



Learning Guide Unit 4

Overview

Unit 4: The Network Layer (IPv4 and IPv6)

Topics

- IPv4 Internet Protocol
- Interfaces
- Special addresses
- Fragmentation
- Classless IP delivery algorithm
- IPv4 subnets
- Address Resolution Protocol
- IPv6 Internet Protocol
- IPv6 addresses
- IPv6 multicast
- IPv6 Extension Headers
- IPv6 Neighbor Discovery

Learning Outcomes

- Describe the differences between Address Resolution Protocol and Reverse Address Resolution Protocol
- Analyze various IPv4 subnet partitions based on the a.b.c.d/k IP address notation
- Calculate payload size of an Ethernet frame carrying an IPv4 or IPv6 packet
- Explain the operation of newer ARP request implementations

Tasks:

- Peer-assess Unit 3 Assignment
- Read through the Learning Guide and the Reading Assignment
- Complete the Discussion Assignment by posting in the Discussion Forum
- Respond to and rate three of your fellow classmates' posts in the Discussion Forum
- Complete and submit the Written Assignment
- Complete and submit the Learning Journal Task
- Take and submit the Self-Quiz



