

LECTURE NOTES

CPEN8003 – Network Governance

Topic Review and Mid Exam

LEARNING OUTCOMES

LO 1: undertake critical reviews of current technical and research literature on a range of networking topics

LO 2: design, procure, implement and manage an organization's networking needs

LO 3: display a detailed knowledge of emerging network technologies

LO 4: display detailed skills and knowledge of network design, security and management

OUTLINE MATERI :

1. Menganalisis Persyaratan Bisnis dan Teknis
2. Mengkarakteristikkan Jaringan
3. Merancang Topologi Jaringan
4. Merancang Model Untuk Pengalamatan dan Penamaan
5. Memilih Protokol Switching dan Routing
6. Mengembangkan Strategi Keamanan Jaringan

Review Materi

Analyzing Business and Technical Requirements

- Analysing Business Goals
- Analysing Business Constraints
- Making Network Design Trade-offs

Characterizing the Networks

- Characterizing the Network Infrastructure
- Checking the Health of the Existing Internetwork
- Characterizing Traffic Flow
- Characterizing Traffic Load
- Characterizing Traffic Behavior
- Characterizing Quality of Service Requirements

Designing Network Topology

- Hierarchical Network Design
- Redundant Network Design Topologies
- Modular Network Design
- Designing a Campus Network Design Topology
- Designing the Enterprise Edge Topology
- Secure Network Design Topologies

Designing Model For Addressing and Naming

- Using a Hierarchical Model for Assigning Addresses
- Designing a Model for Naming

Selecting Switching and Routing Protocols

- Selecting Switching Protocols
- Selecting Routing Protocols
- IP Routing

Developing Network Security Strategies

- Using Multiple Routing Protocols in an Internetwork
- Network Security Design
- Security Mechanisms
- Modularizing Security Design
- Tools for Testing a Network Design

Optimizing The Network Design

- Optimizing Bandwidth Usage with IP Multicast Technologies
- Reducing Serialization Delay
- Optimizing Network Performance to Meet Quality of Service Requirements

Documenting The Network Design

- Responding to a Customer's Request for Proposal
- Contents of a Network Design Document