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Designing the digital workplace

**Connectivity,
communication,
collaboration**

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About Strategy&

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We do that by working alongside you to solve your toughest problems and helping you capture your greatest opportunities.

These are complex and high-stakes undertakings — often game-changing transformations. We bring 100 years of strategy consulting experience and the unrivaled industry and functional capabilities of the PwC network to the

task. Whether you're charting your corporate strategy, transforming a function or business unit, or building critical capabilities, we'll help you create the value you're looking for with speed, confidence, and impact.

We are a member of the PwC network of firms in 157 countries with more than 195,000 people committed to delivering quality in assurance, tax, and advisory services. Tell us what matters to you and find out more by visiting us at strategyand.pwc.com/me.

Executive summary



The business world is moving faster and faster, and becoming more global and mobile. Working together in teams has become standard operating procedure, and new technologies are being developed to help workers communicate, collaborate, and share resources. And members of a new generation, fully accustomed to all the technological tools at their disposal, are entering the workforce in large numbers, and demanding greater freedom in managing how they work, and when.

To make the most of these trends, companies need to take a more strategic approach to how they design and organize the workplace. That means taking into account all the different stakeholders with whom employees interact — their co-workers, customers, vendors, suppliers, partners, and even friends and family. Ultimately, the new workplace architecture will seamlessly combine five key features: the right access devices, an appropriate communications infrastructure, the necessary business applications, a team-oriented workplace environment, and an overarching digital security umbrella.

In this report, we offer a framework for how to create the digital workplace of the future, one that can boost productivity, improve employee morale, and attract the next generation of talent — a truly strategic workplace.

The way we work now

Should the workplace itself be seen as a strategic asset? Three trends are coming together to make that a real possibility.

Members of a new generation are entering the workforce, and bringing with them their smartphones, tablets, and personal laptops. And they expect to be able to use these powerful new devices not just to interact with friends and family during work hours, but to do their work as well. Business is changing too — working around the clock to meet the needs of the increasingly global economic environment. Teamwork and collaboration are at the heart of how companies operate now. Enabling these changes, new technologies have sped up the digitization of businesses in every industry, allowing them to better monitor operations and get much closer to their customers (see “By the numbers,” page 5).

As a result, companies looking for a competitive advantage must now view the workplace itself as a strategic asset to boost performance, optimize costs, maximize customer contact, reduce time to market for new products and services, and attract and retain talent. To do so, however, they must understand the factors that are forcing the radical changes we now see in the workplace, the challenges those factors have created for companies, and how they can overcome them to build a fully digital, truly strategic workplace.

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By the numbers

The move to the digital workplace is happening quickly, according to the results of a 2011 survey conducted by Teknion, an office design firm.

- 88 percent of companies offer their workforce personal devices such as smartphones, PDAs, and tablets.
- Nearly 90 percent of companies plan to increase their investment in productivity-enabling technologies such as voice activation and sophisticated videoconferencing by 2015.
- 62 percent of companies conduct remote meetings through desktop videoconferencing.
- 54 percent of companies say they actively use Facebook, LinkedIn, Twitter, and other tools to engage their workforce, customers, and other stakeholders.
- Companies report that workplace mobility programs generate bottom-line occupancy savings of as much as 30 percent.
- By 2015, office space per employee will drop from 200 to between 50 and 100 square feet, depending on the industry.

Source: Ericka Chickowski, "Workplace of the Future: How Technology Will Change the Way We Work," *Channel Insider*, November 16, 2011, www.channelinsider.com/c/a/Careers/How-Technology-Will-Change-the-Workplace-of-Tomorrow-333122/.

The changing nature of work

If companies are to successfully design the digital workplace, they must fully understand the trends that are so rapidly transforming how work gets done.

Generation C

Gone are the days when work was work and the personal was entirely separate. Across the globe, a cohort of people born after 1990 is fast entering the workforce. We call these employees Generation C — they are fully tech-savvy, with an inherent understanding of digital technologies and the expectation of being connected to everyone and everything, anytime, anywhere. They are accustomed to neat and intuitive interfaces with the consumer-class technologies they prefer, and they bring these expectations to the corporate environment (*see “A rapidly changing workforce,” page 7*).

If companies hope to attract and retain these talented, dynamic, demanding workers, they will need to adapt their workplaces accordingly. That means supporting their desire for social connectivity, and understanding their willingness to blur the borders between private and work life and their demands for greater flexibility and autonomy in terms of time, space, and content at work. For Generation C, productivity has a new meaning, and companies must promote the elements of the digital workplace needed to enhance it.

New ways of operating

Globalization has completely altered the way in which businesses operate, creating a market dynamic that increases competition and demands much higher levels of efficiency. With organizations venturing beyond national boundaries in the pursuit of business opportunities, working across geographies and time zones has created an “always-on,” 24/7 culture. Employees are much more mobile, and companies are moving away from assigned offices and toward more open and technologically well-equipped workspaces that promote collaboration.

A rapidly changing workforce

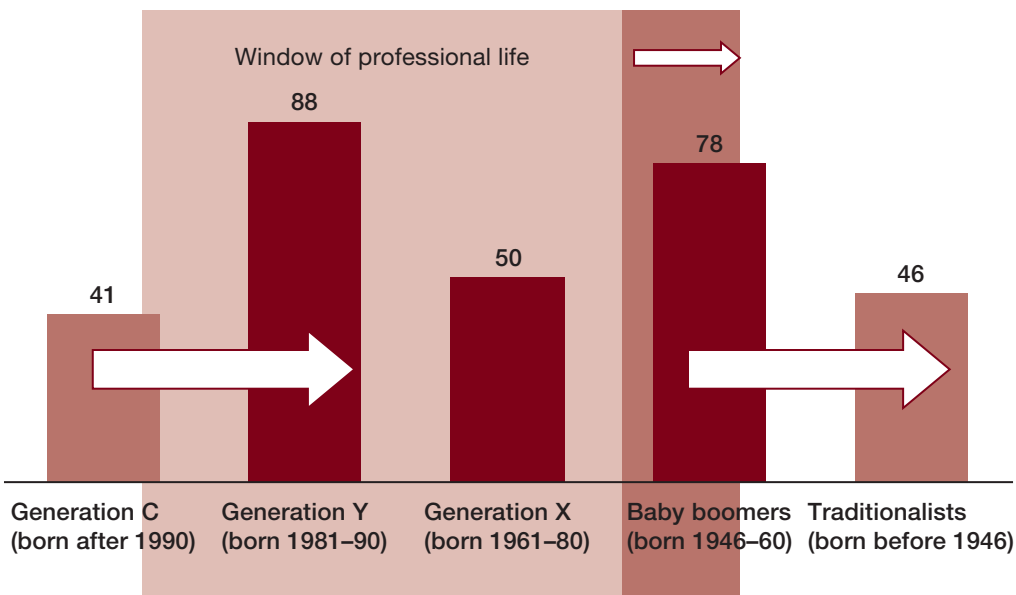
The traditionalists have mostly left the workforce, and baby boomers are retiring in ever-larger numbers. Increasingly, their places are being taken by the incoming class of digital natives called Generation C (see Exhibit 1).

Born after 1990, this cohort has never known a world without computers and the Internet, mobile phones, always-on connectivity, and instant access to huge amounts of information. They speak the language of technology, and they're as

comfortable with it as past generations were with pen and paper, newspapers, and libraries. They demand freedom in everything they do — freedom to express themselves, to choose how and when they work and play, to make their own decisions about the technologies they prefer to use. They love to customize and personalize, and they expect to find entertainment in their work, education, and social life. They are the generation of relationships and collaboration. They are innovators.

Exhibit 1
Generational change in the U.S. workforce

U.S. Workforce Distribution by Generation (in Millions of Workers)



Source: *The 2020 Workplace*, by Jeanne C. Meister and Karie Willyerd (HarperBusiness, 2010); Strategy& analysis

The productivity problem

Despite the many advances in workplace technologies, companies face several challenges in implementing these tools securely and manageably.

- **Poor integration:** Most organizations have implemented collaboration and knowledge management tools, but they have not properly integrated them with their business applications. As a result, employees have not adopted them, and companies have not reaped the expected business benefits.
- **Inadequate communications infrastructure:** Most organizations do not fully leverage video and voice teleconferencing, and so have not succeeded in reducing the cost and effort involved in conducting business meetings.
- **Underleveraged consumerization:** Most organizations have not yet fully embraced advances in consumer technology, particularly regarding the integration of smartphones and tablets into the working environment. To better manage certain aspects of their workload, employees are now bringing their own devices to work, whether or not they are allowed.
- **Security issues:** As more employees bring their own devices to the workplace, the IT department has not been able to keep up. The result: increased data leakage and the bypassing of corporate security measures.
- **Poor workplace design:** Most companies have not yet revamped their workplaces to move to an open workspace model, which can significantly increase collaboration and spur innovation.

Indeed, collaboration is at the heart of every business now. Most employees are part of a team regardless of what industry they work in.

Digitization

Powerful but easy-to-use technologies have wrought significant changes in how people live their lives, at work and at home — and are doing much to encourage employees to combine their work and home lives. These tools enable people to communicate, collaborate, and share resources, while increasing productivity and business agility by boosting the automation and flexibility of IT infrastructures. At the same time, they are reducing costs considerably — but only if they are fully integrated into the workplace, and fully secure (see “*The productivity problem*”).

Working together

The way we work today demands that employees interact with a wide variety of stakeholders, both inside and outside the traditional organization. So it is critical in designing the digital workplace that companies keep in mind the many intricate relationships among employees, and between employees and customers, vendors, suppliers, and even the public at large.

- **Teams:** Employees need to work with one another to collaborate on day-to-day tasks, collectively brainstorm ideas, analyze information, present findings, share relevant files and documents, and track the progress of their respective activities.
- **Customers:** Many employees regularly interact with customers to collaborate on projects, handle requests, provide maintenance reports, and the like.
- **Vendors and suppliers:** Employees must work regularly with the vendors and suppliers that provide parts, resources, services, and other inputs to ensure progress and on-time delivery.
- **Administrative staff:** Employees regularly interact with the administrative staff to submit expense reports, manage logistics, attend training sessions, and solve technical problems.
- **Family and friends:** The lines between personal and work lives have become increasingly blurred, and employees now demand the right to manage their personal lives from work.

Only by identifying these key interactions can companies understand how best to design their workplaces.

The lines between personal and work lives have become increasingly blurred, and employees now demand the right to manage their personal lives from work.

A design framework

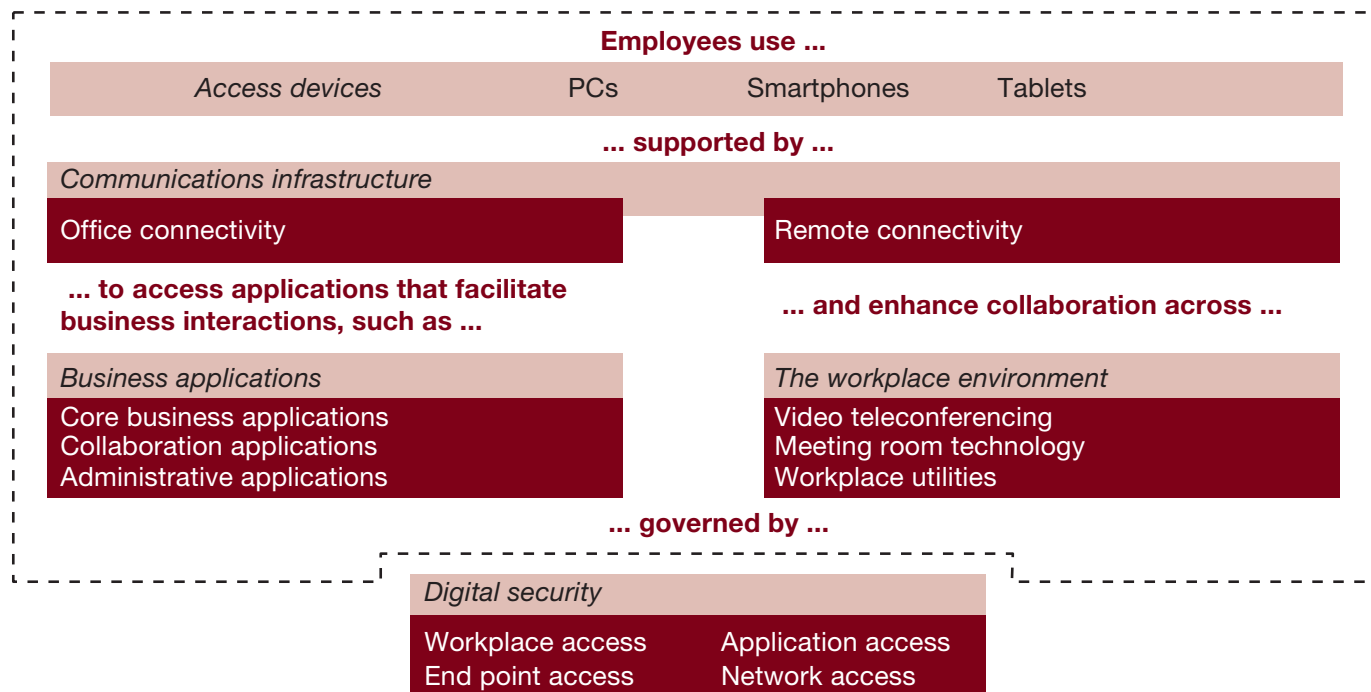
Creating the workplace of the future requires five elements, which make up the digital office framework: access devices, communications infrastructure, business applications, the workplace environment, and digital security (*see Exhibit 2, page 11*).

Access devices

Employees need considerable flexibility in choosing the most effective way to access business applications wherever they are working. Smartphones and tablets are increasingly becoming a necessity, so companies need to rethink their device strategies based on business needs. Should they provide these devices to employees or let them bring their own to work?

Internet service provider Yahoo has improved employee morale and productivity by giving all of its full- and part-time employees brand-new smartphones, letting them choose among Apple's iOS, Samsung and HTC's Android, and Nokia's Windows operating system platforms. In addition to enabling remote connectivity, faster browsing, and downloading capabilities, the initiative helped Yahoo employees to better understand what their customers are using and thus to develop mobile services more in keeping with customers' needs.

Exhibit 2
The digital office framework



Source: Strategy&

Communications infrastructure

Strong connectivity remains a crucial requirement in the digital workplace, both in the office and on the road; it is fundamental to ensuring that the communications technologies and business and collaboration applications driving business today function effectively. Corporate networks need to be equipped to handle simultaneous voice, video, and data communication, both in and outside the company network.

Business applications

Giving employees seamless access to business applications — whether core utilities such as ERP, CRM, or business intelligence or collaboration and administrative applications — regardless of location and time increases productivity and supports collaboration with other employees, partners, and customers. Such applications also help virtual teams work cohesively and interact effectively, giving them instant access to the critical information they need.

Knowledge management and collaboration platforms, for example, have become increasingly critical, allowing project documents to be stored centrally and accessed easily, and letting team members collaborate on changes, viewing and sharing them in real time.

Faced with the need to boost its competitiveness, Persistent Systems, a global software product and technology services company, was determined to improve its employees' ability to communicate, share, and leverage its intellectual capital and to identify its many domain experts around the company. So it deployed the Cisco Quad enterprise collaboration platform, known as WebEx Social, which provided streamlined content sharing and searching as well as communication

capabilities, allowing employees to post, view, edit, distribute, and search for relevant content, and facilitating collaboration across diverse virtual teams. Bringing together content, business applications, communications, and enterprise social software into a single unified platform resulted in a 30 percent savings in management effort and infrastructure cost.

In hopes of promoting even more effective collaboration, many companies are beginning to take advantage of both public and private cloud environments and the emerging cloud technologies they enable. The cloud has introduced a new computing paradigm that gives employees constant access to other employees, to content, and to computing capabilities from anywhere and from any device. In fact, more than 80 percent of new enterprise applications developed in 2012 were cloud-based.

The workplace environment

The design of the physical workplace has a strong influence on employees' motivation, performance, productivity, and collaboration, along with an organization's ability to attract and retain talent. Collaboration, for example, can be significantly improved by providing video teleconferencing and interactive meeting room technology. In specific situations — when tapping faraway expertise or telecommuting, for instance — email and phone communication may not suffice to support progress. Connecting people via real-time presence and rich online meetings, including audio, video, and Web conferencing technologies, can make a real difference.

As Oracle's phone conferencing reached an estimated volume of millions of minutes per month for its more than 40,000 employees, its cost and usability became a business issue. The large business software company,

which had been outsourcing its phone conferencing to a service bureau, decided to move to Cisco's Unified MeetingPlace for on-premises, global, IP-based conferencing. The new system simplified scheduling and participating in conference calls and significantly increased collaboration. In the first full quarter since introducing the system worldwide, Oracle saved more than US\$1 million, and the company expects total annual cost savings to add up to \$4.5 million.

Digital security

The convergence of cloud computing, social media, and mobile computing technologies has created real problems in maintaining data security at every company. Yet new technologies now allow information to be stored securely in the cloud and made available from various devices, while enabling offline data access and seamless peer-to-peer activities between devices. Indeed, private cloud environments have enabled many organizations to increase agility and reduce costs.

Implementing the digital office framework begins with a careful assessment of the company's current state of office technology, and the design of a blueprint for what the future state should look like. The blueprint should take into account both the new technology architecture involved and the rethinking of the physical workplace. Once this is complete, a series of pilot programs will enable companies to evaluate how the technologies perform under real working conditions, and those that prove themselves can then be implemented at full scale.

The process should not stop at implementation, however. The technologies that will make up how work gets done in the future will likely be in constant flux, so companies must examine their workplaces, learning what is working and what isn't, and upgrading to maintain their competitive lead.

Act now

Companies in every industry are facing real challenges in offering employees the best of the new technologies they need. But those that can see the strategic value of the working environment, and can get in front of the movement to the truly digital workplace, will have a clear advantage in productivity, innovation, and collaboration. That, in turn, will enable them to attract the talent they will need to stay competitive and to align with the social and business transformations taking place around the world.

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