5 Technology Strategies for Enabling Business Outcomes

Networked connections are increasing at a breathtaking pace, bringing together information from previously unconnected sources and promising expanded business capabilities, richer user experiences and unprecedented economic opportunity. But IT organizations are challenged to develop a new IT model that takes advantage of this emerging technology environment to enable more valuable insights and better decision-making.

Over the next decade, the network of physical objects accessed through the Internet, generally described as the "Internet of Things," will bring billions of data-generating devices online from places such as manufacturing floors, energy grids, healthcare facilities and even the shelves of retail outlets. The full potential of this transformation, though, must go further, connecting this vast new stream of data with people, processes, and traditional data sources in what Cisco has described as the "Internet of Everything."

"We believe we're moving from about 10 billion Internet connected devices today to about 50 billion in 2020," says Martin McPhee, senior vice president, Cisco Consulting Services. "We have projected the economic value of this transformation at $19 trillion. But to unlock that potential, organizations need to recognize that fully 60 percent of the value at stake will come from novel ways in which they connect their own people and processes to the data and things."

Capturing the value of the IT infrastructure and the rapidly evolving Internet of Everything hinges on five key technology trends that are helping businesses drive outcomes in new ways: cloud, mobile, social collaboration, distributed data and security. These new capabilities are enabling CIOs to draw the most value from existing assets and develop strategies for a services-oriented IT model — called Fast IT by Cisco — that reduces complexity, increases service velocity and does so with high security.

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You're trying to find a solution that allows you to invest in new technology trends such as cloud, mobility, data, security and social. But many CIOs are also tasked to cut overall costs.

How to rationalize those seemingly opposite mandates? The answer lies in simplifying and streamlining network resources. With comprehensive network analytics, automation and managed services, organizations may be able to realize 20 percent annual cost savings that they can instead invest in business innovation and performance. Those dollars can fund the innovations needed to realize the promise of the "Internet of Everything."

1 "Services Provider Builds New Cloud Infrastructure for SMBs," Cisco Customer Case Study, 2013
Read the Case Study
http://www.cisco.com/c/dam/en/us/solutions/collateral/switches/catalyst-6500-series-switches/cbeyond_external_casestudy_fnl_09_07_13.pdf

Streamlined, innovative services in the cloud

The Internet of Everything is already creating transformational opportunities. With more and more people and objects connected to the Internet, the ability to realize the enormous potential of growing volumes of useful data is prompting businesses to shift processes to the cloud. That provides the scale and flexibility to adapt to changing opportunities.

The executive team at CBeyond, a managed services provider founded in 1999, recognized that the technology landscape was shifting under its feet. It had found success delivering networking and communications services utilizing VoIP technology, but realized that the technology was becoming commoditized and the market oversaturated with competitors.

"When I talk to most businesses now, it's a foregone conclusion they're going to the cloud," says Chris Gatch, CBeyond executive vice president and chief technology officer. "What they're still struggling with is which technology investments to move to the cloud first, and how to manage the transition process of getting that workload to the cloud and not disrupt the business in the process."

CBeyond determined it could differentiate itself by creating an end-to-end cloud service to bring a high-quality portfolio of network services to its customers. It turned to Cisco for a complete stack that merges its network with cloud capabilities in a repeatable, scalable architecture that can be used in current and future data centers.[1]

The cloud enables a new architectural approach that is focused on business-level outcomes, rather than investments in infrastructure. Consider this: In its latest State of the CIO report, which surveyed some 700 business decision makers and IT leaders around the world, CIO Magazine found that more than one-half of those polled believe the future, more business-oriented CIO role will likely be focused primarily on managing contractors, cloud and other IT service providers.

The secure, mobile workforce

It's estimated that the average worker today uses two or more devices, often including a smartphone or tablet, or both. Organizations seeking to take advantage of market opportunities and ward off competitors are increasingly trying to ensure their mobile workers have access to key information at any time, from anywhere, using any device.

But as these organizations seek to enhance employee productivity and engagement by enabling a mobile work style that their employees prefer, they're also nervous about managing increased connectivity demands and heightened security concerns.

Best Buy, the world's largest consumer electronics retailer, faced such a dilemma. More and more demo mobile devices were landing in the hands of company executives and popping up in Best Buy's network environment. Not wanting to impede productivity by banning the devices, Best Buy decided to get ahead of the curve by launching a "bring your own device" (BYOD) initiative. The company worked with Cisco to validate its BYOD initiative, while creating the IT strategy for expanding mobility initiatives and strengthening the security of the mobile network with role-based access controls.

As Best Buy learned, it's critical to identify the objectives, business requirements, and use cases when formulating a secure, mobile workforce strategy. Organizations need to understand their users, create an end-to-end strategy, and forge a unified approach for security and policy control. They also need a plan to evolve the network for the next wave of application requirements.

Bryan Palma, senior vice president and general manager of Cisco Security Solutions, says the Internet of Everything will accelerate a transition from the traditional perimeter-based security model to managed security services designed to bolster enterprise's threat management capabilities.

"I think customers want to transfer more risk," Palma says. "They want someone else to handle some of the security in different parts of their ecosystem, and they're willing to pay for that risk transfer. This notion of 'insurance risk transfer' will become more and more important."

With the right vision and strategy, organizations can improve employee productivity and business efficiency, confident in the knowledge that the network is secure and strong enough to support the steadily growing variety of mobile devices. The same applies to engaging with and providing access to customers, many of whom are now connecting via mobile devices, often utilizing social media for new ways of interfacing with the business.

Forging one-to-one connections with customers

The ability to personalize the customer experience and foster interaction with the business has a major impact on investments in cloud and mobile technology, both of which make it easier to engage with those customers. But social media is only one part of the story.

Creating a tailored experience for customers entails addressing all of their collaborative needs, such as being available to them via video and voice across any device they use. Social media empowers organizations to identify and address customer needs; video allows them to personalize the experience, while innovative collaboration tools enable communication through next-generation platforms.

Over the past two years, Cisco has deployed several Social Media Listening Centers that have the ability to track and visualize real-time information about conversations in the so-called "social Web." These centers are able to spot action-based dialog, such as a question, a support issue, or a developing crisis. As a result, an organization can more rapidly determine the need for updating customers in general, or engaging a person or team to respond directly to a customer.

Combining the Listening Center with an advanced contact center management platform empowers an organization to smoothly integrate inbound and outbound voice applications with Internet applications, including real-time chat, Web collaboration, email and social media.

Making fuller use of data

Social, mobile and cloud technologies are contributing to the exponential growth in the volume of digital data. While that data is indispensible, not all of it will be relevant to achieving business objectives. The organizational challenge is how to gain access and insight into the data that is relevant and ensure that it's acted upon.

A global wealth management company, for example, wanted to maximize the potential of its up-sell and cross-sell campaigns, which in that industry can account for 50 percent of revenue. It needed to be able to access real-time data from the cloud and combine it with internal systems, eliminating the need for continuous batch loads. Utilizing agile data integration software from Cisco, the company was able to create a virtual marketing campaign that leveraged the relationship management aspects of Salesforce.com with a federation of cloud-based data and internal systems of record. The result was increased revenue and a fivefold gain in productivity with real-time access to data, compared to batch methods.

In today's world, organizations must manage huge volumes of structured and unstructured data from multiple sources. Integrating that data with the customer experience ensures that organizations can serve their customers better and with less effort. Of course, they need to do this in a highly secure manner.

Ensuring secure and dynamic connections

Mobility, social collaboration, cloud and data all contribute to a growing threat profile. "The Internet of Everything is creating a new set of requirements for globally distributed and

Fast IT: The Operating Model for the IoE Era

In this period of acute transformation, IT organizations must transform on a fundamental level to ensure their companies are among the winners in the shift to the Internet of Everything (IoE).

The traditional IT role of simply "keeping the lights on" — ensuring system uptime and maintaining existing infrastructure — is no longer viable. Today, IT must execute a step change in both operating efficiency (costs) and business enablement (agility). And the IT organization itself must become both a source and an enabler of disruptive innovation, pivoting with the company as business models change on the fly, and responding to a dynamic world of increased complexity and new wellsprings of value. This is Fast IT.

Fast IT is the IT operating model for the IoE era. It's what the CIO needs to do to drive business transformation. It's an approach to IT that reduces overall complexity, increases service velocity and does so with high security. Fast IT transforms and simplifies IT operations, making them more intelligent and secure (see Figure 1). In addition, Fast IT provides a unifying framework that integrates today's major technology transitions — cloud, mobility, social collaboration, distributed data/analytics and security — to enable IoE. Crucially, it melds this capability with the organizational changes needed to meet the accelerating demands of the lines of business — that is, sales, marketing, HR, finance, R&D, and so forth.

highly secure clouds," says Mike Riegel, vice president of services marketing with Cisco. This involves a new way of thinking about security, one that focuses on minimizing complexity and fragmentation.

More connections, more confidential information and more ways of engaging with customers require bringing more and more assets online. These assets will, as a result, be more exposed to external and internal threats. But IT organizations do not want to continue investing in a never-ending series of point products, says Riegel.

"Organizations are looking for a holistic approach to security, as opposed to buying another new solution from a new vendor every time a new threat develops," he says.

As businesses embrace the Internet of Everything, security must cover not just IT but also operational technology, or OT, which increases the stakes significantly. A cyber assault on systems connecting objects such as vehicles or sewage systems to the Internet could have an impact on actual lives. It's no longer just an issue of creating a defensive perimeter to keep the bad guys out, but of securing processes, information and relationships that span the entire organization.

As the threat landscape becomes more dynamic and sophisticated, businesses need real-time, intelligent solutions that empower them to be proactive about defense rather than reactive. The challenge is not to pick the solution that covers everything — that would be prohibitively expensive — but to find the right level of security investment to appropriately minimize risks.

In many cases, organizations are determining they can no longer shoulder the security burden alone. Increasingly they're transferring more risk to managed service providers that can handle aspects of security in different parts of their ecosystem.

Managing the transformation

Today many organizations are overwhelmed by the speed of change and are scrambling to determine how to capture their business value as the Internet of Everything evolves.

Cisco and its partner ecosystem help businesses capture the value of the Internet of Everything. Services and solutions available to help guide transformative business strategies include:

- Assessment services for creating cost-optimized cloud infrastructures;
- Strategy and analysis services for enabling the secure mobile workforce and defining an application strategy;
- Collaboration optimization services for creating one-to-one connections with customers anywhere, anytime;
- Analytics and virtualization tools to achieve access and insight from distributed data and speed up decisions;
- Consulting services, managed security services and a global threat intelligence network available to provide tailored solutions to meet particular needs for protecting valuable assets and reputation in real time.

Sticking with traditional IT practices in a time of transformative change may compromise a business' ability to invest in the right areas and even create additional risks. The good news is that the new technologies make it easier to integrate outside services with internal resources, and to rely on dedicated teams of service providers to infuse the organization with new skill sets. For more information on how Cisco can help your business on the path to transformation, go to www.cisco.com/go/services.■