Lab 2.3.7 OSI Model Characteristics and Devices

Objective

- Name the seven layers of the OSI model, in order. Use a mnemonic.
- Describe the characteristics, functions and keywords relating to each layer.
- Describe the packaging units used to encapsulate each layer.
- Name the physical devices or components that operate at each layer.

Background

This lab will help to develop a better understanding of the seven layers of the OSI model. Specifically as they relate to the most popular functioning networking model in existence, the TCP/IP model. The Internet is based on TCP/IP. TCP/IP has become the standard language of networking. However, the seven layers of the OSI model are the ones most commonly used to describe and compare networking software and hardware from various vendors. It is very important to know both models and be able to relate or map the layers of one to the other. An understanding of the TCP/IP model and the protocols and utilities that operate at each layer is essential when troubleshooting.

Steps

1. List the seven layers of the OSI model from the top to the bottom. Give a mnemonic word for each layer that can help you remember it. Then list the keywords and phrases that describe the characteristics and function of each.

Layer #	Name	Mnemonic	Key Words and Description of Function
7			
6			
5			
4			
3			
2			
1			

2. List the seven layers of the OSI model and the encapsulation unit used to describe the data grouping at each layer. Also list the networking devices that operate at each layer, if applicable.

Layer #	Name	Encapsulation Unit or Logical Grouping	Devices or Components that Operate at this Layer
7			
6			
5			
4			
3			
2			
1			

