Chief Information Officers are at the heart of today’s most important business initiatives. Information technology is at the epicenter of enabling new business models, providing differentiated services, and attracting and retaining customers.

Microsoft IT’s vision is to connect the company with a seamless, digital work experience that enhances productivity and shares learnings across the company. By doing so, we’ll delight our internal and external customers with a world-class consumer experience to our applications, data, and services.

Through this report and other interactions, we aim to inspire you and the rest of the industry with what is possible by enabling new experiences using Microsoft devices and services.
IT spend in-line with operating expenses

Microsoft IT tracks and reports its actual costs as a percentage of the company’s operating expenses. The IT spend on the business, relative to the company’s operating expenses, has been predictable and flat year-over-year since 2010 while Microsoft Corp. operating income during the same period has ranged from 2% to –2%.

IT investment portfolio

Microsoft IT aims to spend 40% of its budget on programs and major enhancements that deliver new value to the business, and 60% on a combination of foundational services, such as enterprise application support, network, IT service desk, and IT management. Microsoft IT spend on network is less than both industry benchmarks, although this will change as Microsoft IT upgrades its infrastructure and evolves into a devices and services company.

Managing costs relative to peers

Microsoft IT benchmarks its spend versus the industry. The change in year-over-year IT spend has been at or below the industry change rate. As a result, Microsoft IT has had to manage its cost structure carefully, balancing investment in new capabilities and infrastructure with programs to offset costs.

Microsoft IT by geography

Almost two-thirds of Microsoft IT financial investment and headcount is in the United States, where IT supports the company’s headquarters, manufacturing, licensing, and operations across 305 sites. Roughly a quarter of IT employees work in India, where they support a full range of business and operations segments across the country.
What’s this new era?

Our end users and customers have come to expect their interactions to be seamless digital experiences across multiple devices. The new era is about embracing innovation, changing our mindset of how we think and act so that we keep up with the rapid changes in technology. Microsoft IT sees four opportunities that are applying pressure on IT from several angles such as:

• Consumers expect simple and easy solutions, and to use the device they want at any given time. We see this every week with the millions of devices that access our network. End users expect to mix personal and work applications, data, and experiences anywhere, on any device.

• Technology innovations are lighting up collaboration, consumption, and consideration of data and information. Through the use of modern applications, the connection of devices and services provides better customer experiences.

• New business models provide challenges and opportunities for CIOs and their teams, and Microsoft IT isn’t different. We’re now running services for customers, and we’re enabling customers and partners to purchase and activate new products and services in new ways.

• Industry competition and aspirations to expand into new markets are top of mind for CIOs. It’s no different at Microsoft. These four opportunities are like a wave coming at us; we can choose to sink or swim. We have established a vision and strategies with Microsoft’s leadership team to help the company navigate these waters.

Our vision is clear

Microsoft IT is transforming our organization to make the company a real-time enterprise. This change sets us up for the future. You will see examples of this work throughout the Microsoft IT Annual Report. These examples can help you propel your business forward.

A new era of IT

Welcome to the Microsoft IT Annual Report. In this report, we’ll share our experiences with you and invite you to meet with us to discuss and share learnings. This report comes at a time when CIOs are leading our organizations into a new era of information technology. IT is the epicenter of enabling new business models, providing differentiated services, and attracting and retaining customers, to name a few CIO priorities.
To stay relevant, CIOs must be more than trusted advisors—they need to act as business leaders who enable their IT organizations to support the ever-increasing pace of business.
Given time and budget constraints, how can CIOs utilize resources most efficiently to align with the company’s business objectives? One factor to consider is promoting innovation throughout IT. Yet what precisely does that mean? We use the term innovation in this annual report to describe the development of business value through solutions that meet the needs of customers and the market in new ways. But more than simply being “new,” they must drive results: your internal business partners expect that innovation will ultimately derive a positive business impact.

As with many enterprise IT organizations, Microsoft IT is capacity restrained, so each innovation initiative must align closely with the company’s business goals to extract maximum value. In some projects, Microsoft IT reached across organizations to effect inter-departmental change. By working with the company’s product groups and business groups, Microsoft IT drove innovation around business processes, culture, and technology.

Ingenuity in the “Collab Lab”

Known as the Microsoft IT India Collaboration Lab (Collab Lab), this 10,000 square foot (929 square meter) facility in Microsoft’s Hyderabad campus is the first of its kind. It provides enough space to host six teams simultaneously, plus offering additional areas for ad hoc projects. The Collab Lab is designed to help employees collaborate on product design and process workflows by providing a space where the entire team can assemble for a short duration of time. The facility encourages teams to share ideas through white board discussions, storyboarding, and spontaneous brainstorming sessions. With its large meeting spaces, the lab can even support multiple teams working on different aspects of a project in parallel, such as developers defining technical specifications while program managers document functional specifications.

When it launched in August of 2012, a Windows 8-based starter guide provided tips to employees on how to use the facility most effectively. The facility also hosts an internal web site, built on SharePoint, which enables workers to collaborate using their Internet-enabled mobile devices.

Collab Lab has been a success from day one. In fact, the high demand for the space resulted in the development of a new Windows 8 application that not only streamlines the room reservation process, it also provides all the required information that employees need to know about their visit to this innovative working space.

Collab Lab’s success has become an inspirational model for space planning for other organizations across IT and Microsoft. Because of its flexible design and dynamic infrastructure, the Lab continues to evolve and grow, supporting the latest devices and services, and encouraging ongoing collaboration and innovation across teams.

Find additional content, rich-media diagrams and greater detail on innovation at: aka.ms/ITingenuity

Attend Microsoft IT Institute: aka.ms/ITInstitute
Invest in innovation

In this section, CIOs will learn how they can revamp their programs—and the critical role that promoting innovation plays in the customer experience. Key themes include improved customer relationship management (CRM), promoting innovation, sales enablement, and utilizing IT to improve the customer experience.

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→ China is a huge emerging market for Microsoft, one where revenue is expected to increase six-fold between 2012 and 2016. Supporting the unprecedented growth includes scaling telesales by 10 times in upcoming years. Telesales opportunities are communicated to channel partners via a sponsor letter—a process that was managed manually via emails, spreadsheets, and disparate systems. Due to the intensive labor involved in handling each opportunity, sellers and team leads typically processed the letters in batches, which meant that the information was rarely delivered in real-time, and frequently caused delays in closing opportunities.

Microsoft IT was tasked to architect and implement a set of holistic IT experiences that would streamline the existing telesales process. The new solution was built on Microsoft Dynamics CRM, which pulls opportunity accounts information from the global sales tool and it loads the information into a standardized template that telesales personnel can use to confirm accuracy—allowing them to correct any data before sending the opportunity on to the partner. The result of this implementation is a scalable and seamless experience for tracking real-time partner responses to opportunities. Telesales representatives now have time to focus on more direct customer engagements. The numbers are striking: what used to require 5 minutes to send out a sponsor letter manually now takes 2 minutes. This translates into a savings of 4.4 hours per agent per month, or hundreds of hours per day when telesales fully scales.

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Microsoft IT India Collab Lab • Hyderabad, India

Innovate sales processes

nuising the creative fire: Microsoft employees buy an average of 804,000 slices of pizza and drink 3.6 million cups of tea per year.

Find additional content, rich-media diagrams and greater detail on innovation at: aka.ms/ITingenuity

Attend Microsoft IT Institute: aka.ms/ITInstitute

Microsoft IT India Collab Lab • Hyderabad, India
Moving toward digitization can require a significant investment in resources, but the benefits of implementing streamlined, automated processes are well worth the effort.
Digitize employee experiences

In this section, CIOs will learn how driving a digitization initiative across organizations can add value to the business by streamlining and automating processes and enhancing user productivity. Key themes include: converting analog processes to digital, integrated Windows 8 apps, agile development, online services, digitizing business operations, and career development.

Digitizing business processes is a method that CIOs can use to add value to the business. The challenge with digitization is converting a human-oriented analog process into a digital modality. The digital version may differ significantly and be much more complicated than its analog counterpart. As CIO, you must determine where digitization can have the biggest impact on your company’s operations. What are the high-priority business processes you should choose first?

The #digital initiative

Microsoft’s commitment to digitization is reflected in its #digital (“hashtag digital”) initiative, whose goal is to drive employees to work in an all-digital way. Such an endeavor is made possible by Microsoft’s #digital initiative, whose goal is to drive employees to work in an all-digital way. As CIO, you must determine where digitization can have the biggest impact on your company’s operations. What value to the business. The challenge with digitization is converting a human-oriented analog process into a digital modality. The digital version may differ significantly and be much more complicated than its analog counterpart. As CIO, you must determine where digitization can have the biggest impact on your company’s operations. What are the high-priority business processes you should choose first?

Digitize the HR experience

Most organizations’ internal processes are powered by a mélange of commercial products, custom intranet portals, and content. Web portals can provide a single entry point for users, but users can face a maze of pop-up windows that launch a variety of legacy applications that don’t share a common interface.

Microsoft IT decided to develop a new Windows 8 application that would improve employee access to HR, marketing, sales, and services information. Known as Role Guide, this modern application provides 50,000 sales and marketing employees a great experience as they find and consume readiness materials.

Digitizing the campus experience

Navigating between Microsoft’s 121 building sites in the Puget Sound area is now much easier for employees with a new cloud-powered, Windows Phone app called Campus Experience. Developed by Microsoft IT, Campus Experience digitizes and automates analog and manual processes, such as booking and tracking shuttles, which formerly required help from a building receptionist.

The location-aware app can display relevant conference rooms and café menus based on the user’s location. It understands a user’s calendar and learns behaviors to make suggestions, such as offering to book a shuttle or sending an email when they’re about to run late to a meeting. Users can even get information on teams and facilities just by pointing their phone at a building.

The lessons of digitizing tasks using the right methodology and platforms, making the user the primary customer with a focus on usability, and offering intelligent experiences are all core to building the next generation of services — and the team is continually refining their methods.

Digitization spotlight: Saumil Gandhi

Professional growth of employees and managers is a priority for Microsoft. Saumil Gandhi leads an IT team to enable strategy, solutions, and infrastructure for employee learning and readiness, with a focus on sales, marketing, services, and HR organizations and audiences. This application enables Saumil and his team to ensure readiness business operations, and HR and employees are able to deliver and consume courses and curricula relevant to their profession, discipline, region, specialization, and career interests via online or instructor-led training.

Find additional content, rich-media diagrams and greater detail on digitization at: aka.ms/Tdigitalization

Attend Microsoft IT Institute: aka.ms/ITInstitute

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Embracing the digital world: Microsoft IT estimates that the percentage of employees working on tablets and other touch devices will climb from 21 percent today to 67 percent by 2015.

67%
Digitize employ

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What happens when a business-critical line-of-business application requires major upgrades—when do you shift from applying band-aids to your outdated system and invest in a new solution?

Microsoft IT recently found itself in such a situation with its volume licensing business. By taking a “net new” approach that does not migrate data from the old system, commoditizing business processes based on industry-standard ERP packages, and using a pilot release to allow for adjustments, Microsoft IT has been able to implement the change while maintaining momentum, morale, and support across many groups.

Ongoing collaboration with stakeholders ensures that the program stays relevant, current, and focused on the right priorities. The project has enhanced Microsoft IT’s credibility with the business by communicating throughout the project and by delivering a solution that meets the customers’ needs.

Business Benefits

- 60% Reduction in product launch time
- 83% Increase in channel partner satisfaction
- 30% Reduction in clicks per order

Leaders use Role Guide for HR requirements such as diversity training and standards of business conduct. It can help sales and marketing personnel by recommending specific training that could help finalize sales opportunities, or connect a sales person to others who have successfully closed similar deals. Employees can also take courses outside of their immediate responsibilities to broaden their skill sets and help them advance their careers.

Managers use Role Guide to track their teams’ level of compliance and to build targeted curricula. It also provides the manager with monthly reports on the percentage completion, and sends automatic reminders to managers of those who still need to finish the training.

Leaders have access to Role Guide’s business intelligence. With a click of a button, Role Guide provides a real-time dashboard with details concerning the percentage of people who have completed a new Standards of Business Conduct training.

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- Find additional content, rich-media diagrams and greater detail on digitization at: aka.ms/ITdigitization
- Attend Microsoft IT Institute: aka.ms/ITInstitute
Our world is becoming more digitized, more interconnected, and more dependent on easy access to information.
Accelerate the organization

In this section, CIOs will read about IT’s role in accelerating a company’s ability to create products and services, and in improving its ability to respond to the global needs of employees, external partners, and customers. Key themes include: enabling a mobile workforce, Bring Your Own Device (BYOD), device-responsive website design, managing distributed teams, global competition for talent, team collaboration, and productivity.

While some companies struggle to understand how to respond to a more digitized, interconnected world, CIOs who define and drive inter-organizational initiatives to adopt mobile technologies and processes add value to the business. CIOs can start by reviewing their Bring Your Own Device (BYOD) policies, or by modifying authentication and access systems to connect employees to business-critical information from mobile devices; these actions are good first steps. However, achieving business mobility also involves designing facilities that cater to a mobile workforce, or — potentially the most challenging — driving change in corporate culture across organizations by promoting new management practices that enable remote teams.

Thrive wherever
Microsoft has a large number of geographically-disbursed teams that are critical to Microsoft’s global footprint and help the company cater to regional customers’ needs. The following list is a set of remote team management best practices from Bev Hess, General Manager in Microsoft IT, who has spent years managing global remote teams, and who currently supervises 150 people in 32 countries.

1. Use Microsoft Lync to communicate instantly with your team. This includes having the hard management conversations through Microsoft Lync as soon as one is warranted.
2. Be a good listener. Video conferences aren’t as useful when a large number of people join a meeting. Instead, listen carefully to what people say—the audio has much more value.
3. Embrace your team’s cultural diversity. Support personal time for different religious and secular holidays and incorporate regional feedback into IT to build better operational processes and products for different regions.

Smartphones and tablets have radically changed how people access the web. Today, it’s just as likely that people will reach for a mobile device as they will a traditional laptop or desktop computer. With the launch of Windows 8 and Microsoft Surface, Microsoft IT saw an opportunity to develop a single Microsoft.com website that would provide a superior user experience for mobile devices and desktops alike.

Partnering with Microsoft’s marketing group, Microsoft IT redesigned the Microsoft.com home page and other sites. The key objectives were to design a simple and uncluttered layout that used adaptive content to present a great experience on any device, and to reduce maintenance costs.

The result is a cross-device website experience that aligns to the company’s product strategy and that provides an emotionally powerful experience for users. The new website is also saving Microsoft IT US$250,000 in hardware in 2012 and reducing its website programming headcount costs by 50%.

Redesigned for mobile

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Moality spotlight: Bev Hess

Bev Hess, General Manager in Microsoft IT, was one of roughly 30 recipients of the Microsoft Circle of Excellence Chairman’s Award in 2012. This award is Microsoft’s top recognition for superior leadership, innovation, and significant contribution to the business with outstanding impact.

1 Find additional content, rich-media diagrams and greater detail on mobility at: aka.ms/ITmobility

Attend Microsoft IT Institute: aka.ms/ITInstitute
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Microsoft’s New World of Work program combines the efforts of the company’s IT, real estate, and facilities teams to enhance the workplace environment. Purpose-built for the mobile worker, the newest facility is the company’s Guangzhou, China office which provides 161 individual workstations, lockers to store personal items, six bookable meeting rooms, and 33 small focus rooms. Microsoft IT streamlined available desk space by using integrated network/display hubs that use a single cable to connect everything from the monitor and network, and also developed a Windows/Phone application that uses location-based services to help people identify available workspaces and to locate co-workers. The result is a smaller, more dynamic office environment that caters to a highly mobile workforce and helps attract and retain the best talent. Microsoft estimates that this new type of workspace will reduce operating costs by 24% over a five-year period.

4. Provide the appropriate infrastructure. If remote team members are working from home, ensure that they have the proper hardware and Internet connection they need to do their job.

5. Ease people’s transition to working remotely. Consider creating a mentorship program that pairs up new team members with an experienced remote worker to help them transition to a remote work style.

6. Promote life balance. Give people flexibility in their work hours and allow them to manage it themselves. For global remote teams, focus on managing the outcomes and letting people work when they need to work to get the job done.

At the foundation of how we enable our remote teams are Microsoft technologies—especially SharePoint and Lync. These tools, in combination with adopting remote team management best practices, establish a positive work environment for remote workers and enhance team productivity.
Think of a word to describe an enterprise, and “agile” usually isn’t the first term that comes to mind. That needs to change.
Making IT agile

In this section, CIOs will learn how they can make IT — and the overall business — more agile by defining new control models, streamlining operations, and enhancing the skill sets of their workforce. Key themes include: transforming IT into an agile organization, redesigning systems and integrating infrastructure to be more flexible, and developing new skills in the IT workforce.

Market forces are pushing organizations to adapt at an incredible rate — and to speed up just to keep pace. CIOs must make their organizations more flexible and use their resources more efficiently. Is your IT organization agile enough to lead your company’s transformation into becoming a more responsive, competitive player? Or will IT be the anchor slowing down your business?

Is your IT organization agile enough to lead your company’s transformation into becoming a more responsive, competitive player? Or will IT be the anchor slowing down your business?

Like many other IT organizations in large enterprises, Microsoft IT manages over a thousand line-of-business applications and more than 30,000 servers, and underlying infrastructure that are the lifeblood of the company’s operations. Several years ago, Microsoft IT recognized the imperative to transform itself into a more agile organization, moving from an IT role-based structure (such as engineering and operations) to a business process-aligned IT structure. This new alignment enables Microsoft IT to leverage its resources more efficiently, to improve how it provides services to the company, and to respond to change more quickly.

Agile IT personnel

The new digital world that unifies a multitude of systems and provides customers with cloud-based access to services also requires a broader set of skills from those in IT. Developing new solutions and troubleshooting issues is more complicated than it was five years ago. Part of Microsoft IT’s organizational re-alignment to meet business needs included helping employees transform themselves by learning new technical and soft skills, problem solving, and flexible work styles, to improve how it provides services to the company, and to respond to change more quickly.

Agile retail operations

CIOs of retail enterprises have a special set of challenges related to running online stores in addition to their brick and mortar facilities.

In July 2012, Microsoft IT and the company’s retail business worked together to launch 35 specialty retail stores across the U.S. and Canada in time for the upcoming holiday season. The team used Microsoft technologies for inventory tracking, device monitoring, database, sales tracking, and mobile POS devices in the stores to build an integrated retail operations infrastructure for each location.

Within three months, all 35 new retail store locations opened, fully connected to the company’s common supply chain process that supports its retail, OEM, and Xbox businesses.

Some of the best practices to help promote an agile retail business for Microsoft include:

- Ensure network stability
- Have discipline and metrics in place
- Foster multi-channel opportunities

Agility spotlight: Kajal Soni

Kajal Soni is a service engineer in Microsoft IT, working on internal use of SharePoint search. She has worked for Microsoft IT for five years. “I have visibility to more than 15 different projects, working across internal services and applications — and different Microsoft products. Every day I not only represent Microsoft IT but also the business and product groups. My work requires me to remove technical roadblocks to improve internal search — and to help the business invest properly across services and applications. I get to learn a lot across the world of IT and can share this knowledge across the company, so we can move faster with new technologies and investments.”

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> Smartphone survey: How important is it for you to be able to do work activities on your smartphone? Below are the percentages of Microsoft employees who said “important” or “very important.”

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Agile device management

> Large enterprises can no longer take the traditional approach of controlling the user experience with locked-down desktops, controlled devices, and services. Today, system management must support a more open environment where employees can use their mobile devices to enhance productivity.

To accommodate its mobile workforce, Microsoft IT adjusted its operational model to enable the best user experience, regardless of device. Of course, the type of experience varies based on each device’s capabilities. Devices that meet Microsoft IT standards can access all services; others will have a more limited user experience.

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By fostering a culture of diversity and inclusion that embraces technical and soft skills, problem solving, and flexible work styles, Microsoft IT is transforming itself into a more agile entity and increasing the value of each employee. 

Caring and listening. The technical pieces can be taught, but the passion must be innate; you can’t teach someone to care. Employees must listen to internal and external customers, and care about delivering the best customer experience.

Speaking the languages of business and technology: It’s more important than ever to have people who can relate technical issues to business impact.

Collaborating: No single person can be the decision maker for everything. Obtaining the input from a team with a diverse background is key to creative problem solving.

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Microsoft employees who said “important” or “very important”.
As the pace of business increases, so does the pressure to compete. CIOs have a critical role to play in giving their business a competitive edge.
Pressure to compete

In this section, CIOs will learn how they can transform their IT organization to enhance competitiveness by streamlining processes and improving user experiences. Key themes include: streamlining processes, using Big Data analytics to create targeted sales opportunities, mobile Business Intelligence (BI), and using business architecture to better align business designs to strategic business goals.

As the company’s executive technology and business process enabler, the CIO is in a unique position to drive initiatives that contribute directly to enhancing competitiveness.

As CIO, what actions are you taking to improve organizational competitiveness?

You could apply resources into your internal processes to gain better insight. You could build systems to collect more information about your target customers’ interests. Or you could focus on streamlining key processes so the organization runs more efficiently.

Each of these strategies has merit. The success of your efforts — whether or not your organization’s initiatives result in a demonstrable improvement in the company’s competitive edge — comes from proper alignment with your company’s strategic business goals.

Microsoft IT is constantly looking for opportunities to streamline processes and to analyze information in ways that give the company a competitive advantage.

Using analytics on Microsoft.com

Nowhere is there a better opportunity for a company to learn about the interests of its customers than through its website. The challenge for Microsoft IT has been to design an infrastructure that can capture massive input from more than 228 million unique visitors each day to Microsoft.com, and then analyze it to provide insight into customers’ interests.

Microsoft IT has developed an end-to-end measurement and tracking system. The new system helps drive competitive edge for the company’s two core segments:

- Commercial segment
  - By centralizing the management of all its commercial account data into a centralized data management environment, Microsoft IT can perform wholesale predictive analytics against that data. The business can predict which customers are most likely to adopt a first release of a product and determine the actual cost on a per-opportunity basis.

- Consumer segment
  - Microsoft IT is using Big Data analytics, working with an anonymous data store that holds information from more than a billion cookies, whose data is used to create different segments of consumer preferences based on unique combinations of behaviors and external data. The segments provide profiles against particular behaviors.

Cultivating creativity: Microsoft’s art collection contains 4,700 pieces, including a chandelier by Dale Chihuly and a piece of the Berlin Wall.
As the company’s executive technology and business process enabler, the CIO is in a unique position to drive initiatives that contribute directly to enhancing competitiveness.

As CIO, what actions are you taking to improve organizational competitiveness? You could apply resources into your internal processes to gain better insight. You could build systems to collect more information about your target customers’ interests. Or you could focus on streamlining key processes so the organization runs more efficiently.

Each of these strategies has merit. The success of your efforts—whether or not your organization’s initiatives result in a demonstrable improvement in the company’s competitive edge—comes from proper alignment with your company’s strategic business goals.

Microsoft IT is constantly looking for opportunities to streamline processes and to analyze information in ways that give the company a competitive advantage.

Using analytics on Microsoft.com

Nowhere is there a better opportunity for a company to learn about the interests of its customers than through its website. The challenge for Microsoft IT has been to design an infrastructure that can capture massive input from more than 228 million unique visitors each day to Microsoft.com, and then analyze it to provide insight into customers’ interests.

Microsoft IT has developed an end-to-end measurement and tracking system. The new system helps drive competitive edge for the company’s two core segments:

Commercial segment
By centralizing the management of all its commercial account data into a centralized data management environment, Microsoft IT can perform wholesale predictive analytics against that data. The business can predict which customers are most likely to adopt a first release of a product and determine the actual cost on a per-opportunity basis.

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Pressure to compete

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In this section, CIOs will learn how they can transform their IT organization to enhance competitiveness by streamlining processes and improving user experiences. Key themes include: streamlining processes, using Big Data opportunities, mobile Business Intelligence (BI), and using business architecture to better align business designs to strategic business goals.

Advantage through business architecture

Business architecture enables business leaders and their teams to realize value by creating strategic business designs, and then by aligning these business designs to the company’s investment plans and strategies. Before developing an integrated strategy map and balanced scorecard, Microsoft IT was comprised of 11 different organizations, each with its own discrete, independent strategy. These autonomous groups made it difficult to understand what the end-to-end IT organization looked like from a capability perspective. Over the past three years, Microsoft IT used its business architecture map to consolidate 116 goals across IT discrete organizations’ strategies down to a single strategy map that contains 20 objectives for the organization as a whole. Microsoft IT’s business architecture map helps drive business insights and ensures that the organization’s processes align to the company’s strategic objectives.

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Using Big Data to track consumer interest

For example, a marketing team wanted to understand the behaviors of anonymous visitors to the company website—and their interest and likely response to a Windows online campaign. The Excel-based graph above shows the results of a statistical model from aggregated cookie data, which is fed into Microsoft HDInsight because the model would have to handle over 1 billion identifiers each with multiple transactions. The modeling provides the team insight into which visitors are most likely to respond to online campaign offers.

Cultivating creativity: Microsoft’s art collection

4,700

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As CIO, you are responsible for determining what amount of risk is acceptable to your organization and the executive team. Do you have an accurate view of your areas of risk and know how to manage them?
A balancing act

In this section, CIOs will learn how technology and process innovation can help balance the demands for device-based access to corporate resources and maintain a secure corporate network, improve business resiliency, and enhance detection of cyber threats. Key themes include: balancing device access with security, consumerization of IT, cloud computing, business resiliency, Big Data, and cyber threats.

There are many types of risks that CIOs must address, including project risk, financial risk, and operational/security risk. As CIO, you’re responsible for ensuring that the aggregate risk is acceptable to your organization. To be successful, you must be clear about identifying your risks and ensure that you have a governance structure in place that allows you to prioritize the risks the business will accept, and the risks you will mitigate.

CIOs must understand the types of security risks they believe their organization is most prone to encounter. Unfortunately, many IT executives operate as if there is a canonical list of risks to resolve to secure an organization. Of course, there is no single answer to protect your enterprise. For most, a balance between hygiene and advanced threats is the rational approach to apply resources. The appropriate actions to take depend on your industry, your company, and your position.

Microsoft IT constantly reviews its security policies and processes, evolving as needed to best respond to new developments.

Business resilience using the cloud

One of the most critical responsibilities for an enterprise IT organization is to ensure availability of key line-of-business applications. Microsoft IT uses an on-premises-based framework in its data centers that can be adapted to the cloud.

The on-premises framework focuses on enabling services and applications to survive three types of failures:

1. Surviving component failures

For critical applications, the typical approach to surviving a component failure is to build an entire duplicate technology “stack” at the primary data center and at a secondary site.

Cyber threats

→ Cyber attacks come as no surprise to Microsoft IT, nor should they be a surprise to other enterprise IT organizations that must grapple with determined and persistent adversaries. Microsoft IT continually re-evaluates its security posture, deploying additional people, processes, and technologies as necessary to help prevent unauthorized access to the company’s network. The battle never ends.

Microsoft IT uses a variety of detection solutions today, including System Center 2012 Endpoint Protection for antivirus and malware detection. A new detection solution is also under development that will use Big Data from the 1.26 million devices that connect to the company’s worldwide network to learn more about potential sources of malware and inappropriate user permissions, and identify potential threats.

High-priority alerts will be flagged for analysts to respond to immediately, and all the data (including the high-priority subset) from 200,000 users will be forwarded to a Microsoft HDInsight cluster to run long-term analysis and to develop behavioral baselines.

Security spotlight: Lisa Reshaur

As Microsoft IT embraces the consumerization of IT and enables the company to offer devices and online services to customers, the IT organization needs to drive an industry-leading business continuity program. Lisa Reshaur joined Microsoft IT last year to manage and execute our business continuity and disaster recovery strategy. Lisa and team will ensure Microsoft has sufficient resources, training, alignment, and readiness plans in place to drive resiliency and response on a worldwide scale.

Find additional content, rich-media diagrams and greater detail on security at: aka.ms/ITsecurity

Attend Microsoft IT Institute: aka.ms/ITInstitute

387,000
High-tech hot spot: An average of 387,000 visitors register each year at Microsoft’s headquarters.

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Lisa Reshaur: General Manager of Enterprise Business Continuity Management

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The on-premises framework focuses on enabling services and applications to survive three types of failures:

1. Surviving component failures
   
   For critical applications, the typical approach to surviving a component failure is to build an entire duplicate technology “stack” at the primary data center and at a secondary site.

2. Surviving vertical failures
   
   An example of this scenario is a catastrophic failure of the entire duplicate stack at the primary data center. These outages are extremely rare but have extreme impact, and they are remediated by a disaster recovery plan.

3. Surviving horizontal failures
   
   Horizontal outages affect the same component across all stacks, such as the deployment of bad application code at both sites during an upgrade—or an accidental data deletion that replicates immediately to the remote site. Typically, the solution is to roll back to a known good state.

Microsoft IT is adjusting our business resilience framework as we move more line-of-business applications to the cloud.

Security spotlight: Lisa Reshaur

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BYO Everything

The advent of the consumerization of IT has set employee expectations to use any device—personal or otherwise—to access corporate resources, and for them to have the same rich and seamless proficiency that they experience in their personal lives.

Consider the following strategies to help enable employee productivity on any device and protect your company’s intellectual property:

• Data classification: Microsoft IT has determined that it can best protect its data and intellectual property by focusing on governance and user/device identity. Microsoft IT achieves this through data classification.

• Define access strategy: Microsoft IT supports a strategy called variable user experience, where the level of access to resources is determined by the user’s identity, the user’s location, the classification of the data, and the device itself.

• Communicate options to employees: The IT organization needs to define what devices are best used in the environment and guide employees to select the best fit for their needs—yet also to have controls in place to protect company information.

→ BYO Everything

High-tech hot spot: An average of 387,000 visitors register each year at Microsoft’s headquarters.

387,000

Surviving failures: see the interactive experience at aka.ms/ITsecurity

Lisa Reshaur: General Manager of Enterprise Business Continuity Management

Securing the enterprise: see the interactive experience at aka.ms/ITsecurity

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