

Objective

The assignment has been designed to develop the understanding TCP/IP and Label Switching.

Instructions:

Please read the following instructions carefully before solving & submitting assignment:
Assignment should be in your own wordings not copied from internet, handouts or books.
It should be clear that your assignment will not get any credit (zero marks) if:

- The assignment is submitted after due date.
- The submitted assignment does not open or file is corrupt.
- The assignment not submitted in MS Word file format.
- The assignment is copied (from other student or copied from handouts or internet).
- Student ID is not mentioned in the assignment file or name of file is other than student ID.

For any query about the assignment, contact at CS610@vu.edu.pk

GOOD LUCK

Q.1. Which TCP/IP layers are equivalent to OSI layers? Draw a diagram to explain. [10 Marks]

Solution

TCP/IP Model	OSI Model
Application Layer	Application Layer
	Presentation Layer
	Session Layer
Transport Layer	Transport Layer
Internet Layer	Network Layer
Network Interface Layer	Data Link Layer
Physical Layer	Physical Layer

Q.2. Name a current technology that arose from ATM and how this technology follows the ATM technology.[5Marks]

Solution

Multi Protocol Label Switching (MPLS) is the new technology which is derived from ATM it uses Label switching concept just like ATM. MPLS is a notable result of the ATM effort engineers adapted label switching for use in Internet routers. Instead of completely replacing the underlying hardware as ATM attempted to do, MPLS can be implemented in software as an extra feature. An MPLS router accepts Internet packets, places each packet in a special wrapper, uses label switching to transport the packet across an MPLS path, un-wrap the packet, and continues normal forwarding. MPLS is used extensively at the center of the Internet; tier 1 ISPs use MPLS to allow some packets to follow a specific path (e.g., a large customer that pays more can have packets follow a shorter path that is not available to lower-paying customers).