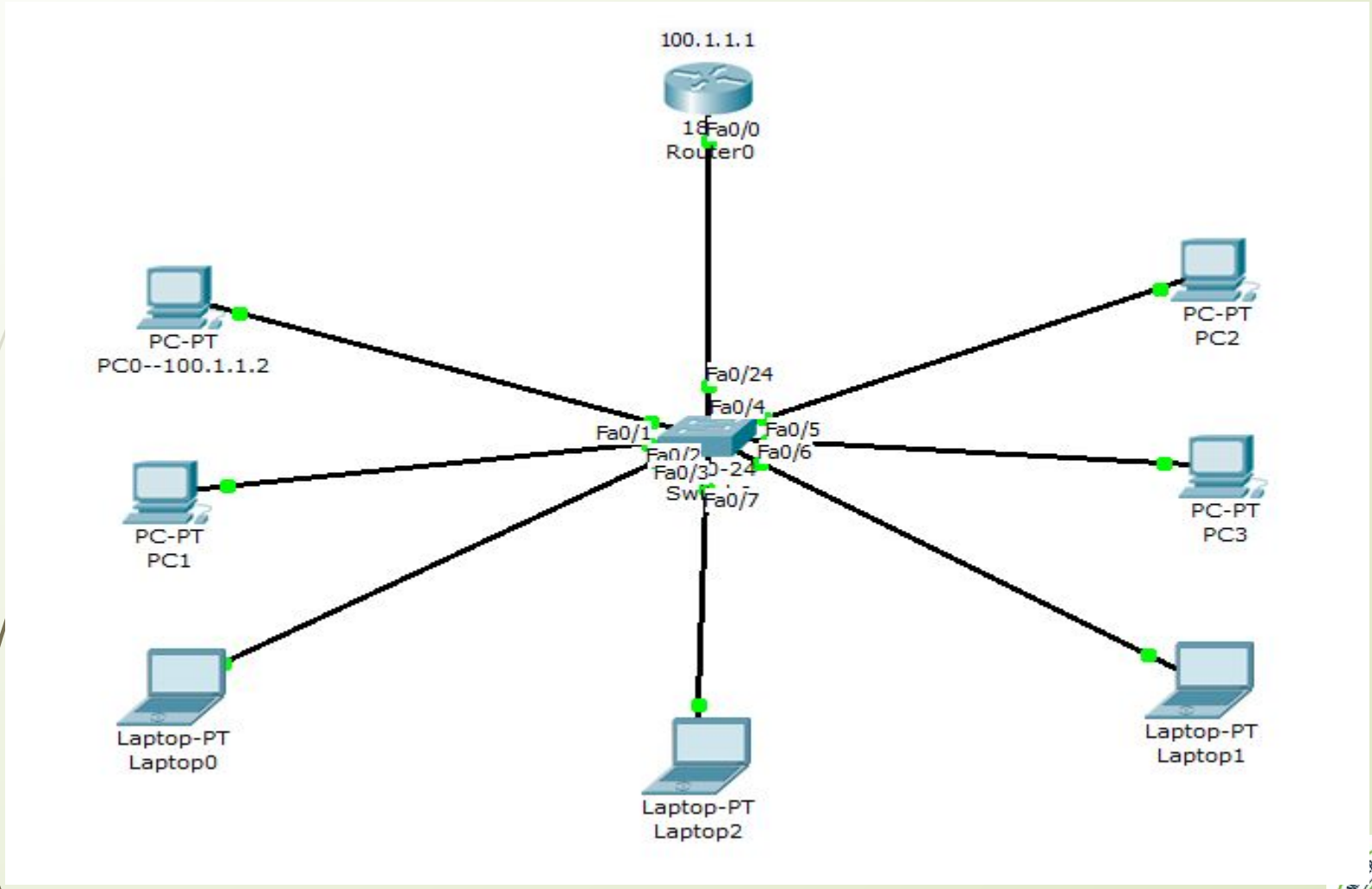
The CPU box is the heart and brain of the computer. All electronic circuits, power Supplies, floppy drives, and hard drives are housed in this box shape and size Box may vary from computer to computer. However, they all have the same electronics Circuits and internal parts. The storage unit of computer memory is also the same Box This box houses the primary memory of the PC on the electronic circuit board. These boards are not visible from outside. How about the CPU box.

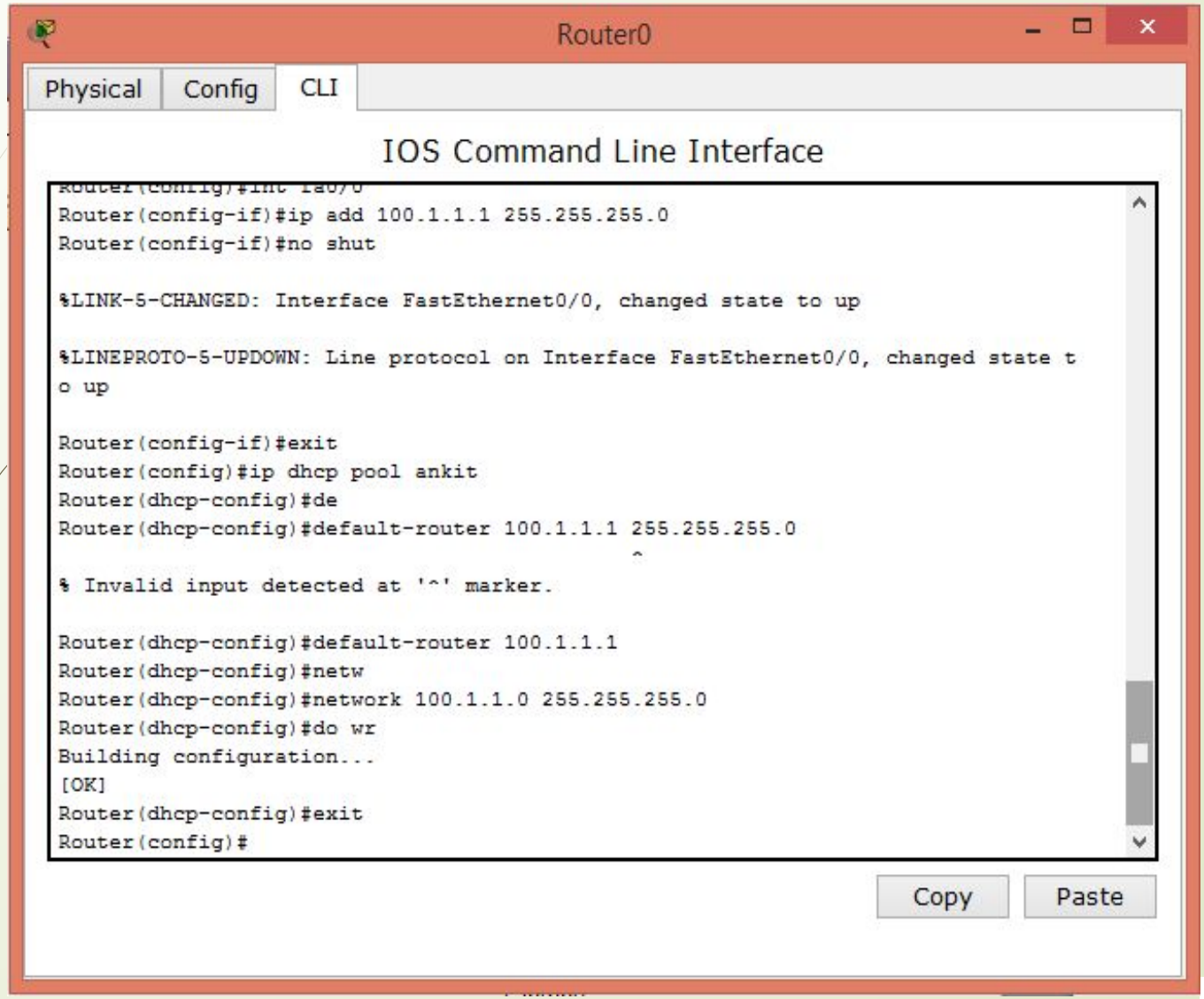
intel
pentium® 4

- One of the most important parts of the computer is called the heart of the computer. the brain of a A computer is a processor. The processor in a modern computer is an integrated circuit chip.

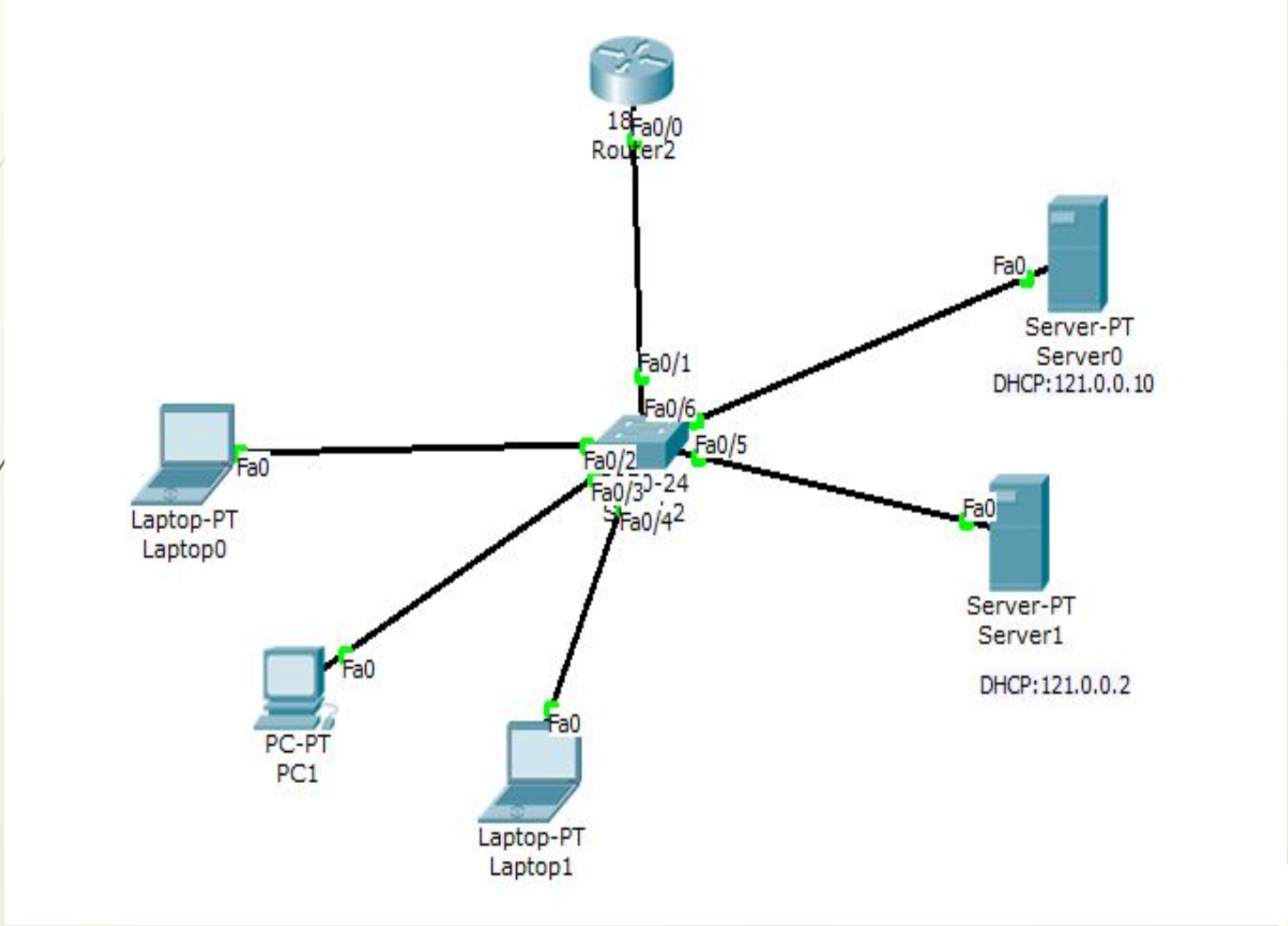
- A chip can process millions of transistors and capacitors Transfers the data received through the input device and results to the output unit. processor Available today from several companies. Intel-PentiumIV, Xenon, Celeron, etc. are popular.

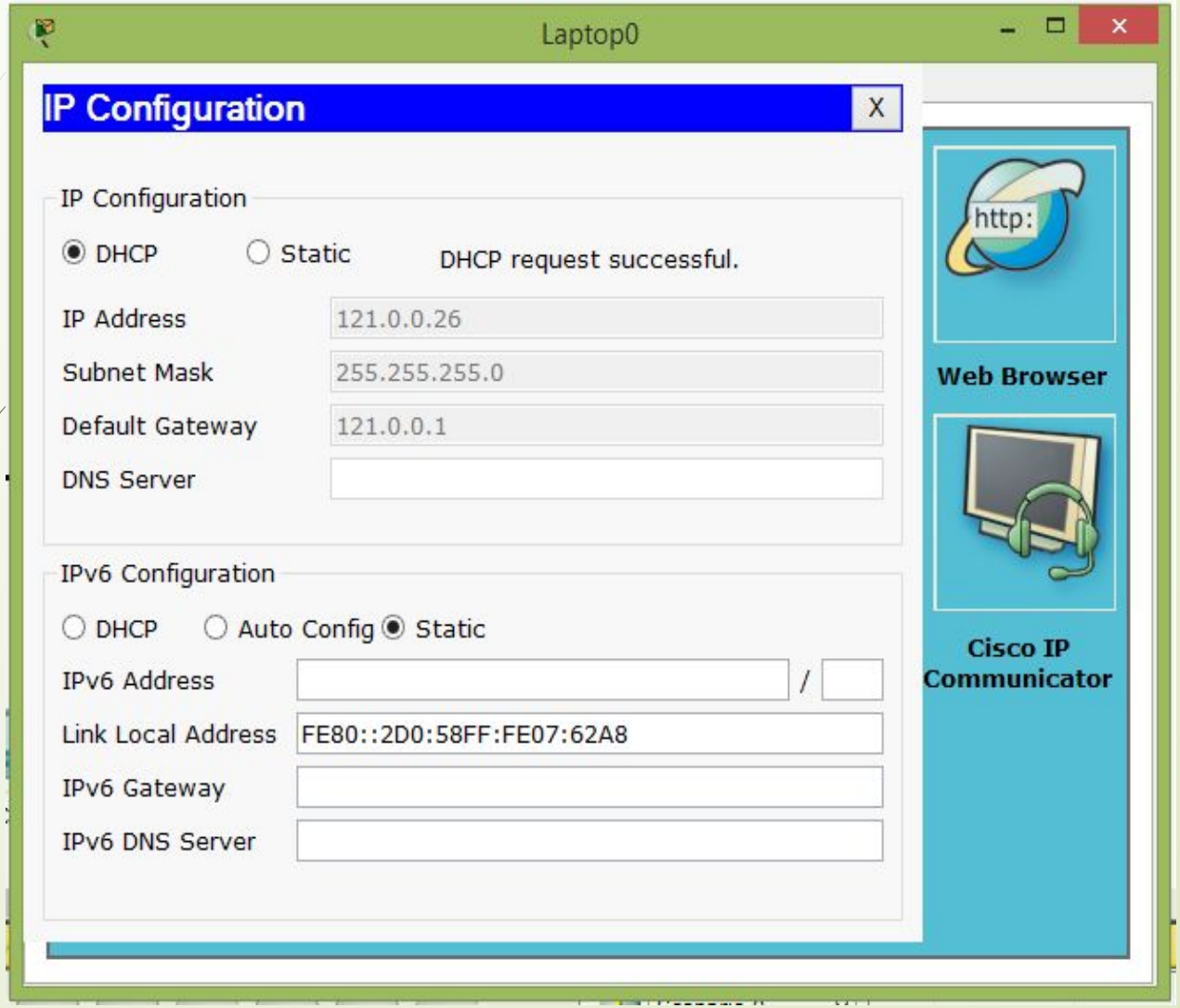
Router configuration System

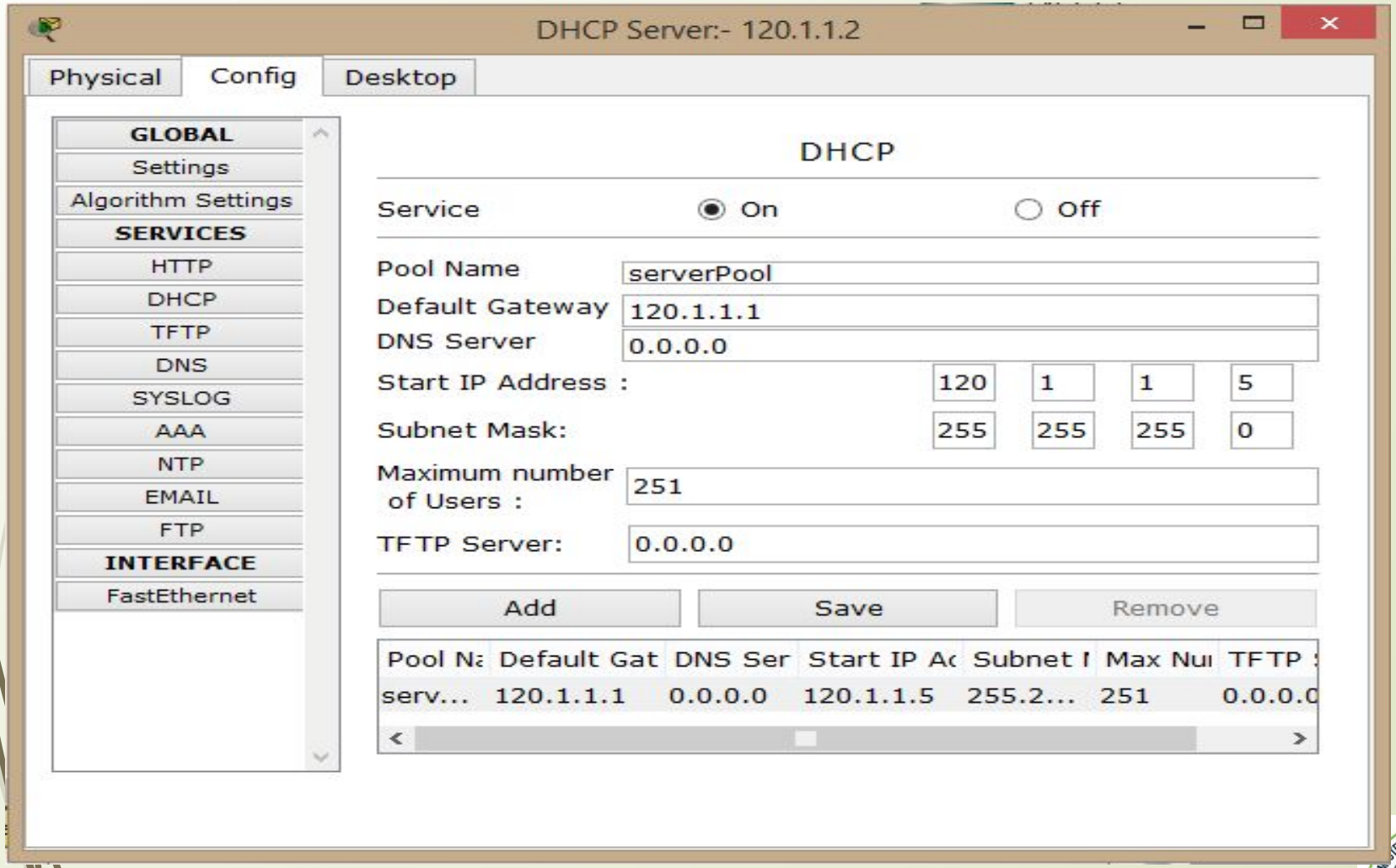



Router0
Physical
Config
CLI
IOS Command Line Interface
Router(config)#int fa0/0
Router(config-if)#ip add 100.1.1.1 255.255.255.0
Router(config-if)#no shut
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t
o up
Router(config-if)#exit
Router(config)#ip dhcp pool ankit
Router(dhcp-config)#de
Router(dhcp-config)#default-router 100.1.1.1 255.255.255.0
^
% Invalid input detected at '^' marker.
Router(dhcp-config)#default-router 100.1.1.1
Router(dhcp-config)#netw
Router(dhcp-config)#network 100.1.1.0 255.255.255.0
Router(dhcp-config)#do wr
Building configuration...
[OK]
Router(dhcp-config)#exit
Router(config)#
Copy
Paste

Using DHCP Server




Laptop0
IP Configuration
X
IP Configuration
DHCP
Static
DHCP request successful.
IP Address
121.0.0.26
Subnet Mask
255.255.255.0
Default Gateway
121.0.0.1
DNS Server
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::2D0:58FF:FE07:62A8
IPv6 Gateway
IPv6 DNS Server
http:
Web Browser
Cisco IP Communicator


DHCP Server:- 120.1.1.2
Physical
Config
Desktop
GLOBAL
Settings
Algorithm Settings
SERVICES
HTTP
DHCP
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
INTERFACE
FastEthernet
DHCP
Service
On
Off
Pool Name
serverPool
Default Gateway
120.1.1.1
DNS Server
0.0.0.0
Start IP Address :
120
1
1
5
Subnet Mask:
255
255
255
0
Maximum number of Users :
251
TFTP Server:
0.0.0.0
Add
Save
Remove
Pool Na
Default Gat
DNS Ser
Start IP Ac
Subnet I
Max Nui
TFTP
serv...
120.1.1.1
0.0.0.0
120.1.1.5
255.2...
251
0.0.0.0

- Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a computer from a defined range of numbers configured for a given network.

- When a computer uses a static IP address, it means that the computer is manually configured to use a specific IP address. One problem with static assignment, occurs when two computers are configured with the same IP address. This creates a conflict that results in loss of service. Using DHCP to dynamically assign IP addresses minimizes these conflicts. Two methods for implementing DHCP:-

  1. Configuring router
  2. Using DHCP server

Gantt Chart

Gantt Chart
1 to 3 weeks
1 2 3 4 5 6 7 8 9 10 11 12 13 14
1st week
2nd weeks
3rd weeks
1st week work
2nd weeks Work
3rd weeks work

Conclusion

- In conclusion, the company has provided me with a wealth of practical knowledge andIn light of my industry training experience as an IT Support Engineer Got hardware and network skills. Hardware and software issues, installing and configuring software and hardware have learned.

- The challenges I faced during training helped me develop complex problem solving skills, and I was able to apply the theories and concepts learned in Real world situations and experiences in the classroom gave me confidence in my work Overall, the training provided me with a solid technical foundation Support services, and I believe that the knowledge and skills gained during training will Invaluable achievement in my future career as an IT Support Engineer.

Thank
You