

CHAPTER 2

DOCUMENTING NETWORK ANALYSIS & DESIGN

Expected Outcomes

Able to analyse the network requirements and respond to a Customer's RFC

Able to generate the contents of network design document

Documenting Your Design

- If you are given a request for proposal (RFP), respond to the request in the exact format that the RFP specifies
- If no RFP, you should still write a design document
 - Describe your customer's requirements and how your design meets those requirements
 - Document the budget for the project
 - Explain plans for implementing the design

Typical RFP Response Topics

- ⦿ A network topology for the new design
- ⦿ Information on the protocols, technologies, and products that form the design
- ⦿ An implementation plan
- ⦿ A training plan
- ⦿ Support and service information
- ⦿ Prices and payment options
- ⦿ Qualifications of the responding vendor or supplier
- ⦿ Recommendations from other customers
- ⦿ Legal contractual terms and conditions

Contents of a Network Design Document

- ⦿ Executive summary
- ⦿ Project goal
- ⦿ Project scope
- ⦿ Design requirements
- ⦿ Current state of the network
- ⦿ New logical and physical design
- ⦿ Results of network design testing
- ⦿ Implementation plan
- ⦿ Project budget

Design Requirements

- Business goals explain the role the network design will play in helping an organization succeed
- Technical goals include scalability, performance, security, manageability, usability, adaptability, and affordability

Logical and Physical Design

- Logical design
 - Topology
 - Models for addressing and naming
 - Switching and routing protocols
 - Security strategies
 - Network management strategies
- Physical design
 - Actual technologies and devices

Implementation Plan

- ◎ Recommendations for deploying the network design
- ◎ Project schedule
 - Including any dates and times for service provider installations
- ◎ Any plans for outsourcing
- ◎ Training
- ◎ Risks
- ◎ A fallback plan if the implementation should fail
- ◎ A plan for evolving the design as new requirements arise

Possible Appendixes

- ⦿ Detailed topology maps
- ⦿ Device configurations
- ⦿ Addressing and naming details
- ⦿ Network design testing results
- ⦿ Contact information
- ⦿ Pricing and payment options
- ⦿ More information about the company that is presenting the design
 - Annual reports, product catalogs, press releases
- ⦿ Legal contractual terms and conditions

Summary

- When a customer provides an RFP, make sure to follow the prescribed format
- When not bound by an RFP, develop a design document that describes requirements, the existing network, the logical and physical design, an implementation plan, and the budget
- Be sure to include an executive summary
- In some cases, you should also include appendixes with detailed information

Review Questions

- Why is it important to document your network design?
- What are the major topics in a design document?
- What are some possible appendixes for a design document?

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Possible Appendices

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