

## Interactions and the Customer

### Part 3: Information Technology will enable companies to collaborate

By the Economist Intelligence Unit for Cisco

#### The Flexibility Gap

Information technology has enabled companies to deliver customized, personalized, and flexible products and services that have a unique meaning and value for each customer. Customer adoption of these products has been strong in cases such as iPod and Tivo, which users can both “read” and “write.” Indeed, consumers will settle for nothing less in the future than to shape their own personal products and services. Personalization, - by which companies allow the customer to specify the attributes of the product and to change them as they wish - will no longer describe a product characteristic. It will become a competitive differentiation strategy.

The tactic of cost reductions, while essential, will be dangerous if pursued to the exclusion of all else because it will lead to commoditization, where there is no difference between products and the only way to compete is on price. Companies will need to develop collaborative, knowledge-sharing cultures in order to deliver these highly customized services and products. The result is likely to be more innovation, higher productivity, and higher profitability for the leaders.

This is a tantalizing prospect. Unfortunately, current business models are unlikely to be able to foster the sort of collaboration needed to meet the increased consumer demand for flexibility and personalization. Today’s organizations are based on an old-fashioned, centralized model. John Chambers, CEO of Cisco Systems, characterizes today’s typical corporate organization as a single headquarters, with a workforce concentrated in one or two manufacturing facilities, and regional sales offices reporting to the headquarters. Processes, he says, are centrally established and directed. Furthermore, information is still controlled in most cases by the keepers of the central database, who dispense its contents parsimoniously.

Over the past several decades, many companies have tried to re-wire their organizations, but several important attempts have fallen short of expectations. Matrix organization structures have increased communication between the decentralized units and the central headquarters, but have not encouraged communication among the decentralized units themselves. Portals (internet or intranet-based communication hubs for companies buying and selling products to each other) are transforming the way that companies do business by allowing

#### Foresight 2020

##### Shaping the Future of Global Business

The Economist Intelligence Unit (EIU), in association with Cisco, conducted Foresight 2020, an online global survey to understand the long-term forecasts and scenarios that are critical to understanding economic issues shaping the future of global business.

More than 1600 executives, analysts, and policy makers provided their views on how their companies, and the environment in which they operate, would change over the next 15 years.

##### Top-level Results

- Increasing competitive pressures will lead companies to improve efficiencies and costs using technology to automate processes and transactions as well as employ outsourcing.
- Companies will look to create high-value interactions and customer experiences through customized products and quality customer services as points of differentiation and competitive advantage.
- As production processes and transactions become more commoditized and automated, value will lie in personal interactions made possible through technology that enables collaboration, high-value services, and knowledge workers

For more information, visit [www.cisco.com/go/foresight2020](http://www.cisco.com/go/foresight2020)

processes to operate horizontally as well as vertically. Wal-Mart's suppliers can see its stock positions within 30 minutes after items have been received because the company transmits radio frequency identification (RFID) data to its web portal, and CVS/Pharmacy allows its suppliers to view sales information through a portal. But this horizontal trend began to slow after some of the relevant software providers either went bankrupt or were acquired. And concerns about privacy and data security have limited the sharing of information.

Respondents to the global survey of 1,656 executives, conducted at the end of 2005 by the Economist Intelligence Unit, say that emerging approaches, which are horizontal, organic, and decentralized, will help firms to compete in the future. Organizations that adopt these approaches typically have headquarters in more than one location, workforces in clusters around the world, and manufacturing facilities and partner facilities in multiple countries. They have virtual sales offices and customer service centers dispersed around time zones for coverage all day, every day. These changes should improve customer service, and fertilize new product development.

Flattening the organization is likely to increase agility and responsiveness: 53% of respondents say that more efficient organizational structures are the most significant barrier to improved relationships with customers and suppliers. In addition, 52% agree that improved quality of communication is the most significant barrier, and this should also benefit from a flatter organization, assuming there is a sound direction from the company's leaders.

Distributed data architecture is likely to provide quicker access to relevant information, improving the quality and accuracy of customer service. Forty-nine percent of respondents said that "improved integration of data/technologies is the most significant barrier to improved relationships with customers, suppliers, and other external parties." Self-directed teams generate an increased number of new ideas. Assuming an unchanged "hit rate," there will be a greater chance of big ideas emerging.

## The Productivity Benefits of Collaboration

The flattening and democratization decision making is likely to lead to sizeable increases in productivity.

Decentralized organizational structures increase knowledge sharing, and thereby accelerate innovation. Blyth, a consumer home-goods distributor, has 18 businesses around the world. It shares ideas every day to help it continuously innovate. "No other company can put that much brainpower together to determine what its customers are looking for," according to Bruce Crain, President of the Wholesale division. The firm videoconferences its design people around the world and has a global design forum in search of innovation. "We're trying to connect the dots where other people don't even see the dots," says Crain. And the number of dots has grown in the past 20 years, making the need for coordination much greater.

Organic cultures lead to more, bigger ideas, and hence a more powerful engine with which to generate new products. Whether "heavyweight" new product development teams are used (as with Motorola's early pagers) or lightweight "skunk works" are preferred, cultures that recognize the need for new product development yield more consistent innovation. Organic cultures should extend to the supplier relationship as well. Today, several generations after the early pagers, e-procurement software provider Emptoris focuses on linking its clients' internal procurement teams to their outsourced design teams in order to shorten the time to market and to allow the suppliers to be more innovative.

Decentralized information ownership improves customer service and increases consumer choice. Examples of networked users include most RFID applications such as contactless payment (e.g., EZ Pass and Mobil's SpeedPass), as well as employees working from home, TV and video on-demand, iTunes, and online banking.

The sequence of application development and process redesign is important. According to a recent study conducted by Momentum Research Group and sponsored by Cisco, organizations that re-engineered processes before deploying applications realized cost savings of 20% to 30% over 12 months, while those that re-engineered after application deployment achieved half of those savings.

The benefits of a networked world therefore include accelerated innovation, more consistent introductions of new products, improved customer service, and increased consumer choice. But how large will those benefits be? The improvements may possibly be exponential rather than incremental.

## Information Technology Will Play a Critical Role

Information Technology (IT) is the cornerstone of these new approaches. "Data, networks, and custom applications [offer] the ability to provide a range of experiences, through a range of channels, and let customers choose...the right channel/experience combination," according to Rob Lloyd, Senior Vice President of Cisco's U.S. and Canada Field Operations. Moreover, IT is the most efficient way of catalyzing collaboration, which spurs innovation, which leads to competitive advantage and enhanced profitability. This explains why 64% of respondents to the Economist Intelligence Unit study say they will use IT to enhance the performance of communication and knowledge skills by 2020. Here are some examples:

- Telecom Service Centers, a UK company that operates customer contact centers, handled third generation handsets and video streaming on mobile technology, long before the majority of its customers were enabled with those technologies. And it juggles e-mail, web chat, web support services, and text information across multiple time zones to keep its people consistently productive.
- McDonalds, Burger King, and Pepsi all recently offered promotions with downloads, and even the chance to interact with pop musicians (in the case of PepsiMax Downloaded), as prize giveaways.
- McDonalds Japan is planning to e-market appealing branding messages about QSC (quick service convenience) to its young target audience, particularly via mobile phones.
- Jabil Circuit uses portals to tighten the communication loop between customers and suppliers. Courtney Ryan, SVP, Global Supply Chain, explains that "technology will enable Jabil to collaborate more effectively with its suppliers and [thereby] to react to change faster."
- Desktop software productivity tools include configurability, customization, and teamwork options, all of which have dramatically increased personal and team productivity.
- RFID is increasing the productivity of companies' supply chains. In a recent study by the University of Arkansas, RFID helped Wal-Mart reduce the amount of out-of-stock items by 16%.

## Major Upgrades Needed

However, many of today's enterprises don't see IT as an integral part of the business process. Capturing, storing, and retrieving data will be essential to the development of innovative and personalized solutions demanded by the "read-write" generation. Yet IT is still treated as a function unto itself instead of a core business process. "The fundamental transformation that needs to occur is not about WANs, LANs, or anything technical. Organizations need to cultivate leadership that will embed network thinking into the fabric of the enterprise and its processes," says Mark Peshoff, senior director of Cisco's Executive Thought Leadership group, commenting on the leadership challenge facing CIOs that became apparent through a recent Economist Intelligence Unit (EIU) study called "Foresight 2020."

On a more tactical level, however, existing systems infrastructure is inadequate and will need to be upgraded in order to achieve the productivity benefit. Most companies' information systems need to be substantially upgraded to handle more sophisticated applications, with more capacity and connectivity.

- They are focused on data handling more than knowledge management (the ways [organizations](#) gather, manage, and use the [knowledge](#) that they acquire). For example, most systems lack voice, data, and image integration. Some 42% of survey respondents say knowledge management will be among the top three areas of focus for IT investment, and that knowledge management will nearly double in importance over the next 15 years.
- They face capacity and bandwidth constraints. For example, storage and transmission capacity is limited (most e-mail software packages are overtaxed today). In addition, inadequate broadband internet access restricts the ability to obtain corporate data in remote locations. Forty-four percent of respondents say that general IT infrastructure (computing performance, PCs/devices, etc.) will be among the top three areas of focus for IT investment.
- They operate with limited connectivity to partner organizations. Thirty-five percent of companies in the survey say they lack high-quality data about external parties, and 32% respond that differing IT standards between their organization and external organizations will be their most significant barrier to improved relationships with customers and suppliers. Even if they were to be linked, data security is an impediment. Forty-two percent agree that data security and protection concerns over sharing information externally will hold them back from richer collaboration with their external partners.

## Recommended Actions

The power of IT is so great that it is helping emerging markets to leapfrog mature economies, according to Paul Mountford, senior vice president, emerging markets. So IT managers in developed and developing economies need to confront the opportunities and the threats. IT directors should take action now in order to assure that their company's infrastructure will support the competitive requirements of the future.

Recommended actions include:

- Ensure universal access within the organization to basic infrastructure services such as wireless broadband internet.

- Develop an IT strategy that helps customer-facing personnel reach out to the customer in a unique and value-added way every time.
- Integrate disparate systems (ERP, best-of-breed solutions, etc.) to provide a unified view of individual customers to customer-facing personnel in support of the IT strategy.
- Capture customer-specific data and share it within the organization (e.g., RFID to capture it, data security to protect it, middleware to analyze it, and PDAs to read it).
- Build a multi-media capability to share voice, image, and data both inside and outside the enterprise.

In order to successfully compete on personalizing products and services, leaders will need to align processes, organization, and systems, and facilitate a horizontal flow of information and ideas extending from the customer to the supplier. The decentralized, service-driven, and customer-centric company of the future will require a new, networked, information architecture – one that could fundamentally change the way the company organizes and processes work.

**Corporate Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA

www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

**European Headquarters**

Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands

www-europe.cisco.com  
Tel: 31 0 20 357 1000  
Fax: 31 0 20 357 1100

**Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA

www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

**Asia Pacific Headquarters**

Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912

www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on **the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).**

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2005 Cisco Systems, Inc. All rights reserved. CCIP, CCSP, the Cisco *Powered* Network mark, Cisco Unity, Follow Me Browsing, FormShare, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, the Cisco IOS logo, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherSwitch, Fast Step, GigaStack, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, MICA, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, RateMUX, Registrar, ScriptShare, SlideCast, SMARTnet, StrataView Plus, Stratm, SwitchProbe, TeleRouter, The Fastest Way to Increase Your Internet Quotient, TransPath, and VCO are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0501R) XXXXXX\_ETMG\_XX\_1.05