



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

