

# E-Commerce Services

## Electronic Commerce



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- Course: Electronic Commerce
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- D. of Information & Electronic Commerce

## 00. Contents

- 01. Electronic Commerce Payments
- 02. Order Fulfillment
- 03. Other EC Support Services

# 01. Electronic Commerce Payments

- The Payment Revolution
  - Crucial factors that determine whether a method of e-payment achieves critical mass:
    - Independence
    - Interoperability and portability
    - Security
    - Anonymity
    - Divisibility
    - Ease of use
    - Transaction fees
    - Regulations



# 01. Electronic Commerce Payments

- Using Payment Cards Online
  - Payment card
    - Electronic card that contains information that can be used for payment purposes.
    - Types of payment cards
      - Credit cards
      - Charge cards
      - Debit cards



# 01. Electronic Commerce Payments

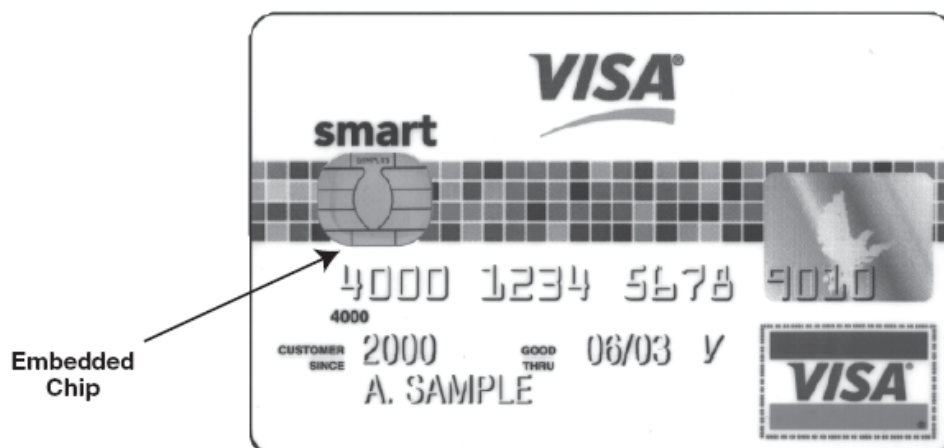
- Using Payment Cards Online
  - Authorization
    - Determines whether a buyer's card is active and whether the customer has sufficient funds.
  - Settlement
    - Transferring money from the buyer's to the merchant's account.
  - Payment service provider (PSP)
    - A third-party service connecting a merchant's EC systems to the appropriate acquirers; PSPs must be registered with the various card associations they support.



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# 01. Electronic Commerce Payments

- Smart Card
  - An electronic card containing an embedded microchip that enables predefined operations or the addition, deletion, or manipulation of information on the card.



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## 01. Electronic Commerce Payments

- Smart Card
  - Types of smart cards
    - Contact card
      - A smart card containing a small gold plate on the face that when inserted in a smart card reader makes contact and passes data to and from the embedded microchip.
    - Contactless (proximity) card
      - A smart card with an embedded antenna, by means of which data and applications are passed to and from a card reader unit or other device without contact between the card and the card reader.



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## 01. Electronic Commerce Payments

- Smart Card
  - Smart card reader
    - Activates and reads the contents of the chip on a smart card, usually passing the information on to a host system.
  - Smart card operating system
    - Special system that handles file management, security, input/output (I/O), and command execution and provides an application programming interface (API) for a smart card.



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## 01. Electronic Commerce Payments

- Stored-Value Cards
  - A card that has monetary value loaded onto it and that usually is rechargeable.



## 01. Electronic Commerce Payments

- E-Micropayments
  - Small online payments, typically under \$5.
  - Five basic micropayment models:
    - Aggregation
    - Direct payment
    - Stored value
    - Subscriptions
    - À la carte



# 01. Electronic Commerce Payments

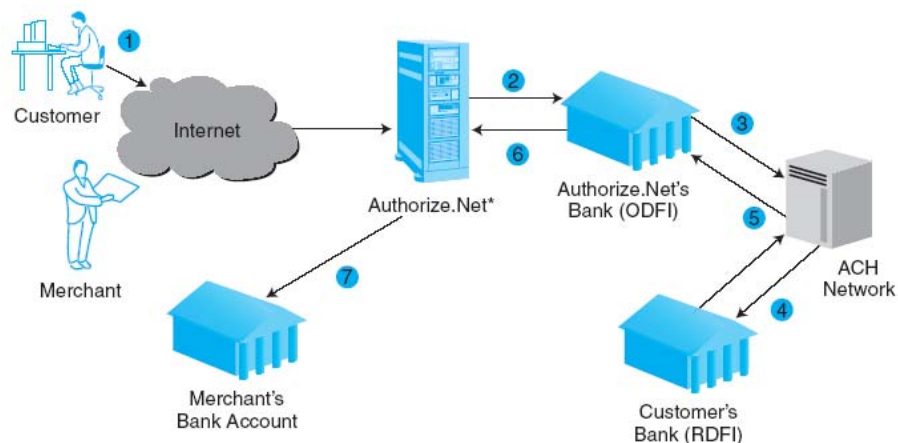
- E-Check
  - A legally valid electronic version or representation of a paper check.
  - ACH(Automated Clearing House) Network
    - A nationwide batch-oriented electronic funds transfer system that provides for the interbank clearing of electronic payments for participating financial institutions.



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# 01. Electronic Commerce Payments

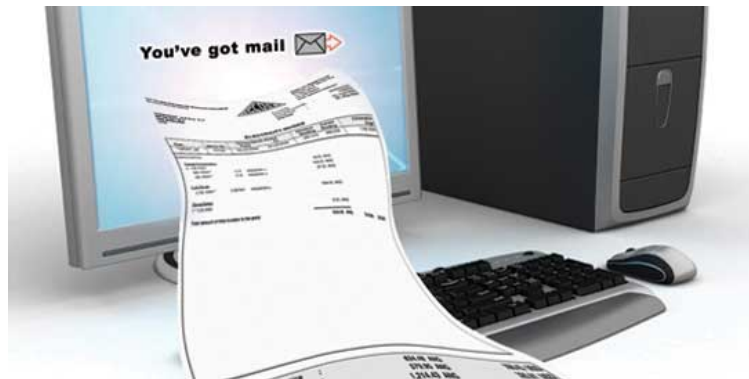
- E-Check
  - Processing e-checks with Authorize.net



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# 01. Electronic Commerce Payments

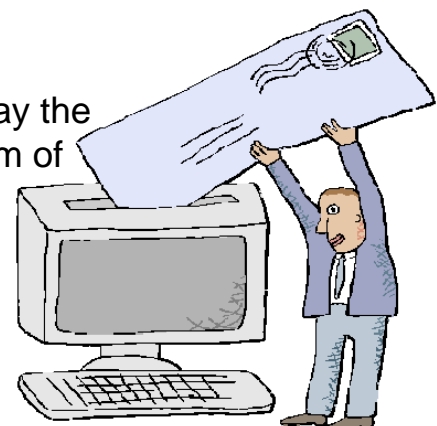
- Enterprise invoice presentment and payment (EIPP)
  - A B2B electronic payments
  - Presenting and paying B2B invoices online.
  - EIPP models
    - Seller direct
    - Buyer direct
    - Consolidator



<http://businesselectronicinvoice.com>

# 01. Electronic Commerce Payments

- Enterprise invoice presentment and payment (EIPP)
  - EIPP options
    - ACH network
    - Purchasing cards (p-cards)
      - Special-purpose payment cards issued to a company's employees to be used solely for purchasing nonstrategic materials and services up to a preset dollar limit.
    - Fedwire
    - Letter of credit (L/C)
      - A written agreement by a bank to pay the seller, on account of the buyer, a sum of money upon presentation of certain documents.



<http://www.enterpriseirregulars.com>

## 02. Order Fulfillment

- Order Fulfillment
  - All the activities needed to provide customers with their ordered goods and services, including related customer services.
  - Back-office operations
    - The activities that support fulfillment of orders, such as packing, delivery, accounting, inventory management and shipping
  - Front-office operations
    - The business processes, such as sales and advertising, that are visible to customers.



## 02. Order Fulfillment

- Logistics
  - The operations involved in the efficient and effective flow and storage of goods, services, and related information from point of origin to point of consumption.





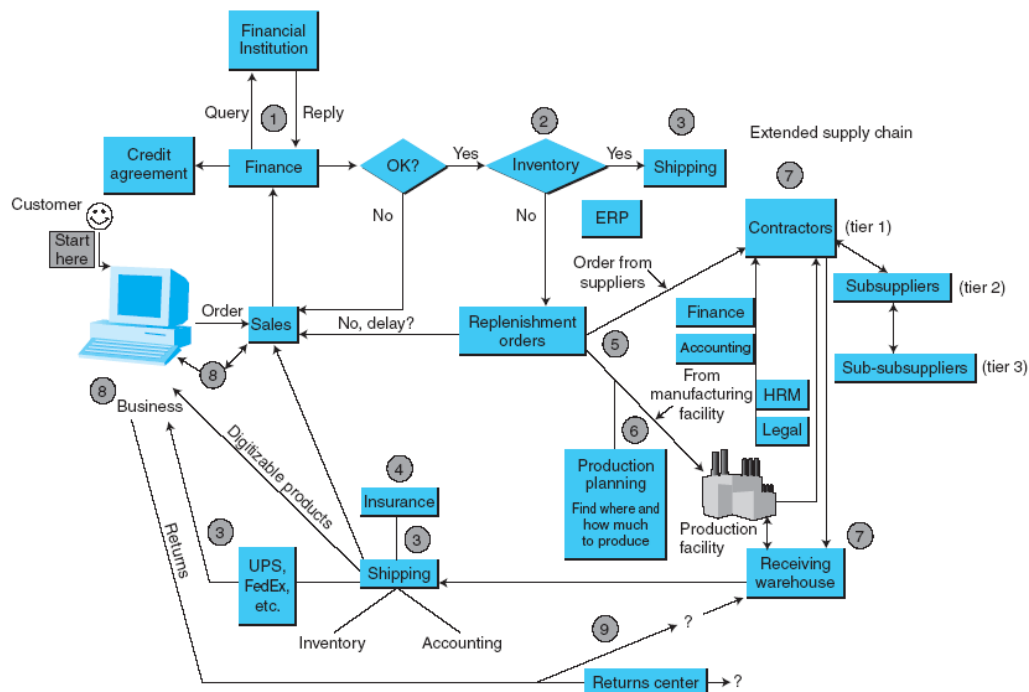
## 02. Order Fulfillment

- The EC Order Fulfillment Process
  - Step 1: Making sure the customer will pay
  - Step 2: Checking for in-stock availability
  - Step 3: Arranging shipments
  - Step 4: Insurance
  - Step 5: Replenishment
  - Step 6: In-house production
  - Step 7: Use contractors
  - Step 8: Contacts with customers
  - Step 9: Returns



## 02. Order Fulfillment

- Order Fulfillment and the Logistics Systems



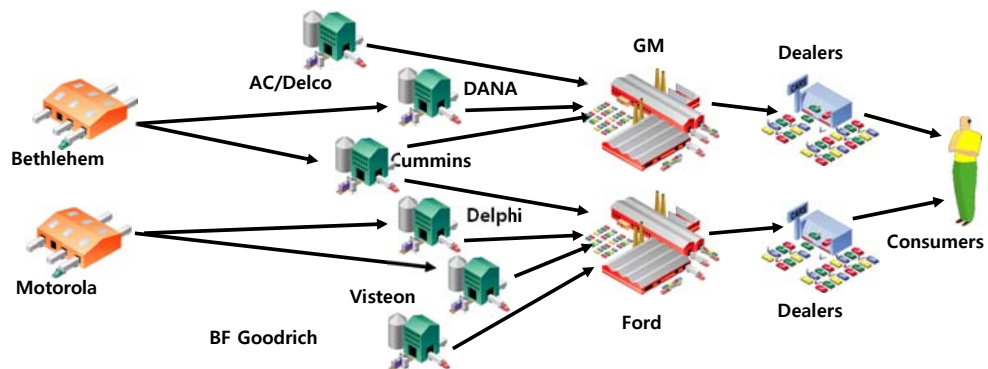
## 02. Order Fulfillment

- Reverse logistics
  - The movement of returns from customers to vendors.



## 02. Order Fulfillment

- Order Fulfillment and the Supply Chain



## 02. Order Fulfillment

- Traditional vs. EC Logistics
  - E-logistics
    - The logistics of EC systems, typically involving small parcels sent to many customers' homes (in B2C).



## 02. Order Fulfillment

- Typical supply chain problems
  - Third-party logistics suppliers (3PL)
    - External, rather than in-house, providers of logistics services.



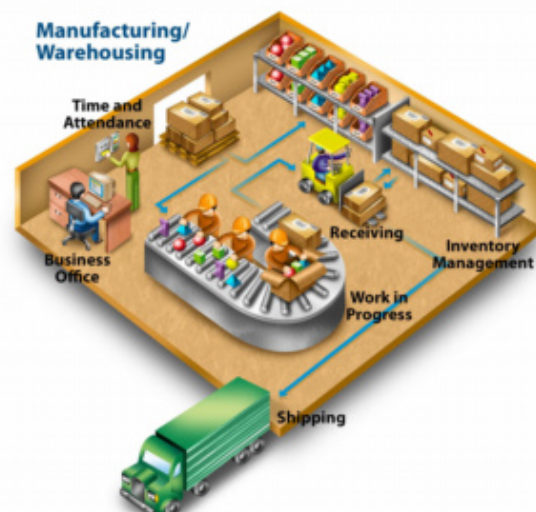
## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Improvements in the order-taking process



## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Warehouse management system (WMS)
    - A software system that helps in managing warehouses.
    - Other inventory management improvements
    - Automated warehouses



## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Partnering efforts and outsourcing logistics
  - Comprehensive logistics services



## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Speeding deliveries



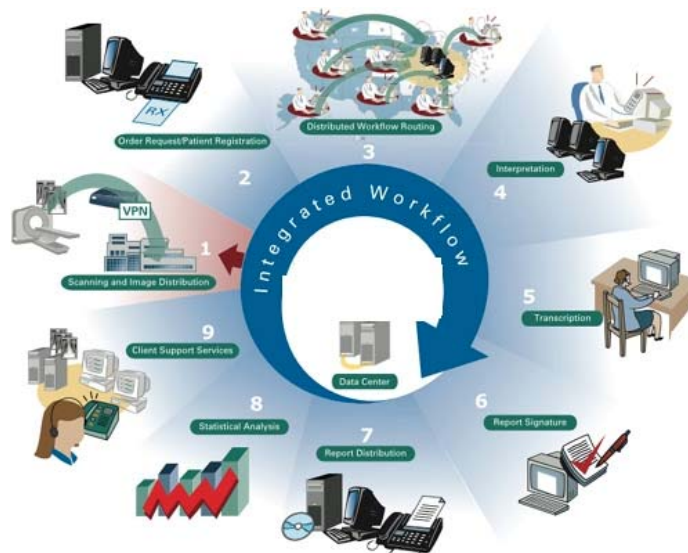
## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Handling returns (reverse logistics)
    - Return the item to the place of purchase
    - Separate the logistics of returns from the logistics of delivery
    - Completely outsource returns
    - Allow the customer to physically drop the returned item at a collection station
    - Auction the returned items



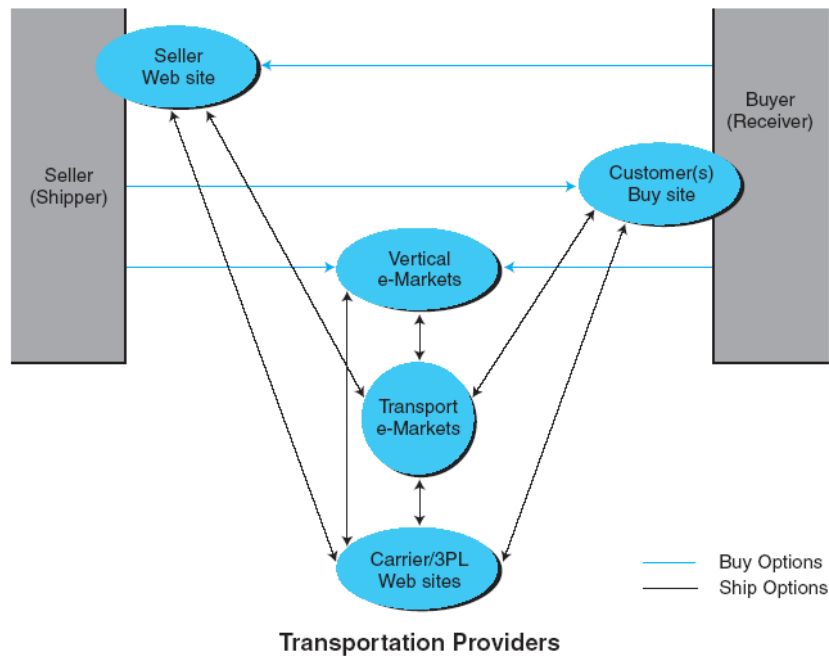
## 02. Order Fulfillment

- Solutions to Order Fulfillment Problems
  - Using BPM to Improve order fulfillment
  - Cf. BPM(Business Process Management)



## 02. Order Fulfillment

- Addressing Problems in Order Fulfillment
  - B2B bus and ship options



Introduction to Electronic Commerce, Ed. 2, Efraim Turban et al., Pearson

## 03. Other EC Support Services

- Consulting Services



## 03. Other EC Support Services

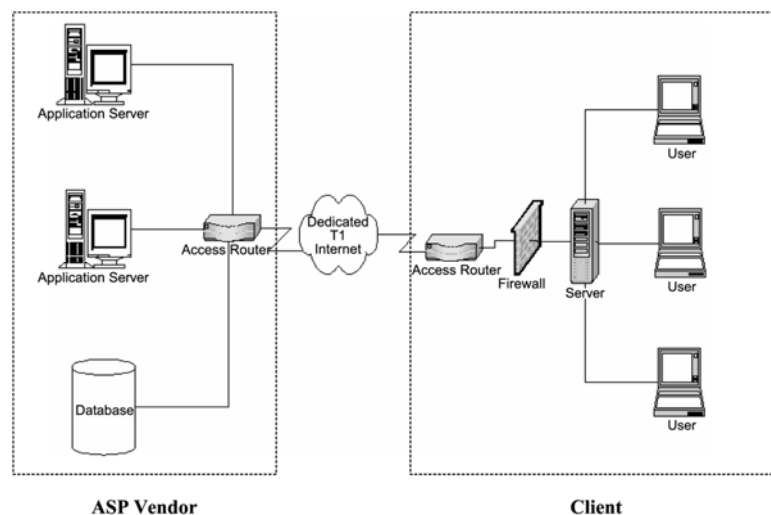
- EC Outsourcing Services
  - Major reasons why many companies outsource:
    - A desire to concentrate on the core business
    - The need to have services up and running rapidly
    - Lack of expertise for many of the required support services
    - The inability to have the economy of scale enjoyed by outsourcers
    - Inability to keep up with rapidly fluctuating demands if an in-house option is used
    - The number of required services, which usually are simply too many for one company to handle



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## 03. Other EC Support Services

- IT Outsourcing and Application Service Providers
  - Application service provider (ASP)
    - An agent or vendor who assembles the functions needed by enterprises and packages them with outsourced development, operation, maintenance, and other services.



<http://www.emeraldinsight.com>

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# 03. Other EC Support Services

- E-Commerce Application Development Process

