Networking Concepts for CompTIA Network+ (N10-007)

INTRODUCTION TO NETWORKING



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NETWORK ENGINEER

@bagurdes



Module Goals



What is networking?
Understanding networking concepts
Modeling network communication

CompTIA Network+ Exam Objectives

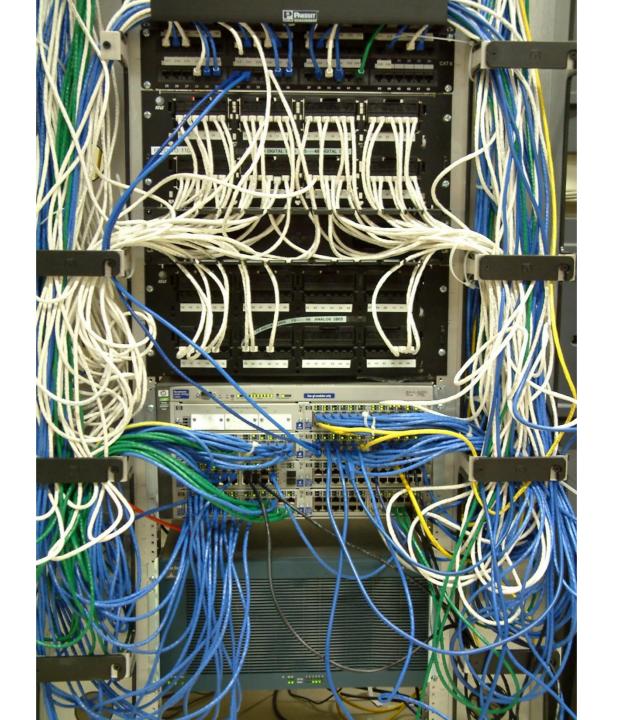




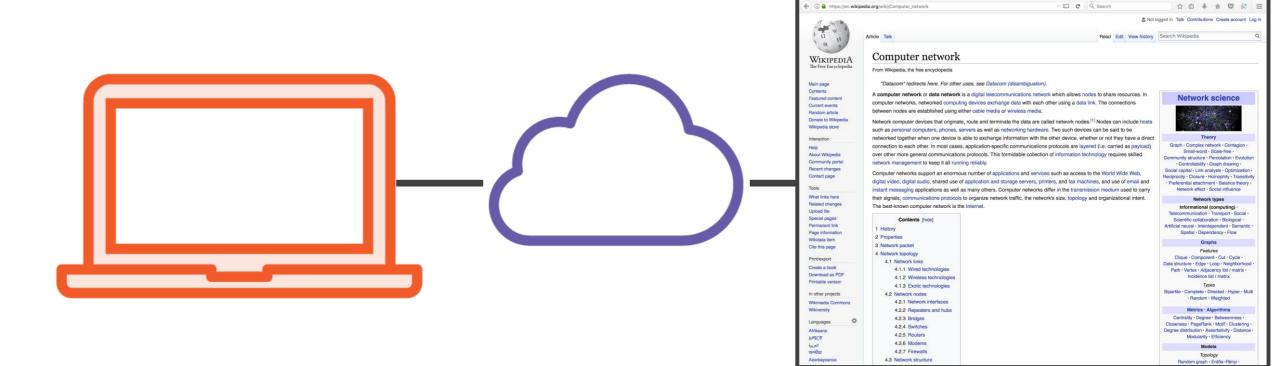




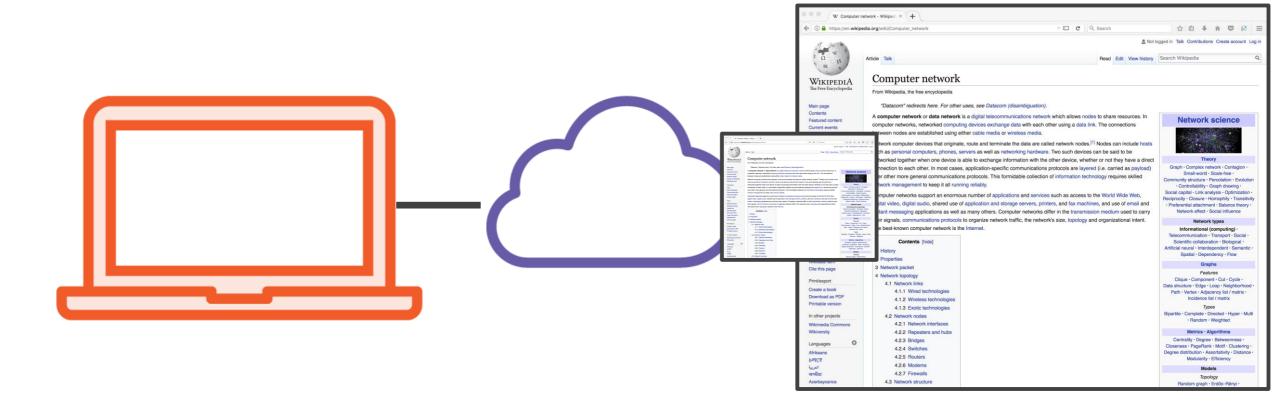




W Computer network - Wikiped × +



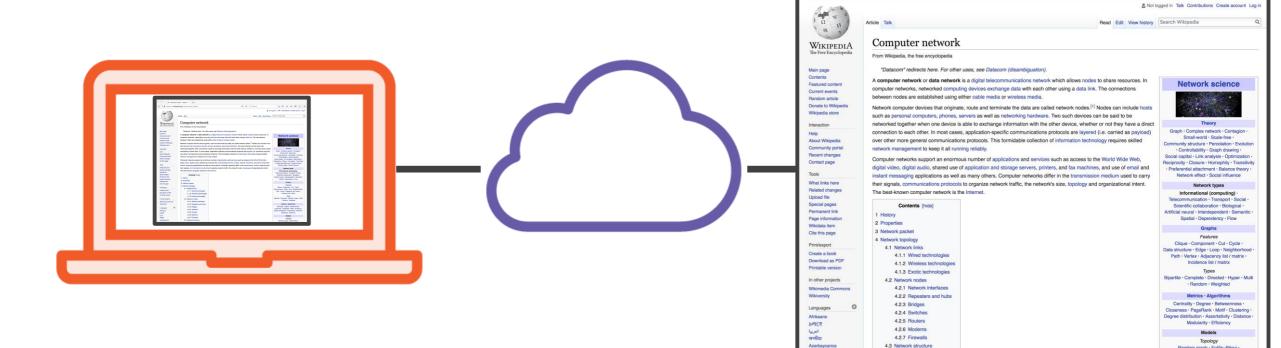






W Computer network - Wikiped × + i) https://en.wikipedia.org/wiki/Computer_network

C Q Search





Random graph - Erdős-Rényi

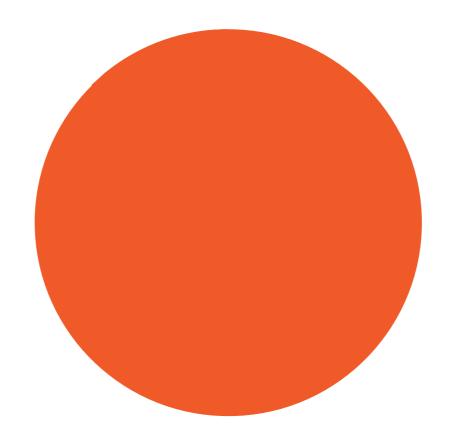
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Moving information from one device, to another device.



Understanding Data Networking

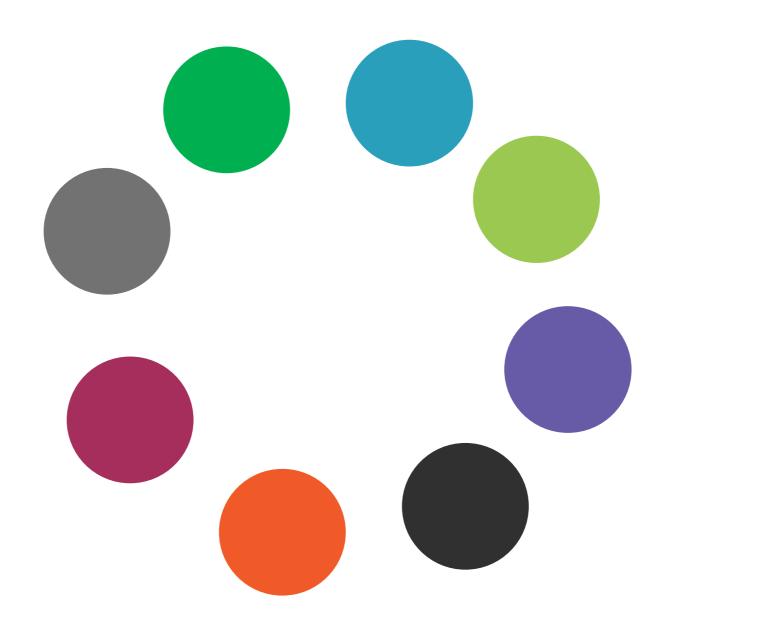




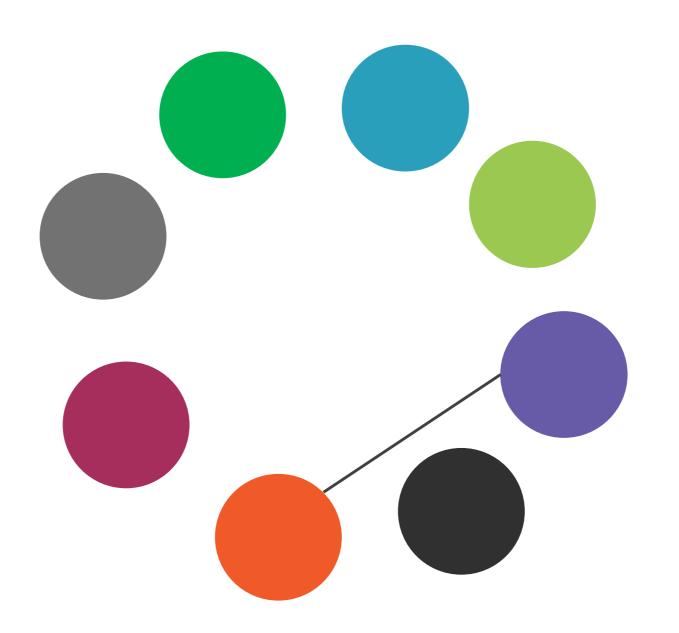




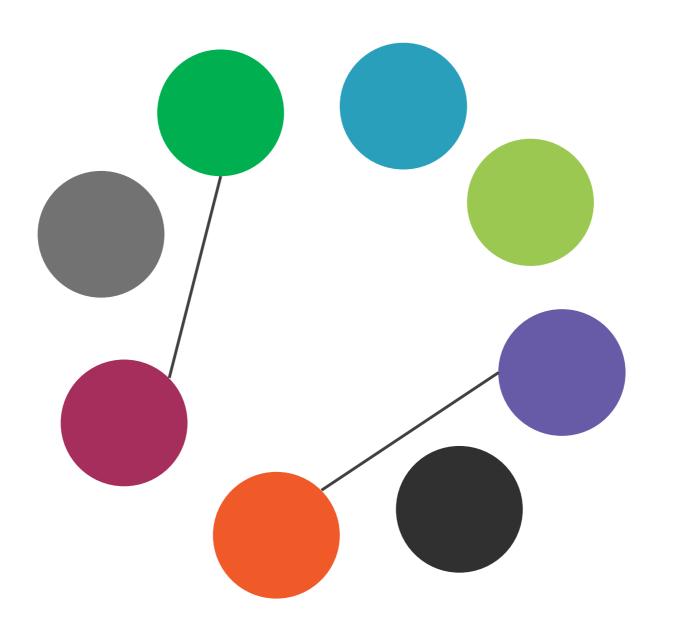




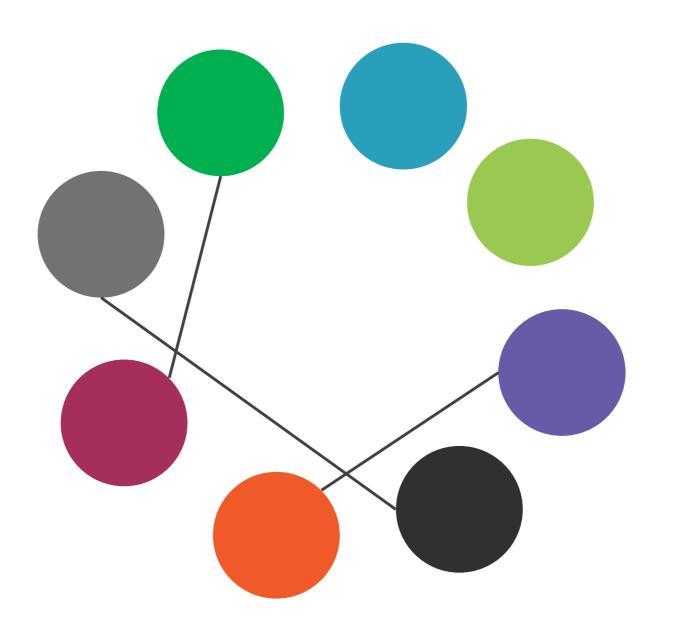




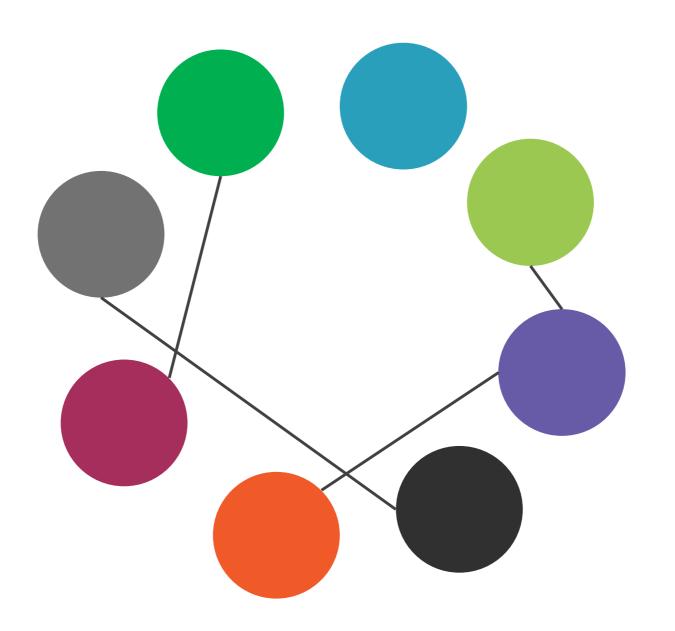




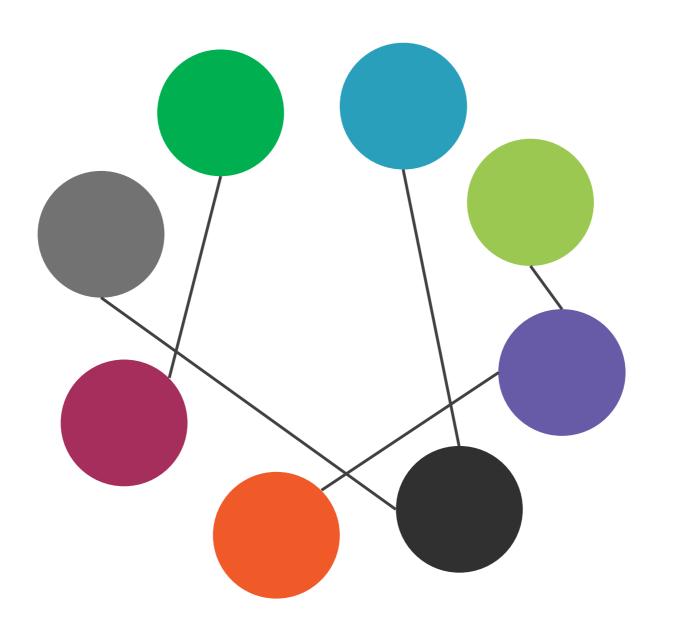




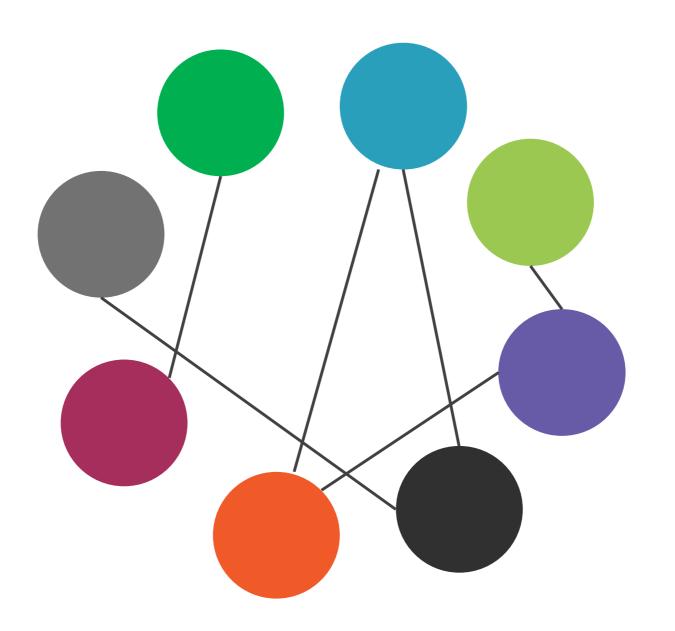




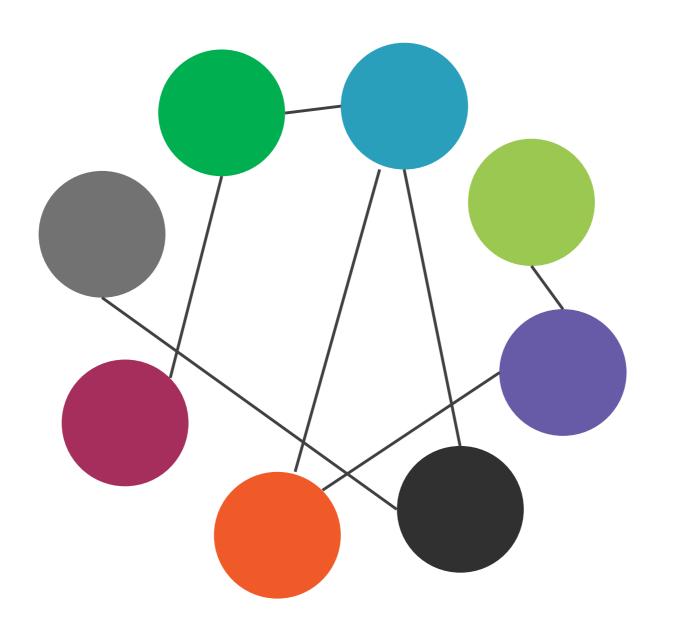




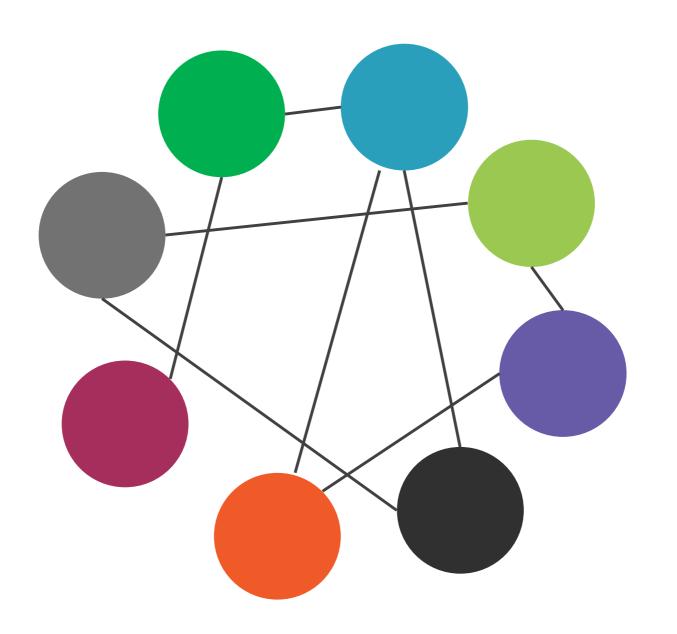


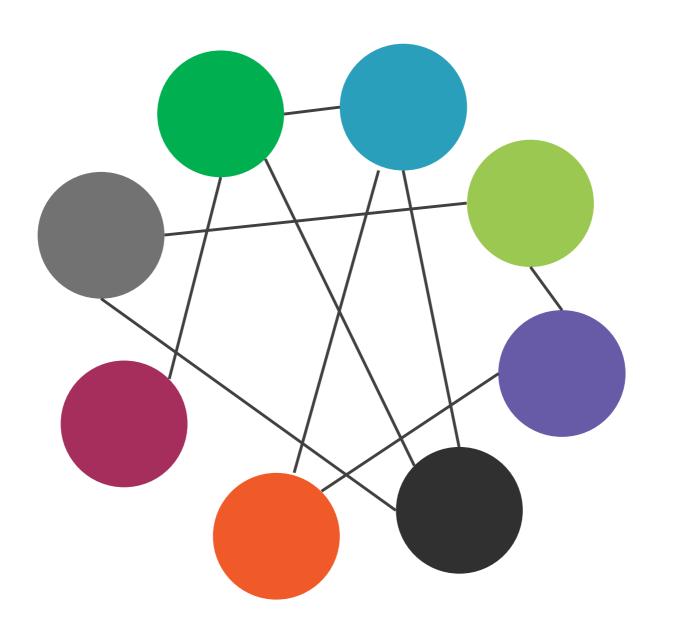


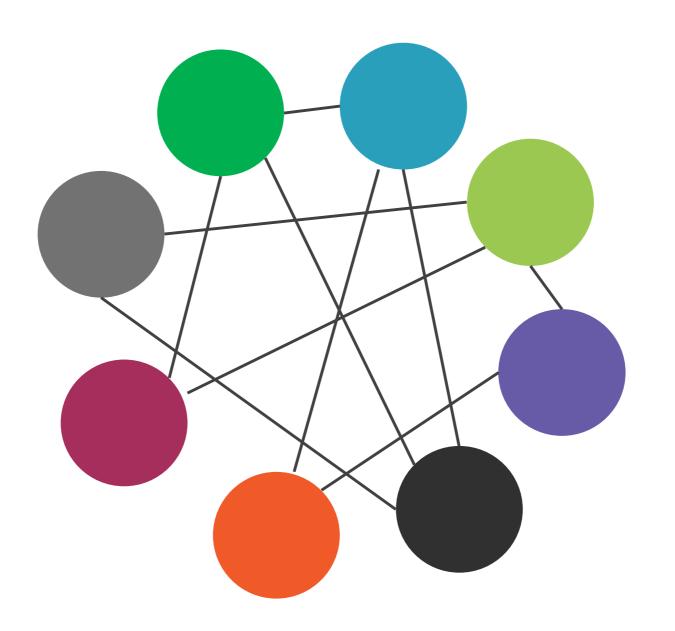


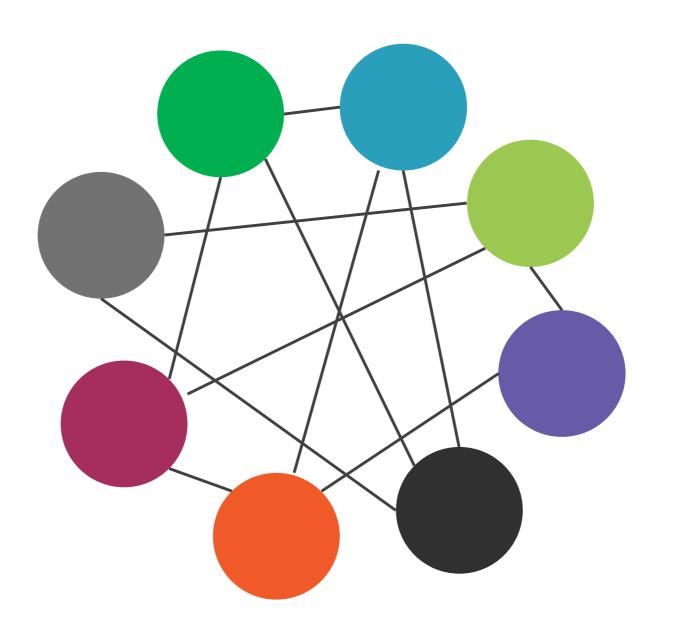


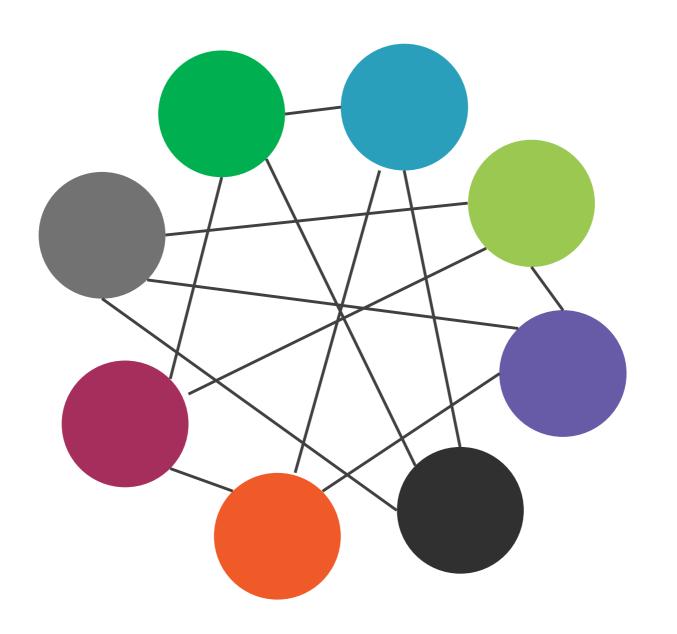










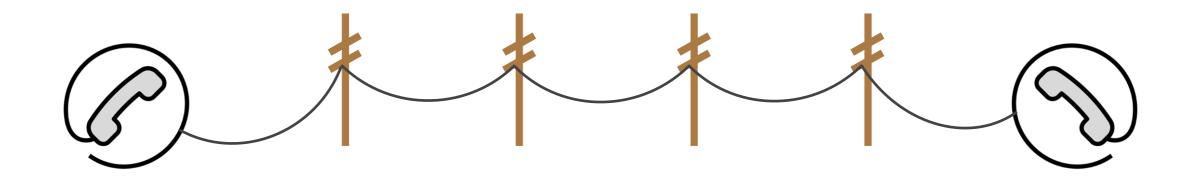




Example Using a Telephone

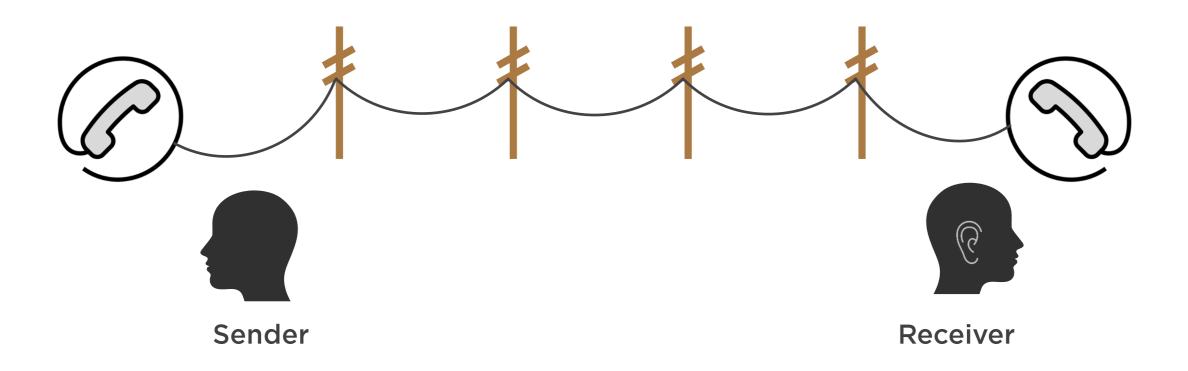


Moving Information Telephone





Moving Information Telephone



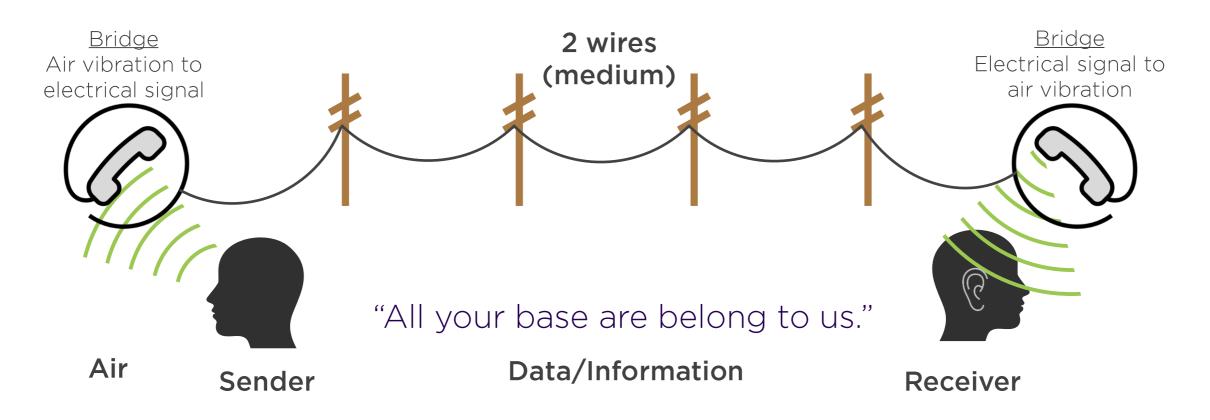


Moving Information Telephone





Moving Information Telephone





Modeling Systems

Message Concept

English Language

Vibration Link

Air Physical

Modeling Systems

Message Concept

English Language

Vibration Link

Air Physical



Electric Pulse

Copper wire



Modeling Systems

Message

English

Link

Vibration

Air

Physical

Copper wire

Message

English

Vibration

Copper wire

Air



CompTIA Network+

Exam Objective Information





DOMAIN	PERCENTAGE OF EXAMINATION
1.0 Networking Concepts	23%
2.0 Infrastructure	18%
3.0 Network Operations	17%
4.0 Network Security	20%
5.0 Network Troubleshooting and Tools	22%
Total	100%

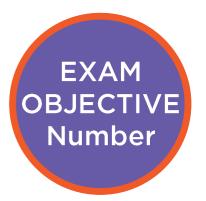


Scroll through exam objective PDF.



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1.0	Networking
1.1	Explain the purpose of ports and protocols
1.2	Explain devices, applications, protocols and services at the appropriate OSI layer.
1.3	Explain the concepts and characteristics of routing and switching.
1.4	Given a scenario, configure the appropriate IP addressing components.
1.5	Compare and contrast the characteristics of network topologies, types and technologies.
1.6	Given a scenario, implement the appropriate wireless technologies and configurations.
1.7	Summarize cloud concepts and their purposes.
1.8	Explain the function of network services.



Network+ Networking Concepts (1 of 5)

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Network+ Networking Concepts (1 of 5)

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