01_Introduction-to-Networks_EUAD04

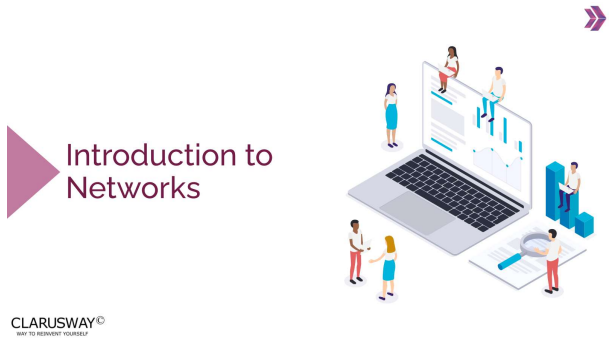
EUAD04_Intro-to-Networks
Training Clarusway
Pear Deck - August 18, 2020 at 5:34PM

Part 1 - Summary

Use this space to summarize your thoughts on the lesson

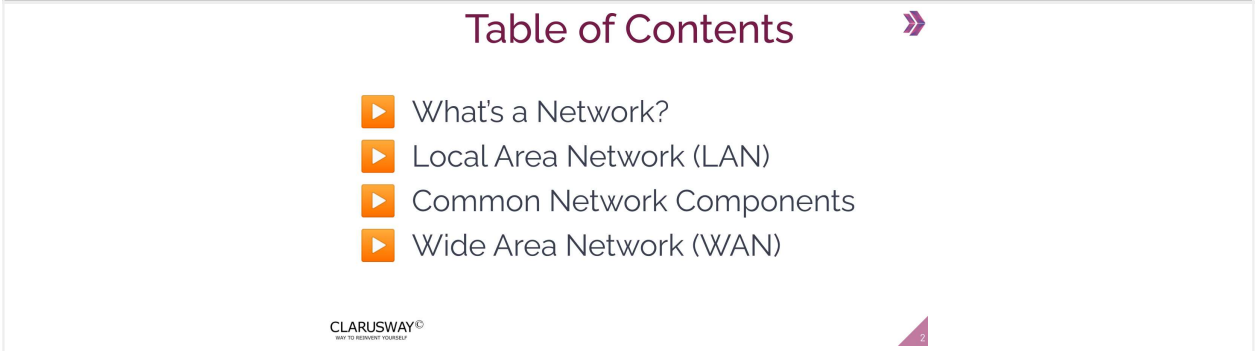
Part 2 - Responses

Slide 1



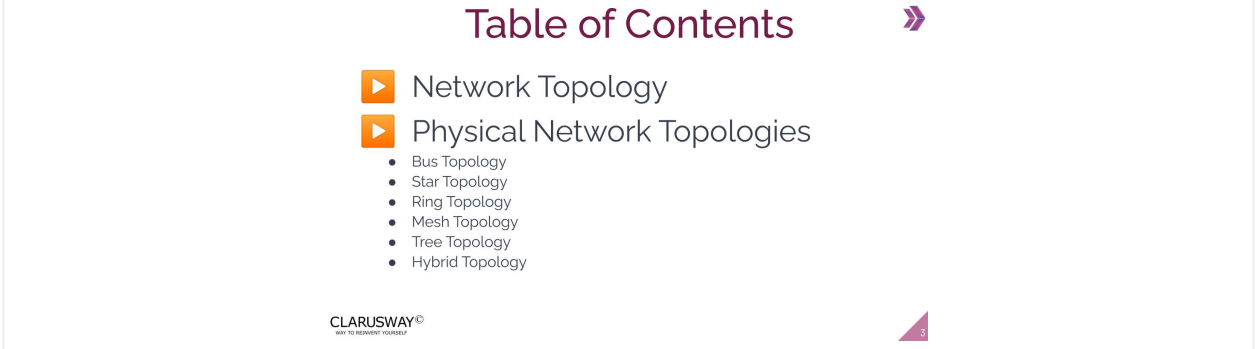
Use this space to take notes:

Slide 2



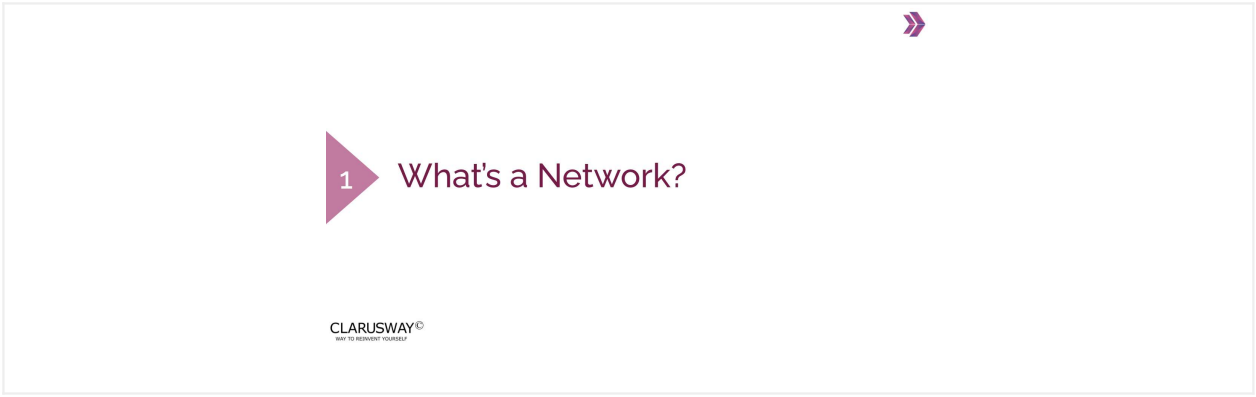
Use this space to take notes:

Slide 3



Use this space to take notes:

Slide 4



Use this space to take notes:

Slide 5

Use this space to take notes:

Slide 6

What's a Network?

Provides services like:

- Access to shared files/folders
- Access to printers/scanners
- Email applications
- Database applications
- Web applications
- Voice over IP (VoIP)
- Multimedia conferencing

CLARUSWAY©
WAY TO REINVENT YOURSELF

6

Use this space to take notes:

Slide 7

What's a Network?

Features of Computer Network

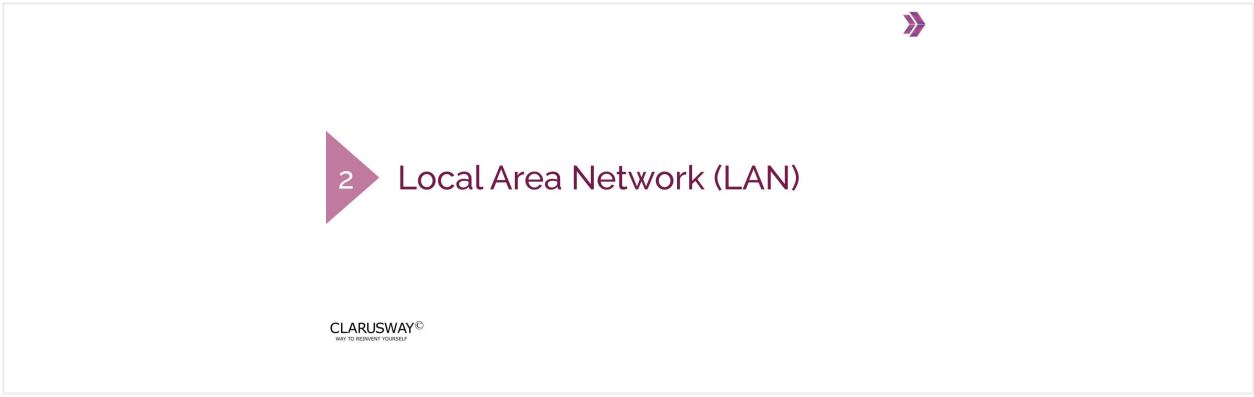
- **Performance** → Response time
- **Data Sharing**
- **Backup**
- **Reliability** → No failures!
- **Security** → Keep data safe!
- **Scalability** → New systems can be added
- **Software and hardware compatibility**

CLARUSWAY©
WAY TO REINVENT YOURSELF

7

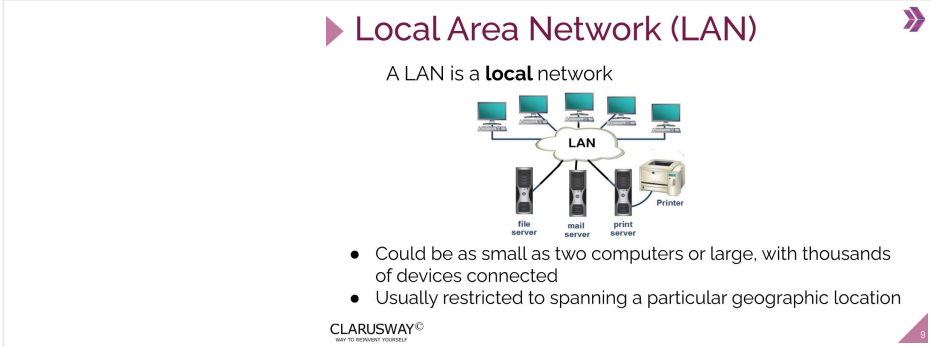
Use this space to take notes:

Slide 8



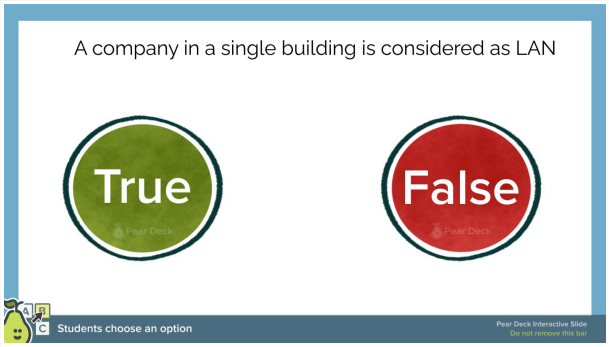
Use this space to take notes:

Slide 9



Use this space to take notes:

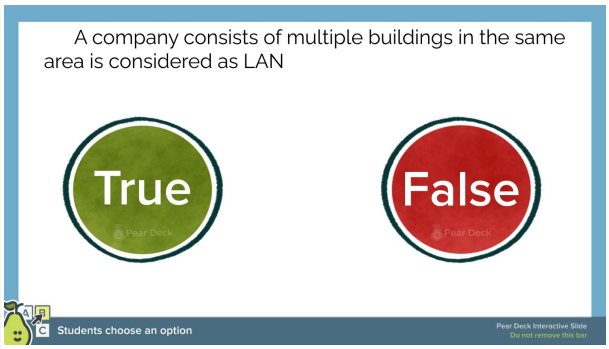
Slide 10	Your Response
	You Chose • **True** Other Choices



- False

Use this space to take notes:

Slide 11	Your Response



Use this space to take notes:

Slide 12

Local Area Network (LAN)

LAN's size and the distance a LAN can span is not restricted

But it's best to split a big LAN into smaller logical zones known as **workgroups** to make administration easier

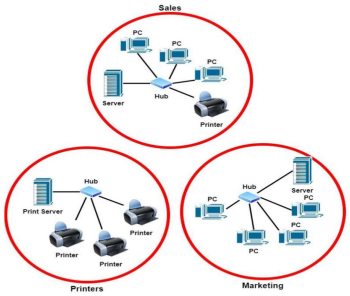
CLARUSWAY©

Use this space to take notes:

Slide 13

Local Area Network (LAN)

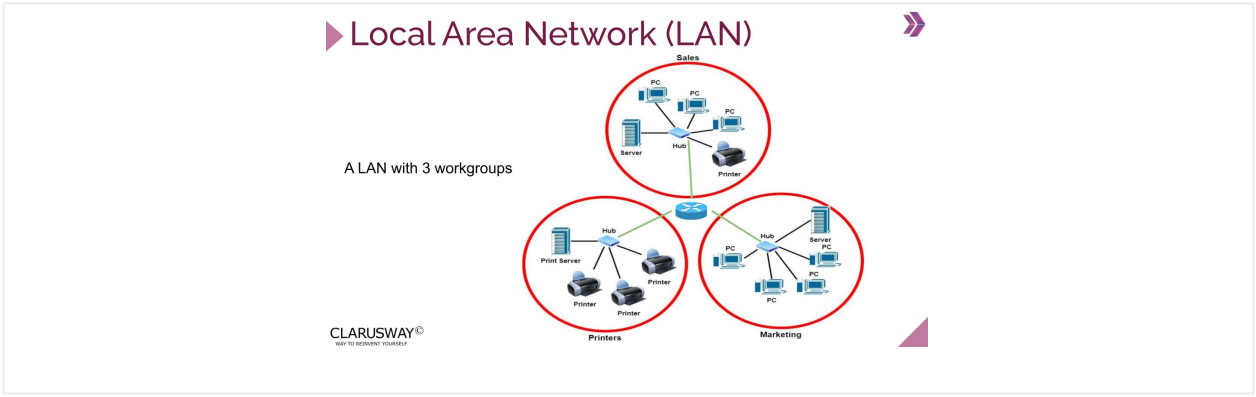
3 LANs, each has its own workgroup



CLARUSWAY©

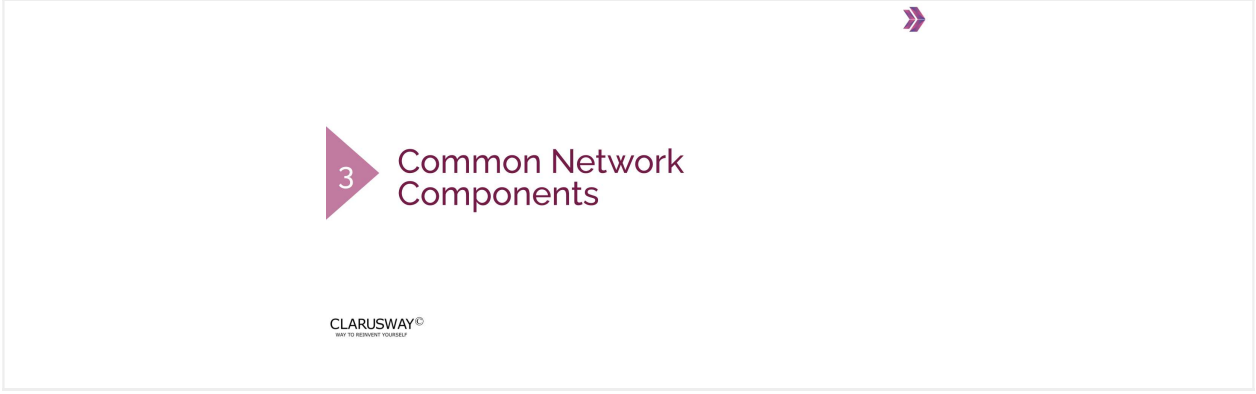
Use this space to take notes:

Slide 14



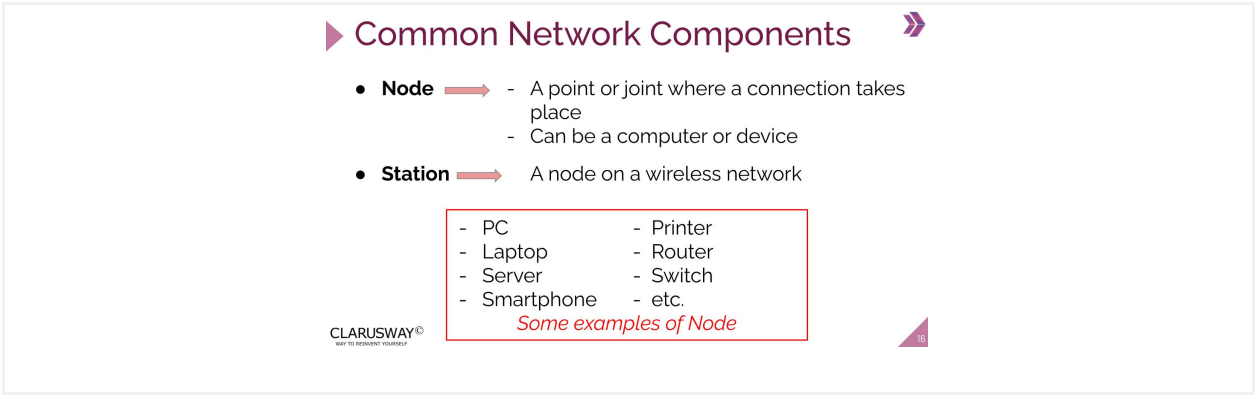
Use this space to take notes:

Slide 15



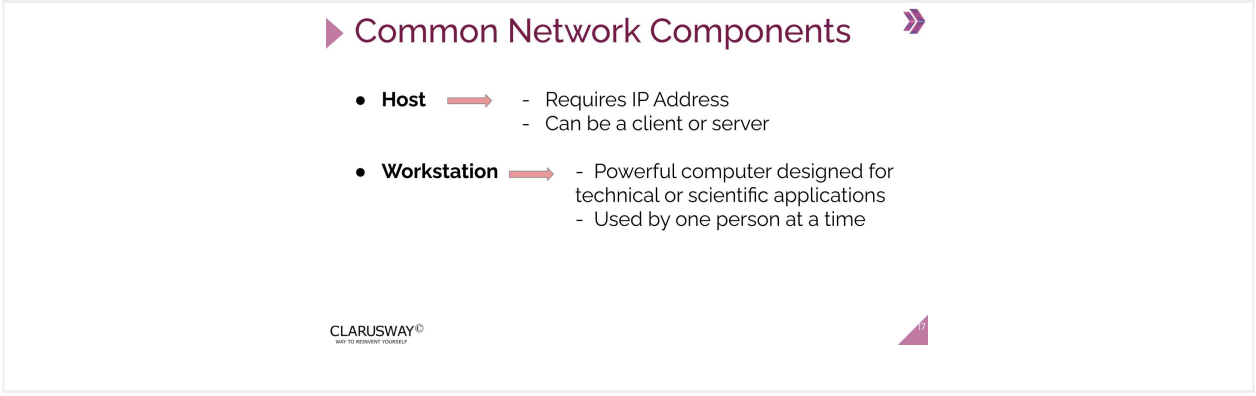
Use this space to take notes:

Slide 16



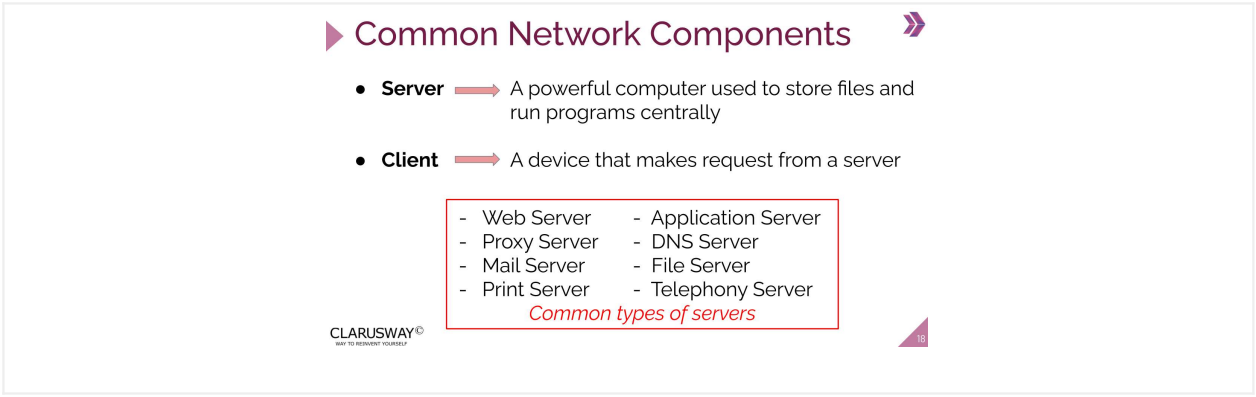
Use this space to take notes:

Slide 17



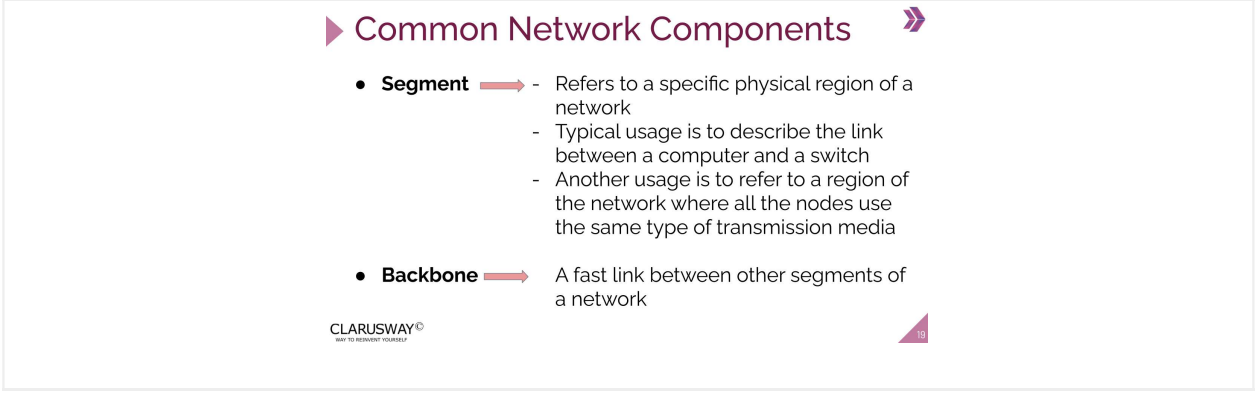
Use this space to take notes:

Slide 18



Use this space to take notes:

Slide 19

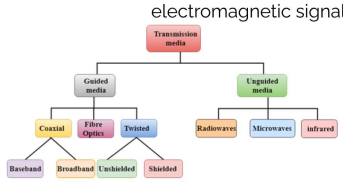


Use this space to take notes:

Slide 20

Common Network Components

- **Transmission Media** → - A communication channel between **nodes** that carries the information from the sender to the receiver
  - Data is transmitted through the electromagnetic signals



CLARUSWAY©
WAY TO REINVENT YOURSELF

20

Use this space to take notes:

Slide 21

4 Wide Area Network (WAN)

CLARUSWAY©
WAY TO REINVENT YOURSELF

Use this space to take notes:

Slide 22

Wide Area Network (WAN)

A **WAN** is a collection of computers and devices connected by a communications network over a wide geographic area

WANs are commonly connected either through the Internet or special arrangements made with phone companies or other service providers

The **Internet** is considered the **largest WAN** in the world

CLARUSWAY©
WAY TO REINVENT YOURSELF

22

Use this space to take notes:

Slide 23

5 Network Topology

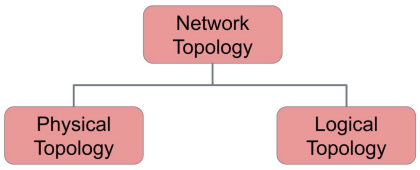
CLARUSWAY©
WAY TO REINVENT YOURSELF

Use this space to take notes:

Slide 24

Network Topology

Network topology is the description of the arrangement of **nodes** and **connections** in a network



CLARUSWAY©

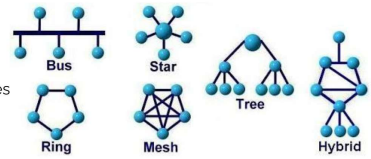
Use this space to take notes:

Slide 25

Network Topology

A **physical topology** details how devices are physically connected

Depends on:
- Office layout
- Troubleshooting techniques
- Cost of installation
- Type of cable used

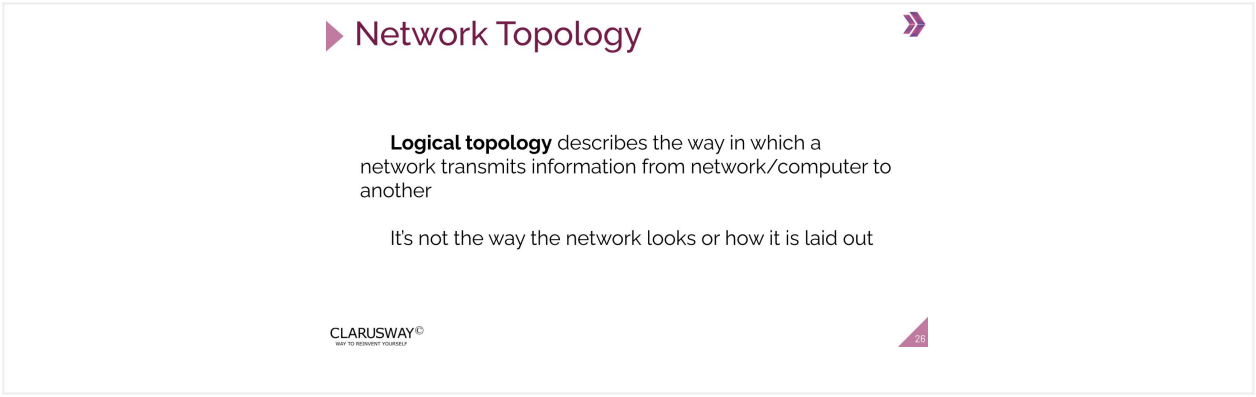


CLARUSWAY©

25

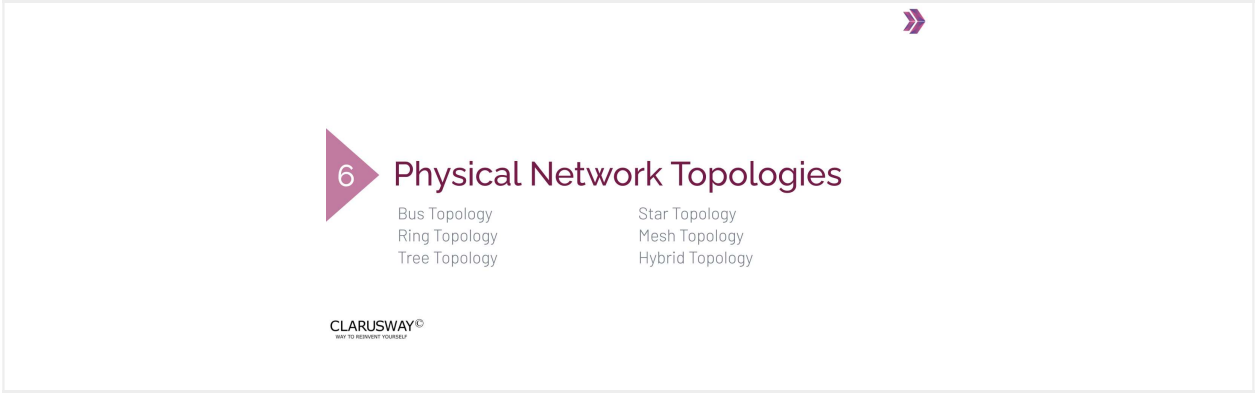
Use this space to take notes:

Slide 26



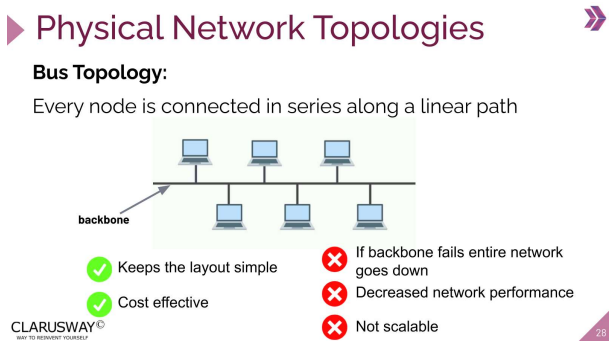
Use this space to take notes:

Slide 27



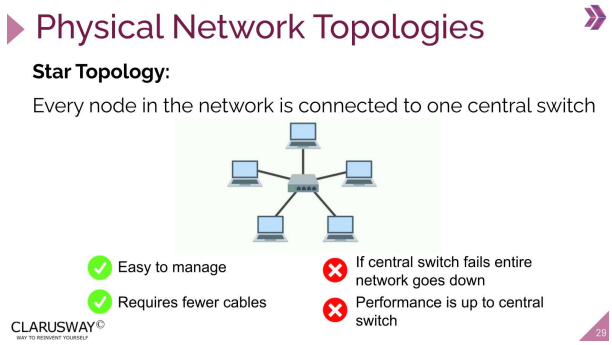
Use this space to take notes:

Slide 28



Use this space to take notes:

Slide 29



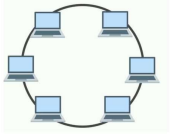
Use this space to take notes:

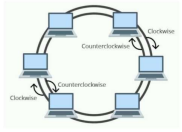
Slide 30

Physical Network Topologies

Ring Topology:

Every node is connected to each other in a circular format.





- Low risk of packet collision
- Easy to install

- Vulnerable to failure
- The more devices added the more communication delay
- To make changes the network should be shut down

CLARUSWAY©
WAY TO REINVENT YOURSELF

30

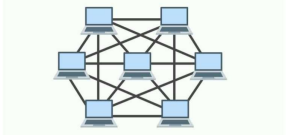
Use this space to take notes:

Slide 31

Physical Network Topologies

Mesh Topology:

A point-to-point connection where nodes are interconnected



- Reliable

- Configuration is complex
- Expensive

CLARUSWAY©
WAY TO REINVENT YOURSELF

31

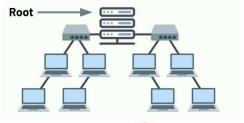
Use this space to take notes:

Slide 32

Physical Network Topologies

Tree (Hierarchy) Topology:

A network structure that is shaped like a tree with its many branches



- Scalable
- Manageable
- Hard to maintain
- If root fails entire network goes down

CLARUSWAY©

32

Use this space to take notes:

Slide 33

Physical Network Topologies

Hybrid Topology:

A combination of two or more types of physical or logical network topologies working together within the same network

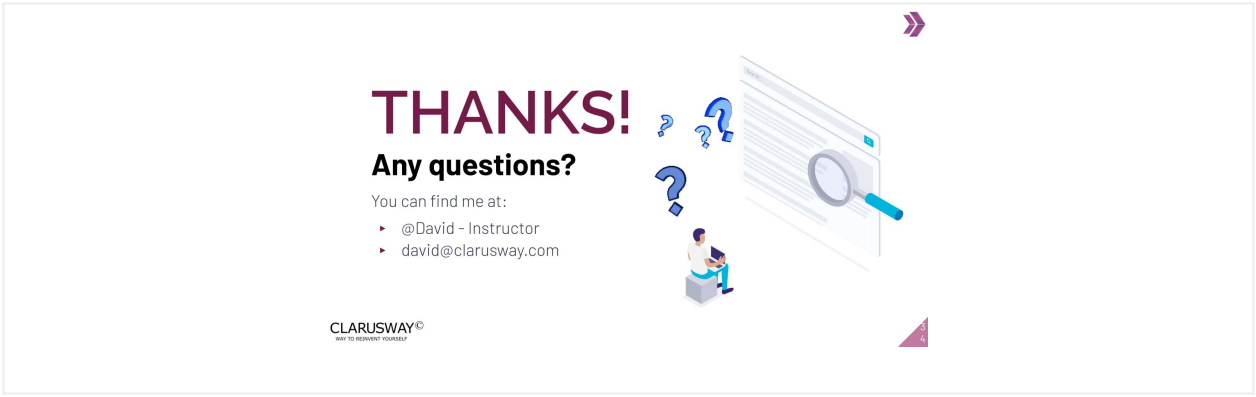
- Flexibility
- Quite complex
- Can be quite costly

CLARUSWAY©

33

Use this space to take notes:

Slide 34



Use this space to take notes: