

INSTITUTE OF INDUSTRIAL AND INFORMATION TECHNOLOGY



पर करे ऑनलाइन इस
तरह शॉपिंग



E COMMERCE



PRINCIPLES

- E-commerce is a new way of conducting business, and as with any other new application of technology, it presents both opportunities for improvement and potential problems

LEARNING OBJECTIVES

- Identify several advantages of e-commerce
- Outline a multistage model that describes how e-commerce works
- Identify some of the major challenges that companies must overcome to succeed in e-commerce
- Describe some of the current uses and potential benefits of m-commerce
- Identify several e-commerce applications

- E-commerce requires the careful planning and integration of a number of technology infrastructure components

LEARNING OBJECTIVES

- Outline the key components of technology infrastructure that must be in place for e-commerce to succeed
- Discuss the key features of the electronic payments systems needed to support e-commerce

PRINCIPLES

- Users of e-commerce technology must use safeguards to protect themselves

LEARNING OBJECTIVES

- Identify the major issues that represent significant threats to the continued growth of e-commerce

PRINCIPLES

- Organizations must define and execute a strategy to be successful in e-commerce

LEARNING OBJECTIVES

- Outline the key components of a successful e-commerce strategy

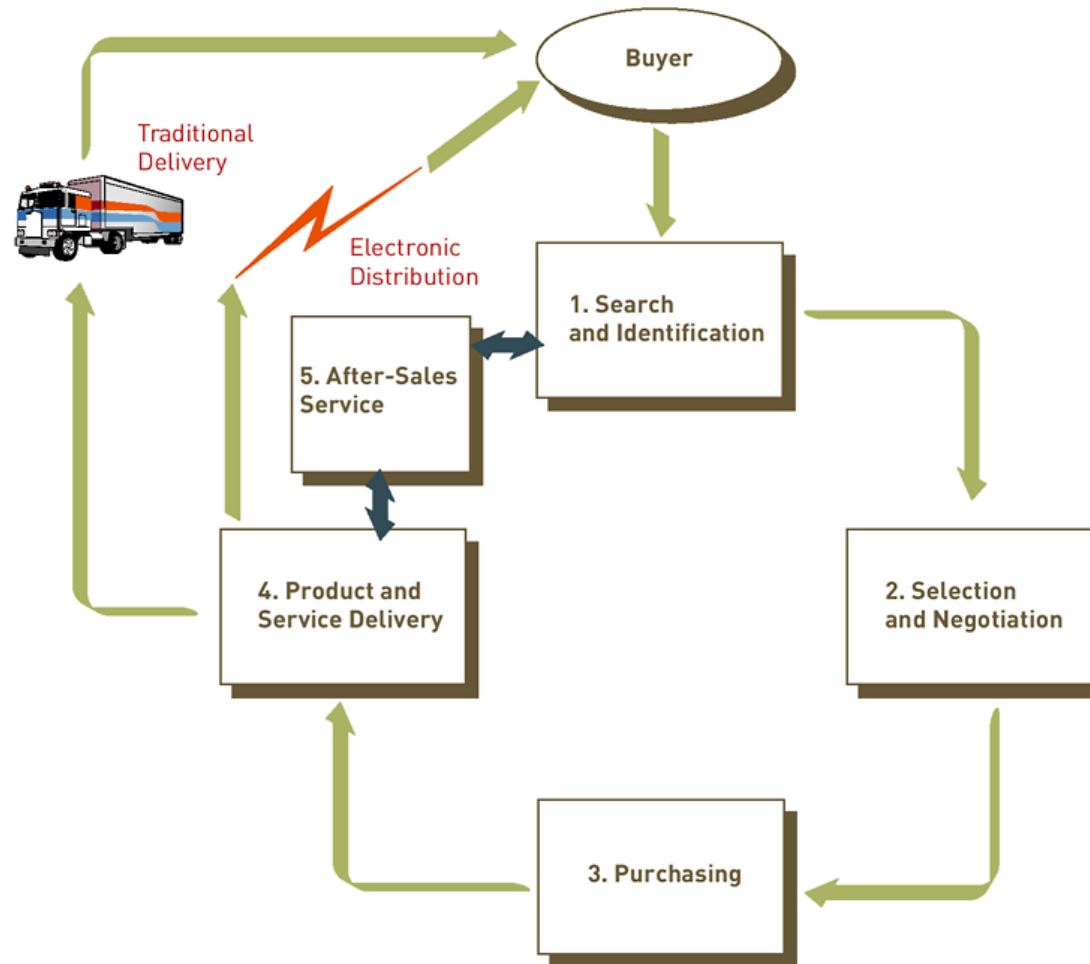
AN INTRODUCTION TO ELECTRONIC COMMERCE

- **Business-to-consumer (B2C) e-commerce:**
customers deal directly with the organization, avoiding any intermediaries
- **Business-to-business (B2B) e-commerce:**
participants are organizations
- **Consumer-to-consumer (C2C) e-commerce:**
participants are individuals, with one serving as the buyer and the other as the seller

MULTISTAGE MODEL FOR E-COMMERCE

- Search and identification
- Selection and negotiation
- Purchasing products and services electronically
- Product and service delivery
- After-sales service

FIGURE 8.1: MULTISTAGE MODEL FOR E-COMMERCE (B2B AND B2C)



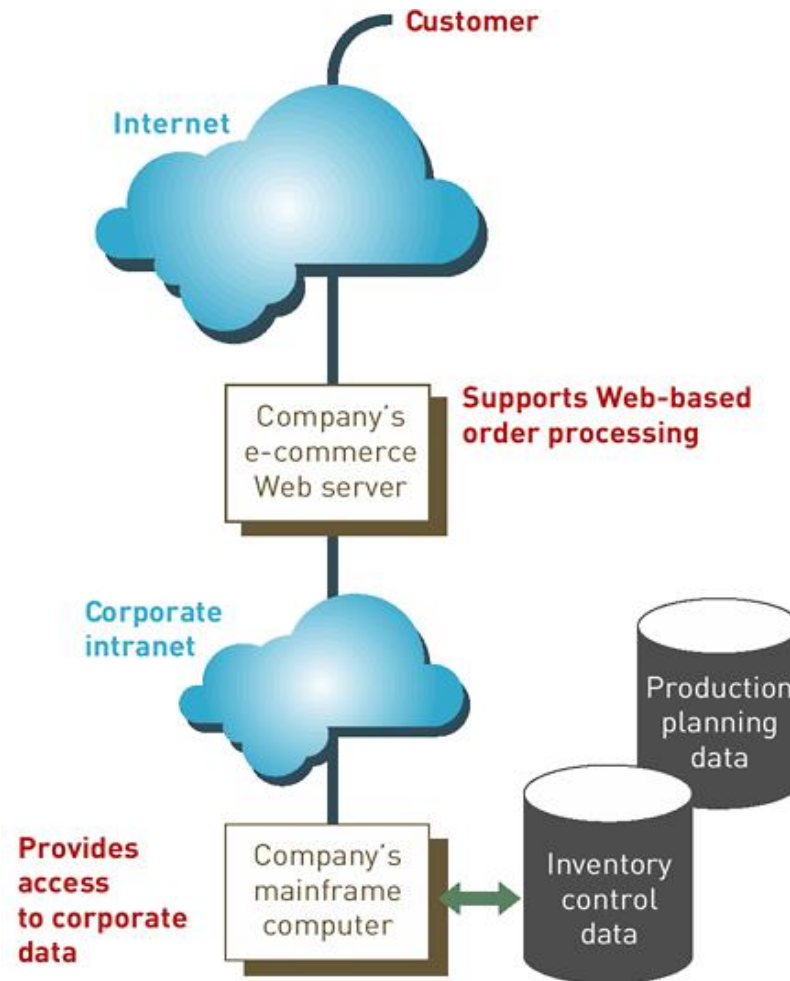
E-COMMERCE CHALLENGES

- Define an effective e-commerce model and strategy
- Need to change distribution systems and work processes
- Integrate Web-based order processing with traditional systems

FIGURE 8.3: THREE BASIC COMPONENTS OF A SUCCESSFUL E-COMMERCE MODEL



FIGURE 8.4: WEB-BASED ORDER PROCESSING MUST BE LINKED TO TRADITIONAL BACK-END SYSTEMS



THE E-COMMERCE SUPPLY CHAIN

- Supply chain management is a key value chain composed of:
 - Demand planning
 - Supply planning
 - Demand fulfillment

FIGURE 8.5: SUPPLY CHAIN MANAGEMENT



THE E-COMMERCE SUPPLY CHAIN (CONTINUED)

- E-commerce supply chain management allows businesses an opportunity to achieve:
 - Increased revenues and decreased costs
 - Improved customer satisfaction
 - Inventory reduction across the supply chain

BUSINESS-TO-BUSINESS (B2B) E-COMMERCE

- Allows manufacturers to buy at a low cost worldwide
- Enterprises can sell to a global market
- Offers great promise for developing countries

BUSINESS-TO-CONSUMER (B2C) E-COMMERCE

- Convenience
- Many goods and services are cheaper when purchased via the Web
- Comparison shopping
- **Disintermediation:** elimination of intermediate organizations between the producer and the consumer

CONSUMER-TO-CONSUMER (C2C) E-COMMERCE

- Often done through Web auction sites such as eBay
- Growth of C2C is responsible for reducing the use of the classified pages of newspapers to advertise and sell personal items

GLOBAL E-COMMERCE

- **Localization:** adapting an existing U.S.-centric Web site to another language and culture
- Steps involved in localization
 - Recognizing and conforming to the nuances, subtleties, and tastes of local cultures
 - Supporting basic trade laws such as those covering each country's currency, payment preferences, taxes, and tariffs
 - Ensuring that technological capabilities match local connection speeds

GLOBAL E-COMMERCE (CONTINUED)

- Determine which global markets make the most sense for selling products or services online
- Decide whether Web content should be generated or updated centrally or locally

MOBILE COMMERCE

- Mobile commerce (m-commerce) relies on the use of wireless devices, such as personal digital assistants, cell phones, and smart phones, to place orders and conduct business
- Issues confronting m-commerce
 - User-friendliness of the wireless device
 - Network speed
 - Security

TECHNOLOGY NEEDED FOR MOBILE COMMERCE

- Handheld devices used for m-commerce have limitations that complicate their use
- **Wireless application protocol (WAP):** a standard set of specifications for Internet applications that run on handheld, wireless devices

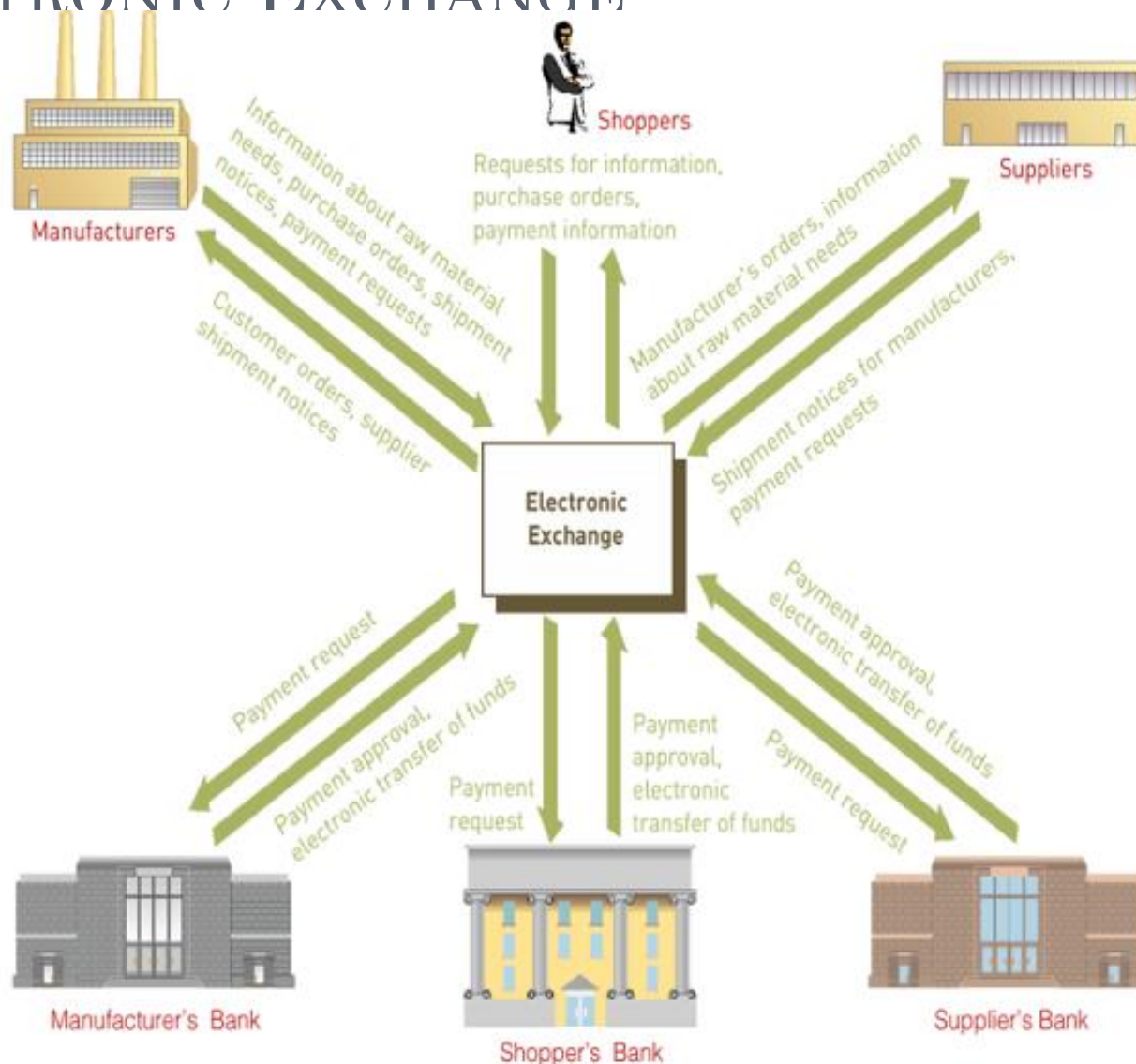
E-COMMERCE APPLICATIONS: RETAIL AND WHOLESALE

- **Electronic retailing (e-tailing):** the direct sale from business to consumer through electronic storefronts, typically designed around an electronic catalog and shopping cart model
- **Cybermall:** a single Web site that offers many products and services at one Internet location
- Manufacturing, repair, and operations (MRO) goods and services

MANUFACTURING

- To raise profitability and improve customer service, many manufacturers move their supply chain operations onto the Internet
- **Electronic exchange:** an electronic forum where manufacturers, suppliers, and competitors buy and sell goods, trade market information, and run back-office operations

FIGURE 8.6: MODEL OF AN ELECTRONIC EXCHANGE



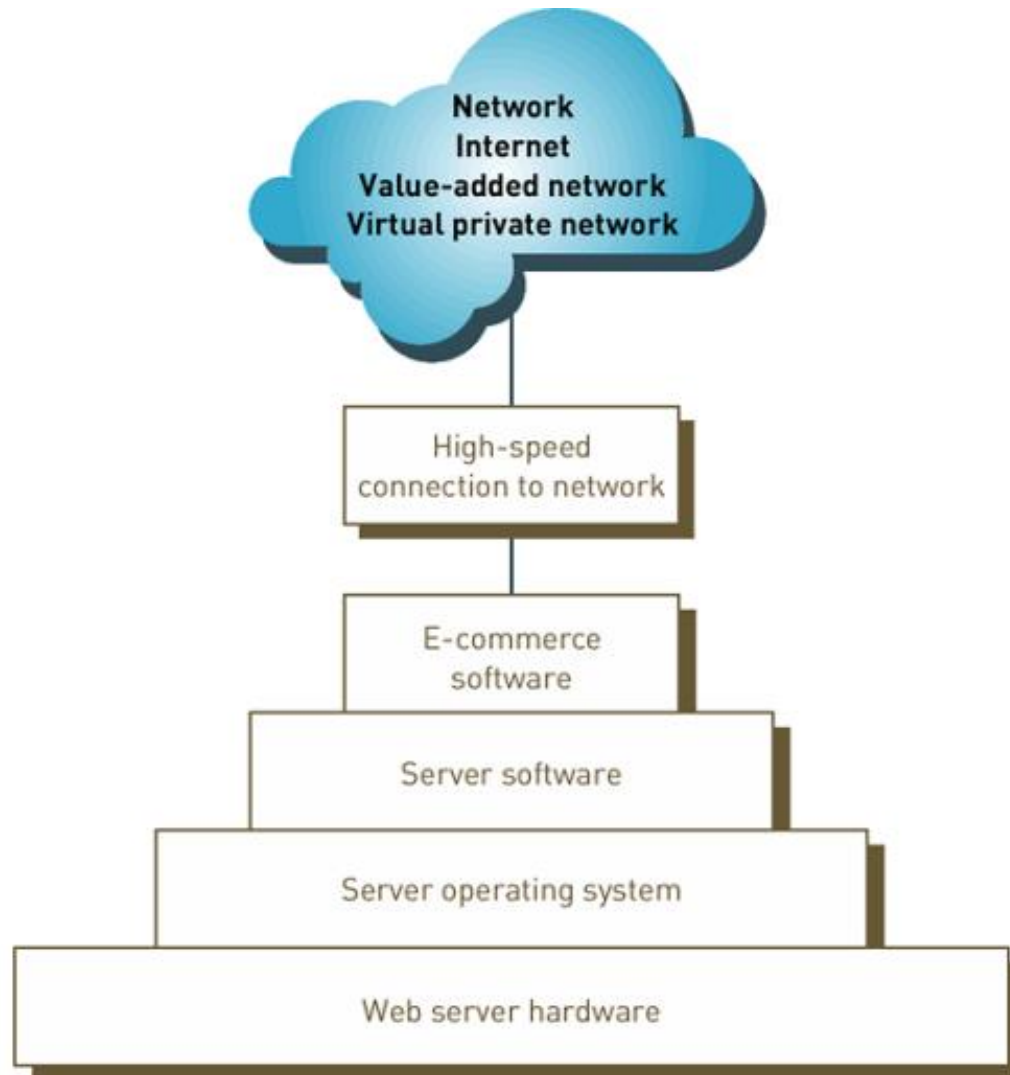
MARKETING

- **Market segmentation:** the identification of specific markets to target them with advertising messages
- **Technology-enabled relationship management:** use of detailed information about a customer's behavior, preferences, needs, and buying patterns to set prices, negotiate terms, tailor promotions, add product features, and otherwise customize the entire relationship with that customer

INVESTMENT AND FINANCE

- Online stock trading
- Online banking

FIGURE 8.7: KEY TECHNOLOGY INFRASTRUCTURE COMPONENTS



HARDWARE

- Storage capacity and computing power required of the Web server depends on:
 - Software that will run on the server
 - Volume of e-commerce transactions
- Website hosting

WEB SERVER SOFTWARE

- Security and identification
 - Web sites must be designed to protect against attacks
 - Denial-of-service (DOS) attack
- Retrieving and sending Web pages
- Web site tracking

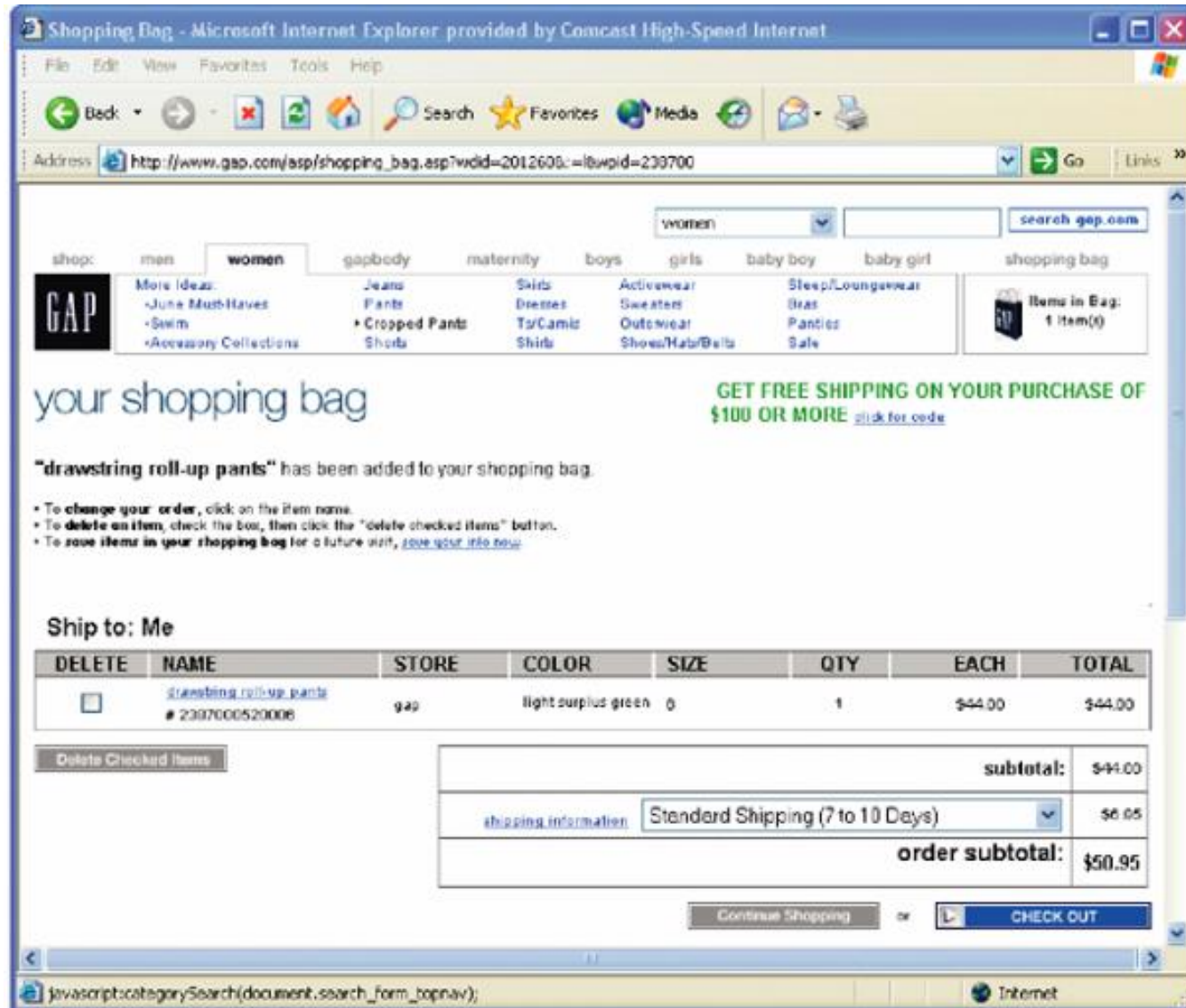
WEB SERVER SOFTWARE (CONTINUED)

- Web site development
- Web page construction
 - Static Web page
 - Dynamic Web page

E-COMMERCE SOFTWARE

- Catalog management
- Product configuration
- Shopping cart facilities
- E-commerce transaction processing
- Web traffic data analysis

FIGURE 8.8: ELECTRONIC SHOPPING CART



E-COMMERCE TRANSACTION PROCESSING

- **E-commerce transaction processing software:** connects participants in the e-commerce economy and enables communication between trading partners, regardless of their technical infrastructure
- Fully automates transaction processes from order placement to reconciliation
- **Web site traffic data analysis software:** processes and analyzes data from the Web log file to provide useful information to improve Web site performance

ELECTRONIC PAYMENT SYSTEMS

- **Digital certificate:** an attachment to an e-mail message or data embedded in a Web page that verifies the identity of a sender or a Web site
- **Certificate authority (CA):** a trusted third party that issues digital certificates
- **Secure Sockets Layer (SSL):** a communications protocol used to secure sensitive data
- **Electronic cash:** an amount of money that is computerized, stored, and used as cash for e-commerce transactions

ELECTRONIC PAYMENT SYSTEMS (CONTINUED)

- **Electronic wallet:** a computerized stored value that holds credit card information, electronic cash, owner identification, and address information
- Credit card
- Charge card
- Debit card
- Smart card

THREATS TO E-COMMERCE

- E- and m-commerce incidents
- Theft of intellectual property
 - **Intellectual property:** music, books, inventions, paintings, and other special items protected by patents, copyrights, or trademarks
 - Patents on business processes

FRAUD

- **Phishing:** bogus messages purportedly from a legitimate institution to pry personal information from customers by convincing them to go to a “spoof” Web site
- Online auction fraud
- **Spam:** e-mail sent to a wide range of people and Usenet groups indiscriminately

FRAUD (CONTINUED)

- Pyramid schemes
- Investment fraud
- Stock scams

INVASION OF CONSUMER PRIVACY

- **Online profiling:** the practice of Web advertisers' recording online behavior to produce targeted advertising
- **Clickstream data:** data gathered based on the Web sites visited and the items clicked on
- **Safe harbor principles:** principles that address the e-commerce data privacy issues of notice, choice, and access

FIGURE 8.9: TRUSTE SEAL

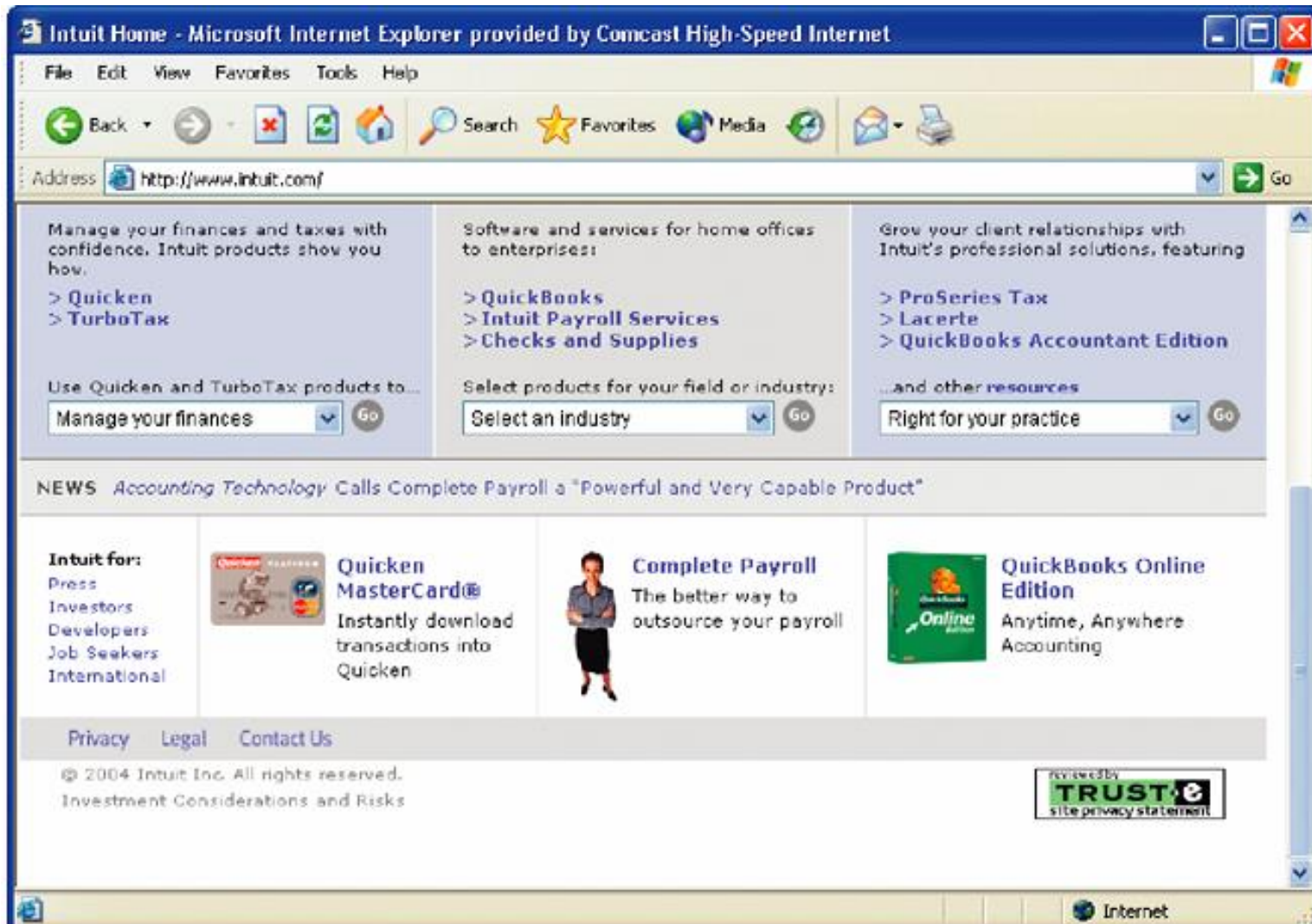


FIGURE 8.10: BBB ONLINE PRIVACY SEAL



TABLE 8.4: HOW TO PROTECT YOUR PRIVACY WHILE ONLINE

Tip	Rationale
Never give out personal information, especially your social security number.	Assume that any information you give out about yourself will appear on a database somewhere. Even something as innocuous as a warranty card may ask for income and phone numbers—don't provide such data.
Before registering with a Web site, check out its privacy policy.	Look for the BBB or TRUSTe seal. If a site doesn't explain how it plans to use your information, beware!
Be discreet in sending e-mail, posting messages to a Usenet newsgroup, and "talking" in chat rooms.	Anything you send in these forums can be viewed and used by a marketer to update your personal profile.
Update your browser software.	The newest versions of Netscape Navigator and Microsoft Internet Explorer, by far the two most popular Web browsers, have the best encryption technology available. Generally speaking, if these companies release an update, someone has found a hole in their security.
Consider the purchase of a digital ID to use in place of your real name.	This permits users to retrieve Web pages anonymously.

STRATEGIES FOR SUCCESSFUL E-COMMERCE: DEVELOPING AN EFFECTIVE WEB PRESENCE

- Decide which tasks the site must accomplish
- An effective Web site creates an attractive presence and meets the needs of its visitors
- It may be necessary to redefine your site's business model to capture new business opportunities

PUTTING UP A WEB SITE

- **Web site hosting companies:** companies that provide the tools and services required to set up a Web page and conduct e-commerce within a matter of days and with little up-front cost
- **Storefront broker:** companies that act as middlemen between your Web site and online merchants that have the products and retail expertise

BUILDING TRAFFIC TO YOUR WEB SITE

- Obtain and register a domain name
- Make your site search-engine-friendly
 - **Meta tag:** a special HTML tag, not visible on the displayed Web page, that contains keywords representing your site's content, which search engines use to build indexes pointing to your Web site
- Web site traffic data analysis software

MAINTAINING AND IMPROVING YOUR WEB SITE

- Be alert to new trends and developments in e-commerce
- Be prepared to take advantage of new opportunities
- **Personalization:** the process of tailoring Web pages to specifically target individual consumers
 - Explicit
 - Implicit

SUMMARY

- In business-to-consumer (B2C) e-commerce, customers deal directly with the organization
- In business-to-business (B2B) e-commerce, the participants are organizations
- In consumer-to-consumer (C2C) e-commerce, the participants are individuals
- A multistage model for e-commerce includes search and identification, selection and negotiation, purchasing, product or service delivery, and after-sales service

SUMMARY (CONTINUED)

- Supply chain management is a key value chain composed of demand planning, supply planning, and demand fulfillment
- Mobile commerce (m-commerce) uses wireless devices to place orders and conduct business
- Electronic retailing (e-tailing) is the direct sale from business to consumer through electronic storefronts
- A digital certificate is an attachment to an e-mail message or data embedded in a Web page that verifies the identity of a sender or a Web site

SUMMARY (CONTINUED)

- Threats to e-commerce include e- and m-commerce incidents, theft of intellectual property, fraud, and invasion of consumer privacy
- Strategies for successful e-commerce
 - Developing an effective Web presence
 - Putting up a Web site
 - Building traffic to your Web site
 - Maintaining and improving your Web site