

- Define and describe open source software and Linux and explain their business benefits.
 - Define Java and HTML5 and explain why they are important.
 - Define and describe Web services and the role played by XML.
 - Name and describe the three external sources for software.
 - Define and describe software mashups and apps.
5. What are the challenges of managing IT infrastructure and management solutions?
 - Name and describe the management challenges posed by IT infrastructure.
 - Explain how using a competitive forces model and calculating the TCO of technology assets help firms make good infrastructure investments.

Discussion Questions

1. Why is selecting computer hardware and software for the organization an important management decision? What management, organization, and technology issues should be considered when selecting computer hardware and software?
2. Should organizations use software service providers for all their software needs? Why or why not?

What management, organization, and technology factors should be considered when making this decision?

3. What are the advantages and disadvantages of cloud computing?

Hands-On MIS Projects

The projects in this section give you hands-on experience in developing solutions for managing IT infrastructures and IT outsourcing, using spreadsheet software to evaluate alternative desktop systems, and using Web research to budget for a sales conference.

Management Decision Problems

1. The University of Pittsburgh Medical Center (UPMC) relies on information systems to operate 19 hospitals, a network of other care sites, and international and commercial ventures. Demand for additional servers and storage technology was growing by 20 percent each year. UPMC was setting up a separate server for every application, and its servers and other computers were running a number of different operating systems, including several versions of Unix and Windows. UPMC had to manage technologies from many different vendors, including Hewlett-Packard (HP), Sun Microsystems, Microsoft, and IBM. Assess the impact of this situation on business performance. What factors and management decisions must be considered when developing a solution to this problem?

2. Qantas Airways, Australia's leading airline, faces cost pressures from high fuel prices and lower levels of global airline traffic. To remain competitive, the airline must find ways to keep costs low while providing a high level of customer service. Qantas had a 30-year-old data center. Management had to decide whether to replace its IT infrastructure with newer technology or outsource it. What factors should be considered by Qantas management when deciding whether to outsource? If Qantas decides to outsource, list and describe points that should be addressed in a service level agreement.

Improving Decision Making: Using a Spreadsheet to Evaluate Hardware and Software Options

Software skills: Spreadsheet formulas

Business skills: Technology pricing

In this exercise, you will use spreadsheet software to calculate the cost of desktop systems, printers, and software.