Lab 2.3.6 OSI Model and TCP/IP Model

Objective

- Describe the four layers of the TCP/IP model.
- Relate the seven layers of the OSI model to the four layers of the TCP/IP model.
- Name the primary TCP/IP protocols and utilities 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. Use the table below to compare the OSI layers with the TCP/IP protocol stack. In column two, indicate the proper name for each of the seven layers of the OSI model corresponding to the layer number. List the TCP/IP layer number and its correct name in the next two columns. Also list the term used for the encapsulation units, the related TCP/IP protocols and utilities that operate at each TCP/IP layer. More than one OSI layer will be related to certain TCP/IP layers.

OSI comparison with TCP/IP Protocol Stack

OSI #	OSI Layer Name	TCP/IP #	TCP/IP Layer Name	Encapsul. Units	TCP/IP Protocols at Each TCP/IP Layer	TCP Utilities
7						
6						
5						
4						
3						
2						
1						

