Learning Guide Unit 5

Overview

Unit 5: The Network Layer (Routing)

Topics

- Distance-Vector Routing-Update Algorithm
- Distance-Vector Slow-Convergence Problem
- Loop-Free Distance Vector Algorithms
- Link-State Routing-Update Algorithm
- Classless Internet Domain Routing: CIDR
- Hierarchical Routing
- Provider-Based Routing
- Border Gateway Protocol

Learning Outcomes

1. Describe the Distance Vector routing-update problems solved by Link State routing-update.
2. Determine IPv4 routing decisions based on CIDR type routing table entries
3. Calculate IPv4 address allocations based on sub-netting of a large address block
4. Explain the difference between a Layer 2 switch and a Layer 3 router

Tasks

- Peer Assessment Unit 4 Written 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