Chapter 13

Order Fulfillment, eCRM,
and Other Support Services

Learning Objectives

1. Describe the role of support services in EC.

2. Define EC order fulfillment and describe the EC order fulfillment process.

3. Describe the major problems of EC order fulfillment.

4. Describe various solutions to EC order fulfillment problems.

Learning Objectives

5. Describe CRM, its methods, and its relationship with EC.

6. Describe eCRM implementation and tools.

7. Describe other EC support services.

8. Discuss the drivers of outsourcing support services and the use of ASPs.

Order Fulfillment and Logistics:
An Overview

- ## Overview of Order Fulfillment

  order fulfillment

  All of the activities needed to provide customers with ordered goods and services, including related customer services
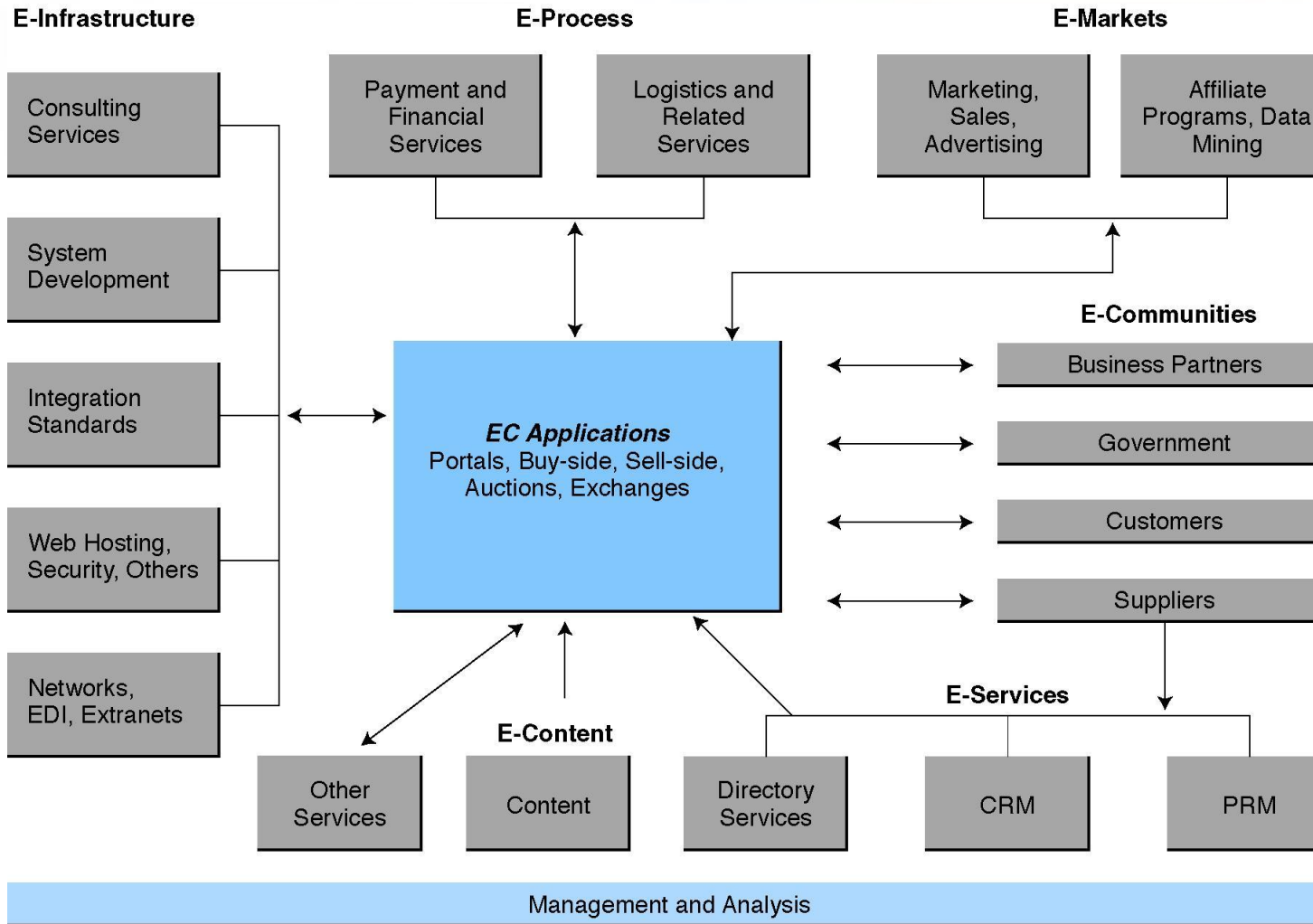
  back-office operations

  The activities that support fulfillment of sales, such as accounting and logistics

  front-office operations

  The business processes, such as sales and advertising, that are visible to customers

Exhibit 13.1 E-Commerce Services

E-Infrastructure

E-Process

E-Markets

Consulting Services

Payment and Financial Services		Logistics and Related Services

Marketing, Sales, Advertising		Affiliate Programs, Data Mining

System Development

Integration Standards

EC Applications
Portals, Buy-side, Sell-side, Auctions, Exchanges

E-Communities

Business Partners

Government

Customers

Web Hosting, Security, Others

Suppliers

Networks, EDI, Extranets

E-Content

E-Services

Other Services		Content		Directory Services		CRM		PRM

Management and Analysis

Order Fulfillment and Logistics: An Overview

- ## Overview of Logistics

  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

Order Fulfillment and Logistics: An Overview

- ### 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 suppliers
  - Step 8: Contacts with customers
  - Step 9: Returns

Order Fulfillment and Logistics:
An Overview

- The EC Order Fulfillment Process

  reverse logistics

  The movement of returns from customers to vendors

  e-logistics

  The logistics of EC systems, typically involving small parcels sent to many customers' homes (in B2C)

Order Fulfillment and Logistics: An Overview

- **Traditional Versus EC Logistics**
  - Traditional logistics deal with movement of large amounts of materials to a few destinations
  - E-logistics shipments typically are small parcels sent to many customers' homes

Problems in Order Fulfillment

- **Typical Supply Chain Problems**
  - The inability to deliver products on time
  - High inventory costs
  - Quality problems due to misunderstandings
  - Shipments of wrong products, materials, and parts
  - Cost to expedite operations or shipments is high

Problems in Order Fulfillment

- Why Supply Chain Problems Exist

  - Problems along the EC supply chain stem from *uncertainties* and from the need to *coordinate* several activities, internal units, and business partners

    third-party logistics (3PL) suppliers

    External, rather than in-house, providers of logistics services

Solutions to Order Fulfillment Problems

- ## Improvements in the Order-Taking Process

  - Improve the order-taking process and its links to fulfillment and logistics

  - Implement linkages between order-taking and payment systems

Solutions to Order Fulfillment Problems

- Warehousing and Inventory Management Improvements

    warehouse management system (WMS)

    A software system that helps in managing warehouses

    - Other Inventory Management Improvements
    - Automated Warehouses
    - Using Wireless Technologies
        - Using RFID to improve WMS

Solutions to Order Fulfillment Problems

- **Speeding Deliveries**
  - Same day, even same hour, delivery
  - Supermarket deliveries
  - Failed delivery companies

- **Partnering Efforts and Outsourcing Logistics**
  - Comprehensive logistics services
  - Outsourcing logistics

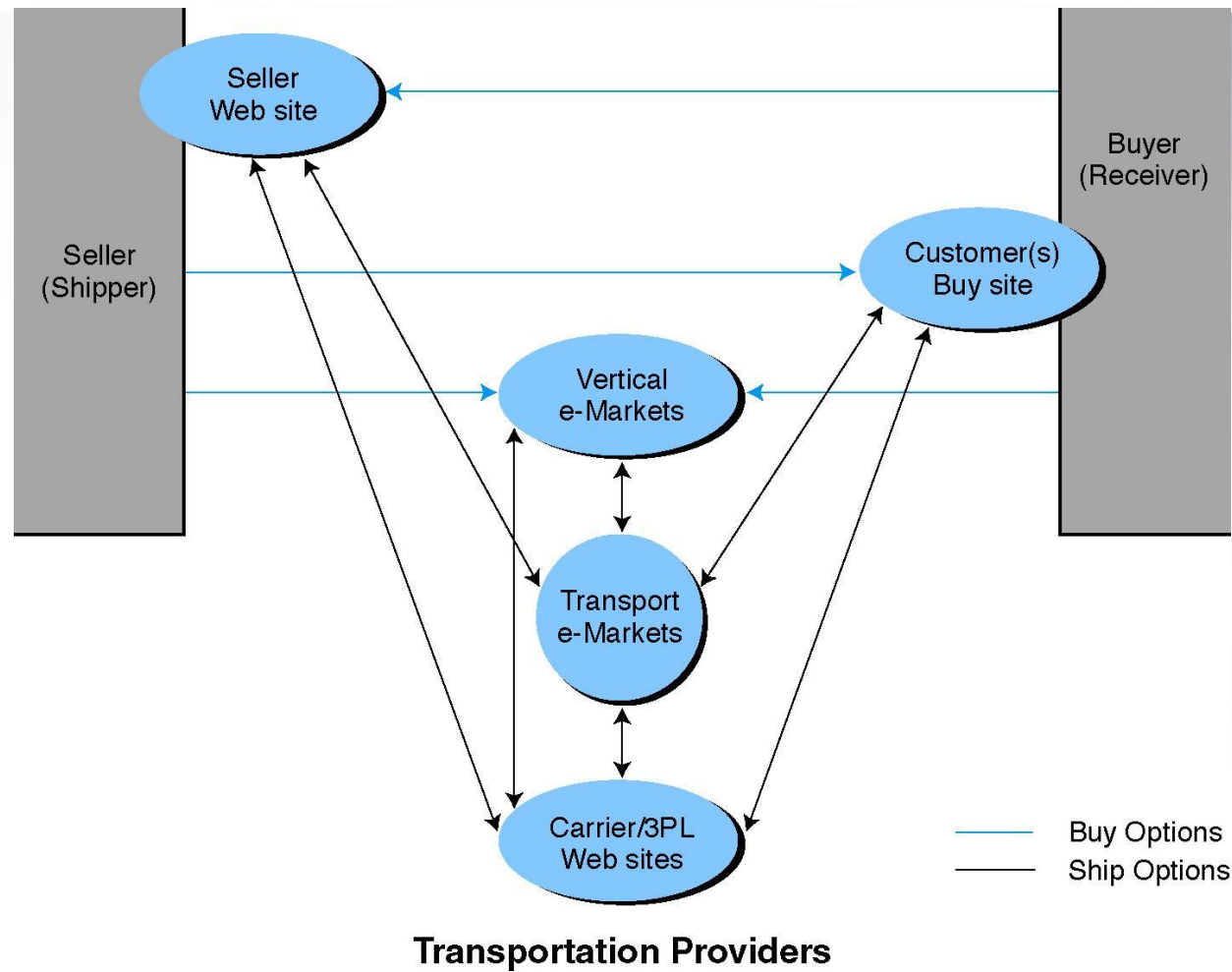# Solutions to Order Fulfillment Problems

- **Handling Returns**
  - Return the item to the place where it was purchased
  - 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

Solutions to Order Fulfillment Problems

- **Order Fulfillment in B2B**
  - Using E-Marketplaces and Exchanges to Ease Order Fulfillment Problems in B2B
    - A company-centric marketplace can solve several supply chain problems
    - Using an extranet provides an ordering system
    - A vertical exchange connects thousands of suppliers
  - Order Fulfillment in Services
    - May involve more information processing, which requires more sophisticated EC systems

Exhibit 13.5 B2B Buy and Ship Options

Transportation Providers

Solutions to Order Fulfillment Problems

- ## Innovative E-Fulfillment Strategies

    merge-in-transit

    Logistics model in which components for a product may come from two different physical locations and are shipped directly to customer's location

    rolling warehouse

    Logistics method in which products on the delivery truck are not pre-assigned to a destination, but the decision about the quantity to unload at each destination is made at the time of unloading

CRM and Its Relationship with EC

- What is CRM: Definitions, Types, and Classifications

  customer relationship management (CRM)

  A customer service approach that focuses on building long-term and sustainable customer relationships that add value both for the customer and the company

CRM and Its Relationship with EC

- Types of CRM Activities
  - Operational
  - Analytical
  - Collaborative
- Classification of CRM Programs
  - Loyalty programs.
  - Prospecting.
  - Save or win back.
  - Cross-sell/up-sell.

CRM and Its Relationship with EC

eCRM

Customer relationship management conducted electronically

- The Scope of CRM
  - The three levels of CRM:
    1. Foundation of service
    2. Customer-centered services
    3. Value-added services

CRM and Its Relationship with EC

– The Extent of Service

1. Customer acquisition (prepurchase support)
2. Customer support during purchase
3. Customer fulfillment (purchase dispatch)
4. Customer continuance support (postpurchase)

CRM and Its Relationship with EC

- Benefits of CRM

  – The provision of superior customer care through the use of the Internet and IT technologies

- Limitations of CRM

  – Requires integration with a company's other information systems, which may not be an easy task

  – Justifying the expense of CRM is not easy

CRM and Its Relationship with EC

- CRM Implementation Issues
  - Five factors that are required to implement a CRM program effectively:
    1. Customer-centric strategy
    2. Commitments from people
    3. Improved or redesigned processes
    4. Software technology
    5. Infrastructure

CRM and Its Relationship with EC

- Integrating CRM into the Enterprise
    - The integration of ERP and CRM must include low-level data synchronization as well as business process integration so that the integrity of business roles can be maintained across systems and workflow tasks can pass between the systems
    - Such integration also ensures that organizations can perform *business intelligence* across systems

CRM and Its Relationship with EC

- Justifying Customer Service and CRM Programs

  metrics

  Performance standards; may be quantitative or qualitative

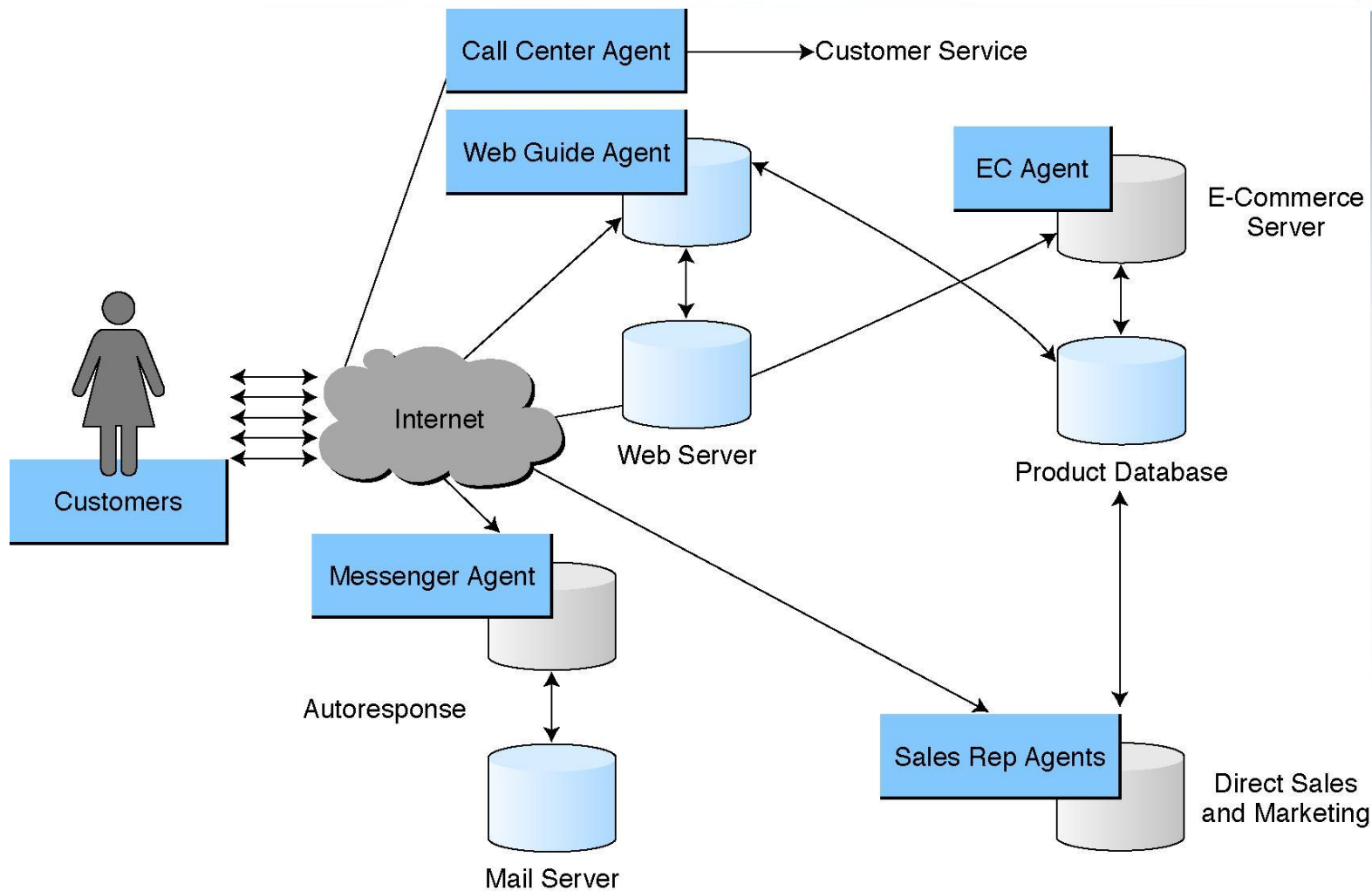# CRM and Its Relationship with EC

- – Metrics in Customer Service and CRM
    - Response time
    - Site availability
    - Download time
    - Timeliness
    - Security and privacy
    - On-time order fulfillment
    - Return policy
    - Navigability

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- **Classifications of CRM Applications**

  – Customer-facing applications

  – Customer-touching applications

  – Customer-centric intelligence applications

  – Online networking and other applications

Exhibit 13.8 CRM Applications

Call Center Agent → Customer Service

Web Guide Agent

EC Agent — E-Commerce Server

Customers

Internet

Web Server

Product Database

Messenger Agent

Autoresponse

Sales Rep Agents — Direct Sales and Marketing

Mail Server

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- **Customer-Facing Applications**
  - Customer Interaction Centers

    customer interaction center (CIC)

    A comprehensive service entity in which EC vendors address customer-service issues communicated through various contact channels

    telewebs

    Call centers that combine Web channels with portal-like self-service

Delivering Customer Service in Cyberspace: CRM Applications and Tools
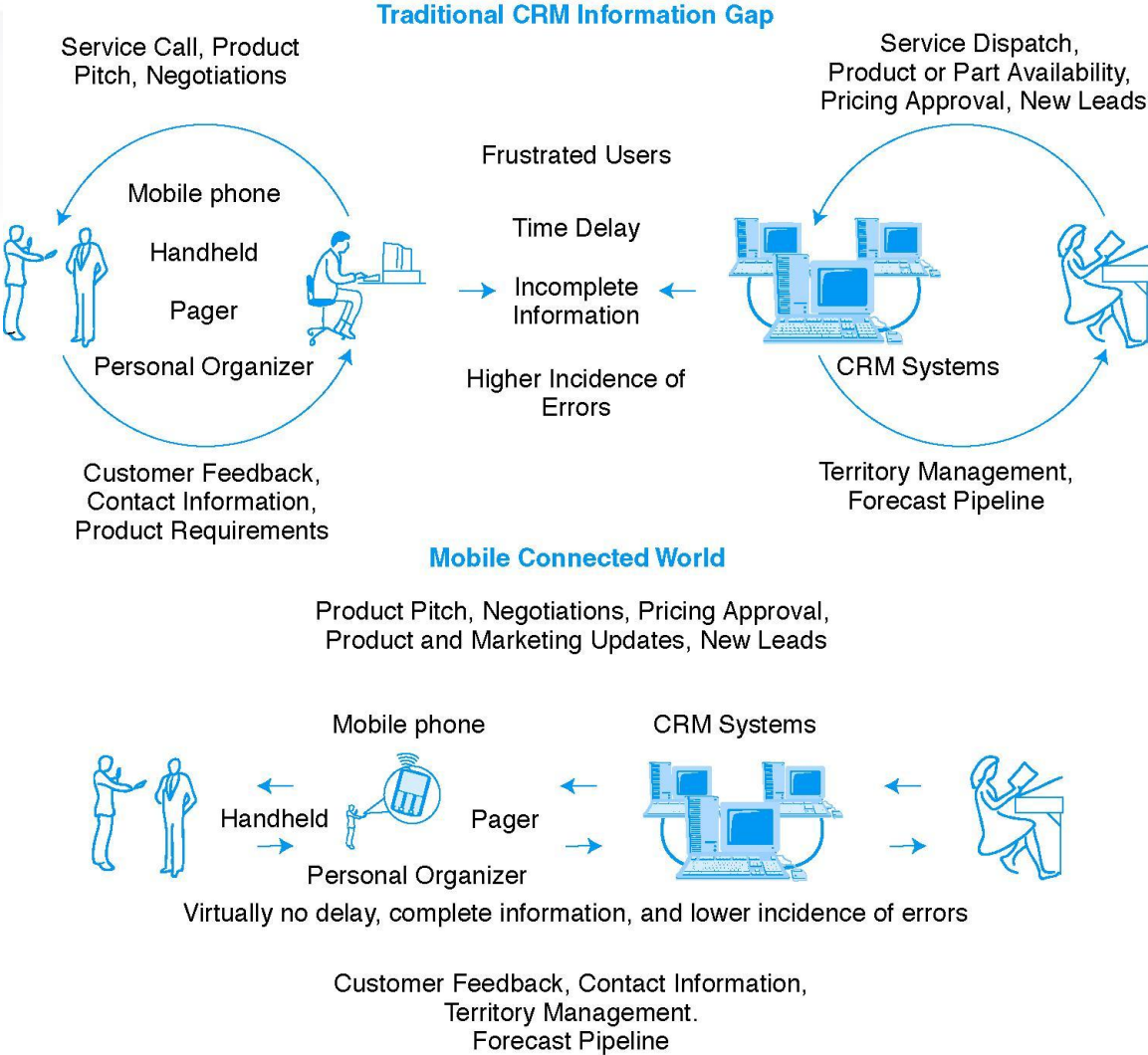
- ## Customer-Facing Applications
  - Intelligent Agents in Customer Service and Call Centers

    autoresponders

    Automated e-mail reply systems (text files returned via e-mail) that provide answers to commonly asked questions

Exhibit 13.9 Intelligent Agents in Call Centers

Traditional CRM Information Gap

Service Call, Product
Pitch, Negotiations

Service Dispatch,
Product or Part Availability,
Pricing Approval, New Leads

Frustrated Users

Mobile phone

Time Delay

Handheld

Incomplete
Information

Pager

Personal Organizer

CRM Systems

Higher Incidence of
Errors

Customer Feedback,
Contact Information,
Product Requirements

Territory Management,
Forecast Pipeline

Mobile Connected World

Product Pitch, Negotiations, Pricing Approval,
Product and Marketing Updates, New Leads

Mobile phone

CRM Systems

Handheld

Pager

Personal Organizer

Virtually no delay, complete information, and lower incidence of errors

Customer Feedback, Contact Information,
Territory Management.
Forecast Pipeline

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- Customer-Facing Applications

  sales force automation (SFA)

  Software that automates the tasks performed by sales people in the field, such as data collection and its transmission

  - Field Service Automation

    - Manage customer service requests, service orders, service contracts, service schedules, and service calls
    - Provide planning, scheduling, dispatching, and reporting features to field service representatives

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- ## Customer-Touching Applications
  - Personalized Web pages
  - E-commerce applications
  - Campaign management

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- Customer-Touching Applications

   Web self-service

   Activities conducted by users on the Web to find answers to their questions (e.g., tracking) or for product configuration

   – Self-Tracking

   FAQ page

   A Web page that lists questions that are frequently asked by customers and the answers to those questions

   – Self-Configuration and Customization

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- ## Customer-Centric Applications
  - Data Reporting and Warehousing
    - Data Reports

      data warehouse

      A single, server-based data repository that allows centralized analysis, security, and control over the data
    - Data Analysis and Mining

Delivering Customer Service in Cyberspace: CRM Applications and Tools

- Online Networking

  - Forums

  - Chat rooms

  - Usenet groups

  - E-mail newsletters

  - Discussion lists

  – E-Mail Newsletters

  – Discussion Lists

Delivering Customer Service in Cyberspace: CRM Applications and Tools

mobile CRM

The delivery of CRM applications to any user, whenever and wherever needed. This is done by use of the wireless infrastructure and/or mobile and wearable devices

- Voice Communication

- Language Translation

- The Role of Knowledge Management and Intelligent Agents in CRM

Other EC Support Services

- Consulting Services
- CRM Suites
- Directory Services, Newsletters, and Search Engines
  - Directory services
  - Newsletters
  - Search engines and news aggregators

Other EC Support Services

Some More EC Support Services

- Trust Services
- Trademark and Domain Names
- Digital Photos
- Global Business Communities
- Access to Commercial Databases
- Online Consulting

- Knowledge Management
- Client Matching
- E-Business Rating Sites
- Security and Encryption Sites
- Web Research Services
- Coupon-Generating Sites

Outsourcing EC Support Services

- ## Why Outsource EC Services?

  - A desire to concentrate on the core business

  - The need to have services up and running rapidly

  - Lack of expertise (experience and resources) for many of the required support services

  - The inability to have the economy of scale enjoyed by outsourcers, which often results in high costs for in-house options
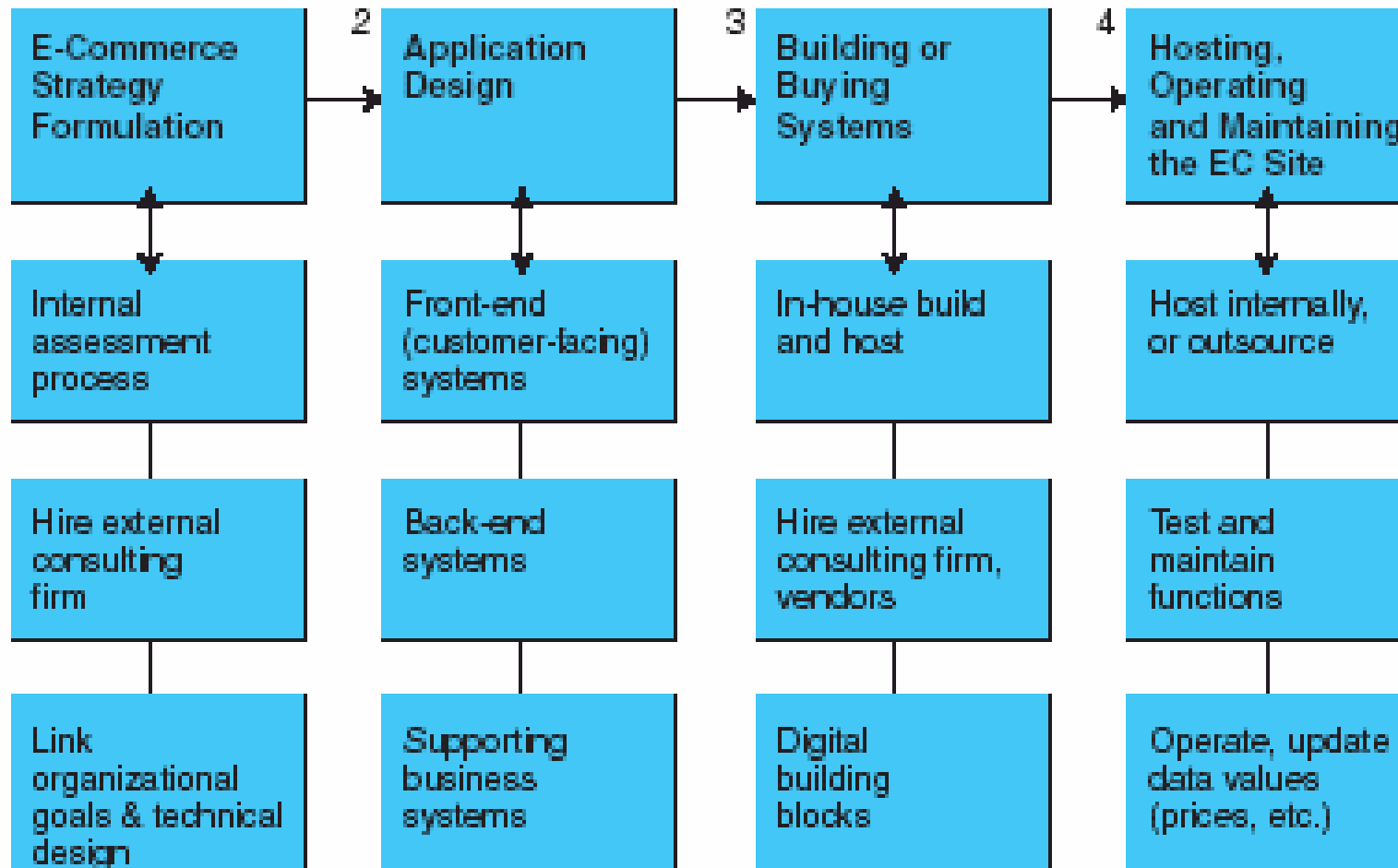
Outsourcing EC Support Services

- ## Why Outsource EC Services?

  - The 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

Outsourcing EC Support Services

- Why Outsource EC Services?
  - The typical process of developing and managing EC applications has four steps:
    1. EC strategy formulation
    2. Application design
    3. Building (or buying) the application
    4. Hosting, operating, and maintaining the EC site

Exhibit 13.12 E-Commerce Application Development Process

E-Commerce Strategy Formulation	2 → Application Design	3 → Building or Buying Systems	4 → Hosting, Operating and Maintaining the EC Site
Internal assessment process	Front-end (customer-facing) systems	In-house build and host	Host internally, or outsource
Hire external consulting firm	Back-end systems	Hire external consulting firm, vendors	Test and maintain functions
Link organizational goals & technical design	Supporting business systems	Digital building blocks	Operate, update data values (prices, etc.)

Outsourcing EC Support Services

- ## IT Outsourcing and Application Service Providers

  - Internet malls

  - ISPs

  - Telecommunication companies

  - Software houses

  - Outsourcers and others

Outsourcing 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

Managerial Issues

1. Have we planned for order fulfillment?
2. How should we handle returns?
3. Do we want alliances in order fulfillment?
4. What EC logistics applications would be useful?
5. How is our response time?
6. How do we measure and improve customer service?

Managerial Issues

7. Is CRM for real?

8. Do we have to use electronically supported CRM?

9. EC consultants are expensive. Should we use them?

10. Should we outsource EC services?

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Summary

1. The role of support services in EC.
2. The order fulfillment process.
3. Problems in order fulfillment.
4. Solutions to order fulfillment problems.
5. CRM, its technologies, and EC connection.
6. Implementing customer service online.
7. Other support services.
8. Outsourcing EC services and using ASPs.