INTRODUCTION TO e-COMMERCE / e-BUSINESS

Major Players

What is e-business?

- E-Business is the electronic connection of business operations to customers, suppliers, employees and other partners.

- E-Business refers to a broader definition of e-commerce, not just the buying and selling of goods and services, but also servicing customers, collaborating with business partners, conducting e-learning, and processing electronic transactions.

Evolution of e-business

How it started

- Electronic data interchange (EDI) - electronically transfer routine documents (application enlarged pool of participating companies to include manufacturers, retailers, services)

- 1970s: innovations like electronic funds transfer (EFT) - funds routed electronically from one organization to another (limited to large corporations)

- 1990s: the Internet commercialized and users flocked to participate in the form of dot-com, or Internet start-ups

Evolution of e-business (cont.)

- 1997: Introduction of a brand new phrase – e-business

- 1999: The emphasis of e-business shifted from B2C to B2B

- 2001: The emphasis shifted from B2B to B2E, c-commerce, e-government, e-learning, and m-commerce

- 2011–12: Total online shopping and transactions in the United States between $7 to $10 trillion

- E-business will undoubtedly continue to shift and change

History of Internet

- The history of the Internet begins with the development of electronic computers in the 1950s. Initial concepts of packet networking originated in several computer science laboratories in the United States, United Kingdom, and France.
- The US Department of Defense awarded contracts as early as the 1960s for packet network systems, including the development of the ARPANET.

- Access to the ARPANET was expanded in 1981 when the National Science Foundation (NSF) funded the Computer Science Network (CSNET).
- In 1982, the Internet protocol suite (TCP/IP) was introduced as the standard networking protocol on the ARPANET.

- In the early 1980s the NSF funded the establishment for national supercomputing centers at several universities.

- Commercial Internet service providers (ISPs) began to emerge in the very late 1980s. The ARPANET was decommissioned in 1990.

- Limited private connections to parts of the Internet by officially commercial entities emerged in several American cities by late 1989 and 1990,and the NSFNET was decommissioned in 1995, removing the last restrictions on the use of the Internet to carry commercial traffic.

- In the 1980s, research at CERN in Switzerland by British computer scientist Tim Berners-Lee resulted in the World Wide Web, linking hypertext documents into an information system, accessible from any node on the network.

- The research and education community continues to develop and use advanced networks such as NSF's very high speed Backbone Network Service (vBNS), Internet2, and National LambdaRail.

- Increasing amounts of data are transmitted at higher and higher speeds over fiber optic networks operating at 1-Gbit/s, 10-Gbit/s, or more.

- Today the Internet continues to grow, driven by ever greater amounts of online information, commerce, entertainment, and social networking.

E-business opportunities for businesses

▸ <u>Fastest Growing Segment:</u> About 75 million people ages 46 to 84 are living today, many of whom are still in their "power-earning years" and have a high potential for discretionary spending which makes this platform a fastest growing segment in the economy.

▸ <u>Growth Potential:</u> The e-commerce and online auction arena grew 10.4% from 2007 to 2012, with 8.8% more growth expected annually through 2017. Employment in the online shopping arena is also expected to creep upward, from 177,642 jobs last year to 183,396 by the end of 2012, and nearly 206,000 in 2017.
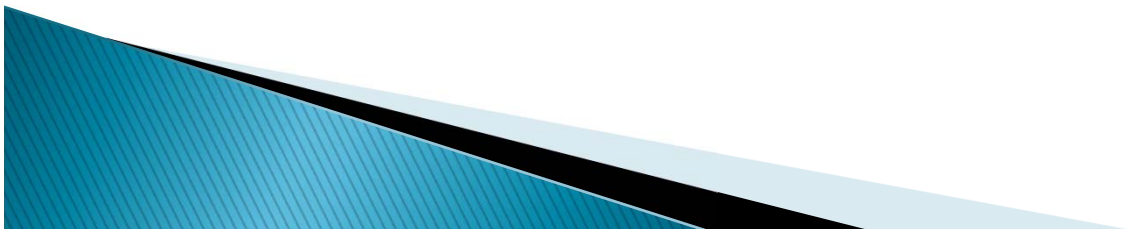
- Reach: the reach of the businesses if they operate using internet also increases. This is evident with the example of amazon.com covering large geographical areas such as whole of the USA and India.

- Marketplaces: Amazon and eBay, whilst big global names, can also be highly useful to small businesses by providing a platform for them to sell products via their websites. Although not suitable for all industries, companies can list products on these sites and access their millions of registered customers, thereby providing a fast track route to sales.

- Improving Convenience for Customers: There's great potential for B2B businesses to take advantage of E-business to meet new customer expectation and create a real point of difference by offering a high quality online ordering experience.

Working of E-business

▸ Companies are integrating themselves within the globalized worldwide economic streams in different ways.

▸ One of these ways is also the implementation of electronic or computerized interchange of data and of documents respectively.

▸ Electronic interchange of documents (EDI) is providing the suitable base for the swift and efficient interchange of information between information systems without errors.

▸ When using standard messages or documents respectively is the electronic interchange enabling also the use of common language between information systems of different organizations wherever in the world.

Example of how does it function

Example of functionality of electronic interchange of information in retail shop:

➢ Buyer prepares the electronic order in its information system (IS).

➢ Buyer is sending electronic order to the supplier and supplier is obtaining the order directly into its information system.

➢ Based on the electronic order, supplier is preparing the ordered goods and the electronic bill of delivery and is sending this document to the buyer. Electronic bill of delivery may contain the structure of the consignment and other data on delivered goods (date of use, number of series and lots etc.)

- Buyer is receiving all these details in its information system. At the take over and acceptance of the goods he is confirming the electronic delivery bill and is sending to the supplier the electronic certificate of receipt.

- Supplier is issuing the electronic invoice based on the received electronic certificate of receipt.

- Buyer is verifying the electronic invoice with the confirmed bill of delivery and is sending he electronic order for payment to the bank.

- Bank is sending electronic financial statements of performed transactions to both partners, i.e. to the buyer and to the supplier.

E–Commerce v/s Traditional business

BASIS FOR COMPARISON	TRADITIONAL COMMERCE	E-COMMERCE
Meaning	Traditional commerce is a branch of business which focuses on the exchange of products and services, and includes all those activities which encourages exchange, in some way or the other.	e-Commerce means carryng out commercial transactions or exchange of information, electronically on the internet.
Processing of Transactions	Manual	Automatic
Accessibility	Limited Time	24×7×365
Physical inspection	Goods can be inspected physically before purchase.	Goods cannot be inspected physically before purchase.
Customer interaction	Face-to-face	Screen-to-face

Scope of business	Limited to particular area.	Worldwide reach
Information exchange	No uniform platform for exchange of information.	Provides a uniform platform for information exchange.
Resource focus	Supply side	Demand side
Business Relationship	Linear	End-to-end
Marketing	One way marketing	One-to-one marketing
Payment	Cash, cheque, credit card, etc.	Credit card, fund transfer etc.
Delivery of goods	Instantly	Takes time

Advantages of eBusiness

- Ownership: One of the high points of e-business is that you get to work for yourself. Because you don't have a boss, all the income you make after expenses goes directly into your pocket.

- Costs And Setup: E-businesses are becoming famous for their low-cost start-up compared with a tradition brick-and-mortar business.

- Speed And Efficiency: The World Wide Web's design intends speed and efficiency, and brings those advantages to small businesses. Online ordering systems can process payments and orders in real-time, usually faster, more accurately and cheaper than human workers

- Competitiveness: The Internet is a great equalizer: little mom-and-pop e-businesses compete right along side large companies, and businesses in Asia and Europe are just as accessible as those in your own backyard. Low startup costs mean that new businesses can be just as competitive and responsive as those that have been around for years.

- Security: While the security of a website is always a worry, the vast and continued improvements in e-commerce security are whittling away at the danger.

Disadvantages of E-business

✓ Privacy is among the top concerns of Internet users.

✓ E-business sites often require passwords and use **electronic signatures**, an electronic form of identity verification.

✓ Companies can track customers' shopping and viewing habits through *cookies.*

✓ Customers usually prefer that companies do not share their personal information. Merchants have responded by joining privacy organizations.

✓ Privacy protections may soon become legally required.

✓ Employees also have concerns that employers are monitoring their Internet behavior.

✓ Companies worry about data theft.

- [Internet Crime Complaint Center](#) logs more than 200,000 complaints annually.

- 50% of the complaints referred to law enforcement agencies deal with online auctions.

- *Phishing* is a growing form of Internet fraud that uses e-mail or pop-up messages to get unsuspecting victims to disclose personal information.

- *Vishing, or voice phishing,* involves phone calls to credit card customers to obtain personal and banking information.

- Payment fraud is growing.

Main Goals of E-business

- **Online purchasing strategy**: allows for buying and selling of products and information on the Internet and other online services.

- **Digital communication strategy**: allows for delivery of digital information, products, services, or payments online.

- **Service strategy**: allows for the cutting of costs, improving of the quality of goods, and increasing the speed of service.

- **Business process strategy**: allows automation of business transactions and work flows.

- **Market-of-one strategy**: allows for developing products for a single customer with close to the same costs as mass production.

- **Auction based strategy**: allows automation of bidding for products or customers online.

  ex:- www.eBay.com

- **Pricing Strategy**: Allows businesses to pursue market share by selling at low prices or giving away products and services for free.

Categories of E-business
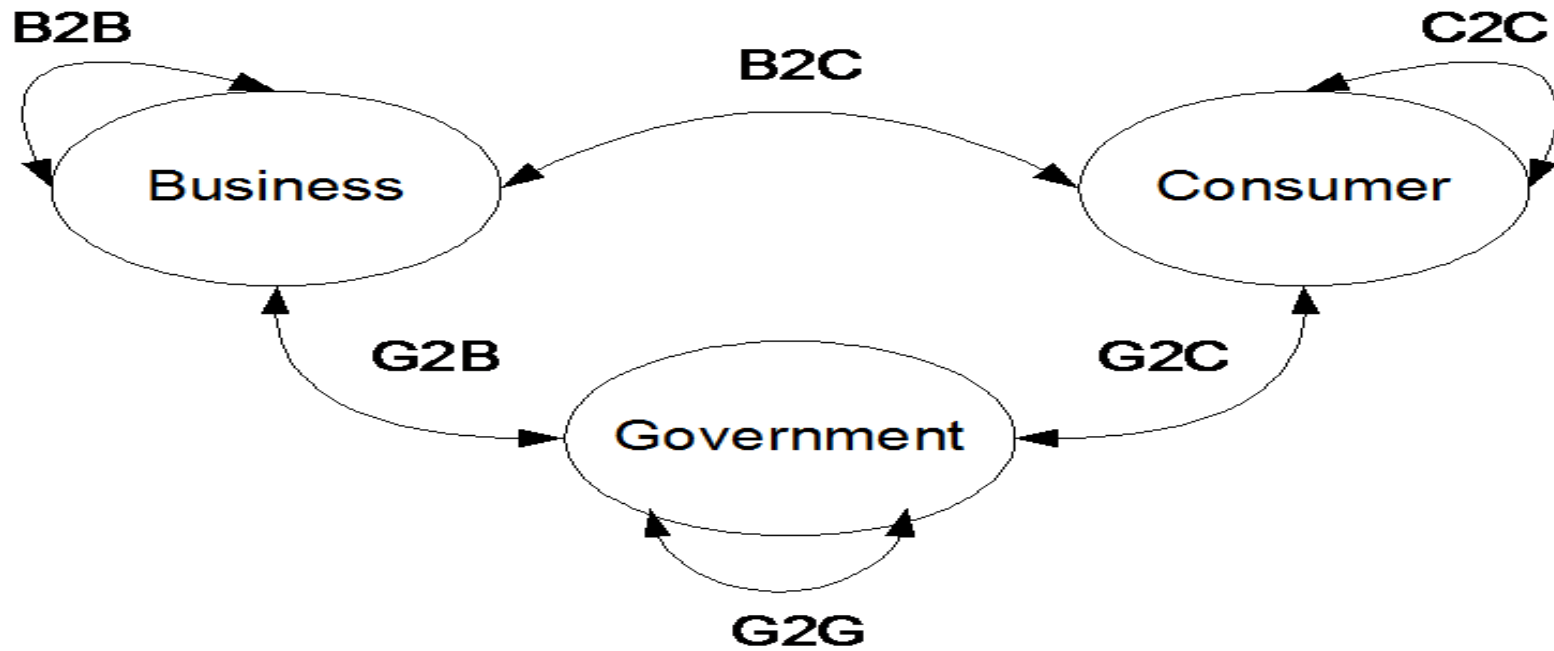
Business – to – Business (B2B)

Website following B2B business model sells its product to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company's website and after receiving the consignment, sells the end product to final customer who comes to buy the product at wholesaler's retail outlet.
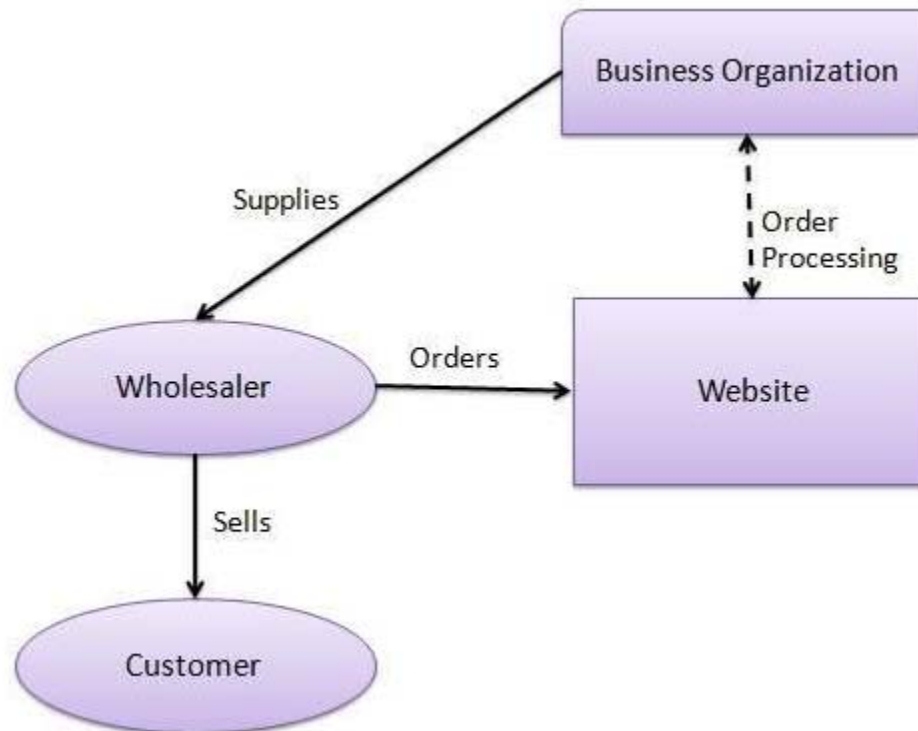
Business – to – Consumer(B2C)

Website following B2C business model sells its product directly to a customer. A customer can view products shown on the website of business organization. The customer can choose a product and order the same. Website will send a notification to the business organization via email and organization will dispatch the product/goods to the customer.
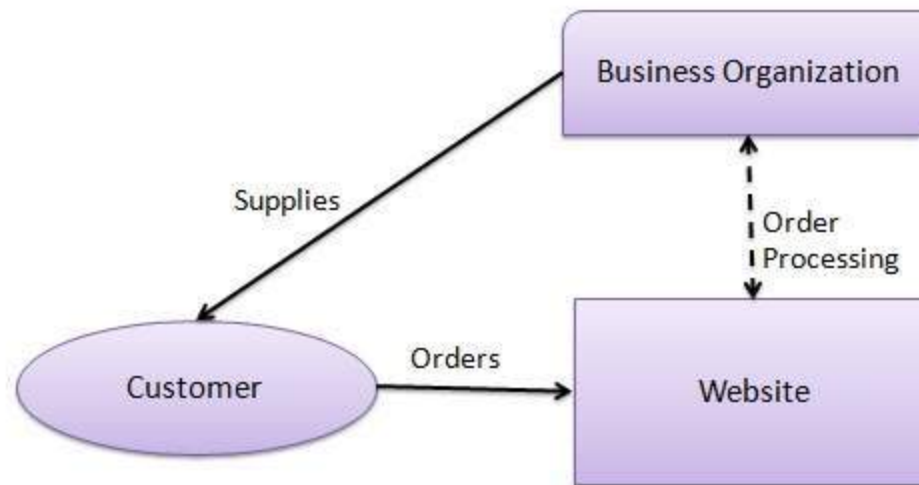
Consumer – to – Consumer (C2C)

Website following C2C business model helps consumer to sell their assets like residential property, cars, motorcycles etc. or rent a room by publishing their information on the website. Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website.
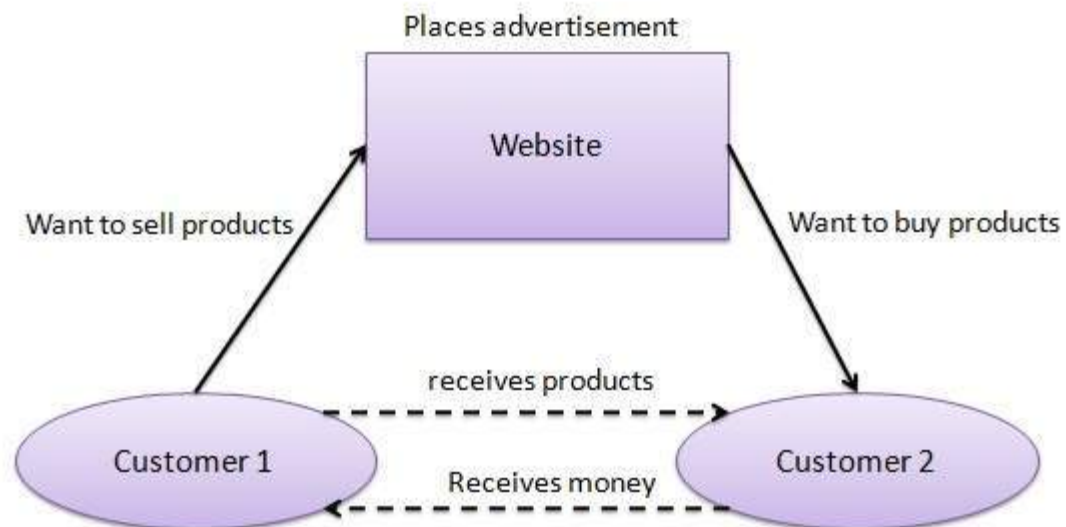
Consumer – to – Business (C2B)

In this model, a consumer approaches website showing multiple business organizations for a particular service. Consumer places an estimate of amount he/she wants to spend for a particular service. For example, comparison of interest rates of personal loan/ car loan provided by various banks via website. Business organization who fulfills the consumer's requirement within specified budget approaches the customer and provides its services.
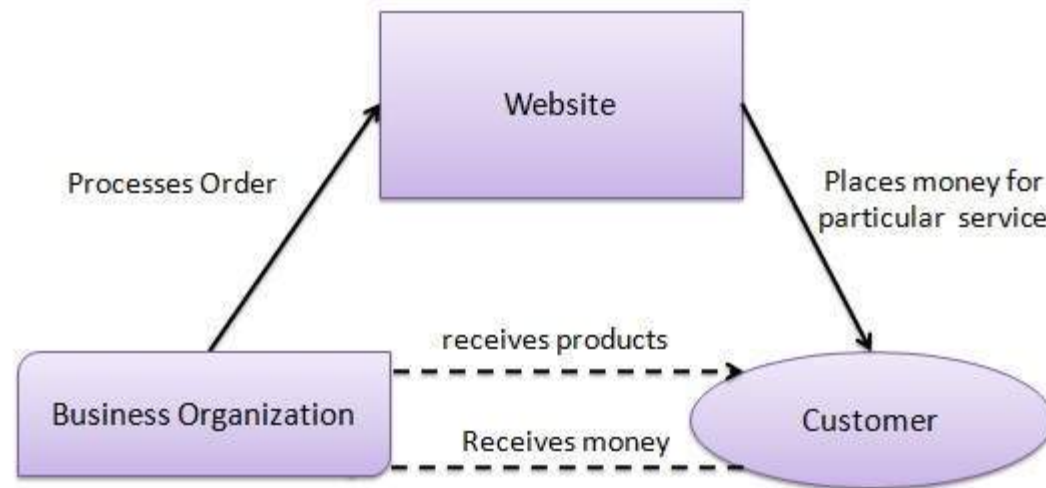
Business – to – Government (B2G)

B2G model is a variant of B2B model. Such websites are used by government to trade and exchange information with various business organizations. Such websites are accredited by the government and provide a medium to businesses to submit application forms to the government.
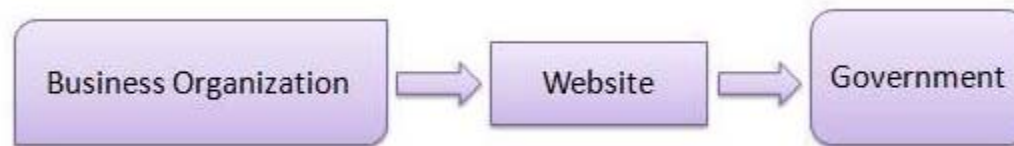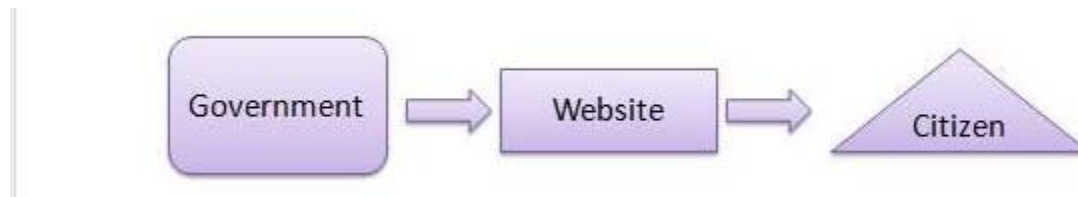
Government – to – Business (G2B)

Government uses B2G model website to approach business organizations. Such websites support auctions, tenders and application submission functionalities.
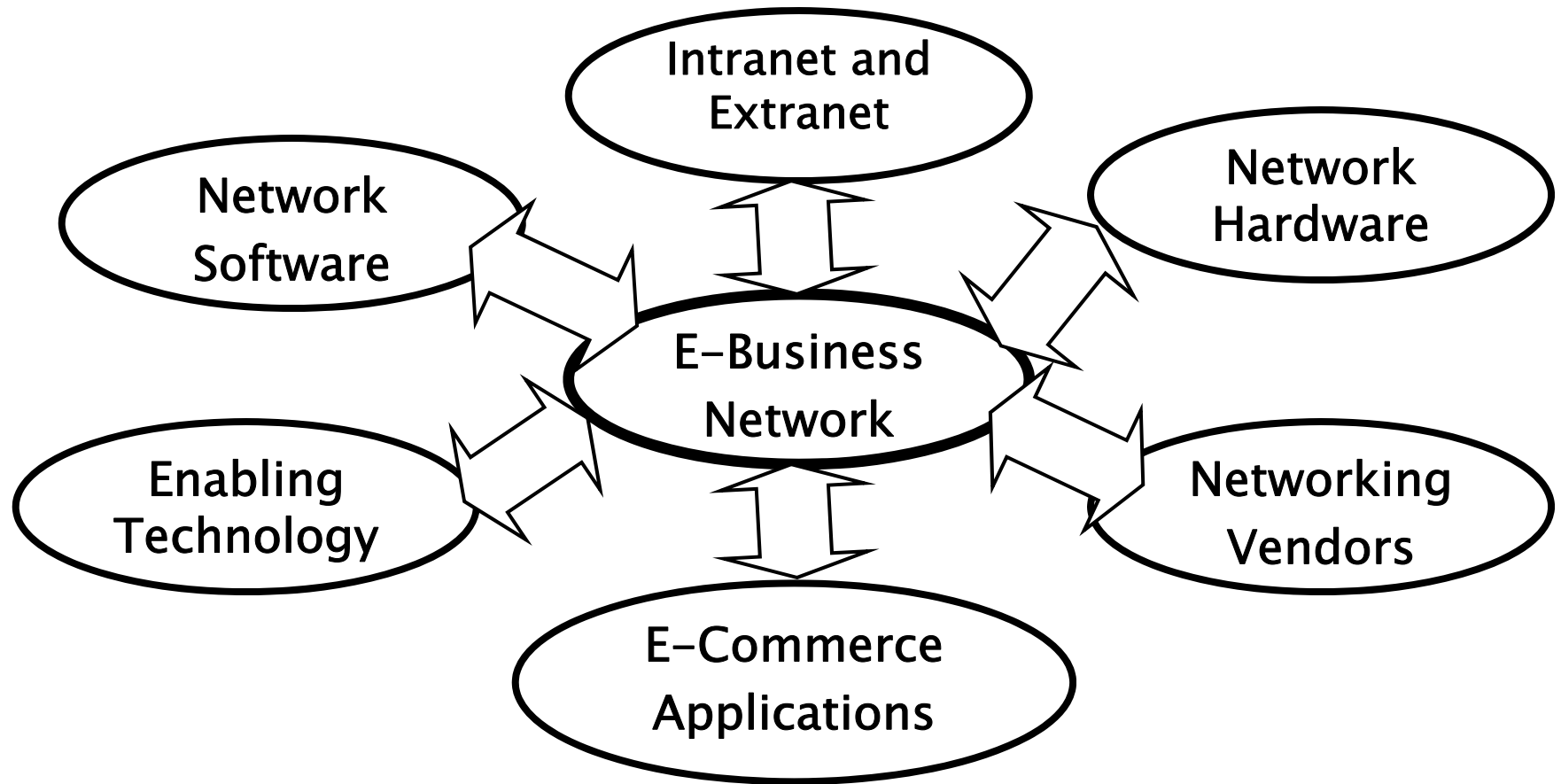
Government – to – Citizen (G2C)

Government uses G2C model website to approach citizen in general. Such websites support auctions of vehicles, machinery or any other material. Such website also provides services like registration for birth, marriage or death certificates. Main objectives of G2C website are to reduce average time for fulfilling people requests for various government services.

Infrastructure of E-business

Intranet and Extranet

Network Software

Network Hardware

E-Business Network

Enabling Technology

Networking Vendors

E-Commerce Applications

It includes hardware, software, telecommunication networks, support services, and human capital used in electronic business and commerce.

- Computers, routers, and other hardware

- Satellite, wire, and optical communications and network channels

- System and applications software

- Support services, such as web site development and hosting, consulting, electronic payment, and certification services.

- Human capital, such as programmers.

What is Important in an E-Business Network?

- ▫ **Functionality**
- ▫ **Reliability**
- ▫ **Security**
- ▫ **Speed**
- ▫ **Scalability**
- ▫ **Access Control**

Why Does an E-Business Network Matter to a User?

- To share knowledge and reap productivity gains by finding information faster
- To communicate faster with clients and suppliers
- To provide options for teleworking
- To implement web services
- To enable teams to work collaboratively irrespective of geography
- To better automate business procedures

E-Business Best Practices

- Personalized relations
- Maintain visitor privacy
- Make your site easy to use
- Manage visitor perceptions
- Maintain site consistency
- Quick Response