

12.12: The Internet and Cloud Computing

Learning Objectives

- Discuss how businesses can use the Internet to manage information

Once it's grown beyond just a handful of employees, an organization needs a way of sharing information. Imagine a flower shop with twenty employees. The person who takes phone orders needs access to the store's customer list, as do the delivery person and the bookkeeper. Now, the store may have one computer and everyone could share it. It's more likely, however, that there are a number of computers (several for salespeople, one for delivery, and one for bookkeeping). In this case, everyone needs to be sure that customer records have been updated on all computers every time that a change is required. Traditionally the business would install a network (LAN) to allow the various computers to talk to one another and share information. Today businesses are looking to the cloud to provide a network solution.

Cloud Computing

So, what is cloud computing? Watch the following video, which describes some of the uses and benefits of cloud computing.



You can [view the transcript for "What Is the Cloud"](#) (opens in new window).

The term "cloud computing" means performing computer tasks using services provided over the Internet. In cloud computing a company's data and applications are stored at an offsite data center that is then accessed via the Internet (the cloud). So when you hear or read that an individual or company is using the "cloud" or technology firms, such as IBM, Hewlett-Packard, and Salesforce.com, are offering cloud services, just substitute the word "Internet" for "cloud" and things will make sense.

You might be surprised to learn that you're already using the cloud—that is if you use Facebook (which is very likely—in fact, just mentioning Facebook here might prompt you to stop studying and check out your friends' pages). How do you know that Facebook is a cloud application? Remember the trick: just substitute the word "Internet" for "cloud." The Facebook computer application lets you store information about yourself and share it with others using the Internet.

Practice Question

<https://assessments.lumenlearning.co...essments/11100>

Advantages and Disadvantages of Cloud Computing

In making a decision whether or not to use cloud computing to store and share information, a business should consider some of its advantages and disadvantages.

Advantages

1. *Cost Savings*—By “renting” software rather than buying it the cloud can reduce. In most instances, the monthly fee to “use” software is generally less than the combined cost of buying, installing, and maintaining the software internally. On the hardware site, housing data in a service provider’s facilities (such as Amazon or Google), rather than in-house, reduces the large outlay of cash needed to build and maintain data centers.
2. *Speed of Delivery*—Purchasing and installing software and data processing equipment can be time consuming. A cloud computing service provider can get applications up and running in a minimal time frame and often without interrupting normal business operations.
3. *Scalable*—As businesses grow it’s often difficult to gauge the level of technology needs. If businesses overestimate their requirements, they end up paying for technology they don’t need. If they underestimate, efficiency goes down, and the experience for customers may diminish. By using cloud computing businesses are able to have exactly what they need at their disposal at any point in time.
4. *Employees Can Be Mobile*—The use of cloud computing frees workers from their desks and allows them to work wherever they are. As applications move to the cloud, all that is needed for employees to connect to their “offices” is the Internet. This mobility benefit also makes it easier for employees to collaborate on projects and connect with others in the company.
5. *Information Technology Staff*—Finding experienced and knowledgeable information technology staff is a continuing problem for many businesses. By using cloud computing, businesses can reduce their human resource needs by shifting some of the work to outside vendors who have a staff of highly skilled individuals.

Disadvantages

Although the advantages of moving to a cloud environment outnumber the disadvantages, the following disadvantages are cause for concern:

1. *Disruption in Internet Service*—Since both applications and data are accessed via the Internet, if the Internet is unavailable because of a disruption this could create serious problems for a business.
2. *Security*—Many companies are reluctant to trust cloud service providers with their data because they’re afraid it might become available to unauthorized individuals or criminals. This is a particular concern to business that collect and store sensitive client information.
3. *Service Provider System Crash*—Organizations considering moving to the cloud are often concerned about the possibility of a computer service crash at their service providers’ facilities. If the service provider experiences an outage, then the business is in effect cut off from its data and operations.

Although there are some disadvantages, using cloud computing to manage information is the new normal for many businesses. In fact, according to Forbes magazine, the cloud computing market is estimated to grow to \$411 billion by 2020. The global cloud computing services market size is driven by many factors. The most important factor, which is driving the market, is the cost effectiveness. With the deployment of cloud computing services, organizations can save more than 35% of the annual operating costs of their information systems. Clearly the future for the cloud is sky high!

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