

Network Structure



Practice Exercises

- 19.1 Why would it be a bad idea for routers to pass broadcast packets between networks? What would be the advantages of doing so?
- 19.2 Discuss the advantages and disadvantages of caching name translations for computers located in remote domains.
- 19.3 What are two formidable problems that designers must solve to implement a network system that has the quality of transparency?
- 19.4 To build a robust distributed system, you must know what kinds of failures can occur.
 - a. List three possible types of failure in a distributed system.
 - b. Specify which of the entries in your list also are applicable to a centralized system.
- 19.5 Is it always crucial to know that the message you have sent has arrived at its destination safely? If your answer is “yes,” explain why. If your answer is “no,” give appropriate examples.
- 19.6 A distributed system has two sites, A and B. Consider whether site A can distinguish among the following:
 - a. B goes down.
 - b. The link between A and B goes down.
 - c. B is extremely overloaded, and its response time is 100 times longer than normal.

What implications does your answer have for recovery in distributed systems?

