

**IS 628: Computer-based Information Systems**  
**Reading Preparation Assignment**  
**Chapter 3**  
**Telecommunications and Networking**

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Read (actually, more like look over as I will not be emphasizing in-depth discussion on different computing technologies) Chapter 3 of the text, pp. 60 – 92.

Be prepared for class discussion based on the following questions:

1. What are the primary reasons for networking among computers and computer-related devices?
2. Why is the idea of a standard network protocol, such as the OSI reference model, important? What are the advantages and disadvantages of developing a single standard protocol?
3. Has the popularity of the Internet and the related adoption of TCP/IP by many organizations and networks helped or hindered the movement towards a single standard protocol such as OSI? Why?
4. Find out what types of computer networks are used at your organization (either the university at which you are taking this course or the company for which you work). Does your organization have an intranet? Does your organization have one or more LANs? What types of LANs does your organization use? Does your organization operate a WAN? Is your organization linked to the Internet? Speculate on why your organization has developed this particular network structure.
5. Consider a large company with which you are somewhat familiar (because of your own work experience, a parent's work experience, a friend's work experience, or your study of the company). Use your imagination to suggest new ways in which the Internet could be used in this company.
6. Consider a particular small business with which you are familiar. Describe the current telecommunications employed by the business. In what ways might telecommunications and networking be used to improve the profitability of this business? Consider, as appropriate, such ideas as the use of facsimile communication, telemarketing, enhanced communication through a local area network, a Web home page, acceptance of orders over the Web, and smartphones for employees.
7. Cellular telephone service has certainly become more important vis-à-vis wired telephone service over the past decade. Will this trend continue? How will the trend toward cellular service be affected by other developments in telephony such as massive increases in bandwidth through fiber-optic technology and the wider use of telephony over the Internet?
8. Explain, in your own words, the concept of cloud computing. Do you believe that cloud computing will have a major impact on the IT function in organizations? Why or why not? In your opinion, what are some factors that will hold back the growth of cloud computing?