Tamkang University
淡江大學

資訊管理專題

Tamkang University

Hot Issues of Information Management

Telecommunications, the Internet, and Wireless Technology: Google, Apple, and Microsoft (Chap. 7)

1051IM4C08
TLMXB4C (M0842)
Thu 7,8 (14:10-16:00) B709

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2016-11-24

課程大綱 (Syllabus)

週次 (Week)	日期 (Date)	內容 (Subject/Topics)
1	2016/09/15	中秋節 (放假一天) (Mid-Autumn Festival)(Day off)
2	2016/09/22	Introduction to Case Study for Information Management Hot Topics
3	2016/09/29	Information Systems in Global Business: UPS (Chap. 1) (pp.53-54)
4	2016/10/06	Global E-Business and Collaboration: P&G (Chap. 2) (pp.84-85)
5	2016/10/13	Information Systems, Organization, and Strategy: Starbucks (Chap. 3) (pp.129-130)
6	2016/10/20	Ethical and Social Issues in Information Systems: Facebook (Chap. 4) (pp.188-190)

課程大綱 (Syllabus)

週次 (Week)	日期 (Date)	內容 (Subject/Topics)
7	2016/10/27	IT Infrastructure and Emerging Technologies: Amazon and Cloud Computing (Chap. 5) (pp. 234-236)
8	2016/11/03	Foundations of Business Intelligence: IBM and Big Data (Chap. 6) (pp.261-262)
9	2016/11/10	Midterm Report (期中報告)
10	2016/11/17	期中考試週
11	2016/11/24	Telecommunications, the Internet, and Wireless Technology: Google, Apple, and Microsoft (Chap. 7) (pp.318-320)
12	2016/12/01	Enterprise Applications: Summit and SAP (Chap. 9) (pp.396-398)

課程大綱 (Syllabus)

週次	日期	內容（Subject/Topics）
13	2016/12/08	E-commerce: Zagat (Chap. 10) (pp.443-445)
14	2016/12/15	Enhancing Decision Making: Zynga (Chap. 12) (pp.512-514)
15	2016/12/22	Managing Projects: NYCAPS and CityTime (Chap. 14) (pp.586-588)
16	2016/12/29	Final Report I (期末報告 I)
17	2017/01/05	Final Report II (期末報告 II)
18	2017/01/12	期末考試週

Management Information Systems:

Managing the Digital Firm

1 Organization, Management, and the Networked Enterprise

2 Information Technology Infrastructure

3 Key System Applications for the Digital Age

4 Building and Managing Systems

Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Chap. 7
Telecommunications, the Internet, and Wireless Technology: Google, Apple, and Microsoft

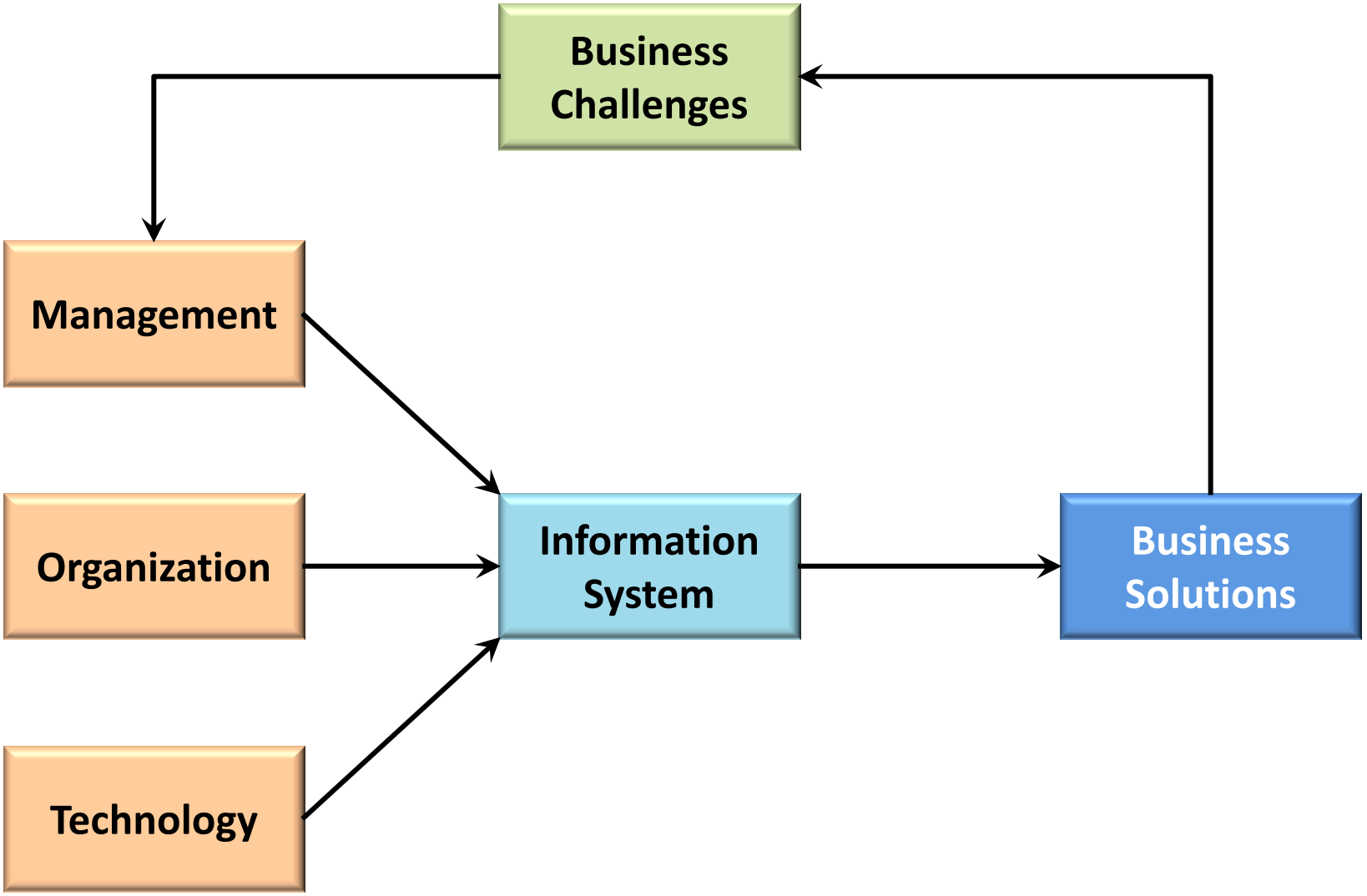
Case Study:

Google, Apple, and Microsoft (Chap. 7) (pp. 318-320)

Apple, Google, and Microsoft Battle for Your Internet Experience

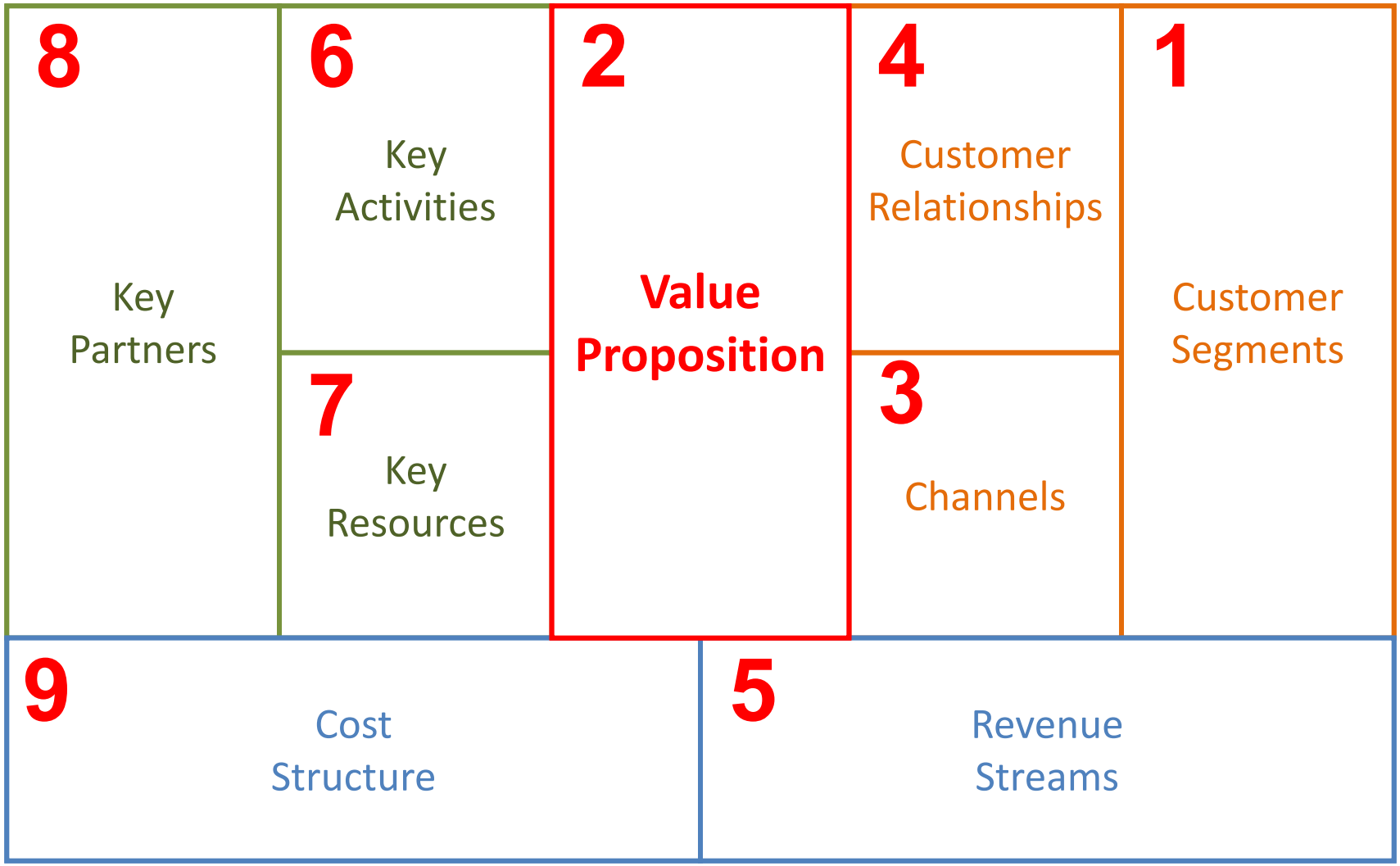
1. Define and compare the business models and areas of strength of Apple, Google, and Microsoft.
2. Why is mobile computing so important to these three firms? Evaluate the mobile platform offerings of each firm.
3. What is the significance of applications and app stores, and closed vs. open app standards to the success or failure of mobile computing?
4. Which company and business model do you believe will prevail in this epic struggle? Explain your answer.
5. What difference would it make to a business or to an individual consumer if Apple, Google, or Microsoft dominated the Internet experience? Explain your answer.

Overview of Fundamental MIS Concepts



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Business Model



Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

Understanding Business Model

- **Business Model**
- Revenue Model

- Business Strategy
- Business Strategy and Information System Alignment

Business Model

Value

Definition of Business Model

A business model describes the rationale of how an organization creates, delivers, and captures value.

Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

E-commerce
Business Models

1. Portal
2. E-tailer
3. Content Provider
4. Transaction Broker
5. Market Creator
6. Service Provider
7. Community Provider

Source: Kenneth C. Laudon & Jane P. Laudon (2012), Management Information Systems: Managing the Digital Firm, Twelfth Edition, Pearson.

E-commerce
Revenue Models

1. Advertising
2. Sales
3. Subscription
4. Free/Freemium
5. Transaction Fee
6. Affiliate

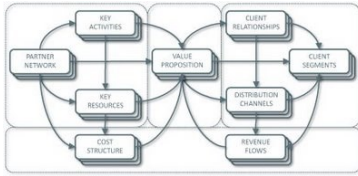
Source: Kenneth C. Laudon & Jane P. Laudon (2012), Management Information Systems: Managing the Digital Firm, Twelfth Edition, Pearson.

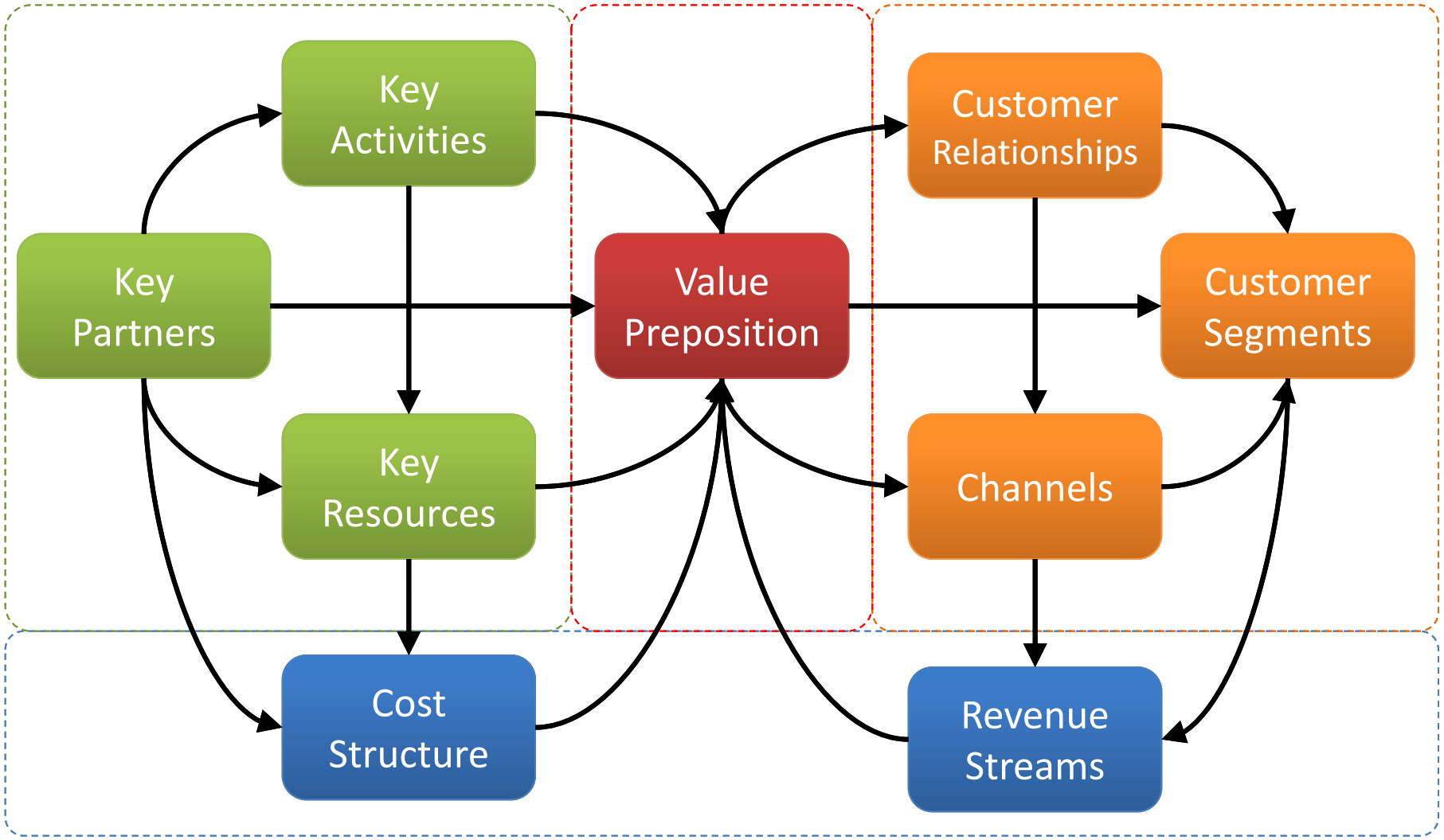
Types of E-commerce

1. Business-to-consumer (B2C)
2. Business-to-business (B2B)
3. Consumer-to-consumer (C2C)
4. Mobile commerce (m-commerce)

Source: Kenneth C. Laudon & Jane P. Laudon (2012), Management Information Systems: Managing the Digital Firm, Twelfth Edition, Pearson.

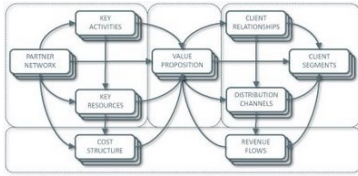
Business Model Canvas





Source: http://nonlinearthinking.typepad.com/nonlinear_thinking/2008/07/the-business-model-canvas.html
https://www.youtube.com/watch?v=QoAOzMTLP5s

Business Model Canvas



Infrastructure Management

Product

Customer Interface

Key Activities

Customer Relationships

Key Partners

Value Preposition

Customer Segments

Key Resources

Channels

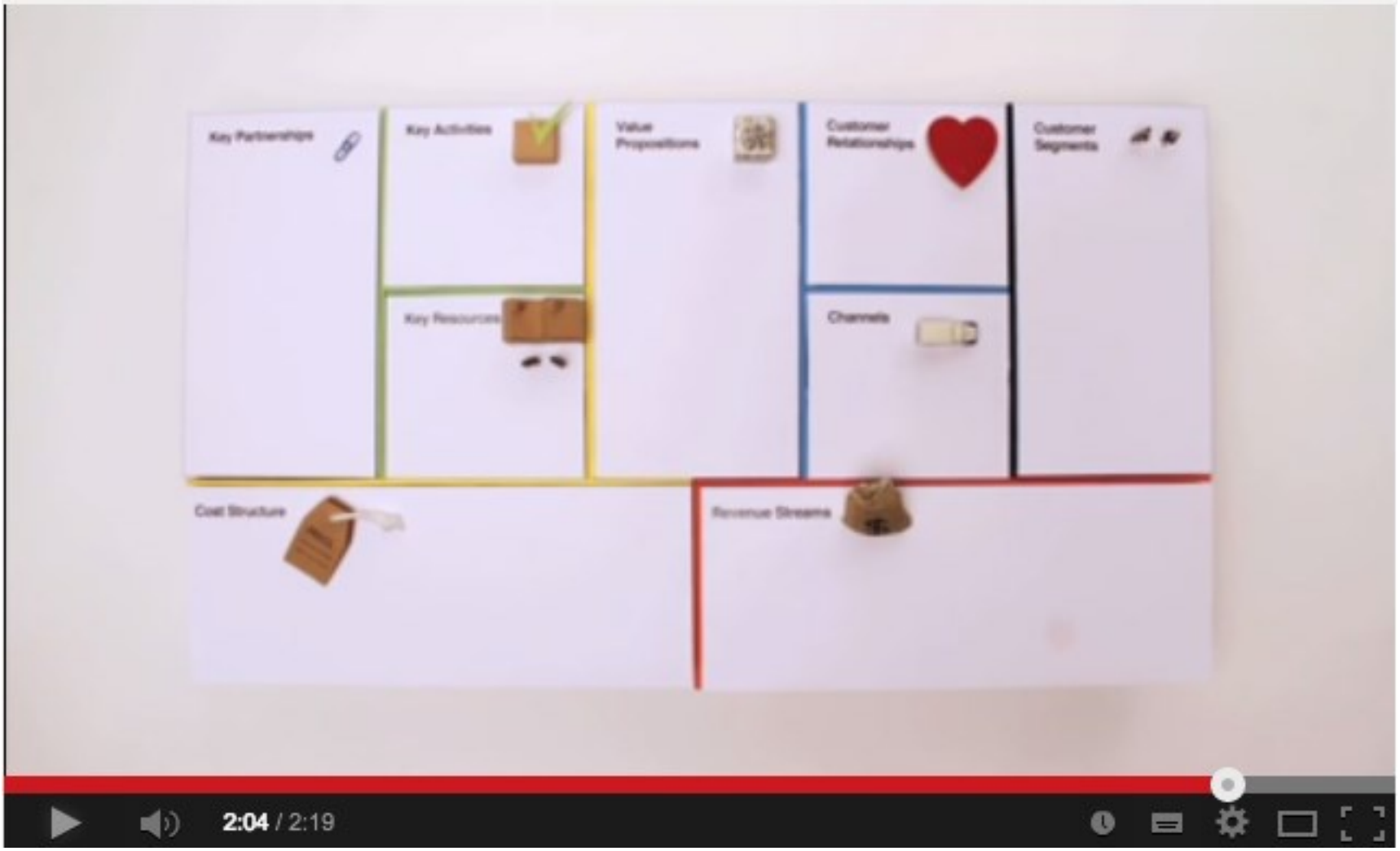
Financial Aspects

Cost Structure

Revenue Streams

Source: http://nonlinearthinking.typepad.com/nonlinear_thinking/2008/07/the-business-model-canvas.html
https://www.youtube.com/watch?v=QoAOzMTLP5s

Business Model Canvas Explained



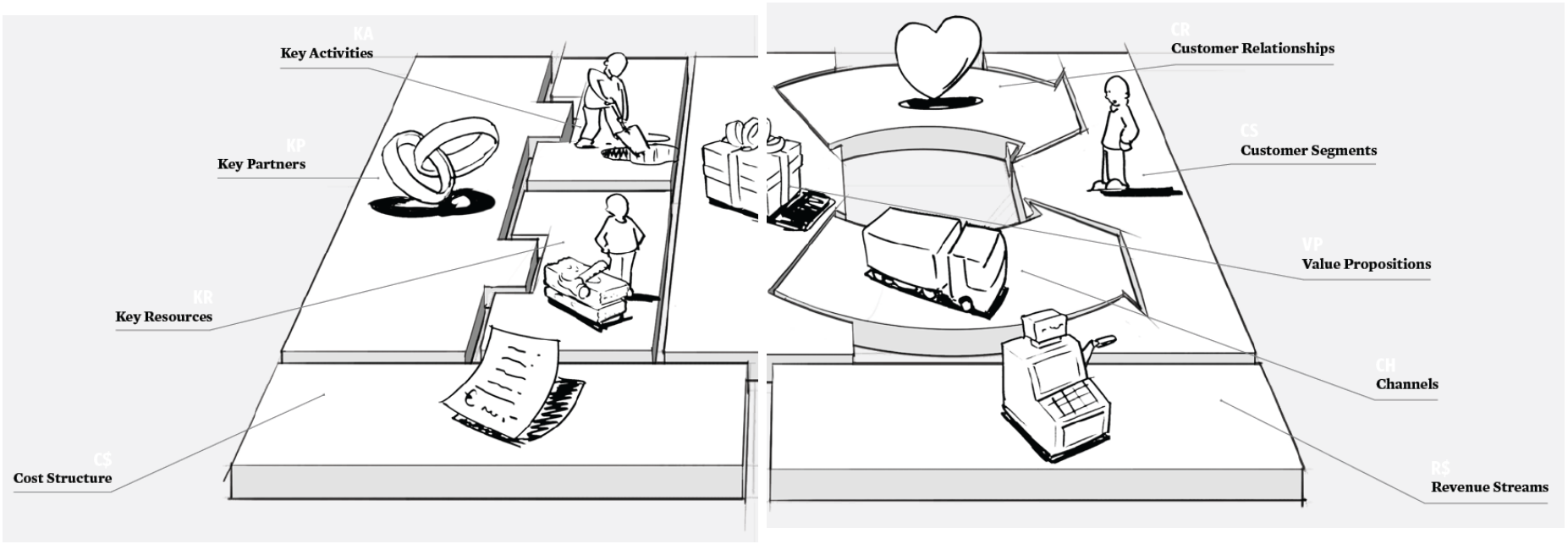
Source: http://www.youtube.com/watch?v=QoAOzMTLP5s

The 9 Building Blocks of Business Model

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
8	6	2	4	1
	Key Resources		Channels	
	7		3	
Cost Structure		Revenue Streams		
9		5		

Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

The 9 Building Blocks of Business Model



Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

The 9 Building Blocks of Business Model

1. Customer Segments
   - An organization serves one or several Customer Segments.
2. Value Propositions
   - It seeks to solve customer problems and satisfy customer needs with value propositions.
3. Channels
   - Value propositions are delivered to customers through communication, distribution, and sales Channels.
4. Customer Relationships
   - Customer relationships are established and maintained with each Customer Segment.

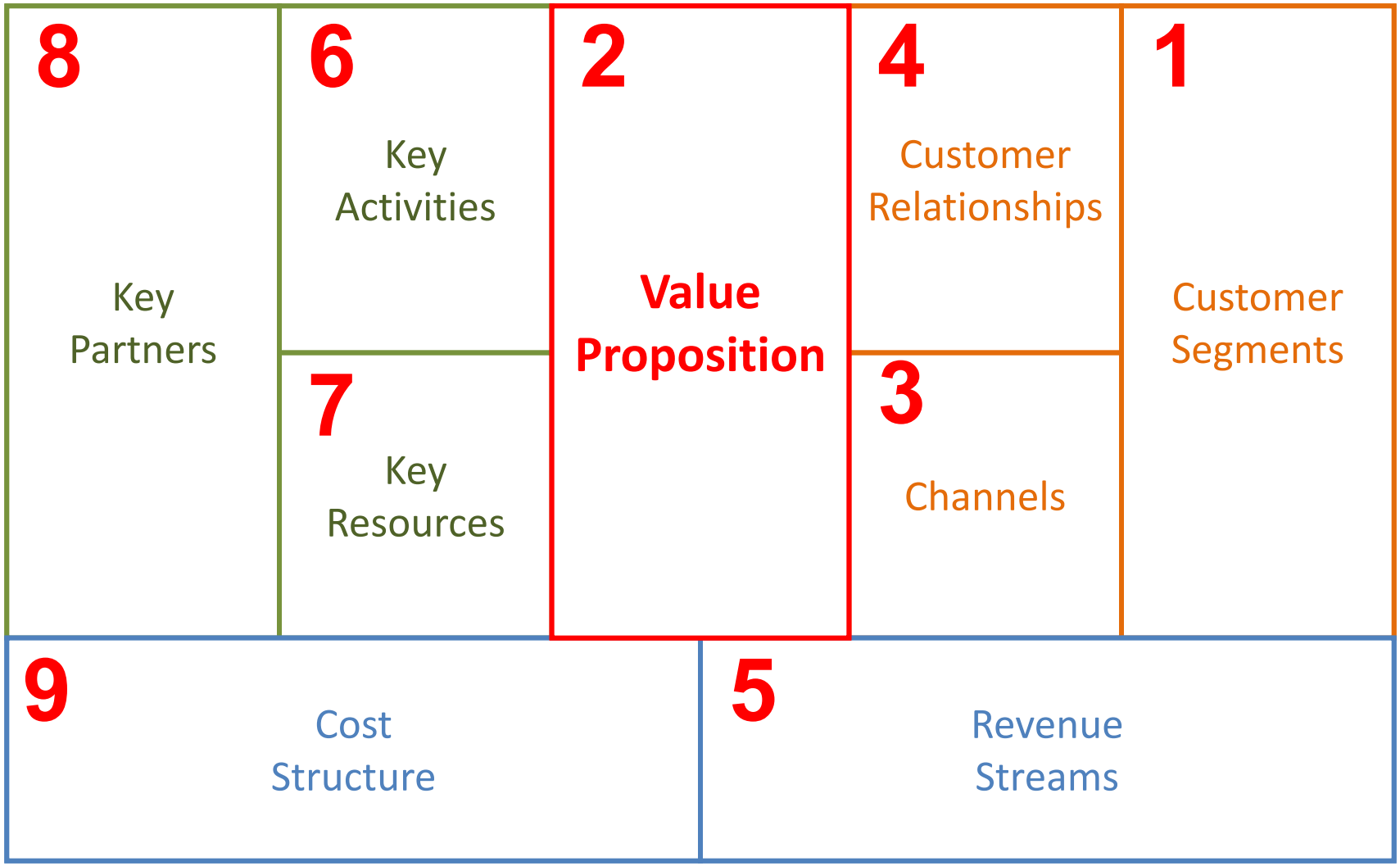
Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

The 9 Building Blocks of Business Model

5. Revenue Streams
   - Revenue streams result from value propositions successfully offered to customers.
6. Key Resources
   - Key resources are the assets required to offer and deliver the previously described elements…
7. Key Activities
   - …by performing a number of Key Activities.
8. Key Partnerships
   - Some activities are outsourced and some resources are acquired outside the enterprise.
9. Cost Structure
   - The business model elements result in the cost structure.

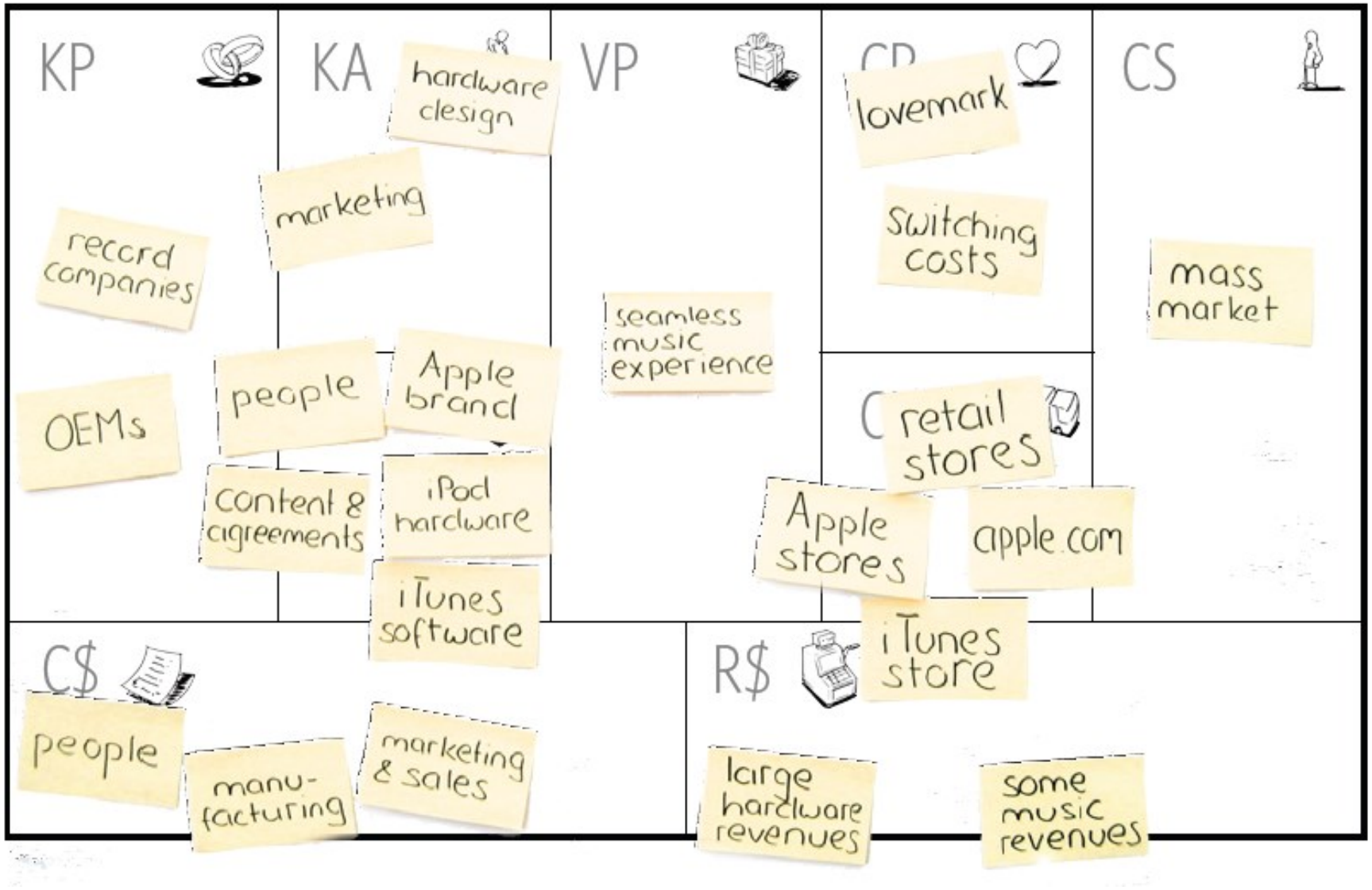
Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

Business Model



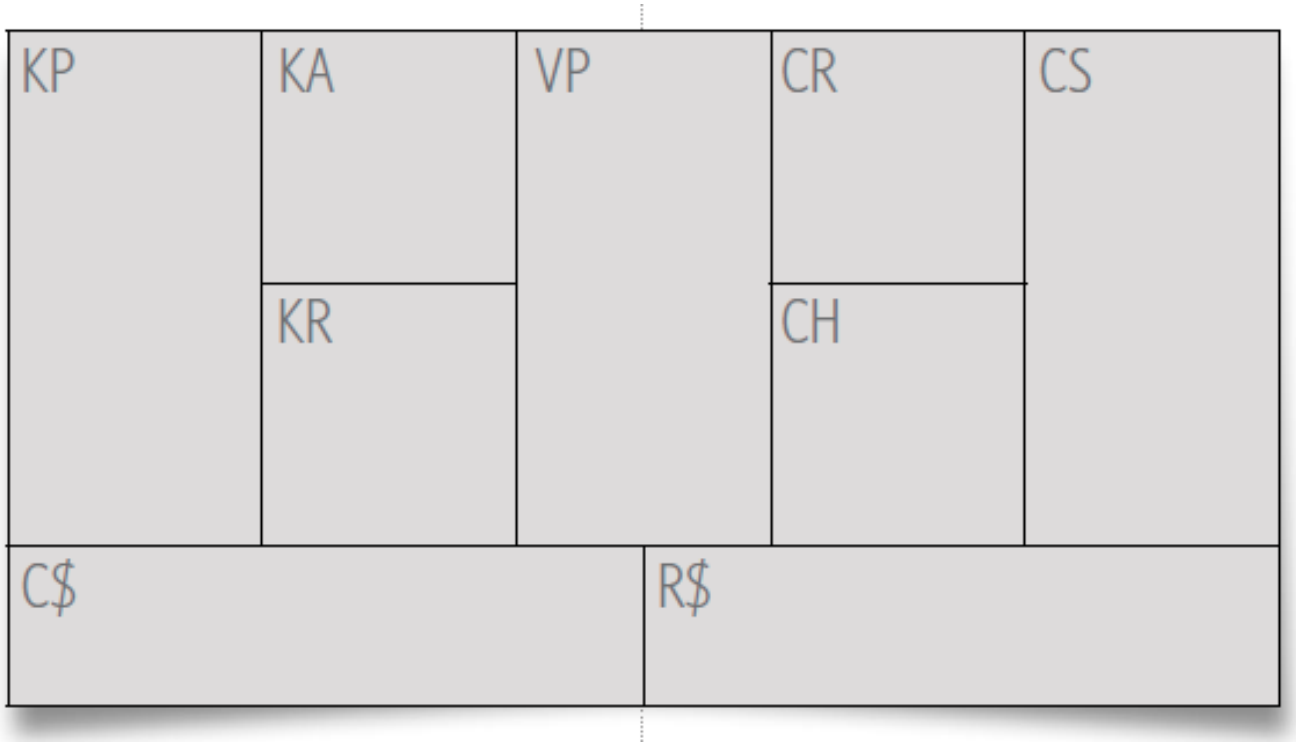
Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

Business Model Generation



Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

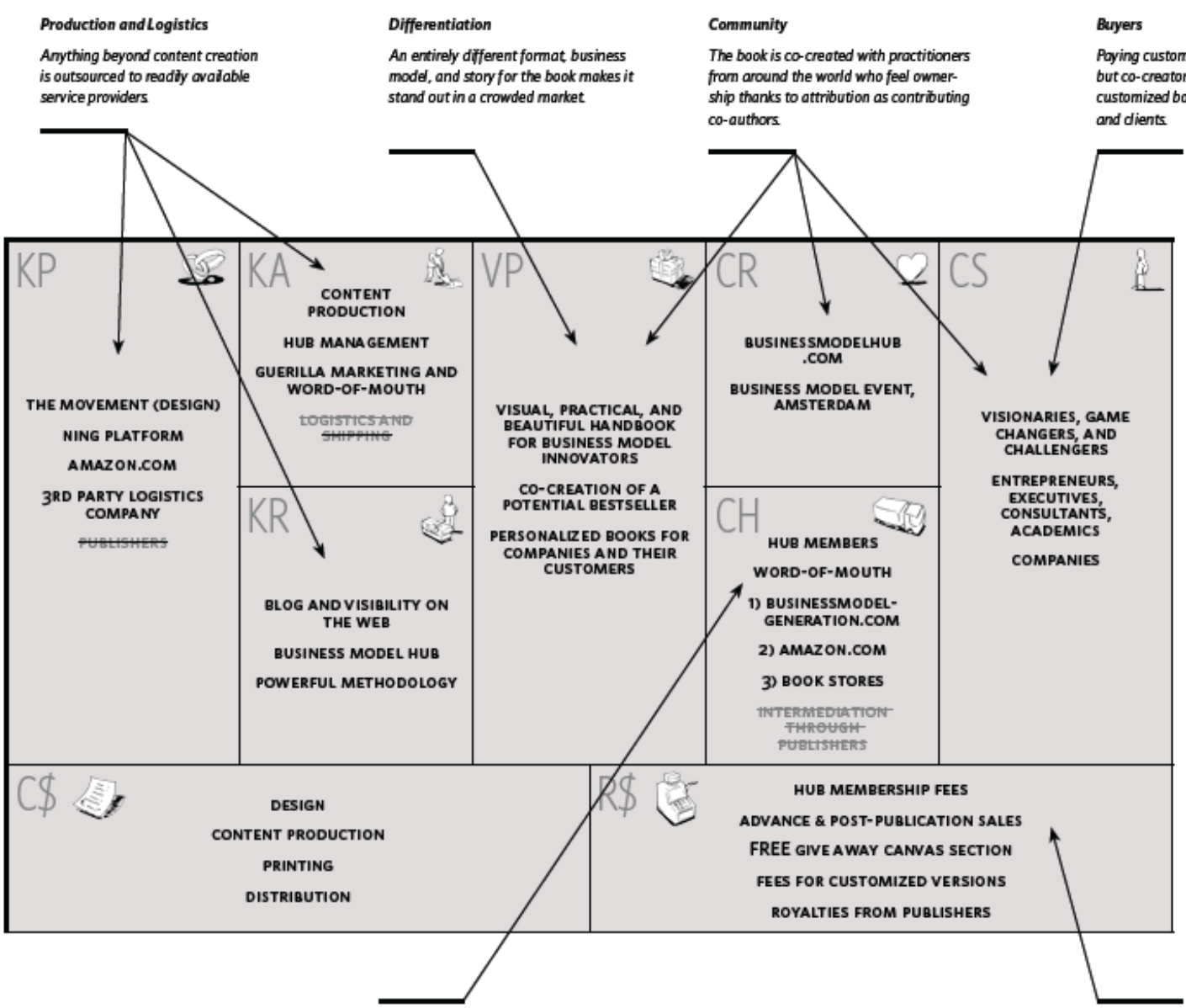
Business Model Generation



LEFT CANVAS
efficiency

RIGHT CANVAS
value

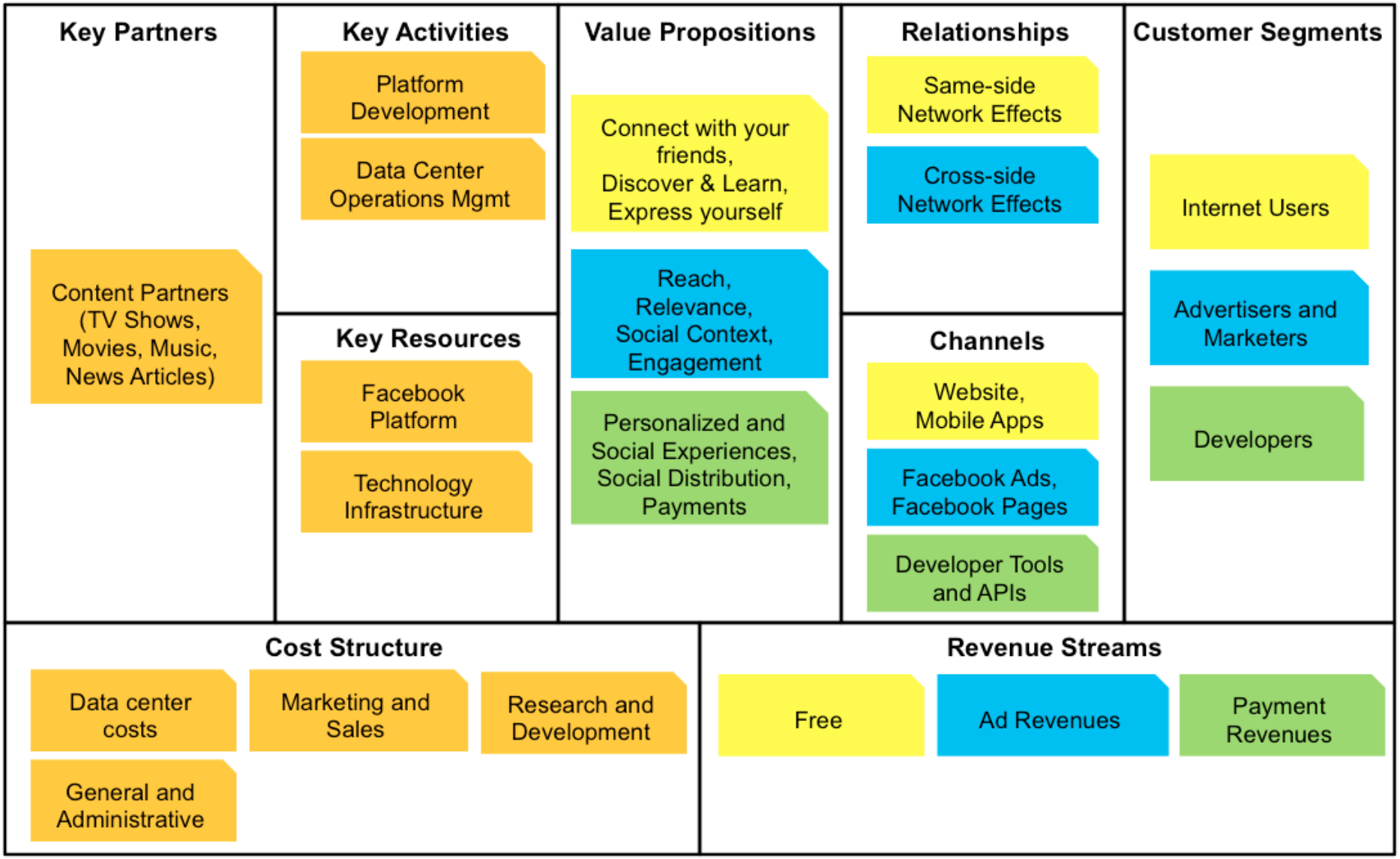
Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.



THE CANVAS OF *BUSINESS MODEL GENERATION*

Source: Alexander Osterwalder & Yves Pigneur, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.

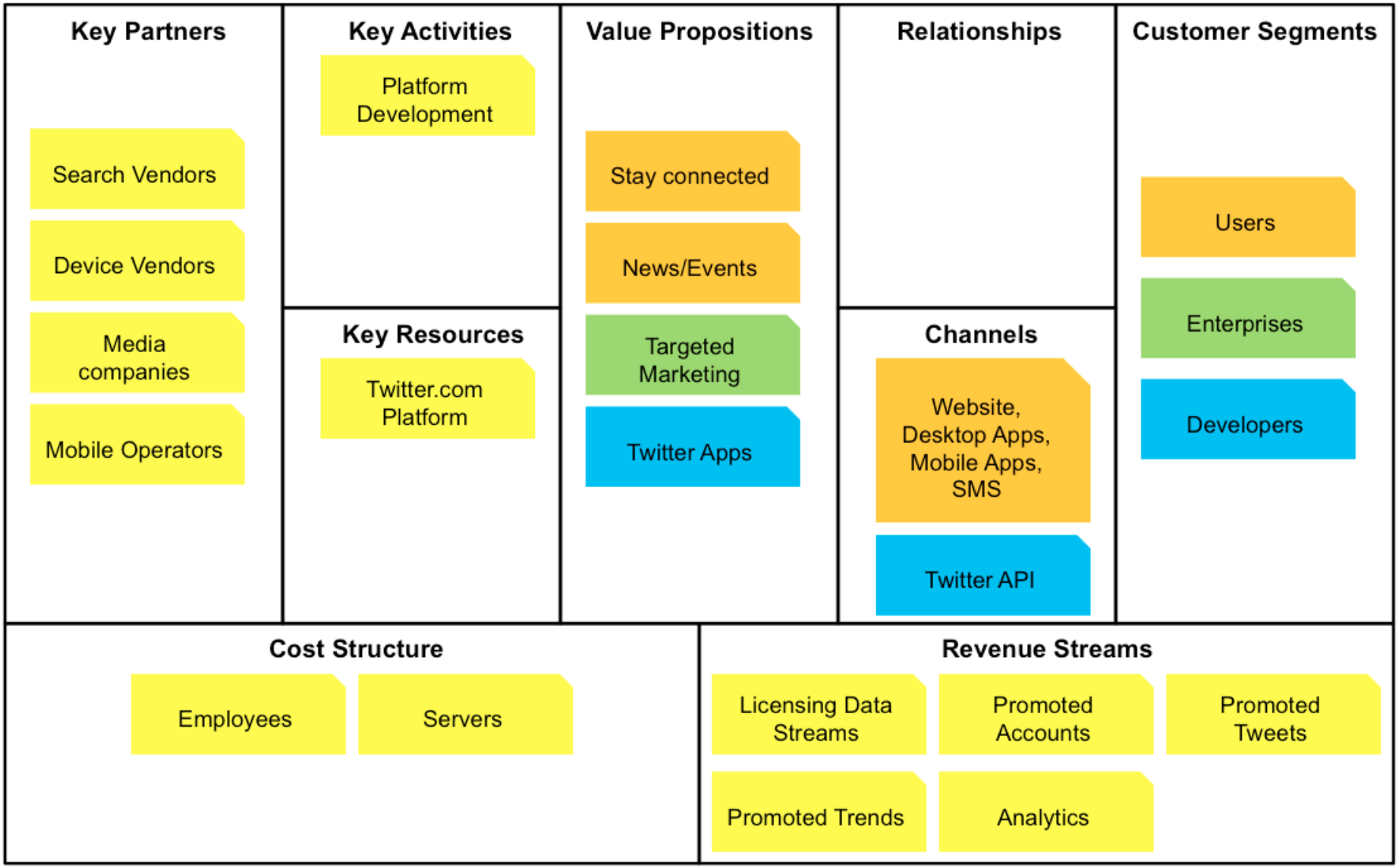
Facebook – World's leading Social Networking Site (SNS)



www.businessmodelgeneration.com

Source: http://bmimatters.com/tag/business-model-canvas-examples/

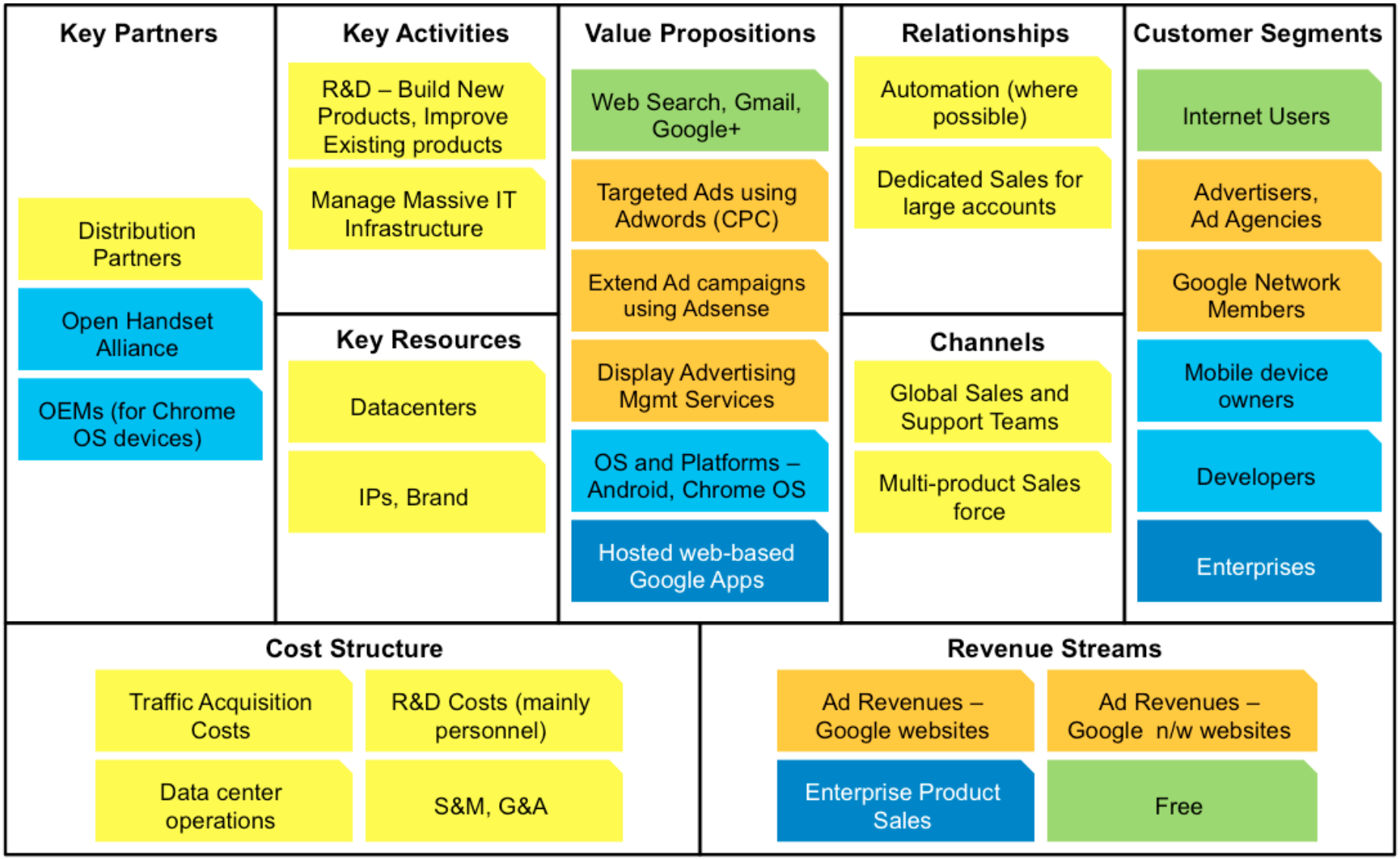
Twitter Business Model



www.businessmodelgeneration.com

Source: http://bmimatters.com/tag/business-model-canvas-examples/

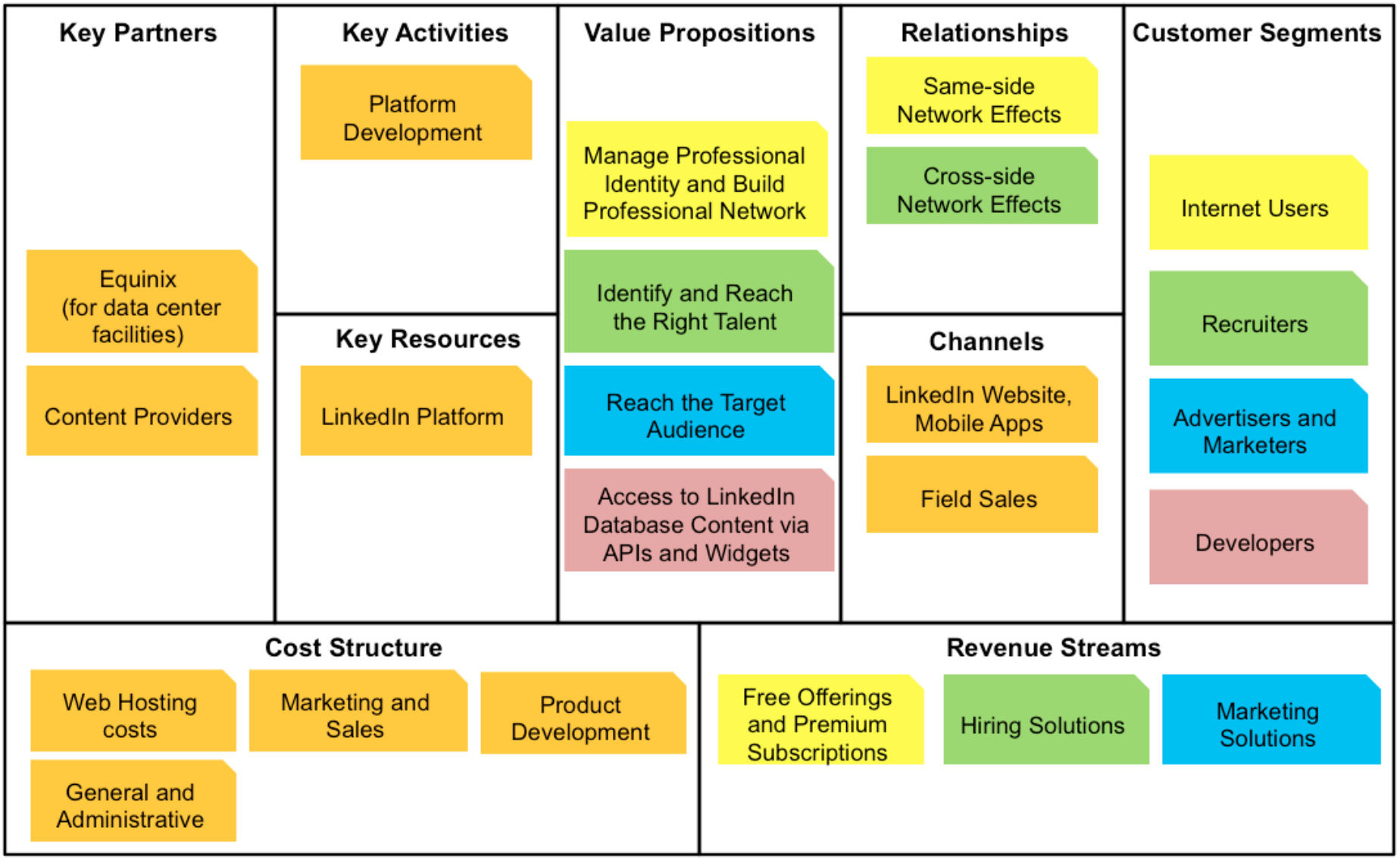
Google Business Model



www.businessmodelgeneration.com

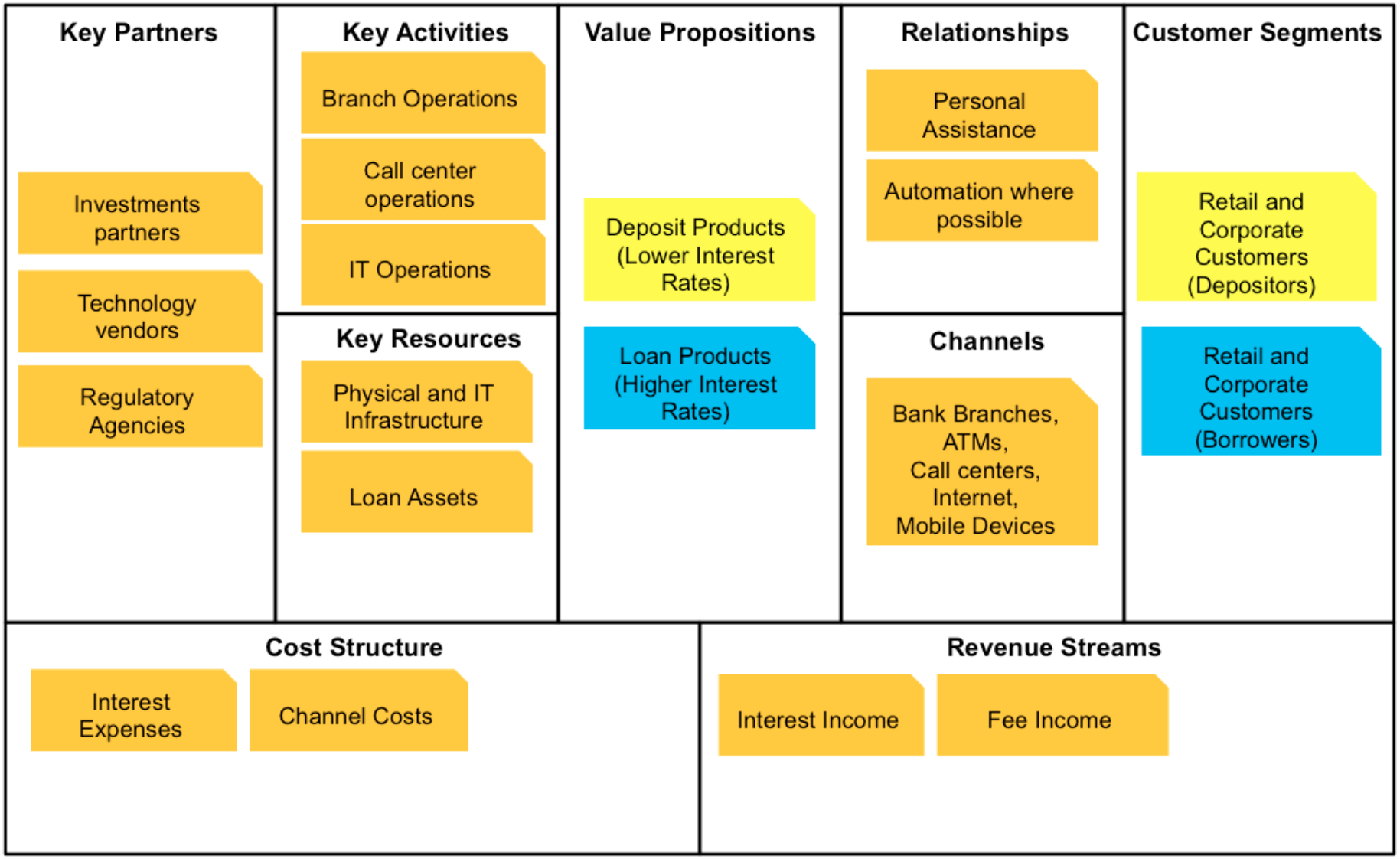
Source: http://bmimatters.com/tag/business-model-canvas-examples/

LinkedIn – World's Largest Professional Network



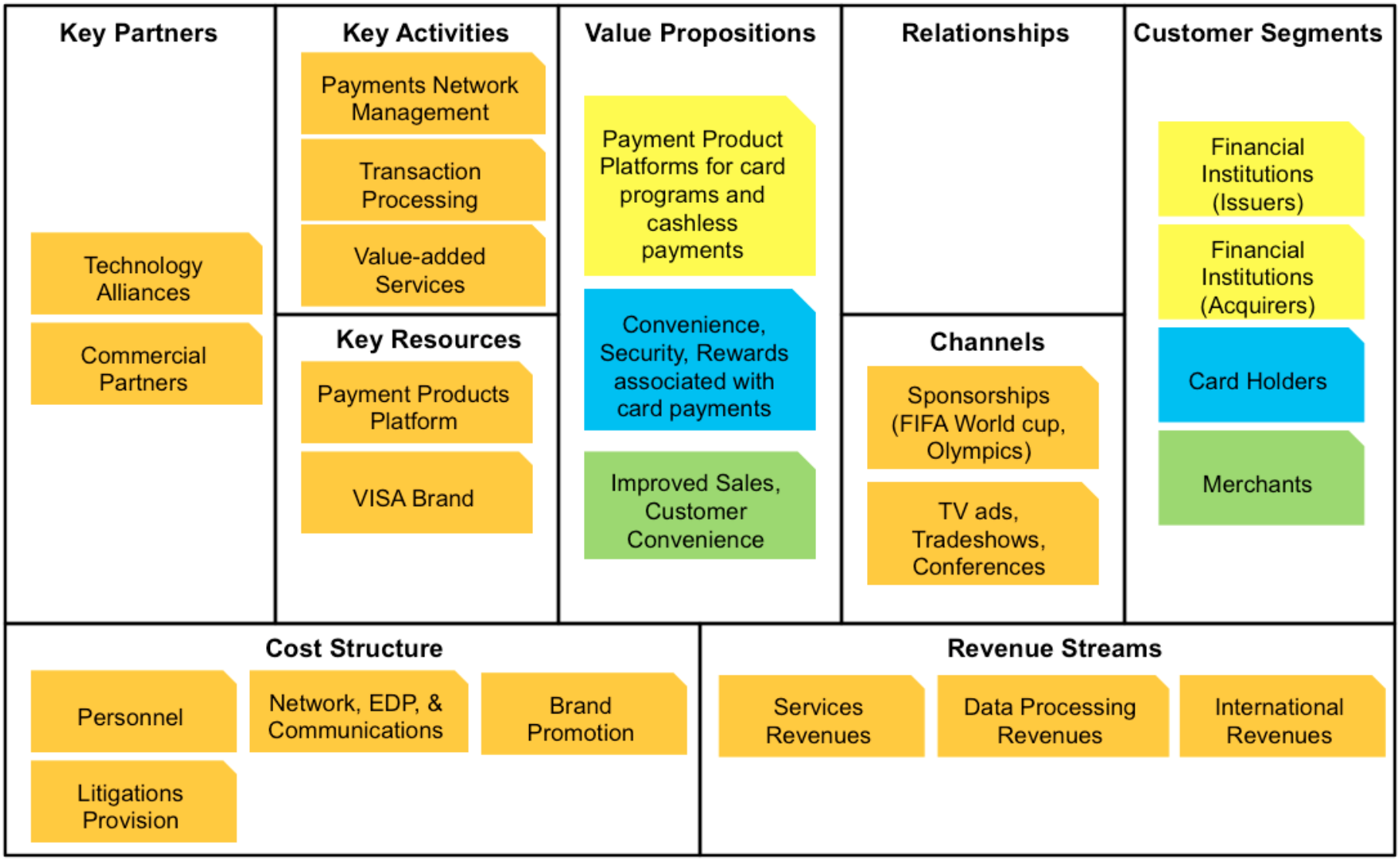
Source: http://bmimatters.com/tag/business-model-canvas-examples/

Business Model of Banking companies



Source: http://bmimatters.com/tag/business-model-canvas-examples/

VISA – Leader in Global Payments Industry



www.businessmodelgeneration.com

Source: http://bmimatters.com/tag/business-model-canvas-examples/

The Business Model Canvas

Designed for: Techno Cake

Designed by: Danilo Tič

Date: 1.2.2011

Iteration: 01

Key Partners

MC Miš

Local presenters

Volunteers

Key Activities

Event s Management

Marketing Management

Best presentations

Key Resources

Volunteers

Presentation Hall

Value Propositions

Techno cake talks and presentations

Videos about talks and presentations

Advertising
Video
WWW

Customer Relationships

Facebook,
Twitter
Flickr
Video-www

Channels

Facebook,
Twitter
Flickr
Videos
JAPTI, RIC

Customer Segments

Geeks
IT customers
Engineers

IT Companies
Mobile operators
Banks
Insurence Co…

Cost Structure

Event s Manag. Costs

Authors' costs

Revenue Streams

Advertising fee
Videos
Logos..

www.businessmodelgeneration.com

Source: http://businessmodelcombo.wordpress.com/2011/02/04/what-would-a-sustainable-techno-cake-business-model-look-like/

Customer Value

Marketing

“Meeting needs profitably”

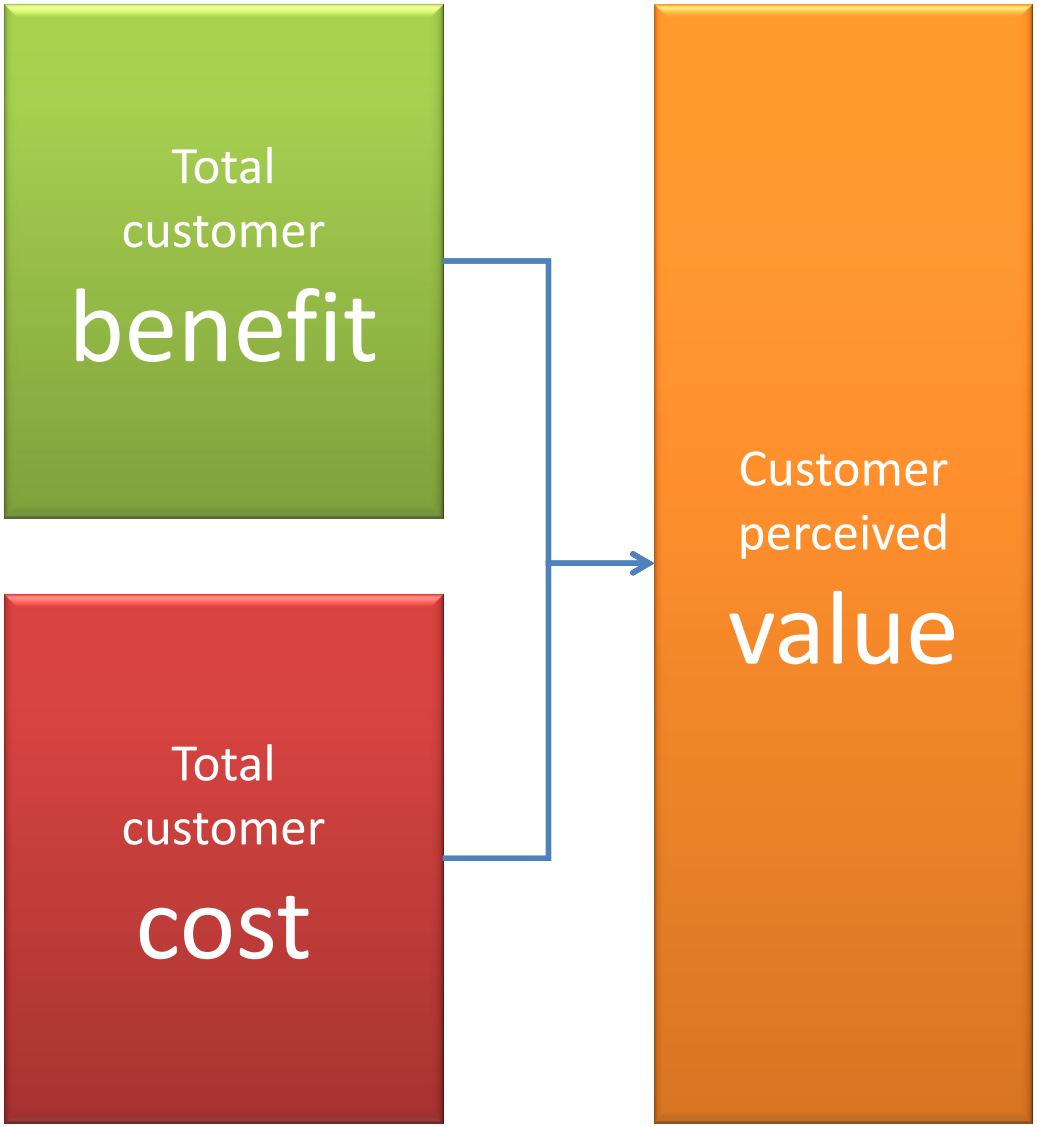
Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Value

the sum of the tangible and intangible benefits and costs

Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

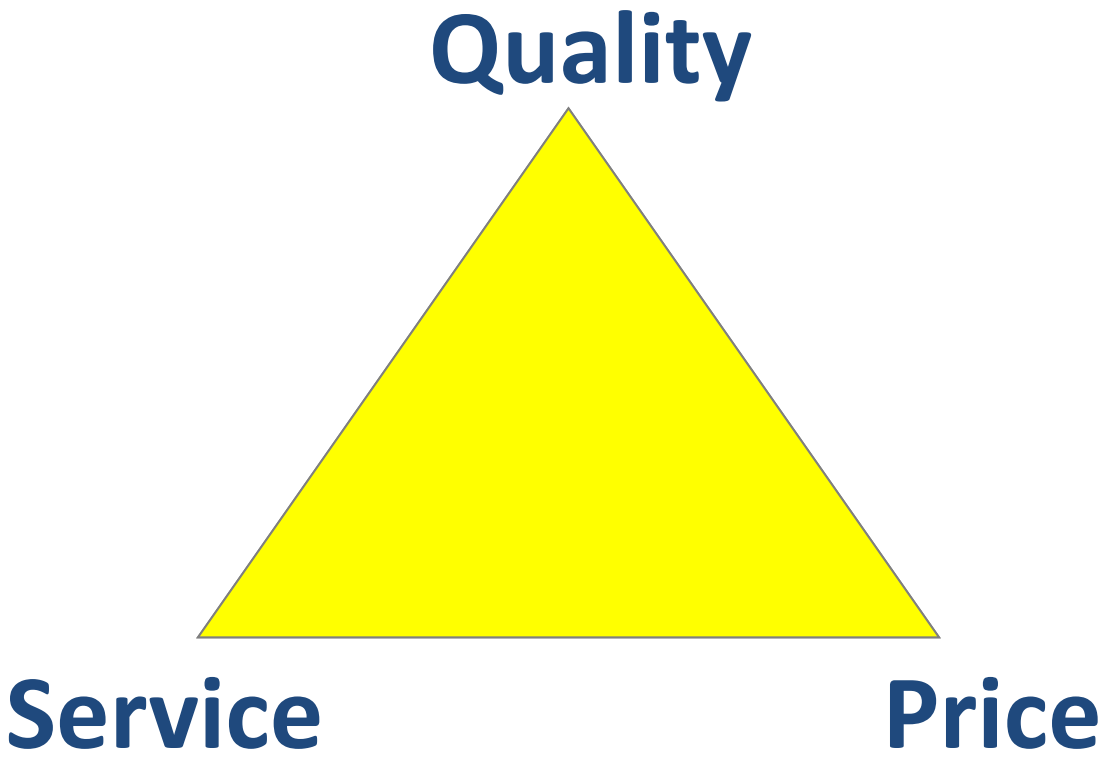
Value



Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Customer Value Triad

Quality, Service, and Price (qsp)



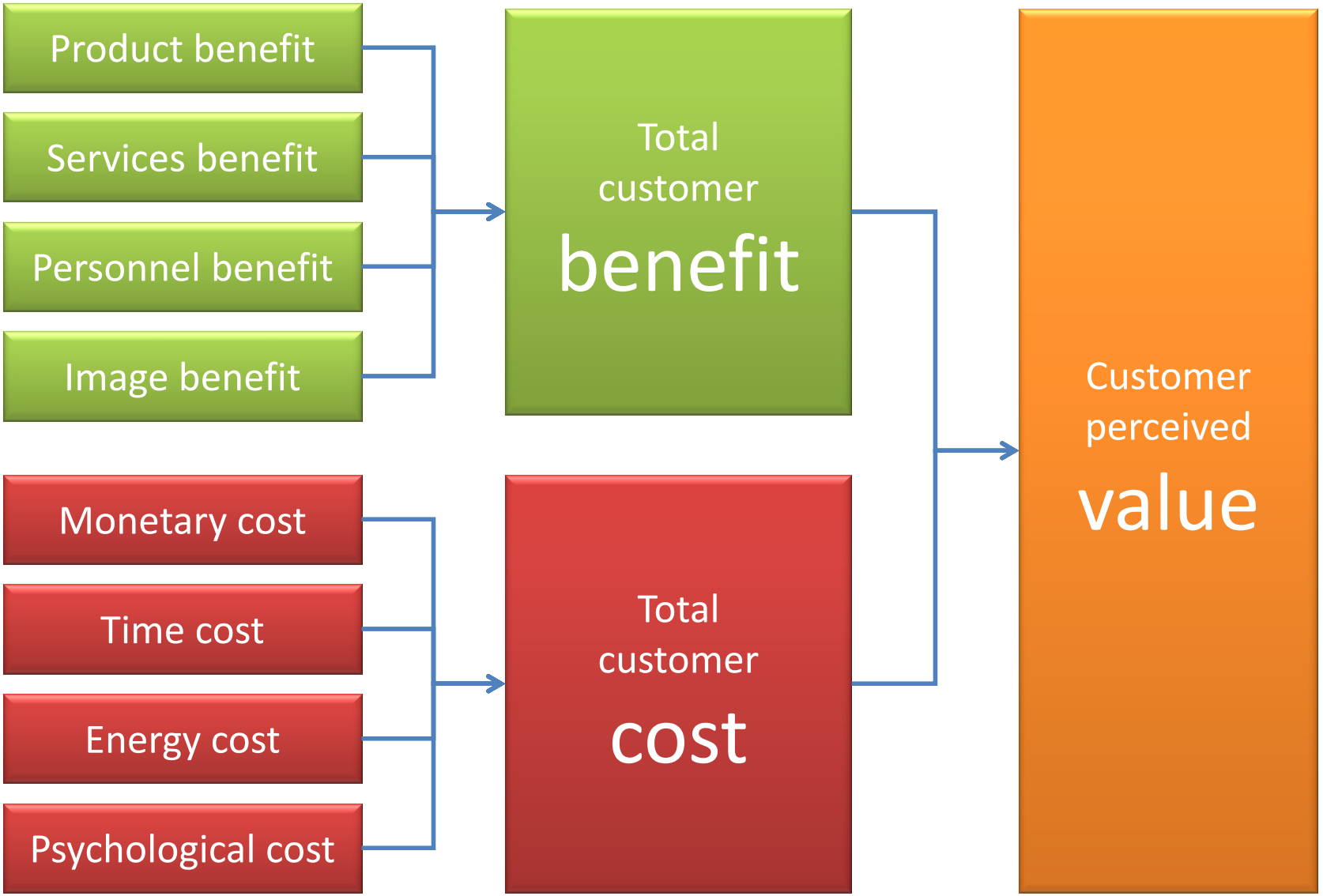
Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Value and Satisfaction

- Marketing
  - identification, creation, communication, delivery, and monitoring of customer value.
- Satisfaction
  - a person's judgment of a product's perceived performance in relationship to expectations

Building Customer Value, Satisfaction, and Loyalty

Customer Perceived Value



Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Satisfaction

"a person's feelings of pleasure or disappointment that result from comparing a product's perceived performance (or outcome) to expectations"

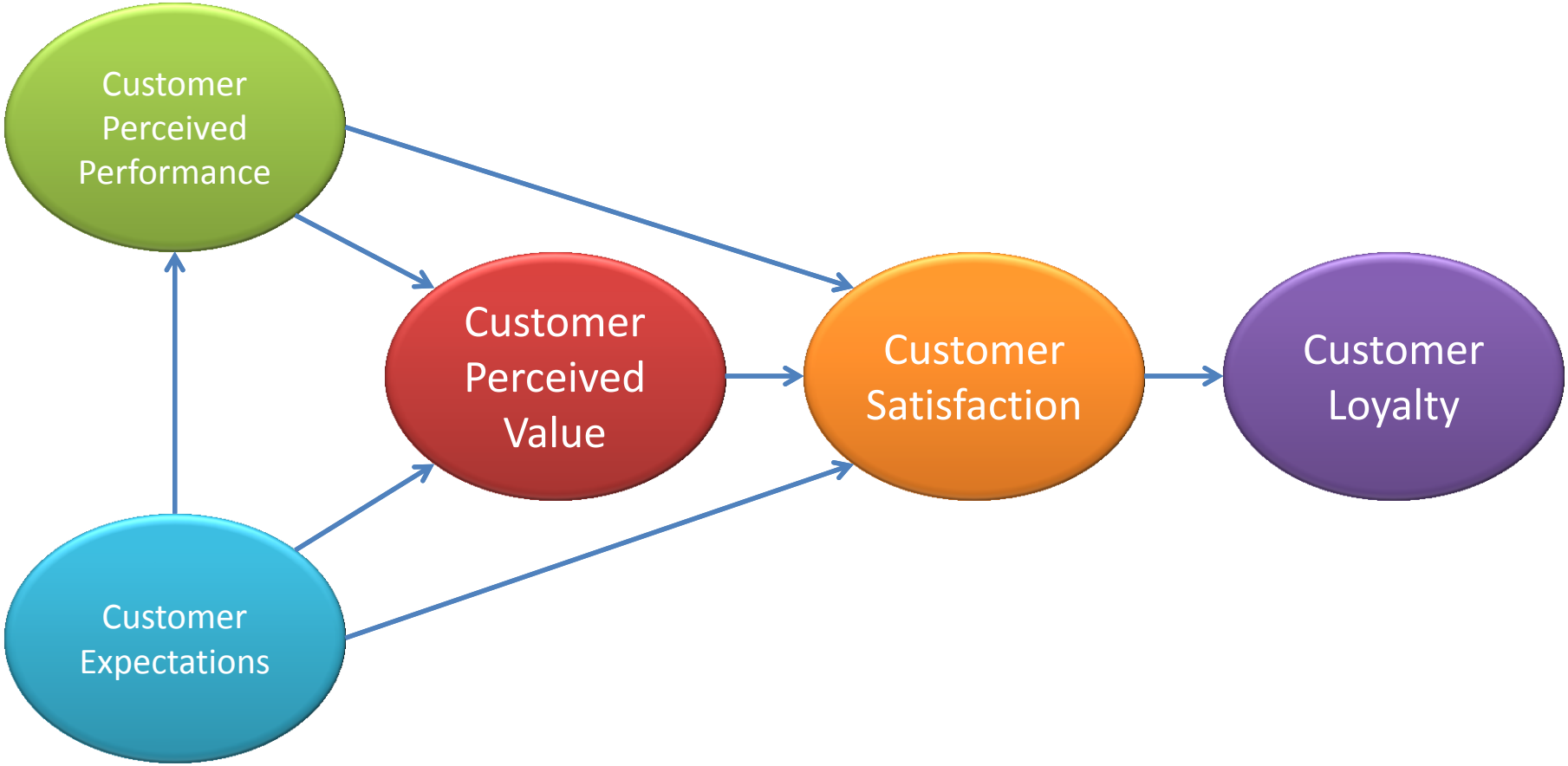
Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Loyalty

"a deeply held commitment to rebuy or repatronize a preferred product or service in the future despite situational influences and marketing efforts having the potential to cause switching behavior."

Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

Customer Perceived Value, Customer Satisfaction, and Loyalty



Source: Philip Kotler & Kevin Lane Keller, Marketing Management, 14th ed., Pearson, 2012

CEO CIO CFO

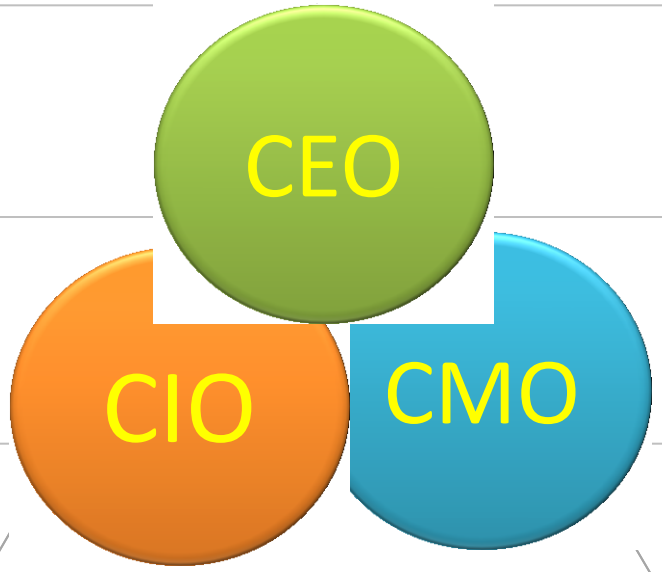
Source: http://www.r3now.com/what-is-the-proper-relationship-for-the-cio-ceo-and-cfo/

CEO CIO CMO

Adapted from: http://www.r3now.com/what-is-the-proper-relationship-for-the-cio-ceo-and-cfo/

CEO CIO CMO

Strategy	Vision
	Mission
Tactics	Goals
Operations	Objectives
	Tasks

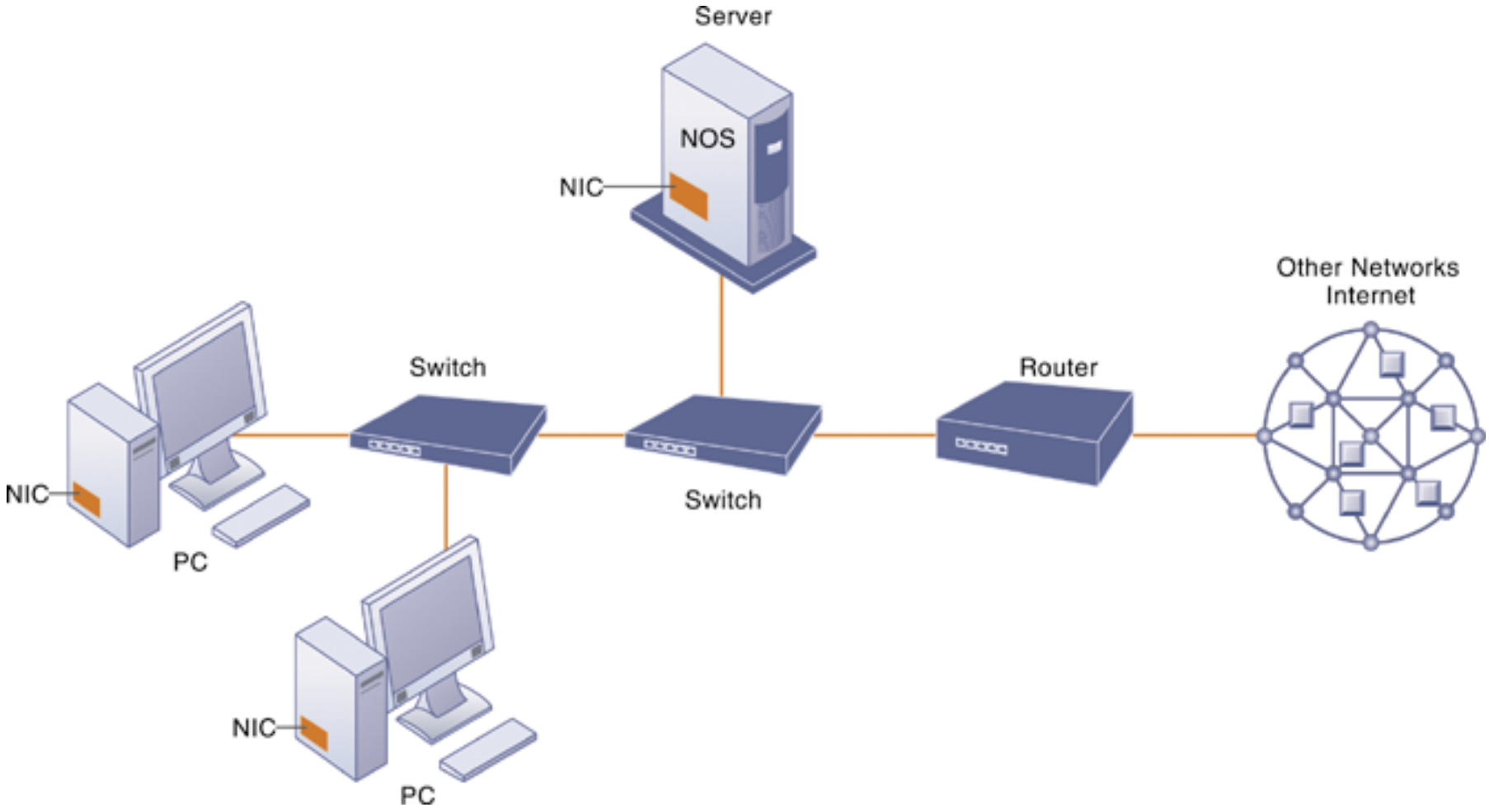


Adapted from: http://www.argowiki.com/index.php?title=The_Relationship_Between_the_CEO_and_CIO

Nothing
is
so practical
as a
good theory

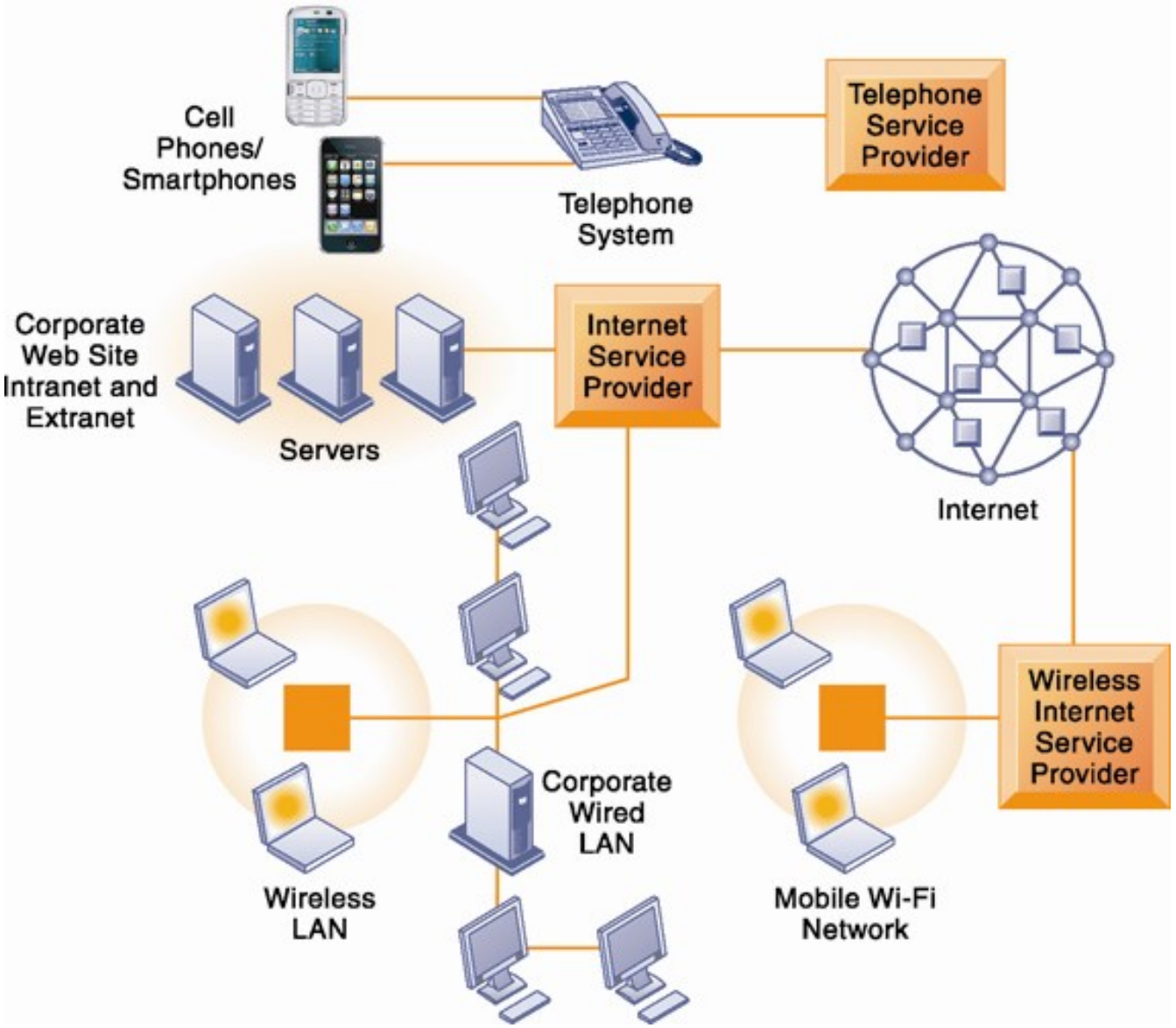
Source: Backer & Saren (2009), Marketing Theory: A Student Text, 2nd Edition, Sage

Components of a Simple Computer Network



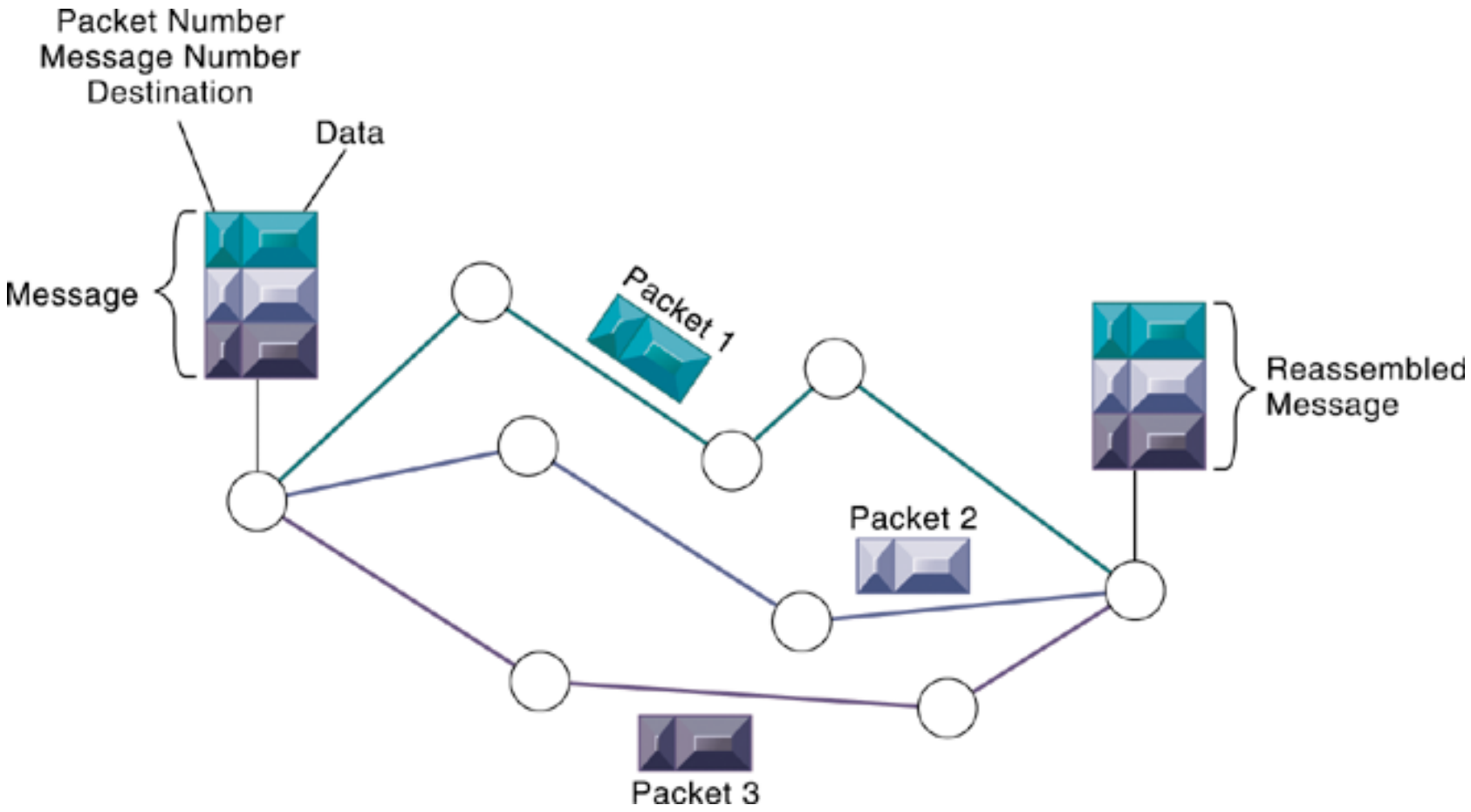
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Corporate Network Infrastructure



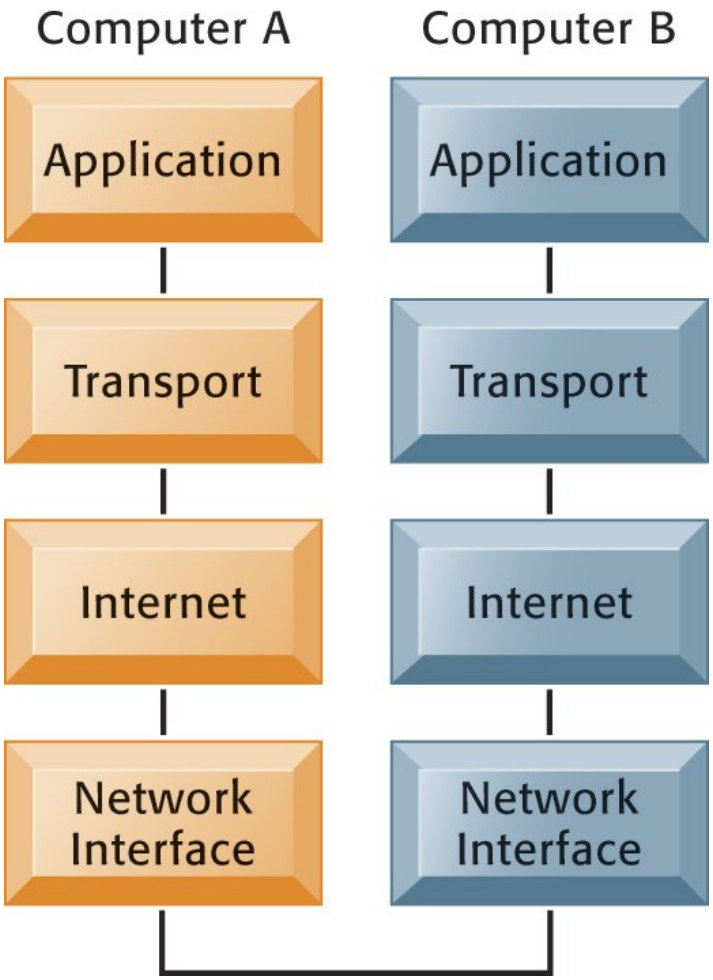
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Packet-Switched Networks and Packet Communications



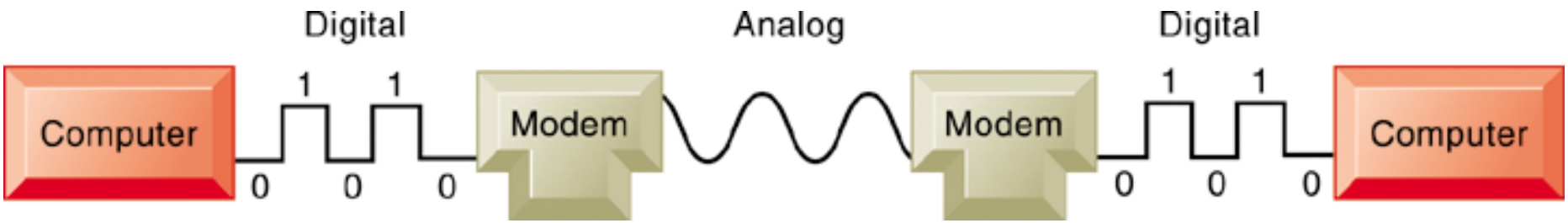
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

The Transmission Control Protocol/Internet Protocol (TCP/IP) Reference Model



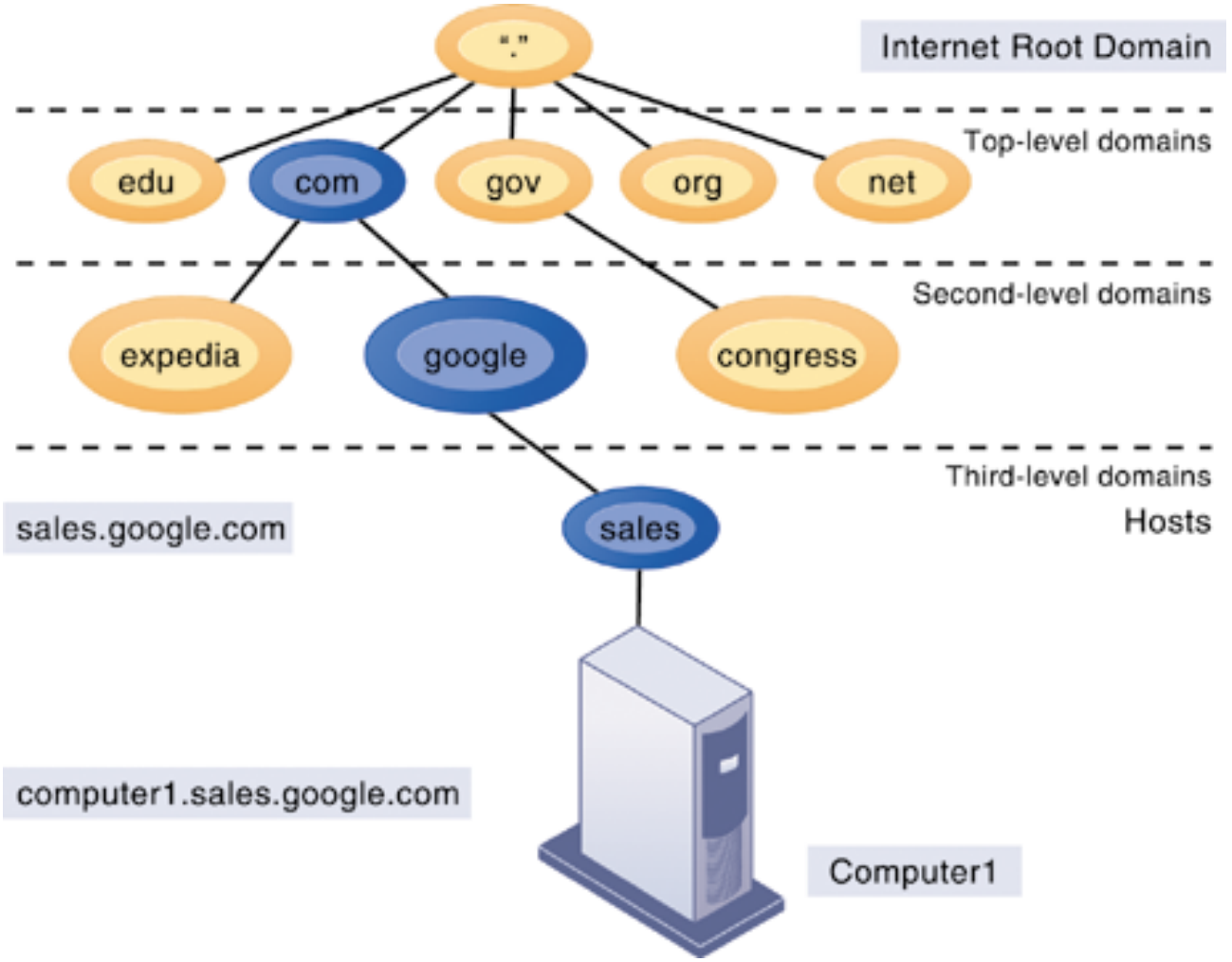
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Functions of the Modem



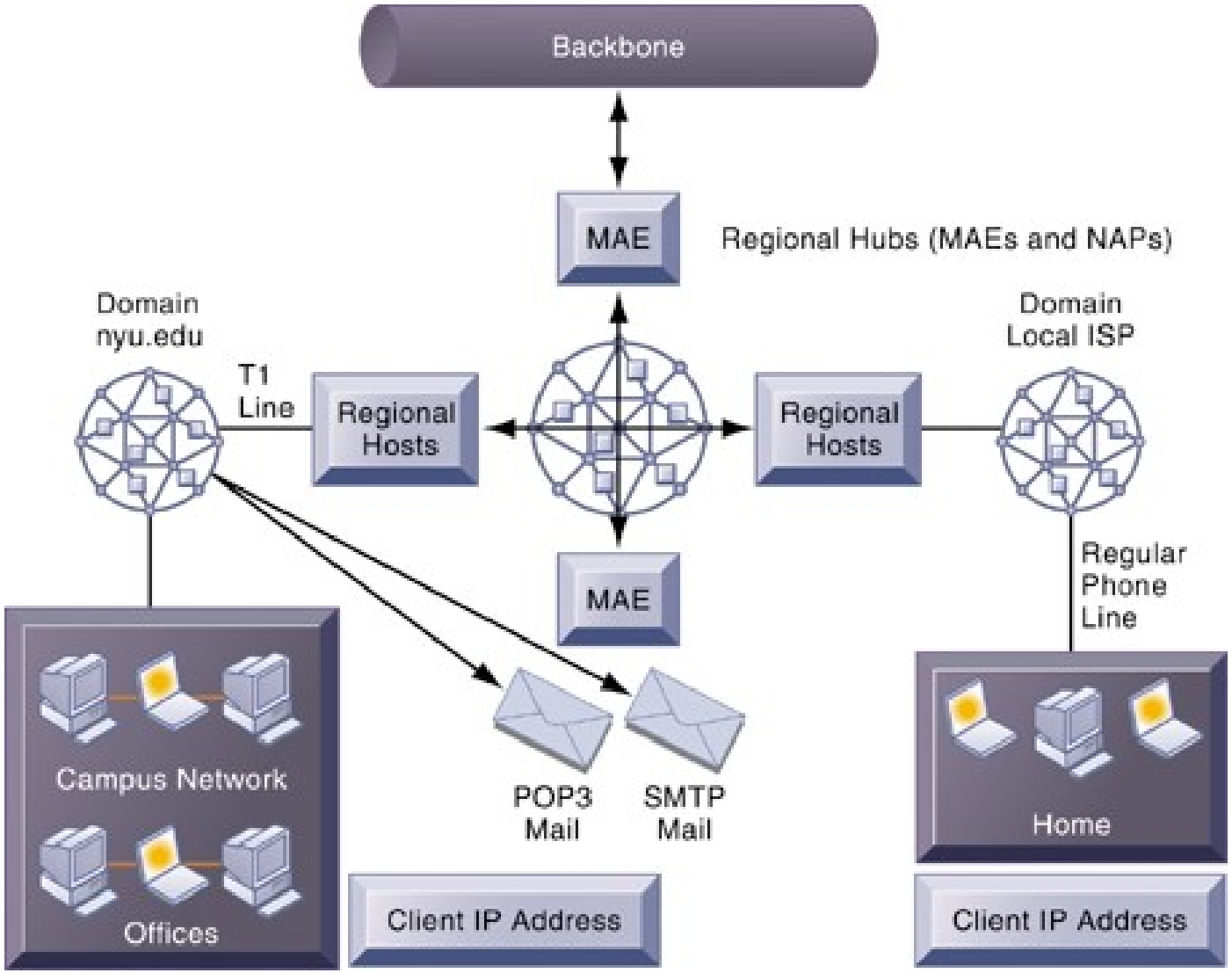
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

The Domain Name System



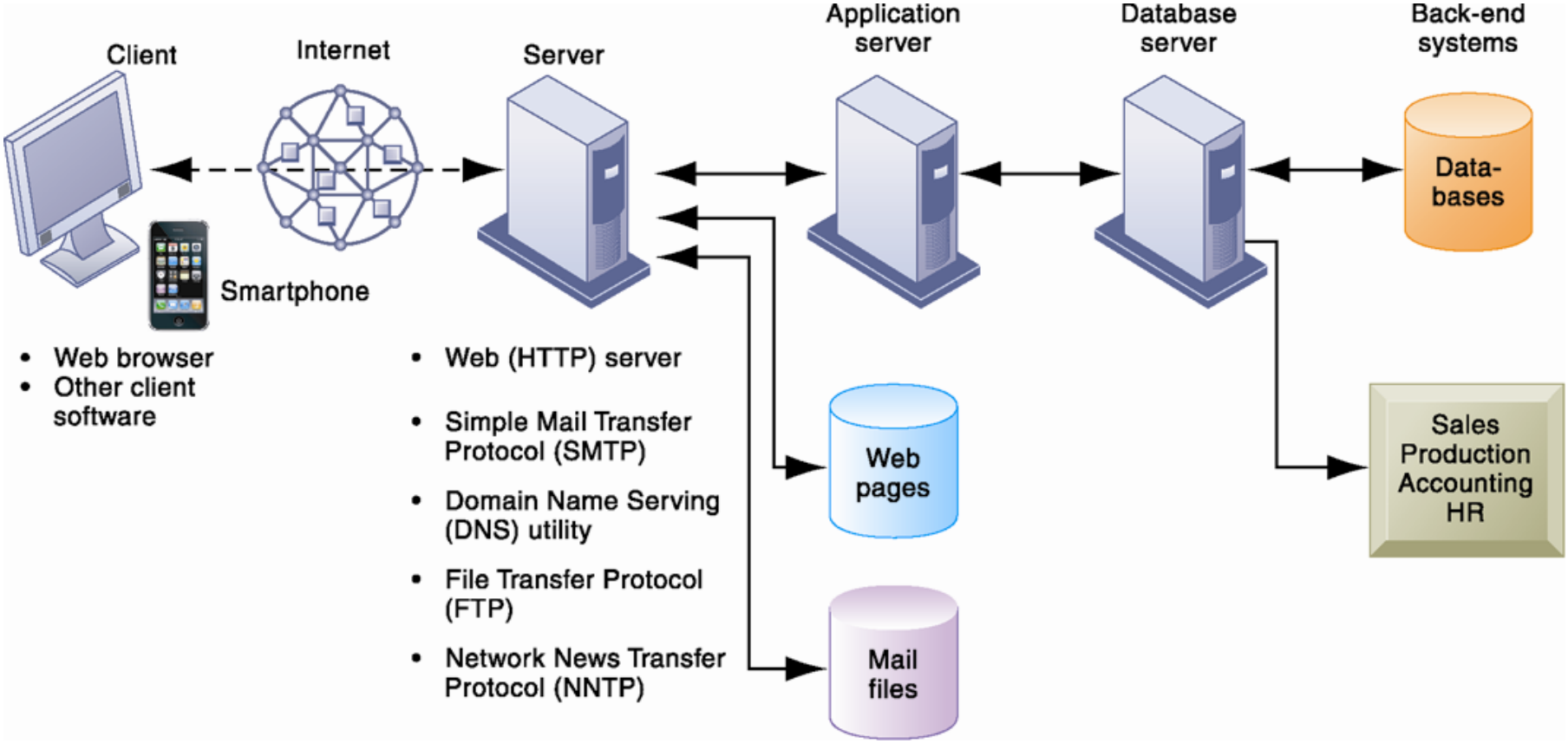
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Internet Network Architecture



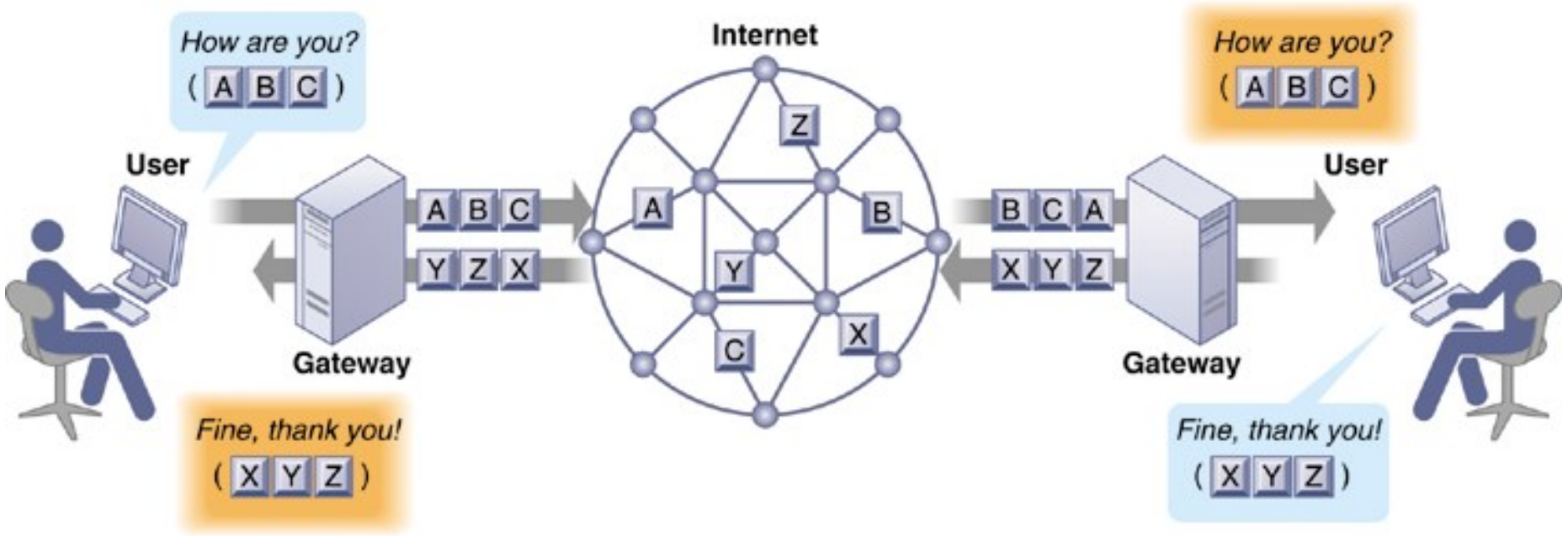
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Client/Server Computing on the Internet



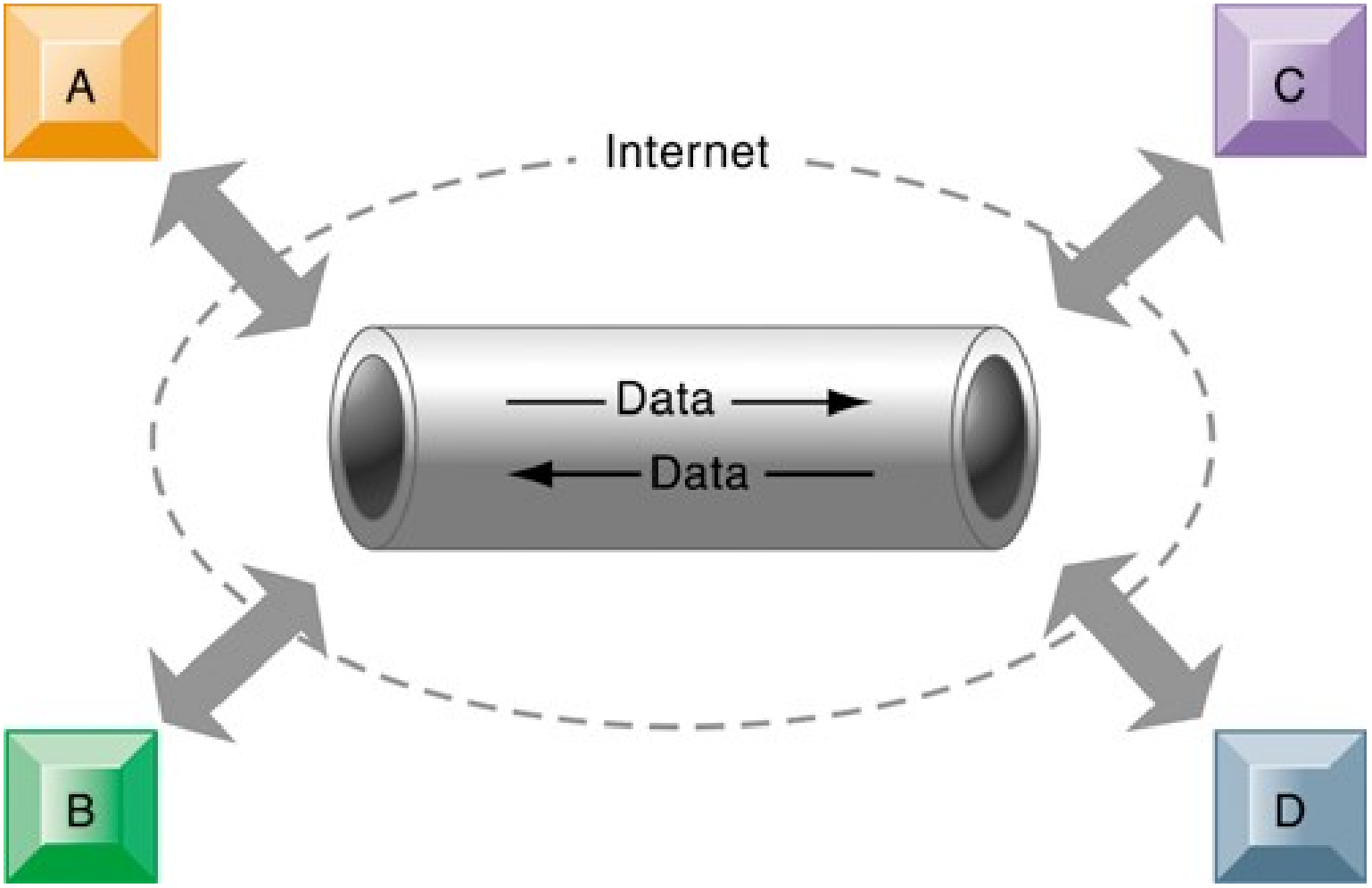
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

How Voice over IP Works



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

A Virtual Private Network Using the Internet



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

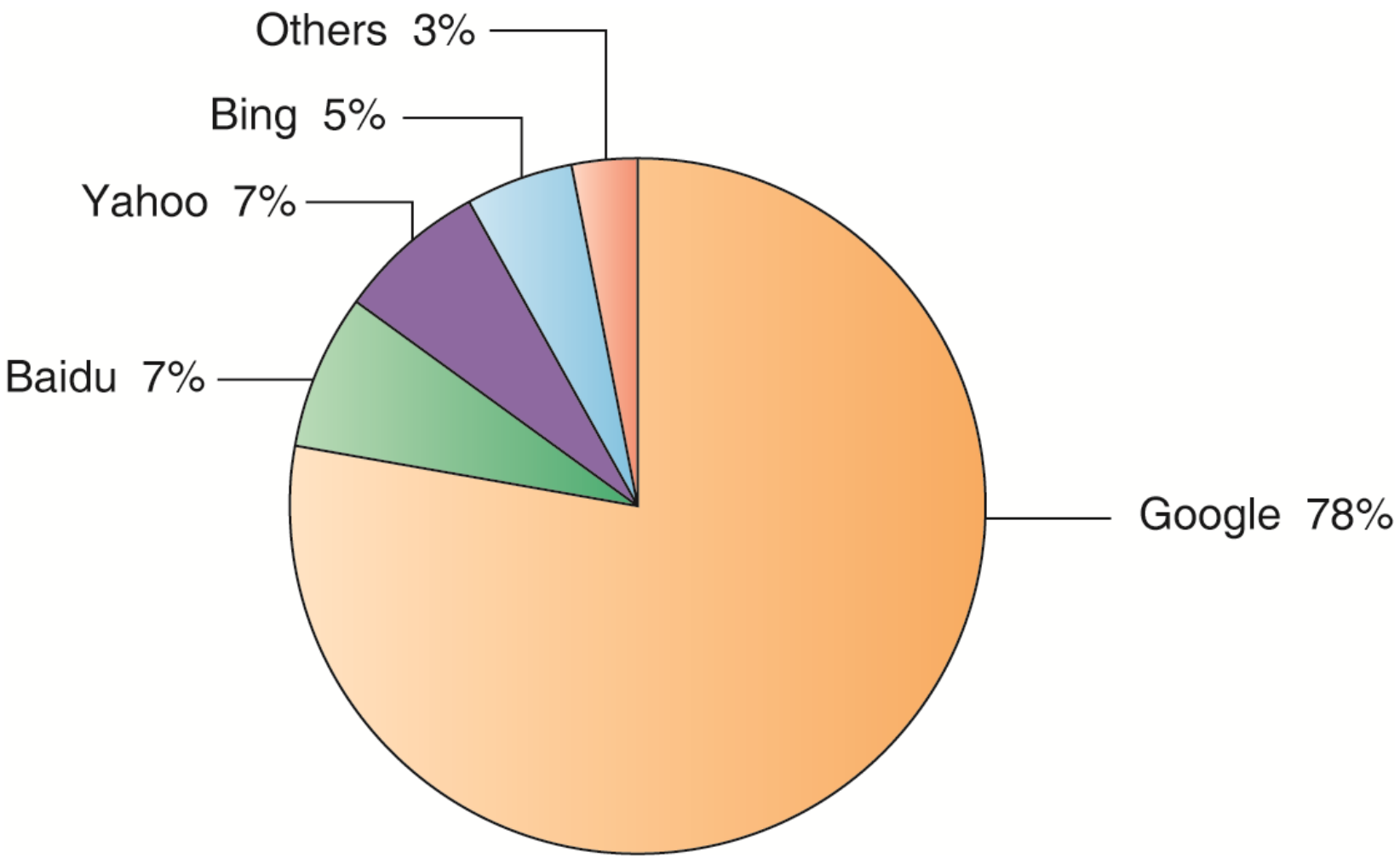
The Global Internet

- Search engines
  - Started as simpler programs using keyword indexes
  - Google improved indexing and created page ranking system
- Mobile search: 20% of all searches in 2012
- Search engine marketing
  - Major source of Internet advertising revenue
- Search engine optimization (SEO)
  - Adjusting Web site and traffic to improve rankings in search engine results

The Global Internet

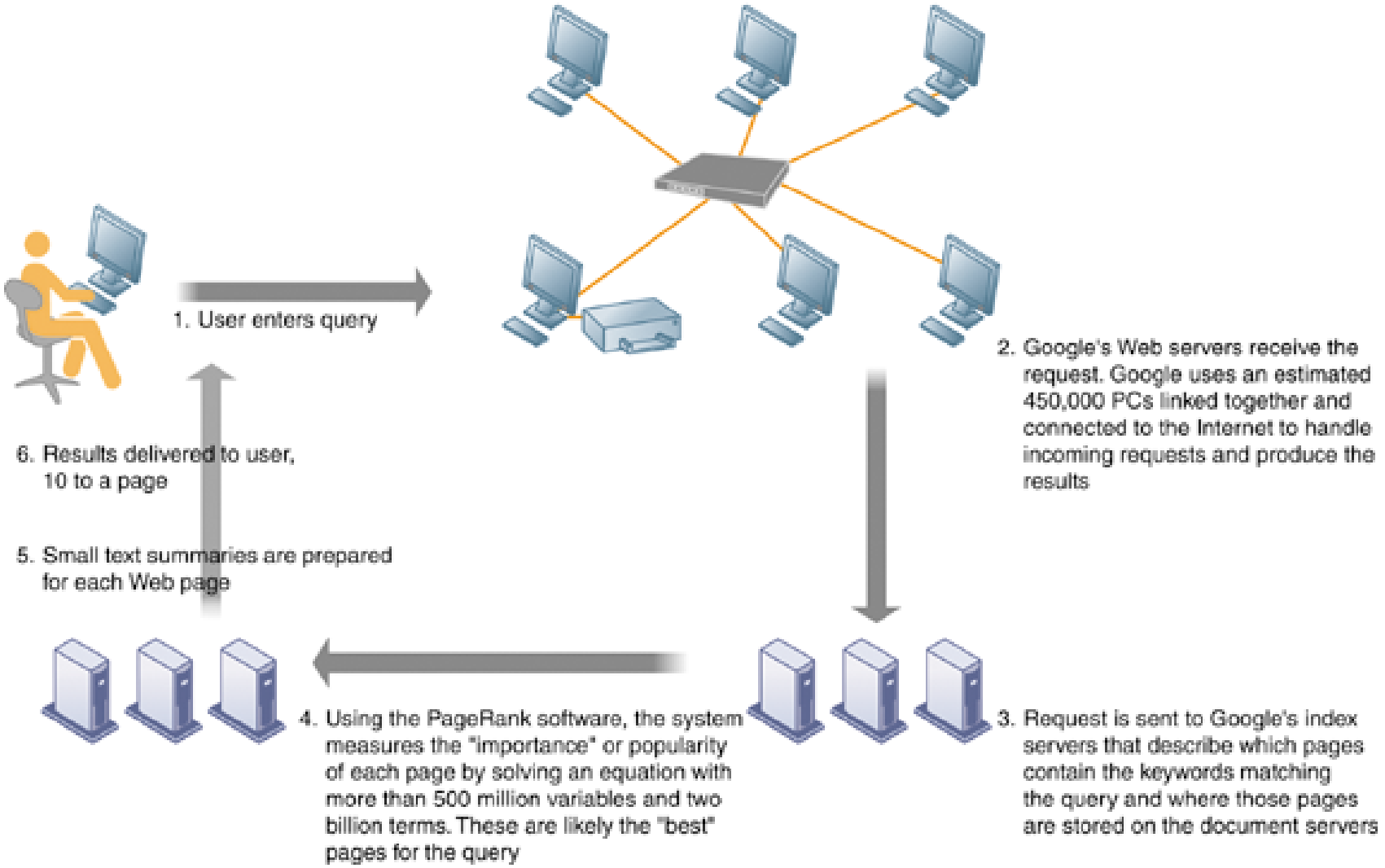
- Social search
  - Google +1, Facebook Like
- Semantic search
  - Anticipating what users are looking for rather than simply returning millions of links
- Intelligent agent shopping bots
  - Use intelligent agent software for searching Internet for shopping information

Top U.S. Web Search Engines



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

How Google Works



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Web 2.0

- Second-generation services
- Enabling collaboration, sharing information, and creating new services online
- Features
  - Interactivity
  - Real-time user control
  - Social participation (sharing)
  - User-generated content

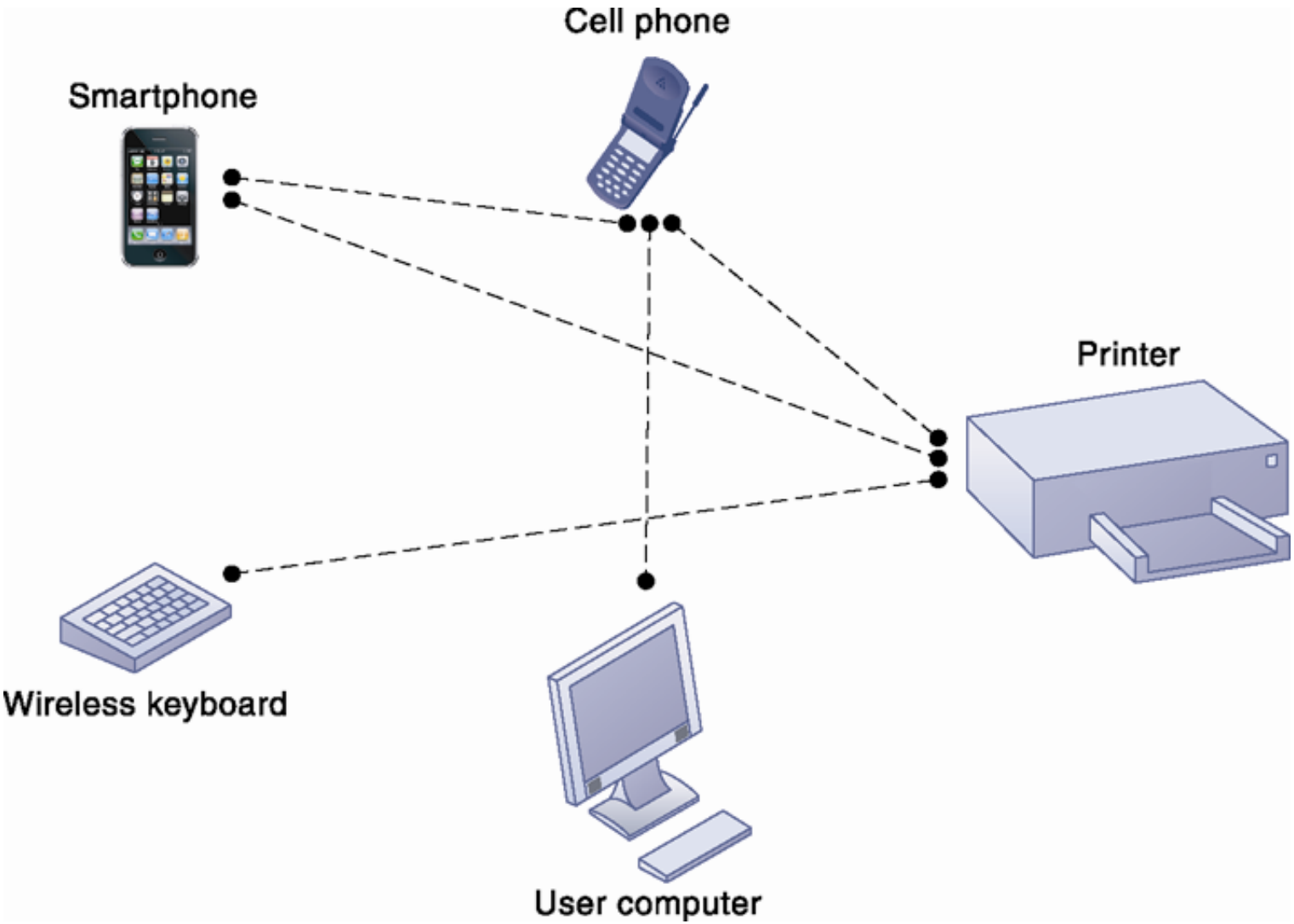
Web 2.0 services and tools

- **Blogs**: chronological, informal Web sites created by individuals
  - RSS (Really Simple Syndication): syndicates Web content so aggregator software can pull content for use in another setting or viewing later
  - Blogosphere
  - Microblogging
- **Wikis**: collaborative Web sites where visitors can add, delete, or modify content on the site
- **Social networking sites**: enable users to build communities of friends and share information

Web 3.0: The "Semantic Web"

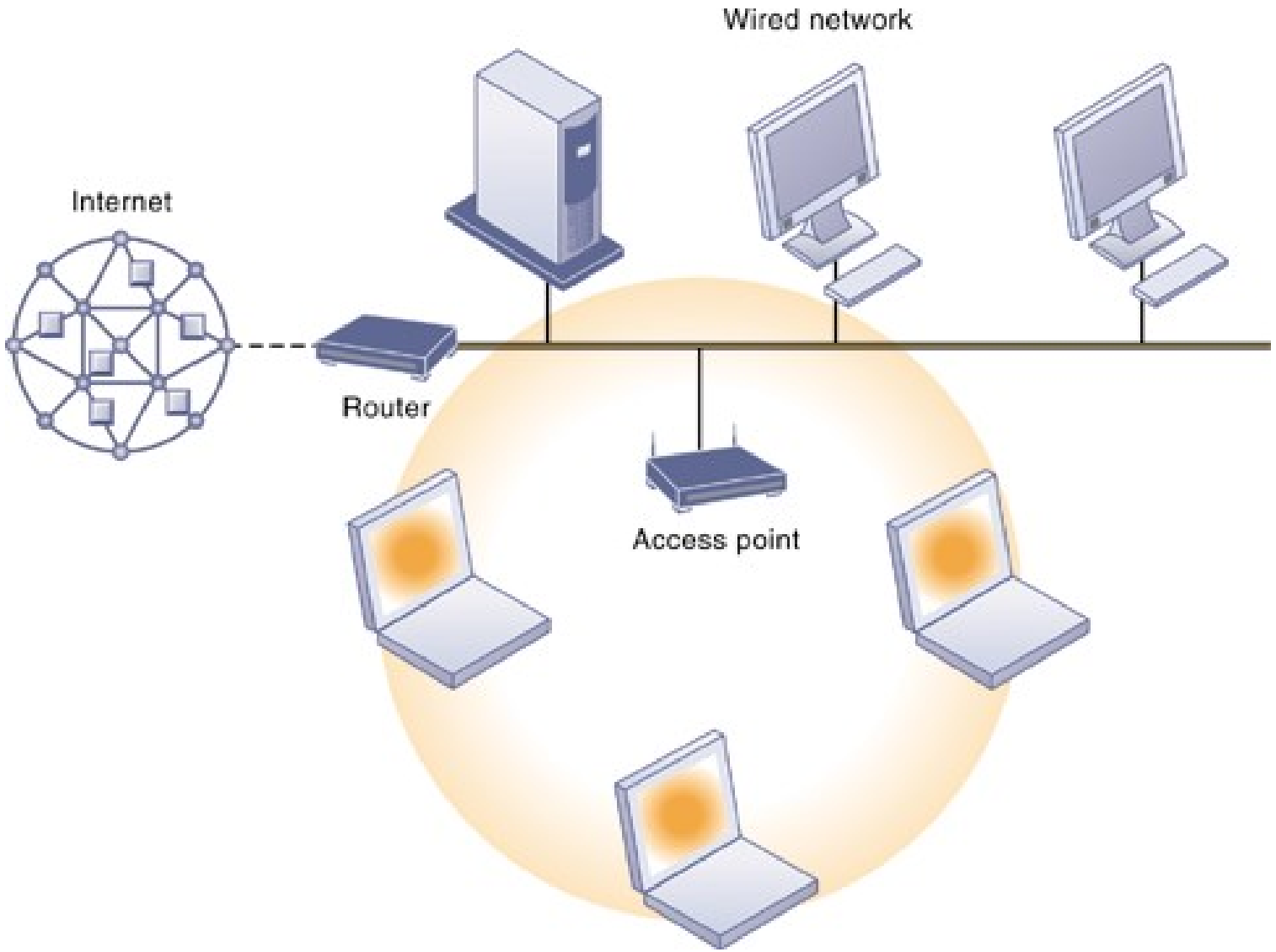
- A collaborative effort led by W3C to add layer of meaning to the existing Web
- Goal is to reduce human effort in searching for and processing information
- Making Web more "intelligent" and intuitive
- Increased communication and synchronization with computing devices, communities
- "Web of things"
- Increased cloud computing, mobile computing

A Bluetooth Network (PAN)



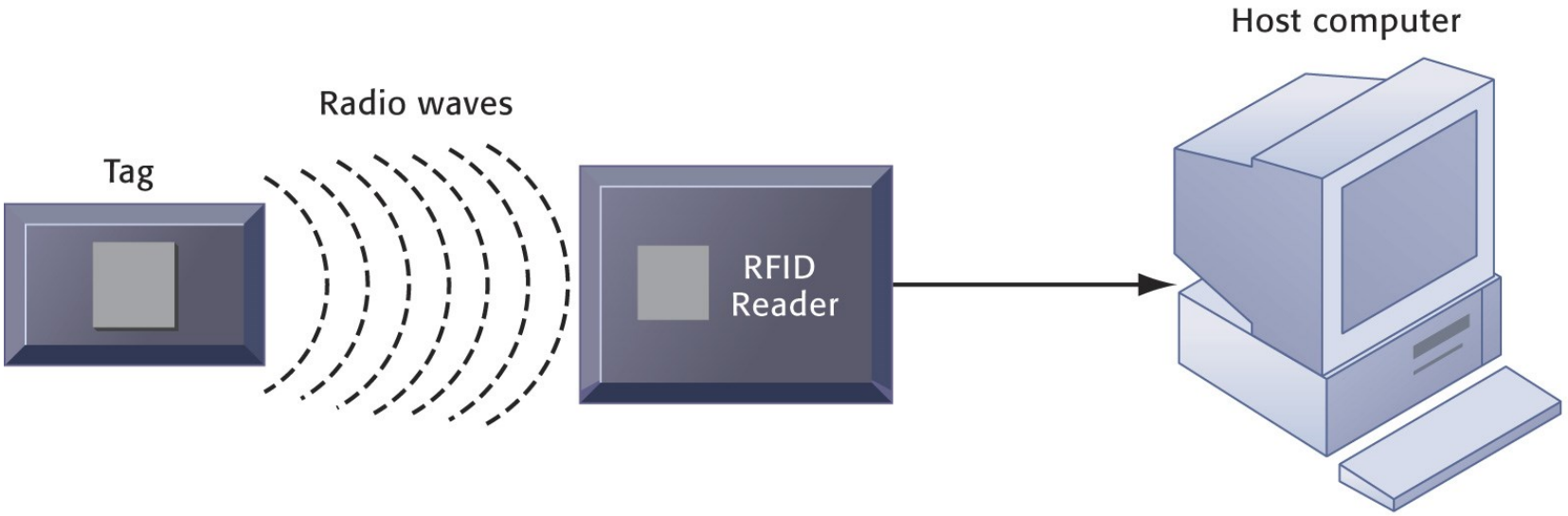
Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

An 802.11 Wireless LAN



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

How RFID Works



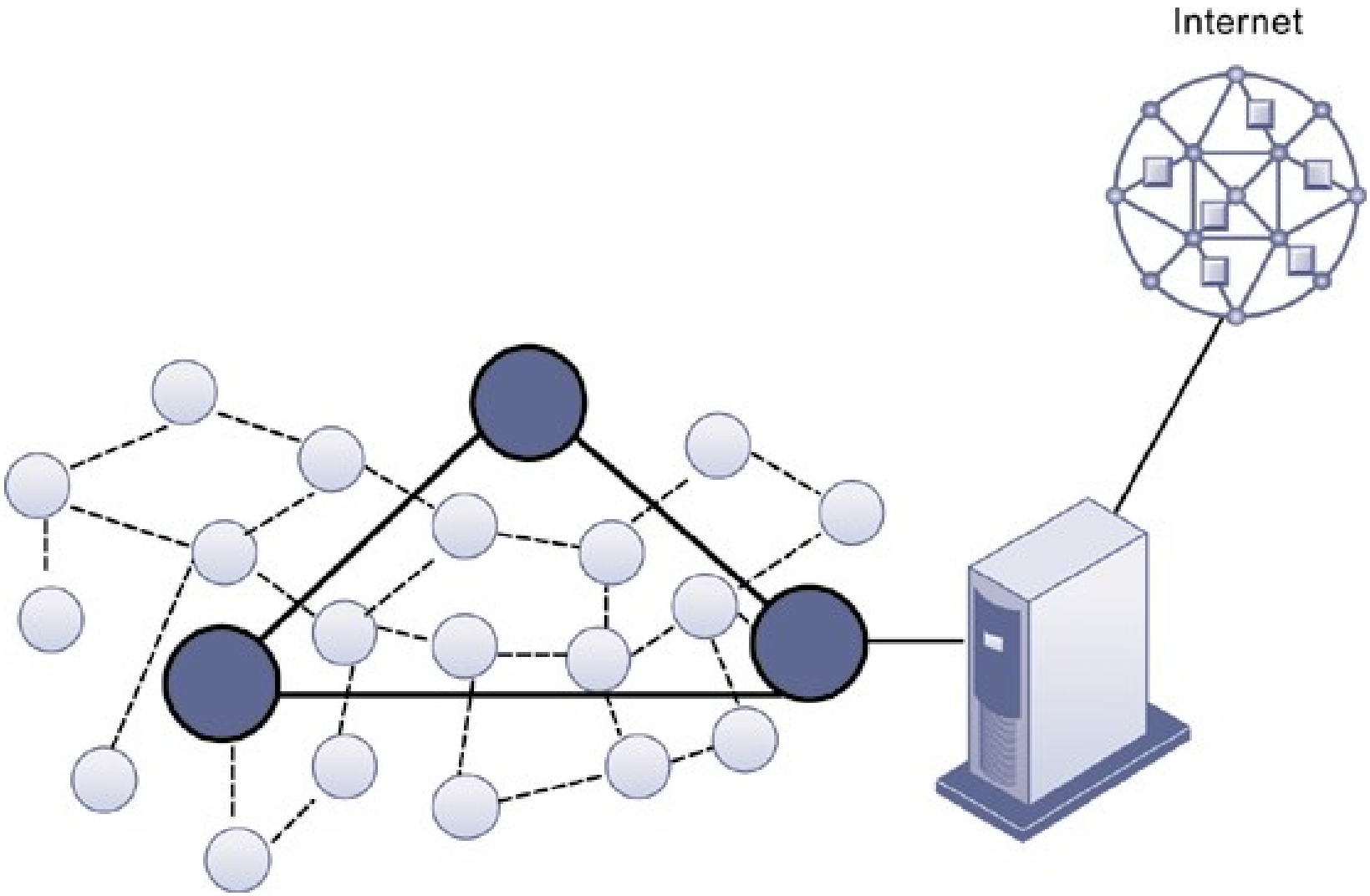
A microchip holds data including an identification number. The rest of the tag is an antenna that transmits data to a reader.

Has an antenna that constantly transmits. When it senses a tag, it wakes it up, interrogates it, and decodes the data. Then it transmits the data to a host system over wired or wireless connections.

Processes the data from the tag that have been transmitted by the reader.

Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

A Wireless Sensor Network



Source: Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.

Case Study:

Summit and SAP (Chap. 9) (pp. 396-398)

Summit Electric Lights Up with a New ERP System

1. Which business processes are the most important at Summit Electric Supply? Why?
2. What problems did Summit have with its old systems? What was the business impact of those problems?
3. How did Summit's ERP system improve operational efficiency and decision making? Give several examples.
4. Describe two ways in which Summit's customers benefit from the new ERP system.
5. Diagram Summit's old and new process for handling chargebacks.

資訊管理專題
(Hot Issues of Information Management)

1. 請同學於資訊管理專題個案討論前
   應詳細研讀個案，並思考個案研究問題。
2. 請同學於上課前複習相關資訊管理相關理論，
   以作為個案分析及擬定管理對策的依據。
3. 請同學於上課前
   先繳交資訊管理專題個案研究問題書面報告。
4. 上課時間地點：
   週四 7,8 (14:10-16:00) B709

References

- Kenneth C. Laudon & Jane P. Laudon (2014), Management Information Systems: Managing the Digital Firm, Thirteenth Edition, Pearson.
- Kenneth C. Laudon & Jane P. Laudon原著，游張松 主編，陳文生 翻譯 (2014)，資訊管理系統，第13版，滄海