First, the good news: there are many new ways to improve productivity in the workplace that have been developed and refined as consumer technologies. These include everything from iPhones to USB memory devices, from Facebook and other Web-based services to instant messaging.

Now for the bad news: each of these new technologies adds multiple security risks. And a survey commissioned by Symantec indicates that less than half of the Millennials—the generation born after 1980—who use these technologies are following the corporate IT policies that control them. Rather, many use them freely.

How should you respond to these changes as an IT decision maker? How are your peers responding? What are leading strategies for gaining business value from these tools and minimizing their risks?

And how should you manage the employees most likely to be their biggest advocates—the Millennials? They’ve grown up using more advanced technologies than any generation before them. What new strengths—and vulnerabilities—do they bring to the workplace?
To help you evaluate your strategy, CIO Digest gathered insights from key subject matter experts and IT decision makers.

**Mobile devices: Just say “Yes…but”**

It’s obvious that mobile devices such as BlackBerry phones and iPhones are enabling employees to get work done anywhere. “Things are definitely changing,” says Ralph Barber, chief technology officer of Holland & Knight LLP, one of the world’s largest law firms with 20 offices in the United States, Mexico, Israel, China, and the United Arab Emirates.

“Because of an increased need for collaboration, Holland & Knight was one of the first major law firms to deploy BlackBerry phones,” Barber says. “We needed a way for lawyers to send and receive emails without having to carry laptops. We didn’t deploy BlackBerry phones until they were secure and encrypted.” The firm is also conducting limited testing and development with iPhones.

The productivity that handheld devices offer is making Mobile County Public Schools in Alabama, with 64,000 students in 94 schools, rethink its ban on allowing students to use them on campus. “We have a pilot program to acquire 30 to 60 iPod touches and integrate them with our SMART Board interactive whiteboards,” says David Akridge, executive manager of information technology at the district. “This will enable a teacher to give a pop quiz to students on the SMART Board, and students can answer on their iPod touches. An application would instantly grade the test.”

The school district’s alternative is to buy a wireless clicker that can connect with the SMART Board, Akridge points out, and 20 clickers cost $2,000. “The iPod touch doesn’t cost much more than that, and it offers so much more,” he says. “It enables students to wirelessly access the Internet and network, store files, and run a growing number of applications. Our administrators are using the iPod touch, and we see their productivity every day. We feel that a device like this is the future.”

**Web-based services: a faster shift**

Another change that consumer IT is bringing into the workplace is a faster shift to a software-as-a-service or “cloud computing” model, observes Jeff Kaplan, managing director of THINKstrategies, Inc. Kaplan runs the Software as a Service Showplace (www.sas-showplace.com) to guide businesses to value in this area.

“In our personal lives, we’ve become more comfortable with Web-based services because of our familiarity with Amazon.com, Google, eBay, MySpace, and Facebook,” he says. “We’ve found those services so easy to use, intuitive, and helpful that it becomes frustrating to step into the corporate environment where traditional on-premise applications are not nearly as user friendly.”

More employees and more businesses now trust Web-based services as a result. “Services like eBay and online banking are more reliable and secure than anything an IT group can develop internally,” Kaplan observes. “Web-based services are resilient and have minimal downtime these days. They have a quick response time, and from a security standpoint you seldom hear about incursions into them, but you’re still hearing plenty about corporate data centers or systems compromised because their firewalls and policies aren’t up to the challenge. Today’s Web-based service providers recognize that safeguarding data is a primary responsibility or else they won’t be able to stay in business.”

**Holland & Knight LLP**

**Founded:** 1929  
**Workforce:** Approximately 2,300  
**IT Staff:** 80  
**Operations:** 20 offices in North America, the Middle East, and Far East  
**Website:** www.hklaw.com

Ralph Barber, Chief Technology Officer, Holland & Knight LLP

With greater trust in Web-based services, organizations are starting to move to cloud-based applications such as Google Apps or Salesforce.com at the expense of system-based alternatives, Kaplan notes.

**A jump in value from eLearning**

At Holland & Knight, a Web-based service that is delivering high
value is eLearning. “The new lawyers coming out of law school really embrace eLearning, and we’ve made a big investment in it,” Holland & Knight’s Barber says. “We moved our trainers out of IT and put them into practice development so that they could better support all of the firm’s internal training requirements. They deliver the internal continuing education and seminars for our lawyers through the Holland & Knight Institute, as well as seminars to our clients as a value-add service.”

The firm uses Adobe Acrobat Connect Pro to pre-record eLearning material and publish it on the Web. “Now all our offices worldwide can get the kind of training only the largest offices received before,” Barber says. “Our training is more consistent. We’re saving money, and we have fewer trainers. Our helpdesk receives fewer support calls and the users have higher levels of productivity.”

A Web-based service is helping Mobile County Public Schools make teachers more productive. They can access select applications at the school from any Web browser anywhere through a solution called IDS-Links from ACS, Inc. “The teachers visit a site, log in with Active Directory, and can get VPN access to the applications without needing special software on their systems,” Akridge says.

The results have been inspiring. Akridge observes: “Teachers previously had to take up instructional time, stay late after school, or come in on weekends to enter grades in the grade book application and develop lesson plans. Now teachers tell us they can go home, cook dinner, eat with their families, and, after the kids are in bed, spend an hour getting classroom work done. That’s an hour they can give back to the students as instructional time. We have had overwhelming applause for this solution.”

Social Networks: in users we trust?
Although organizations are adopting Web-based services quickly, they’re slower to support social networks. At Tecan, a leading global supplier of solutions for the biopharma, forensic, and diagnostic industries, Andreas Nitz, head of business application services and deputy CIO, sees the company benefiting from Xing, a European-based site similar to Facebook.

“When you make a site like Xing available, you need to trust your users,” Nitz says. “Xing is a very good business platform where we can find specialists, ask questions,
and get answers that are high quality. If I need a new employee, I can place the job description there and search for a candidate who fits. But of course, there’s a risk when a company's employees post their profiles because they can be hired away by other companies.”

At Holland & Knight, access to social networks was originally a concern to the firm until it became obvious how useful they can be as communication vehicles and public relations/recruiting tools. Social networks are now the way that law students, lateral-hire lawyers, and staff find out about firms, lawyers, successful mentoring programs, and culture, says Holland & Knight’s Barber. “Clients are also looking for information about law firms and lawyers,” he adds. “And now that kind of information is available on some of these social sites and blogs. The sites discuss a law firm’s expertise, its diversity programs, and what new methods or technologies might be in use to help lawyers work effectively together. Social networks need to be one of the tools that firms are embracing for the future. And they heighten our need to work with partners such as Symantec to implement confidentiality and security best practices.”

Students at Mobile County Public School System, however, are blocked from using Facebook and MySpace. “We’ve seen many students spend too many hours updating their pages,” Akridge says. “Until we figure out how to make those sites educational experiences, we’ll keep them blocked.”

Internal social networking tools such as wikis and blogs, on the other hand, are proving quite useful in the school system. “Teachers blog with students on projects,” Akridge notes. “We’re also using podcasting and videocasting at a number of our schools and putting digital signage in all school lobbies to push out these types of content so parents and visitors can see them. The result is more collaboration and greater value.”

**The need: enhanced, centralized security**

All these new technologies bring with them increased exposure to IT security risks, and each of these organizations—Mobile County Public Schools, Holland & Knight, and Tecan—is using Symantec Endpoint Protection to minimize those risks. The solution combines antivirus, antispyware, firewall, intrusion prevention, and device and application control technologies on endpoints with a single agent managed by a single console. That’s important because “any organization deploying consumer-based technologies should consider isolating them from business-critical applications,” says Fu-Hau Hsu, a security expert and an assistant professor in the Department of Computer Science and Information Engineering at Taiwan’s National Central University.

---

**Tecan Group Ltd.**

*Founded:* 1980  
*Headquarters:* Männedorf, Switzerland  
*Workforce:* Approximately 1,200  
*IT Staff:* 43  
*Operations:* Offices in 52 countries  
*Revenue (FY2008):* 396.04 million CHF (352.4 million USD)  
*Publicly Listed:* SWX (SIX)  
*Website:* www.tecan.com

“Technologies such as USB thumb drives or instant messaging should be accessible only from non-production systems,” Hsu advises. “These should be separated on the network from production systems by antivirus and content filtering technologies.”
Neither Mobile County Public Schools, Holland & Knight, nor Tecan has had significant disruption from malicious code since deploying Symantec Endpoint Protection.

In addition, at Tecan, the solution enables the blocking of forbidden applications. “For business purposes, we need to give users administrative rights to their systems,” says Patrick Büchli, head of IT infrastructure services. “So it’s possible for someone to install certain applications, such as iTunes, Firefox, and Skype, that we don’t allow. However, using the application control feature of Symantec Endpoint Protection, we can centrally enforce a policy that stops those applications from being run.”

Tecan and Mobile County Public Schools also block instant messaging, yet both organizations would like to find an instant messaging application that could be securely used by their authorized users. Says Mobile County’s Akridge: “At one time we had no restrictions for instant messaging and there was much abuse, so we curtailed it with our firewall. We need a filtered system to enable teachers and students to collaborate, especially in the afternoon and evenings, when students are doing homework.”

Symantec Endpoint Protection also enables Tecan and Mobile County Public Schools to enforce policies restricting the use of USB devices. At Mobile County, for example, the solution scans the contents of any USB thumb drive attached to the network. “From our Symantec central console we see many students bringing in MP3 files from home via thumb drives,” says George Mitchell, supervisor of IT. “We otherwise couldn’t police the high school systems—but our Symantec solution lets us set policies to either block the drives outright, control who can attach them, or quarantine dangerous files. We’ve stopped all threats so far.”

At Tecan, Symantec Endpoint Protection allows all USB devices. “But we may use it to block USB devices in the future because it’s easy to plug one in and walk out the door with 16 gigabytes of the company’s data,” says Büchli. “We need to ensure that software is standardized for our Web-based services such as Salesforce.com to work properly,” says Tecan’s Nitz.

Are Millennials different?
Controls such as these are important because Millennials can be indifferent to restrictions. In the survey commissioned by Symantec, 69 percent of them said that they use whatever device, software, or Web site they want regardless of corporate policies.

How else is the generation born after 1980 different than the ones before it?
Mobile Public Schools’ Akridge is in a good position to know. As he manages IT for 64,000 students, he can observe the next wave of corporate workers. “Consider my teenage daughter at home,” he says. “She can have an iPod touch in her hand, a cell phone to her ear, and a laptop on her lap. She can be texting somebody on her cell phone, listening to music on the iPod touch, working on her MySpace page on the laptop, and watching TV at the same time. That’s the Millennial generation—much more apt to multitask.”

They also collaborate more than any generation before them, Akridge notes. “We visited a classroom in Auburn, Alabama, that is piloting a one-laptop-per-child program. It’s incredible. Desks are side by side in twos. Back in my day, students worked independently and desks were an arm’s length apart. But these students collaborate with each other constantly. It’s a team effort to solve problems—even exams. And the students told us they are absolutely engaged, in their element, more productive, and having fun. Students with a moderate-to-lower range of performance in the old school of instruction were in the middle-to-higher range using technology.”

How will enterprise IT change as it absorbs the next generation of workers? The answer is rapidly. “Today’s students don’t even call it ‘technology’ in the schools,” points out Akridge. “It’s just life—it’s as expected as television and VCRs were in the homes of the generation before them. And what I hear the teachers saying is ‘I’ve been teaching 25 years, and I would never go back to teaching the old way.’”


Alan Drummer is Creative Director for Content at the NAVAJO Company. His work has appeared in the Los Angeles Times, San Francisco Examiner, Create Magazine, and on The History Channel.