

Achieving Intel's Strategic Goals with IT

"Intel cannot execute on its strategy without IT. Across the board, when you look at the big initiatives to drive growth in the company, they are happening with involvement from IT."

—Bruce Schuman,
Intel IT Controller

Executive Overview

As the pace of business and technology transformation continues to accelerate, Intel IT's strategic importance within Intel grows. We enable the business, delivering scale, agility, efficiency, and productivity. In addition to keeping computers running, we enable many of the new business models that will be needed for the company's long-term competitiveness.

To fulfill our broad and growing charter, we foster strong strategic alignment and partnerships with our business groups. Intel IT tightly aligns its strategic planning with the Intel corporate planning process, working with business leaders around the company to ensure our priorities are focused on the right corporate goals.

As further evidence of how Intel IT is playing a strategic role within Intel, since 2008 a growing number of Intel-wide employee bonus (EB) program goals have a significant IT component.

In 2011 the EB program included the following six IT focus areas:

- Reduce Intel's global footprint
- Increase supply chain responsiveness

- Enable secure collaboration with external partners
- Drive business growth with online sales
- Enable the compute continuum
- Facilitate the integration of acquisitions

Working closely with Intel business groups not only helps ensure that Intel IT meets Intel's strategic goals but also demonstrates the important role that IT plays in helping the company achieve current and future business success.

Chris Peters
Manager, Intel IT

Bruce Schuman
Controller, Intel IT

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IT@INTEL

The IT@Intel program connects IT professionals around the world with their peers inside our organization – sharing lessons learned, methods and strategies. Our goal is simple: Share Intel IT best practices that create business value and make IT a competitive advantage. Visit us today at www.intel.com/IT or contact your local Intel representative if you'd like to learn more.

BACKGROUND

To fulfill IT's broad and growing charter to supply the technology that keeps the company competitive, Intel IT fosters strong strategic alignment and partnership with our business groups.

To ensure this alignment, we've integrated our IT strategic planning cycle with the Intel corporate planning calendar so that Intel IT's activities are synchronized with the company's direction. In addition, we partner an IT senior leader with each line of business at Intel. Each leader holds formal meetings to understand business strategy, helps define solutions, and identifies shared goals—such as increasing supply chain responsiveness or creating online sales capabilities. This strategic relationship results in actionable priorities for which we are mutually accountable and enables us to provide solutions that deliver greater competitive business value.

IT STRATEGIC PLANNING

Like other IT organizations, Intel IT must focus on the future while staying firmly rooted in day-to-day activities. We must be ready to respond to a rapidly shifting business climate and deliver solutions that are tuned to the needs of the business units and the corporation as a whole, while operating within a budget. A sound strategic planning process is fundamental to achieving these goals.

Our annual strategic planning process is tightly coupled with Intel's business planning cycle in order to align IT investment with business goals. Our strategic planning activities, shown in Figure 1, help us develop a long-term view of business goals and challenges, technology trends, and environmental factors. We translate these considerations into IT roadmaps and investment decisions. We use a set of Intel IT Business Capability Frameworks to identify gaps between our existing IT capabilities and Intel's business needs, and areas in which we might be over-invested.

To further align with business group priorities and enable new business initiatives, we participate in a variety of forums to engage with the business groups, including:

- Annual summits with Intel's business groups to agree on priorities and synchronize funding submissions.
- Strategic discussions with Intel's product groups, sharing our expertise on technology and industry trends to help shape Intel's products, solutions, and overall strategy.
- Working meetings with Intel product planning, design, and marketing teams, focused on IT technology proof points, proofs of concept, and architectural assessments related to Intel's product roadmap.

These activities and our strategic planning process are critical to the long-term success and health of our organization. They enable us to be more agile and responsive to the needs of Intel's business groups, and to more closely align our IT investments and actions with Intel's corporate strategies and annual business goals.

Supporting Company-wide Goals with IT

Each year the Intel CEO and senior management team identify projects that closely align with the corporate strategic objectives. These projects are reflected in Intel's corporate-wide Employee Bonus (EB) program. Goals are identified for each project and communicated to employees, and at the end of the year all employees are awarded a bonus based on progress toward meeting these goals. The Intel EB program helps align business groups around corporate objectives and provides a financial incentive to employees to achieve business group goals.

Since 2008 a growing number of Intel-wide EB program goals have included a significant IT component. In 2011, the Intel EB program included the following six IT focus areas:

- Reduce Intel's global footprint
- Increase supply chain responsiveness
- Enable secure collaboration with external partners
- Drive business growth with online sales
- Enable the compute continuum
- Facilitate the integration of acquisitions

REDUCE INTEL'S GLOBAL FOOTPRINT

Since 2008, Intel has linked a portion of every employee's variable compensation—from front-line employees to our CEO—to the achievement of environmental sustainability metrics. Intel employees are encouraged to find ways to innovate sustainability in their jobs. As part of this effort, Intel IT has partnered with Intel Corporate Services group for several years on an EB project aimed at reducing Intel's environmental impact.

Our continued focus on efficiency and sustainability enables our data centers to accommodate compute growth without increasing our energy consumption or physical footprint. Over the last two years, Intel IT has achieved nearly 100-million kilowatt-hours each year in energy savings.

These IT sustainability efforts and results have been recognized externally. We have ranked three consecutive times in IDG's InfoWorld Green 15 Awards. In 2011 the award was for our innovative NUMA Booster algorithm.¹ Deployed on Intel® Xeon® processor-based servers, this algorithm accelerates the completion of silicon

¹ InfoWorld, The green IT stars of 2011. <http://www.infoworld.com/d/data-center/the-green-it-stars-2011-549?page=0,0>

Measuring Our Responsiveness to Business Groups and Employees

Each year we survey our internal customers to determine areas where we can strengthen our partnerships and to provide a general measurement of our success in providing the services they need. In its ninth year, our IT Partnership Excellence Program asks for honest assessments of IT's strategic alignment and tactical performance from senior business group representatives.

First implemented in 2010, our Voice of the User survey measures employee satisfaction with IT products and services, and helps to identify the areas that are most important to employees. In 2011, results from these surveys showed satisfaction rose overall, with the biggest increases in the areas of videoconferencing, collaboration, and business intelligence solutions.

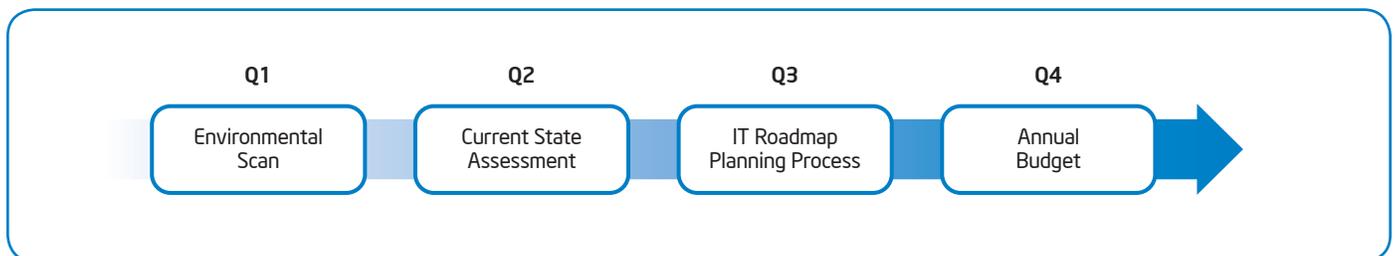


Figure 1. Intel IT's strategic planning cycle provides a long-term view of environmental factors and IT capabilities; we then translate these considerations into resource-feasible roadmaps and investment decisions.

design engineering jobs by up to 17 percent, helping to avoid the addition of incremental server capacity and to decrease energy consumption. Also for the last two years, Intel IT was listed as one of Computerworld's Top Green-IT Organizations,^{2,3} which recognizes organizations committed to using technology to conserve energy and lower carbon dioxide emissions.

Intel IT has made significant energy-savings progress. We are focused on maintaining or decreasing energy consumption while meeting growing business demands. We will continue to consolidate and upgrade to more energy-efficient technologies, while working to embed IT sustainability principles into normal business and employee behavior.

² Computerworld 2011 Top Green-IT Vendors. http://www.computerworld.com/s/article/358887/2011_Top_Green_IT_Vendors

³ Computerworld Top 12 Green-IT Vendors 2010. http://www.computerworld.com/s/article/351970/Top_12_Green_IT_Vendors_2010

INCREASE SUPPLY CHAIN RESPONSIVENESS

This is the fourth year that the EB list has included a supply chain project. An efficient and responsive supply chain is critical to meeting market demands. The goal has been to streamline processes to improve supply chain responsiveness, which includes responding to customer orders within 24 hours.

To support this goal, Intel IT has worked closely with many teams throughout Intel to formulate a strategy that integrates IT solutions across all levels. Through several initiatives in the last few years, including standardizing Intel's enterprise resource planning (ERP) platform, developing automation and business intelligence solutions, and simplifying supply chain planning processes, Intel IT has helped to increase supply chain responsiveness and productivity while reducing process cycle time and inventory levels. Table 1 shows the results from our supply chain transformation.

These supply chain improvements have yielded remarkable results, including a hub-solution and forecast collaboration project, which one major customer credited with reducing its inventory exposure by nearly 50 percent. Our multi-year program to re-platform our ERP system by consolidating applications on servers based on the latest Intel Xeon processors has resulted in a 40-percent reduction in the number of servers required to support ERP and a 260-percent increase in capacity. From this re-platforming effort, Intel IT expects a return on investment of USD 124 million.

Our updated ERP system also enables increased standardization of business processes across various business segments and increased use of more advanced ERP capabilities in the supply chain process—from forecast, to order fulfillment, to warehouse. The new ERP system has provided the foundation for

Table 1. Results of Supply Chain Transformation

AREA	RESULTS
BUSINESS VELOCITY	
<ul style="list-style-type: none"> 50% faster ramp up 65% shorter lead times 	<ul style="list-style-type: none"> Improved by more than 50 percent the time it takes to ramp up a new manufacturing process, including a 25-percent reduction in supplier build times and a 95-percent reduction in request-to-order time 65-percent shorter order-fulfillment lead times through automated allocation management and booking
BUSINESS RESPONSIVENESS	
<ul style="list-style-type: none"> 50% faster order-to-delivery 300% faster response to customers 	<ul style="list-style-type: none"> 50-percent faster order-to-delivery time through the use of vendor-managed inventory (VMI) hubs, the IT solutions supporting the hub business processes, and information visibility enabled through IT business intelligence solutions 3x faster response to customers' orders and change requests through an integrated enterprise resource planning system and the automation of many steps in the order management and planning business process
BUSINESS EFFICIENCY	
<ul style="list-style-type: none"> 32% inventory reduction 16–21% productivity increase 	<ul style="list-style-type: none"> 32-percent reduction in inventory by reducing cycle time, moving from a pure make-to-stock model to a hybrid model using dynamic VMI that enables inventory to be pooled, and optimization capabilities 21-percent increase in the number of central processing units (CPUs) produced per head count and a 16-percent increase in CPUs produced per capital dollar spent

improvements in several business process areas. These improvements include:

- A more efficient supply chain that is cross-organizational and automated
- Better inventory management using simulation and modeling
- A more dynamic and automated order management system
- Optimized transportation
- Automated invoicing and customs procedures
- Improved capital supplier payment processes through automated event management

Intel's accomplishments in supply chain management have been recognized across the supply chain industry, as our rise on the Gartner Supply Chain Top 25 rankings demonstrates. Intel was ranked 25th in 2009⁴ and 16th in 2011.⁵

ENABLE SECURE COLLABORATION WITH EXTERNAL PARTNERS

In fast-moving markets with highly customized products, such as embedded systems, collaboration and co-development are critical for success. Intel engineers work with highly sensitive intellectual property (IP), which presents a challenge when working with external partners.

In 2011, Intel IT implemented a portal that supports the secure sharing of IP and supports efficient product design collaboration between Intel, customers, and suppliers worldwide—helping to increase design productivity and

facilitate Intel's growth. We maintained responsive global system performance while providing features such as security and protection of both Intel and customer IP, secure systems with streamlined role management, and support for external rights management.

DRIVE BUSINESS GROWTH WITH ONLINE SALES

With the knowledge that more and more people are turning to the Web to research products, make purchases, and request support, Intel sales and marketing teams turned to Intel IT to help them deliver a seamless, interactive, connected Web experience for a growing and increasingly diverse set of customers. Online sales involves more than just enabling a sound infrastructure and secure environment for users to make purchases online. It also includes streamlining access to technical sales and support representatives, nurturing leads, and giving easy access to relevant content. In addition, online sales solutions provide businesses with valuable analytics data and information to help track prospects and manage and cultivate business and customer relationships.

Intel IT partnered with Intel's worldwide sales organization to develop a broad range of online sales and marketing capabilities. In 2011 we focused on delivering comprehensive demand creation capabilities for marketing, an interactive and personalized online experience for Web visitors, an updated content management system, support for globally staffed Online Sales Centers and analytics for integrated customer relationship management (see Figure 2).



Figure 2. Intel IT partnered with Intel's worldwide sales organization to develop online sales capabilities enabling an interactive and personalized experience for Intel customers.

⁴ The Gartner Supply Chain Top 25 for 2009. www.rankingthebrands.com/The-Brand-Rankings.aspx?rankingID=94&year=120

⁵ The Gartner Supply Chain Top 25 for 2011. www.gartner.com/DisplayDocument?doc_cd=213740

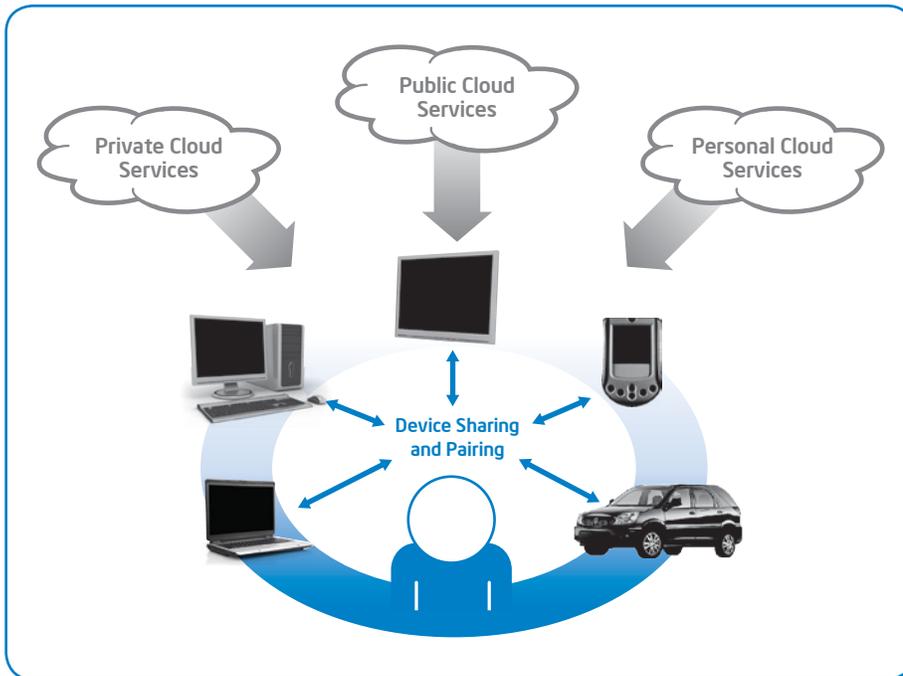


Figure 3. The Compute Continuum: Devices work together to enable a common user experience.

New features of Intel's redesigned Web site include a software platform that empowers marketing groups to manage and publish their own content, reducing the time it takes to post content from days to just minutes while maintaining brand consistency. We delivered a new customer-facing Web experience in the United States and have since extended it to other countries. A project of this scope would typically require 12 to 18 months of effort. We went from concept to implementation in just six months, and are adding enhanced capabilities such as peer-to-peer social engagements.

The Online Sales Centers augment the ability of Intel's sales force to reach new prospects and support a growing number of Intel customers, while providing new ways for customers to collaborate

with Intel. These centers produced considerable value for Intel in 2011, attracting 2.4 million unique visitors, 100,000 new prospects, and 8,000 sales leads. Intel is continuing to expand this service to enable collaborative online support for product design and technical issue resolution.

ENABLE THE COMPUTE CONTINUUM

The number and variety of connected devices in the marketplace is increasing every year, and these devices and technologies shape employees' expectations about the ways in which they work and collaborate. Organizations that are embracing IT consumerization recognize that letting employees use their personal devices to access corporate data and applications

enhances employee satisfaction and productivity. Addressing this trend and providing a seamless, consistent experience across devices so that employees can access information anywhere, at any time, is a vision Intel calls the "compute continuum."

In 2011, Intel IT began partnering with Intel product and software groups to help develop enterprise products, technologies, services, and usage models that support the compute continuum. Enabling a seamless user experience (UX) for employees, regardless of where they are located and what device they are using, is an essential part of the compute continuum UX. We are defining the enterprise architecture, UXs, and services necessary to make the compute continuum a standard platform for IT services that CIOs can implement. Intel IT contributed to this effort by defining compelling use models and running internal production pilots to provide real-world data to inform product design.

Internally, Intel IT is taking advantage of a range of new technologies and computing trends to make this transition—including ubiquitous Internet connectivity, cloud computing, and virtualization. A key aspect of the transition is a shift toward delivering services across multiple devices rather than on managing client hardware. The devices may range from mobile business PCs to smart phones, tablets, in-car systems, wireless displays, and projectors, as shown in Figure 3.

To support IT consumerization and our vision of the compute continuum, we needed to provide employees with a level of access to Intel resources from an expanding variety of client devices, some of which have much weaker security controls than mobile business PCs. Through the transformation of our enterprise security architecture, we have enabled a wide range of devices and application delivery models while protecting Intel data and IP.

In 2011, we reached a key milestone by successfully testing our unique integrated trust calculation technology. This technology enables us to support devices with differing levels of security by dynamically adjusting users' access privileges as their level of risk changes based on context. For example, employees' access to corporate information depends on the type of device and the employees' location. When on Intel premises, employees have less access to corporate information from their personal smart phones than from their corporate laptops; when off campus their smart phones have even less access. We tested this capability in our innovation labs across a broad range of devices, locations, and infrastructure technologies. We plan to run an enterprise pilot in 2012 in preparation for enterprise-wide deployment.

FACILITATE THE INTEGRATION OF ACQUISITIONS

A smooth acquisition process involves a complex balance of business acumen, communication and technical skills,

and human resource activities. During an acquisition, the highest volume of activity over the longest duration most often occurs in the IT environment, particularly in large-scale integrations.

Acquisitions are a critical component of Intel's corporate growth strategy, and each acquisition has a set of specific value drivers, such as meeting product development goals, delivering financial results, enabling and retaining employees, and bringing in new expertise.

Intel IT plays a key role in enabling a smooth integration of new Intel acquisitions and in helping to achieve the unique business objectives for each acquisition. Intel IT Mergers, Acquisitions and Construction works with Intel business groups as a trusted and influential business partner providing agile and innovative ideas to realize the full value of our corporate acquisition strategies.

Using several different IT integration models, Intel IT successfully integrated 12 acquisitions in 2011, which involved adding more than 10,000 new employees. This included the acquisition of McAfee, which was integrated using the standalone acquisition model and operates as a wholly owned subsidiary of Intel, and Infineon Technologies AG Wireless Solutions, now Intel Mobile Communications, which is a partial integration into Intel's operations using the hybrid integration model.

Supporting this diversity requires greater application flexibility. Our

recently completed ERP re-platform enabled us to rapidly implement customized business solutions for each acquisition, helping to smooth integration while leaving the unique value of each acquired company intact. Additionally, millions of dollars of cost savings have been achieved with the acquired companies through the adoption of Intel's existing pricing structures and supplier relationships.

CONCLUSION

By closely partnering with our business groups in support of company-wide goals, Intel IT demonstrates its strategic importance in helping to achieve the current and future success of Intel's business. In order to align our IT investments with these goals, we tightly couple our annual strategic planning process with Intel's business planning cycle. We also participate in a variety of forums to engage with business groups.

As further evidence of the strategic role Intel IT is playing, a growing number of Intel-wide EB projects include a significant IT component. In 2011, six of the Intel EB program projects had an IT focus.

As Andy Bryant, Intel's chief administrative officer stated, "If IT is mediocre, Intel is mediocre. If IT excels, Intel has a foundation for excellence."

FOR MORE INFORMATION

Visit www.intel.com/IT for white papers on related topics:

- Adding Value to Intel Acquisitions with IT
- Enabling Business Growth and Productivity with Online Solutions
- The Future of Enterprise Computing: Preparing for the Compute Continuum
- Optimizing the Value of Technology Investments with IT Strategic Planning
- Thinking Differently About IT Value: 2011–2012 Intel IT Performance Report
- Transforming Intel's Supply Chain to Meet Market Challenges

ACRONYMS

CPU	central processing unit
EB	employee bonus
ERP	enterprise resource planning
IP	intellectual property
UX	user experience
VMI	vendor-managed inventory

For more information on Intel IT best practices, visit www.intel.com/it.

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