

# **Management Information Systems MANAGING THE DIGITAL FIRM, 12<sup>TH</sup> EDITION**

# Chapter 9

# MENCAPAI KEUNGGULAN OPERASIONAL DAN KEINTIMAN PELANGGAN: ENTERPRISE APPLICATIONS

#### **VIDEO CASES**

Case 1: Sinosteel Strengthens Business Management with ERP Applications

Case 2: Ingram Micro and H&R Block Get Close to Their Customers

Instructional Video 1: Zara's" Wearing Today's Fashions With Supply Chain Management



CHAPTER 9: ACHIEVING OPERATIONAL EXCELLENCE AND CUSTOMER INTIMACY: ENTERPRISE APPLICATIONS

#### **Learning Objectives**

- Bagaimana sistem perusahaan membantu bisnis mencapai keunggulan operasional?
- Bagaimana sistem manajemen rantai pasokan mengkoordinasikan perencanaan, produksi, dan logistik dengan pemasok?
- Bagaimana sistem manajemen hubungan pelanggan membantu perusahaan mencapai customer kedekatan?
- Apa saja tantangan yang ditimbulkan oleh aplikasi enterprise?
- Bagaimana aplikasi perusahaan yang digunakan dalam platform untuk layanan lintas-fungsional baru?



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#### Cannondale Belajar Mengelola Rantai Pasokan Global

- Problem Mengelola bagian dalam terus berubah lini produk dengan pemasok di banyak negara
- Solution Ganti peninggalan (Materials Requirement Planning) MRPs dengan Kinaxis on-demand layanan software Tanggapan Cepat
  - Memungkinkan kedua Cannondale dan pemasok untuk melihat informasi up-to-date, respon pelanggan lebih cepat, persediaan berkurang, mengurangi siklus dan menjalankannya
- Illustrates: Perlu untuk sistem seluruh perusahaan untuk mengkoordinasikan rantai pasokan
- Demonstrates: Penggunaan layanan cloud sebagai solusi untuk menerapkan aplikasi enterprise



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#### **Enterprise Systems**

### Enterprise Systems

- Juga disebut "enterprise resource planning (ERP) sistem"
- Suite modul perangkat lunak yang terintegrasi dan database pusat umum
- Data Mengumpulkan dari berbagai divisi perusahaan untuk digunakan dalam hampir semua kegiatan bisnis internal perusahaan
- Informasi yang dimasukkan dalam satu proses segera tersedia untuk proses lainnya



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#### **Enterprise Systems**

#### Enterprise Software

- Dibangun sekitar ribuan proses bisnis yang telah ditetapkan yang mencerminkan praktik terbaik
  - Finance/accounting: General ledger, accounts payable, etc.
  - Human resources: Personnel administration, payroll, etc.
  - Manufacturing/production: Purchasing, shipping, etc.
  - Sales/marketing: Order processing, billing, sales planning, etc.

#### - Untuk mengimplementasikan, perusahaan::

- Pilih fungsi sistem yang ingin mereka gunakan
- Peta proses bisnis untuk proses software
  - Gunakan tabel konfigurasi perangkat lunak untuk menyesuaikan



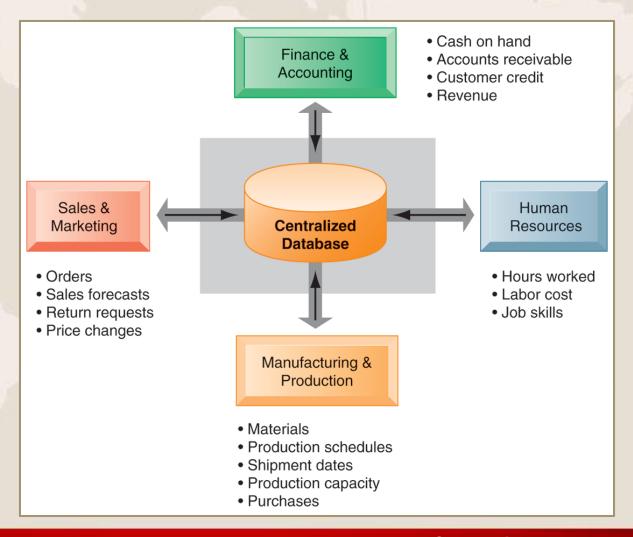
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#### **Enterprise Systems**

# CARA KERJA SISTEM ENTERPRISE

Sistem perusahaan memiliki satu set modul perangkat lunak yang terintegrasi dan database pusat yang memungkinkan data yang akan dibagi oleh banyak proses bisnis yang berbeda dan bidang fungsional seluruh perusahaan

FIGURE 9-1





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#### **Enterprise Systems**

## Nilai bisnis dari sistem perusahaan

- Meningkatkan efisiensi operasional
- Memberikan informasi yang luas perusahaan untuk mendukung pengambilan keputusan
- Memungkinkan respon cepat terhadap permintaan pelanggan untuk informasi atau produk
- Sertakan alat analisis untuk mengevaluasi kinerja organisasi secara keseluruhan



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#### **Supply Chain Management Systems**

#### Supply chain:

- Jaringan organisasi dan proses untuk:
  - Pengadaan bahan baku
  - Mengubahnya menjadi produk
  - Mendistribusikan produk

#### Upstream supply chain:

 Pemasok perusahaan, para pemasok, proses untuk mengelola hubungan dengan mereka

#### Downstream supply chain:

 Organisasi dan proses yang bertanggung jawab untuk memberikan produk kepada pelanggan



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#### **Supply Chain Management Systems**

#### **NIKE'S SUPPLY CHAIN**

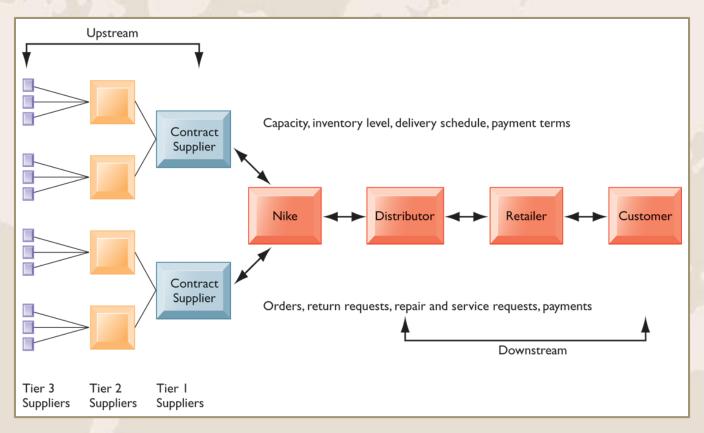


FIGURE 9-2 Angka ini menggambarkan entitas utama dalam rantai pasokan Nike dan arus informasi hulu dan hilir untuk mengkoordinasikan kegiatan yang terlibat dalam membeli, membuat, dan bergerak produk. Ditampilkan di sini adalah rantai pasokan disederhanakan, dengan bagian hulu hanya berfokus pada pemasok untuk sepatu dan sol



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#### **Supply Chain Management Systems**

- Information and supply chain management
  - Ketidakefisienan potong biaya operasional perusahaan
    - Bisa membuang hingga 25% dari biaya operasional
  - Just-in-time strategy:
    - Komponen tiba sebagai mereka dibutuhkan
    - Barang jadi dikirim setelah meninggalkan jalur perakitan
  - Safety stock
    - Penyangga karena kurangnya fleksibilitas dalam supply chain
  - Bullwhip effect
    - Informasi tentang permintaan produk terdistorsi saat lewat dari satu entitas ke depan di seluruh rantai pasokan



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#### **Supply Chain Management Systems**

#### THE BULLWHIP EFFECT

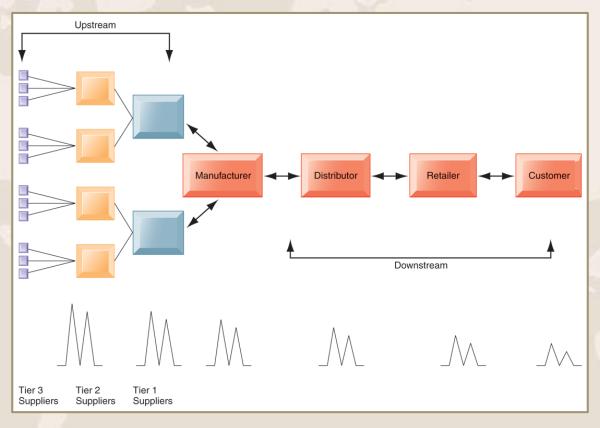


FIGURE 9-3

Informasi yang tidak akurat dapat menyebabkan fluktuasi kecil dalam permintaan untuk produk yang akan diperkuat sebagai salah satu bergerak lebih jauh ke belakang dalam rantai pasokan. Fluktuasi kecil dalam penjualan eceran untuk produk dapat menciptakan kelebihan persediaan untuk distributor, produsen, dan



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#### **Supply Chain Management Systems**

- Supply chain management software
  - Supply chain planning systems
    - Model existing supply chain
    - Demand planning
    - Optimize sourcing, manufacturing plans
    - Establish inventory levels
    - Identifying transportation modes
  - Supply chain execution systems
    - Manage flow of products through distribution centers and warehouses



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#### **Supply Chain Management Systems**

#### SOUTHWEST AIRLINES TAKES OFF WITH BETTER SUPPLY CHAIN MANAGEMENT

Read the Interactive Session and discuss the following questions

- Why is parts inventory management so important at Southwest Airlines? What business processes are affected by the airlines' ability or inability to have required parts on hand?
- Why management, organization, and technology factors were responsible for Southwest's problems with inventory management?
- How did implementing the i2 software change the way Southwest ran its business?
- Describe two decisions that were improved by implementing the i2 system?



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#### **Supply Chain Management Systems**

- Global supply chain issues
  - Global supply chains typically span greater geographic distances and time differences
  - More complex pricing issues (local taxes, transportation, etc.)
  - Foreign government regulations
- Internet helps companies manage many aspects of global supply chains
  - Sourcing, transportation, communications, international finance



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#### **Supply Chain Management Systems**

- Supply chain management systems
  - Push-based model (build-to-stock)
    - Schedules based on best guesses of demand
  - Pull-based model (demand-driven)
    - Customer orders trigger events in supply chain
  - Sequential supply chains
    - Information and materials flow sequentially from company to company
  - Concurrent supply chains
    - Information flows in many directions simultaneously among members of a supply chain network



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#### **Supply Chain Management Systems**

#### THE BULLWHIP EFFECT

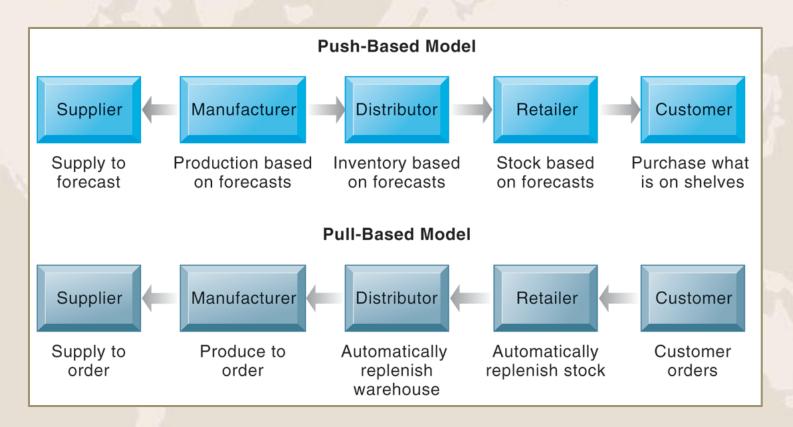


FIGURE 9-4 The difference between push- and pull-based models is summarized by the slogan, "Make what we sell, not sell what we make."



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#### **Supply Chain Management Systems**

- Business value of SCM systems
  - Match supply to demand
  - Reduce inventory levels
  - Improve delivery service
  - Speed product time to market
  - Use assets more effectively
  - Reduced supply chain costs lead to increased profitability
  - Increased sales



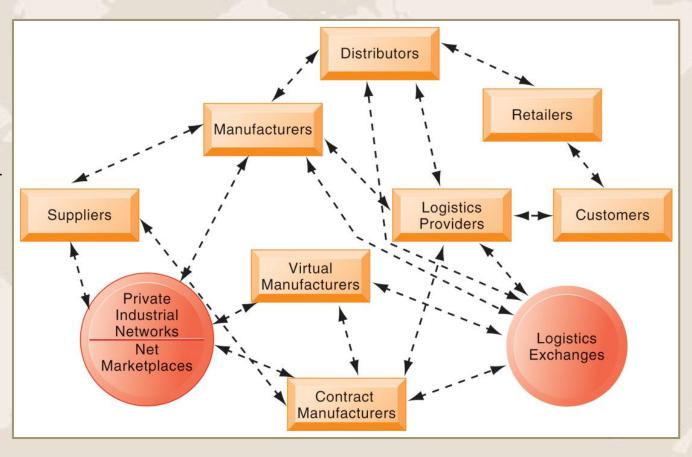
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#### **Supply Chain Management Systems**

# THE FUTURE INTERNET-DRIVEN SUPPLY CHAIN

The future Internet-driven supply chain operates like a digital logistics nervous system. It provides multidirectional communication among firms, networks of firms, and emarketplaces so that entire networks of supply chain partners can immediately adjust inventories, orders, and capacities.

#### FIGURE 9-5





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#### **Customer Relationship Management Systems**

- Knowing the customer
  - In large businesses, too many customers and too many ways customers interact with firm
- Customer relationship management (CRM) systems
  - Capture and integrate customer data from all over the organization
  - Consolidate and analyze customer data
  - Distribute customer information to various systems and customer touch points across enterprise
  - Provide single enterprise view of customers



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#### **Customer Relationship Management Systems**

# CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

CRM systems examine customers from a multifaceted perspective. These systems use a set of integrated applications to address all aspects of the customer relationship, including customer service, sales, and marketing.

FIGURE 9-6





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#### **Customer Relationship Management Systems**

#### CRM software

- CRM packages range from niche tools to large-scale enterprise applications
- More comprehensive have modules for:
  - Partner relationship management (PRM)
    - Integrating lead generation, pricing, promotions, order configurations, and availability
    - Tools to assess partners' performances
  - Employee relationship management (ERM)
    - E.g. Setting objectives, employee performance management, performance-based compensation, employee training



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#### **Customer Relationship Management Systems**

- CRM packages typically include tools for:
  - Sales force automation (SFA)
    - E.g. sales prospect and contact information, and sales quote generation capabilities
  - Customer service
    - E.g. assigning and managing customer service requests;
       Web-based self-service capabilities
  - Marketing
    - E.g. capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail



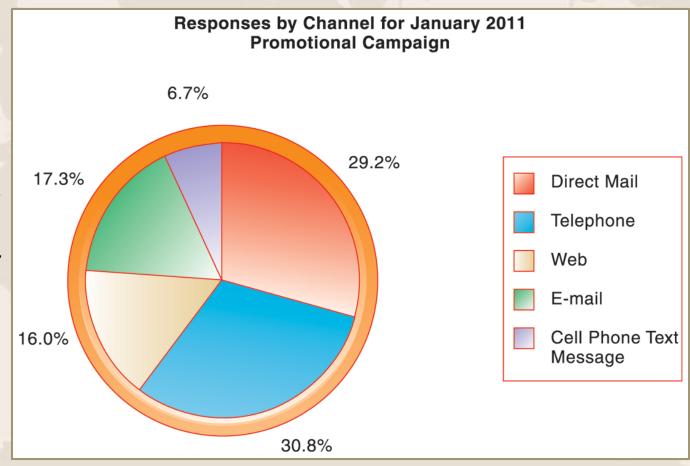
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#### **Customer Relationship Management Systems**

# HOW CRM SYSTEMS SUPPORT MARKETING

Customer relationship management software provides a single point for users to manage and evaluate marketing campaigns across multiple channels, including e-mail, direct mail, telephone, the Web, and wireless messages.

FIGURE 9-7





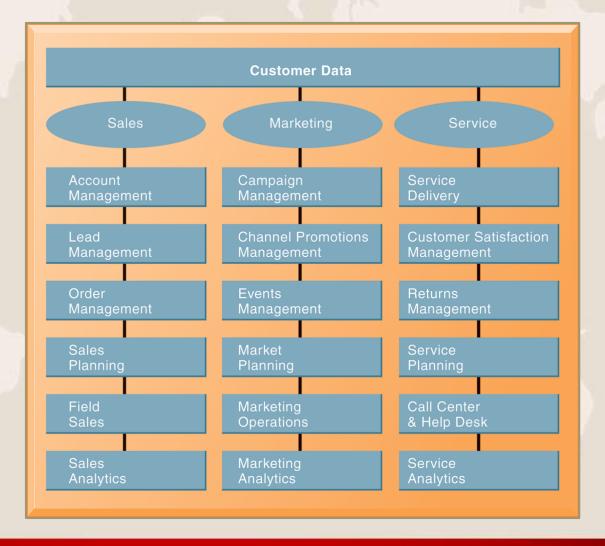
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#### **Customer Relationship Management Systems**

# CRM SOFTWARE CAPABILITIES

The major CRM software products support business processes in sales, service, and marketing, integrating customer information from many different sources. Included are support for both the operational and analytical aspects of CRM.

FIGURE 9-8





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#### **Customer Relationship Management Systems**

#### **CUSTOMER LOYALTY MANAGEMENT PROCESS MAP**

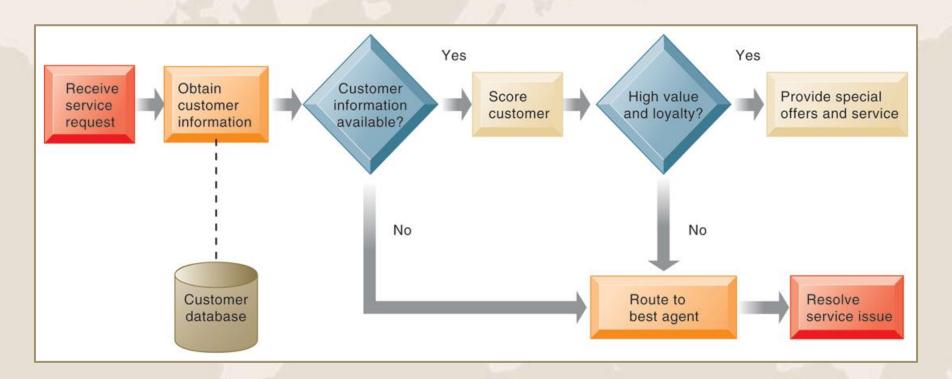


FIGURE 9-9

This process map shows how a best practice for promoting customer loyalty through customer service would be modeled by customer relationship management software. The CRM software helps firms identify high-value customers for preferential treatment.



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#### **Customer Relationship Management Systems**

#### Operational CRM:

- Customer-facing applications
  - E.g. sales force automation, call center and customer service support, and marketing automation

#### Analytical CRM:

- Analyze customer data output from operational CRM applications
- Based on data warehouses populated by operational CRM systems and customer touch points
  - Customer lifetime value (CLTV)



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#### **Customer Relationship Management Systems**

#### **ANALYTICAL CRM DATA WAREHOUSE**

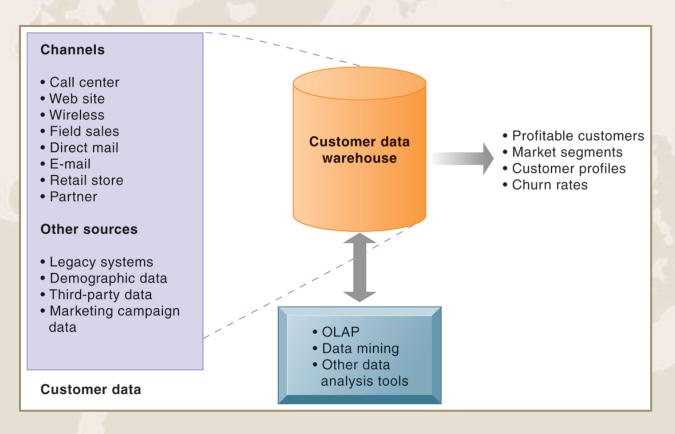


FIGURE 9-10

Analytical CRM uses a customer data warehouse and tools to analyze customer data collected from the firm's customer touch points and from other sources.



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#### **Customer Relationship Management Systems**

- Business value of CRM
  - Increased customer satisfaction
  - Reduced direct-marketing costs
  - More effective marketing
  - Lower costs for customer acquisition/retention
  - Increased sales revenue
  - Reduce churn rate
    - Number of customers who stop using or purchasing products or services from a company.
    - Indicator of growth or decline of firm's customer base



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#### **Management Information Systems**

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**Enterprise Applications: New Opportunities and Challenges** 

- Highly expensive to purchase and implement
  - \$3.5 million to over \$12 million
- Technological changes
- Business process changes
- Organizational changes
- Switching costs, dependence on software vendors
- Data standardization, management, cleansing



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#### **Enterprise Applications: New Opportunities and Challenges**

- Next-generation enterprise applications
  - Move is to make applications more flexible, Webenabled, integrated with other systems
  - Enterprise suites
    - Software to enable CRM, SCM, and enterprise systems work together and with suppliers and client systems
    - Utilize Web services, SOA
  - Open source & on-demand solutions
  - Mobile compatible; Web 2.0 capabilities
  - Complementary analytics products



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**Enterprise Applications: New Opportunities and Challenges** 

#### **ENTERPRISE APPLICATIONS MOVE TO THE CLOUD**

Read the Interactive Session and discuss the following questions

- What types of companies are most likely to adopt cloudbased ERP and CRM software services? Why? What companies might not be well-suited for this type of software?
- What are the advantages and disadvantages of using cloudbased enterprise applications?
- What management, organization, and technology issues should be addressed in deciding whether to use a conventional ERP or CRM system versus a cloud-based version?



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**Enterprise Applications: New Opportunities and Challenges** 

## Service platform:

- Integrates multiple applications to deliver a seamless experience for all parties
  - E.g. Order-to-cash process
- -Portal software
  - Used to integrate information from enterprise applications and legacy systems and present it as if coming from a single source



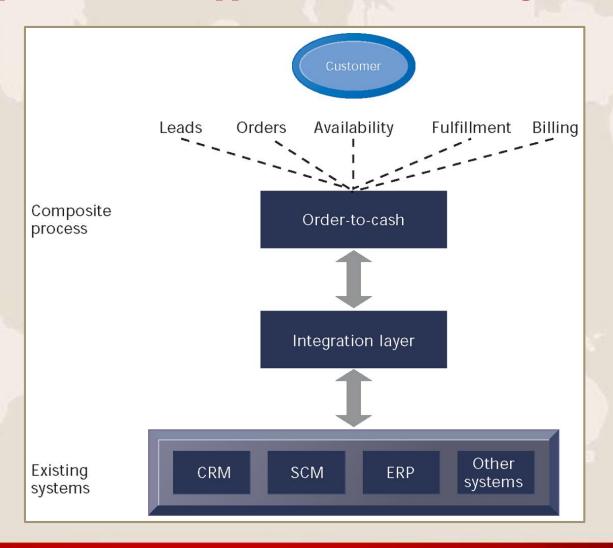
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#### **Enterprise Applications: New Opportunities and Challenges**

# ORDER-TO-CASH SERVICE

Order-to-cash is a composite process that integrates data from individual enterprise systems and legacy financial applications. The process must be modeled and translated into a software system using application integration tools.

**FIGURE 9-11** 





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