

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

by Andrew Hewitt
February 10, 2017

Why Read This Report

Infrastructure and operations (I&O) leaders responsible for workforce experience and technology increasingly think of buildings and the technologies within them not just as places to do work but as business-critical assets that can help win, retain, and serve customers. This report helps I&O pros analyze the offerings, scenarios, maturity, challenges, and road maps of three workplace technology innovation vendors.

Key Takeaways

Smart Offices Are Business Enablers

Companies that want to get ahead of their competitors will transform building infrastructure, install group computing devices, and offer building-specific apps to help employees deliver stellar customer experience, manage building assets, and increase productivity.

Emerging Technologies Play A Key Role In Driving Workplace Innovation

To push your workplace innovation to the next level, you need to consider solutions you can't buy at your local office supply store. This report highlights three companies that do just that: Philips Lighting, Microsoft, and Cloudbooking.com.

Workplace Innovation Will Drive Employee And Customer Business Outcomes

Emerging workplace technologies will help improve worker productivity in the office with better devices and apps and more-comfortable working environments. Customers will benefit from location services, enhanced data visualization, and personalized customer experiences.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction



by [Andrew Hewitt](#)
with [Christopher Voce](#) and Clare Garberg
February 10, 2017

Table Of Contents

- 2 **The Modern Workplace Can Be A Tool For Business Growth**
Emerging Vendors Play A Role In Workplace Innovation
- 4 **Philips Lighting Gives New Business Purpose To A Utility**
- 7 **Microsoft's Surface Hub Turns A Wall Into A Smart, Collaborative Space**
- 8 **Cloudbooking.com Tackles Smarter Space Management**

Recommendations

- 10 **Start Small, But Think Long-Term**
- 12 **Supplemental Material**

Related Research Documents

- [Enable Workplaces Of The Future, Now!](#)
- [IoT Smart Building Solutions Transform The Workplace](#)
- [Workforce Enablement Defined: Elevate Productivity And Engagement](#)

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

The Modern Workplace Can Be A Tool For Business Growth

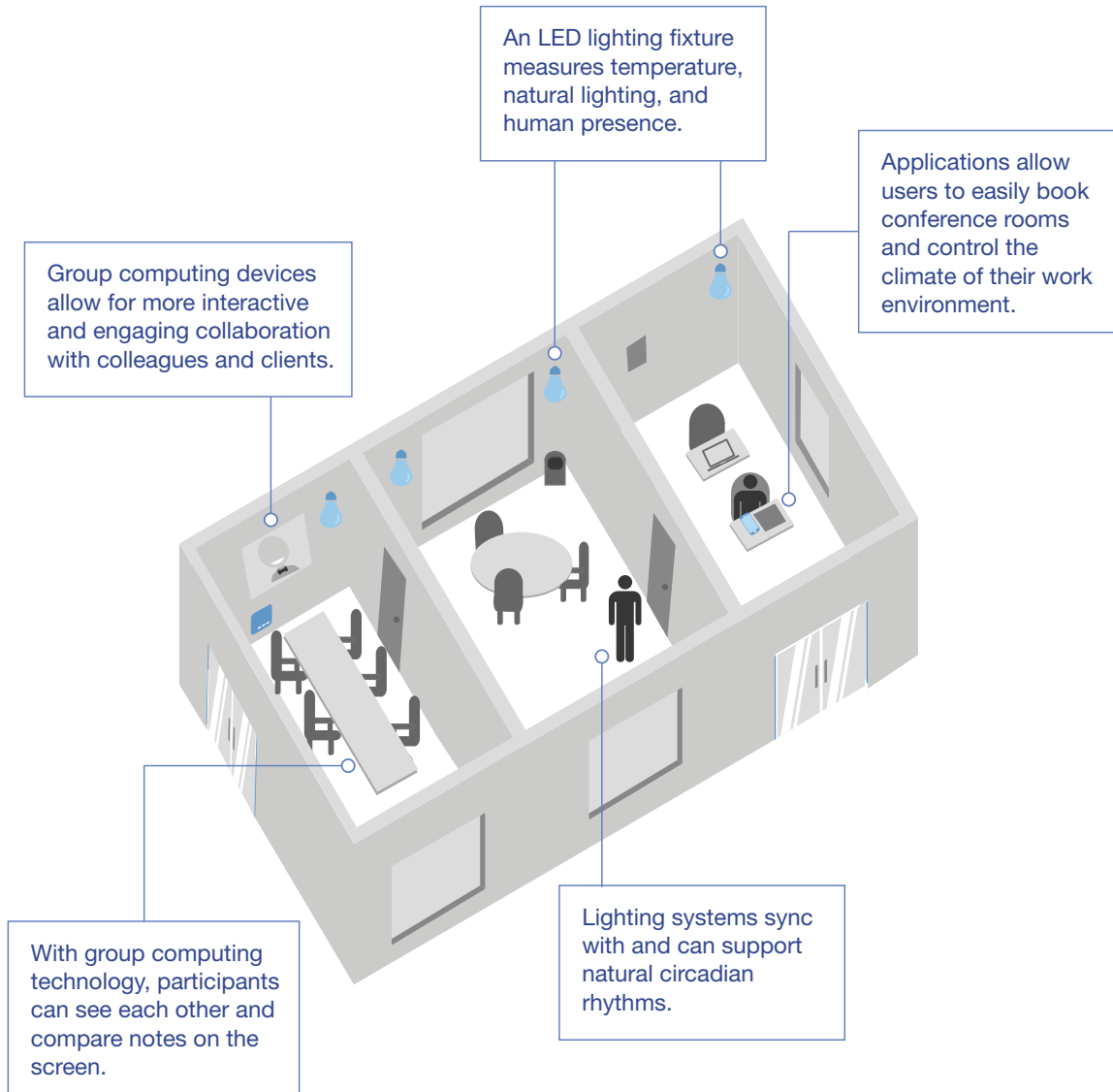
I&O pros responsible for workforce technology and employee productivity face a new landscape of offerings beyond the traditional PCs, desk phones, printers, and copy machines they're familiar with. Trends in internet-of-things (IoT) and mobility technologies have given rise to a host of new solutions for the modern workplace, and I&O must rethink what's possible with a building to support business strategies focused on winning, serving, and retaining customers. Digital transformation leaders — those firms that will outpace their digitally immature competitors — will no longer view buildings merely as places to shelter employees from the elements but will use them to supported heightened employee productivity and tools for business growth. I&O leaders can help drive and support innovation by (see Figure 1):

- › **Instrumenting buildings with customer-focused facility technology.** Your office's building infrastructure is no longer the responsibility of facilities managers alone; I&O pros are increasingly helping them deploy, monitor, and secure connected systems in support of business goals.¹ Connected building technology, like Philips Lighting's internet-powered lighting systems, can now help customers navigate stores, direct clients to meeting rooms, and improve worker productivity by syncing with circadian rhythms.² Smart heating, ventilating, and air conditioning (HVAC) can make or break a sale for food suppliers, which now use HVAC systems to measure temperature and oxygen airflow at food-processing plants, ensuring product freshness for customers.
- › **Installing devices to support better internal and external collaboration.** Group computing is a newer dynamic that allows multiple people to simultaneously use one computing device, often in a conference room setting. Business interest in products like Microsoft's Surface Hub is on the rise as companies search for better ways to show data to potential customers, spur collaboration among internal employees, and visualize new approaches to old problems using whiteboarding technology.³ Group computing can serve a number of horizontal use cases, but it's especially ideal for marketing teams, engineers and designers, and healthcare professionals.
- › **Investing in environmental apps that enhance customer and employee experience.** How many hours have you wasted looking for an open conference room, wandering around your office and peering into "booked" rooms only to find them vacant? Solutions from vendors like Cloudbooking.com can simplify your conference room booking experience, saving your employees time and frustration. Building-focused applications can also enable "hot desking" scenarios for mobile workers or improve visitor management by allowing clients to use an app to navigate an unknown building, find an open desk, or even vacate the premises in an emergency.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

FIGURE 1 The Modern Workplace Features Connected Infrastructure, Devices, And Applications



Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

Emerging Vendors Play A Role In Workplace Innovation

To give I&O leaders an idea of the companies that are driving innovation in the workplace today, Forrester has identified three groundbreaking vendors in the workplace innovation space. Although two of the vendors are very well known in other areas of the technology world, they've recently delivered novel solutions to the workplace technology market that are outside the scope of traditional workplace technology solutions. We discuss each company's:

- › **Offering.** What are the capabilities of the products and the technology?
- › **Scenarios.** What are the user requirements, environments, and use cases?
- › **Maturity.** What are the company's go-to-market approach, channel strategy, and viability?
- › **Challenges.** What are the barriers to success?
- › **Road map.** What's next for the business and the products?

Philips Lighting Gives New Business Purpose To A Utility

Reexamining your office infrastructure and how it supports your business' goals and employees' needs is a critical new step in a modern workplace technology strategy. Philips Lighting connects light fixtures to internal technology resources, allowing businesses to better serve employees and customers in a variety of industries (see Figure 2).

- › **Offering.** Philips Lighting employs sensors embedded in LED light fixtures to measure light levels, humidity, gas detection, temperature, and more. Using a technology called visible light communication (VLC), employees can use a smartphone camera to communicate with a light fixture and alter their desk environment via an app. Over time, the app learns an employee's preference for temperature and can adjust accordingly, even in hot-desking scenarios.⁴ The solution also has relevance in customer-facing settings; UAE supermarket chain Aswaaq uses VLC to help customers navigate its stores and find products as well as receive location-based services, like promotions, on their smartphones.⁵
- › **Scenarios.** Because lights are ubiquitous throughout buildings, connected lighting solutions serve a broad range of use cases and industries. In the commercial office space, organizations can use light levels to boost worker productivity, track open desks and conference rooms, and allow workers to customize their working environments.⁶ Other industries, such as manufacturing and warehousing, can increase worker safety by alerting workers of potentially dangerous conditions or directing workers to the closest exit in case of fire. Connected lighting is also applicable to remote monitoring use cases. The City of Los Angeles uses a connected lighting system to help workers track outages, monitor lighting power grid status, and provide environmental noise-monitoring information to different city departments.⁷

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

- › **Maturity.** While connected lighting implementations are still in the early stages, Philips Lighting has established a sizable partner ecosystem.⁸ This includes building management solution providers, systems integrators, information and communications technology (ICT) vendors, and M2M players, among others. Philips also built the system to be compatible with any light bulb, which will help speed adoption because organizations won't need to swap out their bulbs to be Philips-compatible.⁹
- › **Challenges.** While Philips Lighting has proven the energy-saving benefits for connected lighting (in some cases, more than 30% per year), employee-centric benefits are harder to equate and involve the use of third-party tools to measure gains in employee productivity.¹⁰ Organizations must also structure themselves in a way that facilitates implementation and adoption of the technology. Executives must provide the strategic and purchasing power, while facilities managers and I&O pros need to learn each other's trade and work together early to avoid problems such as double cabling.¹¹ I&O pros must work with security peers to safeguard the identity and privacy of customers and employees by anonymizing touchpoints throughout the lighting infrastructure.
- › **Road map.** Philips Lighting is actively exploring how to broaden connected lighting scenarios to address more industries and use cases. In addition, it will add new functionality, such as enabling carbon dioxide sensors on lights to signal HVAC systems to pump more oxygen into crowded and stuffy conference rooms.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

FIGURE 2 Distributed Lighting Systems Are Customizable By Workstation



Source: Philips Lighting website

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

Microsoft's Surface Hub Turns A Wall Into A Smart, Collaborative Space

In addition to tackling technology initiatives focused on individual productivity, I&O professionals must provide tools to help people be more productive in group settings. Group computing spurs collaboration, communication, and creativity by allowing multiple people to work together on a single shared device. Released in 2016, Microsoft's Surface Hub is an innovative enabler of group computing that combines big-screen teleconferencing with Windows 10.

- › **Offering.** Surface Hub combines historically disparate collaboration technologies like videoconferencing systems and smart whiteboards into a single medium for collaboration. It runs on Windows 10 and is available in 84-inch and 55-inch 4K configurations, depending on the size of the conference room and the number of people using it; typically, this would be three people for the 84-inch model and two for the 55-inch one. It features a 100-point multitouch display and comes with two Surface Hub pens to support fluid-inking capabilities. The offering comes preloaded with business-ready apps, including Office, Power BI, and Skype for Business.¹²
- › **Scenarios.** Microsoft doesn't target Surface Hub at a specific industry; rather, it focuses on helping transform key collaborative activities like brainstorming, exhibition, and visualization. For instance, rather than posting sticky notes and drawing arrows on a whiteboard, marketing professionals can work side by side to brainstorm campaigns and do customer journey mapping.¹³ Healthcare professionals at the Case Western Reserve University School of Medicine use the inking capabilities of Surface Hub to help students and patients better understand x-ray and MRI images (see Figure 3).¹⁴ The media provider CNN used Surface Hub throughout the 2016 US presidential election to help viewers visualize how voter turnout and county results would affect electoral victories.¹⁵
- › **Maturity.** Though the technology is still relatively new, Microsoft recently disclosed an estimate that it will have shipped Surface Hubs to more than 2,000 customers in 24 markets by the end of 2016.¹⁶ It has invested heavily in making business-critical apps such as Power BI, PowerPoint, and Skype available on Surface Hub and continues to add more task-specific apps like computer-aided design (CAD) modeling and video review as the solution matures.
- › **Challenges.** Despite packaging videoconferencing, whiteboarding, and a host of apps inside Windows 10, Surface Hub does come at a price (\$8,999 to \$21,999, depending on screen size) that might preclude it from widespread deployments in small business environments. Additionally, Surface Hub requires space for multiple people to collaborate at once, so I&O professionals should consult corporate services teams to redesign conference rooms in a way that fosters collaborative use of the solution and must ensure that employees know how to use the new system.
- › **Road map.** Microsoft will continue to make Surface Hub enterprise-worthy by adding more apps, enhanced storage capabilities, and the ability to work on multiple screens. This includes building out storage capabilities to handle rich data sets from video and audio sources, expanding Power BI offerings, and continuing to improve upon already strong security standards for Surface Hub.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

FIGURE 3 Doctors Use Surface Hub To Help Explain A Patient's Diagnosis



Source: Microsoft website

Cloudbooking.com Tackles Smarter Space Management

The need of businesses to maximize the value of their spaces has given rise to “hot desking,” where employers dynamically allocate desks, even potentially allowing employees to choose where they want to sit based on whom they might need to work with. London-based space management company Cloudbooking.com gives users the tools to manage open desks and book conference rooms. It also helps visitors navigate a building, aids in monitoring and ordering important room resources like audio/video equipment, and even allows employees to book parking spaces before they arrive.

- › **Offering.** Cloudbooking.com offers software solutions for managing office assets. For conference room booking, organizations can install a tablet outside a conference room; the screen lights up red if someone has reserved the room and green if it's free. If it's green, employees can then book the room on the spot using Cloudbooking.com's desktop or mobile app (Android or iOS).¹⁷ Because the company integrates with real-time occupancy sensors, business managers can also use the software's advanced analytics features to make critical space-optimization decisions, such as shifting desks away from areas that employees don't frequent (see Figure 4).

Breakout Vendors: Workplace Technology Innovation

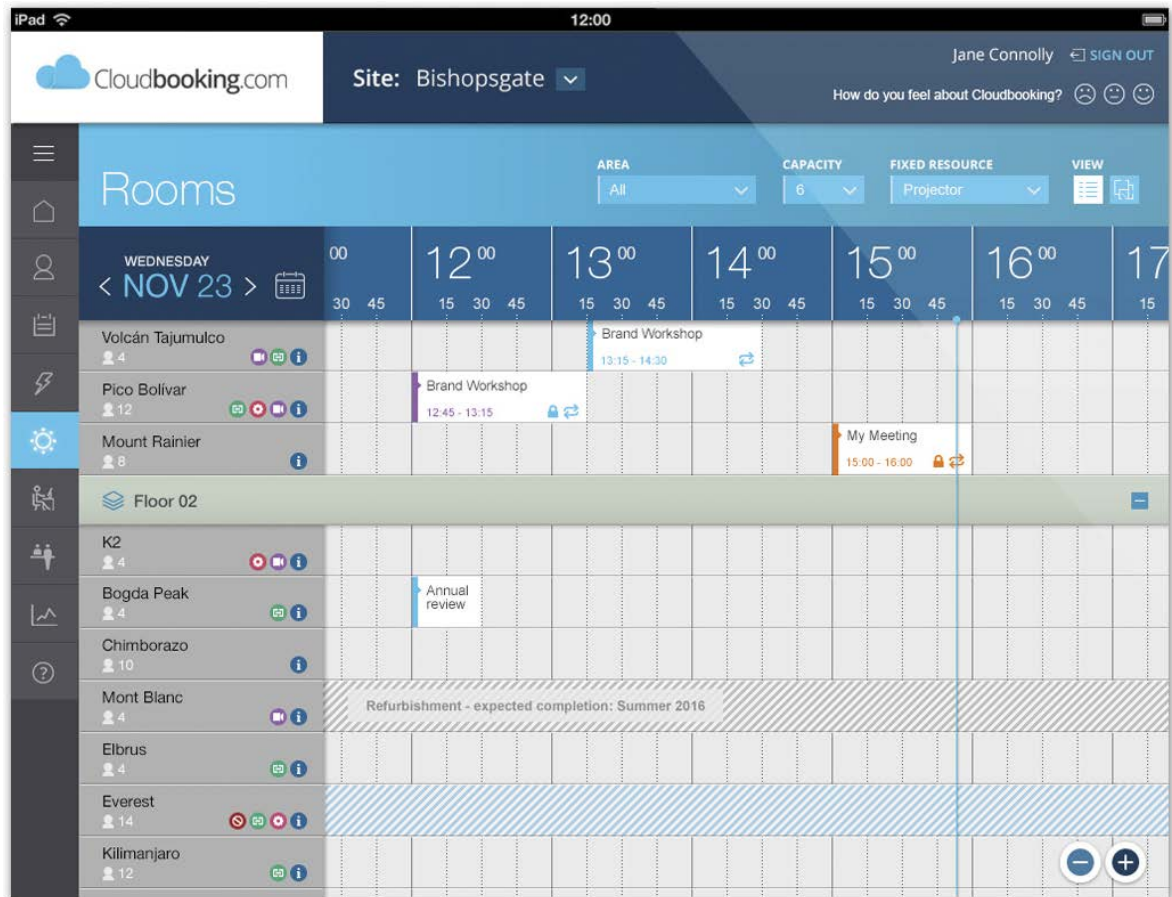
Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

- › **Scenarios.** Cloudbooking.com's hot-desking solution is best suited for organizations whose employees are always on the go and don't necessarily need a formal desk setup every day. However, the solution has broad appeal for any organization that seeks better conference room management and space optimization. It's also ideal for organizations that have many visiting clients, as the software includes features that sync with Microsoft Active Directory and alert employees of client arrivals via SMS, deliver food for client meetings, and print visitor cards.
- › **Maturity.** Despite Cloudbooking.com's startup size, the company has won over some big names, including BNY Mellon, General Electric, and Lloyds Banking Group, which all use its conference and desk-booking features.¹⁸ Although the solution lacks integrations with cutting-edge IoT solutions that could enhance its functionality, such as connected lighting, Cloudbooking.com leverages 15 years of experience in the space management field to bring a mature and lightweight solution to market for basic building functions.
- › **Challenges.** Cloudbooking.com faces the traditional startup struggles — name recognition and mindshare. As IoT-enabled buildings become more commonplace, Cloudbooking.com will need to demonstrate its value in an increasingly crowded ecosystem of vendors that includes connected utilities vendors, sensor-enabled LED light players, building automation system suites, ICT vendors, physical security information management (PSIM) vendors, and other specialized solutions.¹⁹ The company faces formidable competition from enterprises like Google and Salesforce, which can provide conference room booking and hospitality-management capabilities, respectively.²⁰
- › **Road map.** Cloudbooking.com's road map includes more features to help organizations manage additional building assets. Forrester believes that the vendor will also need to explore deeper partnerships with other connected building players. The company has already developed an agent and distributor channel and is currently aiming to consolidate its direct channel.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

FIGURE 4 Cloudbooking.com's Conference Room Booking Solution Enhances Worker Productivity



Source: Cloudbooking.com website

Recommendations

Start Small, But Think Long-Term

For I&O leaders focused on employee productivity, workplace technology innovation isn't a single massive undertaking. Instead, it's a methodical hunt for productivity killers, customer pain points, and money drains. As you consider improving your workplace to make it friendlier for customers and employees alike:

- › **Tackle areas with immediate cost savings first.** Often, it's easier to gain executive buy-in if you can demonstrate immediate cost savings of a product versus an outdated process or workflow. For instance, LED lighting installations are expensive, but over time, they're much more cost effective

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

than traditional lighting.²¹ Similarly, Surface Hub is pricey, but the product does combine multiple collaboration technologies in one solution, which may be less expensive than buying the same set of technologies separately.

- › **Favor flexibility over rigidity.** The workplace technology innovation revolution is still in its infancy, and we'll see a lot of change in the coming years. Focus on products dedicated to open standards and processes that plug into broader ecosystems. Reserve proprietary solutions for specific circumstances; for example, the oil and gas industry, where systems tend to be more proprietary.
- › **Involve key stakeholders early in the process.** Smart buildings are fundamentally different from most I&O projects because they involve far more stakeholders. Facilities managers, executives, HR, and other groups should be at the decision-making table. Your leadership and willingness to collaborate with these stakeholders will be the key to your success in workplace innovation.

Engage With An Analyst

Gain greater confidence in your decisions by working with Forrester thought leaders to apply our research to your specific business and technology initiatives.

Analyst Inquiry

To help you put research into practice, connect with an analyst to discuss your questions in a 30-minute phone session — or opt for a response via email.

[Learn more.](#)

Analyst Advisory

Translate research into action by working with an analyst on a specific engagement in the form of custom strategy sessions, workshops, or speeches.

[Learn more.](#)

Webinar

Join our online sessions on the latest research affecting your business. Each call includes analyst Q&A and slides and is available on-demand.

[Learn more.](#)



Forrester's research apps for iPhone® and iPad®

Stay ahead of your competition no matter where you are.

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

Supplemental Material

Survey Methodology

Forrester's Global Business Technographics® Mobility Survey, 2016, was fielded from March to May 2016. This online survey included 3,631 respondents in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from companies with two or more employees.

Forrester's Business Technographics ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Research Now fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates.

Companies Interviewed For This Report

We would like to thank the individuals from the following companies who generously gave their time during the research for this report.

Cloudbooking.com

Philips Lighting

Microsoft

Endnotes

- ¹ Although security is beyond the scope of this report, keep in mind that security of IoT assets is extremely important in the age of IoT. In this Forrester report, we predict that at least one major enterprise will have an IoT-related breach in 2017. Don't let it be you. See the Forrester report "[Predictions 2017: Security And Skills Will Temper Growth Of IoT.](#)"
- ² For more information on smart buildings, see the Forrester report "[IoT Smart Building Solutions Transform The Workplace.](#)"
- ³ Our survey reveals that telecommunications decision-makers place a high value on apps that foster productivity, collaboration, and higher-quality presentations: 79% are implementing or plan to implement productivity apps in the next 12 months; 75% are implementing or plan to implement document collaboration apps; 74% are implementing or plan to implement webconferencing/videoconferencing apps; and 66% are implementing or plan to implement sales presentation apps. Source: Forrester's Global Business Technographics Mobility Survey, 2016.
- ⁴ Source: Tom Randall, "The Smartest Building in the World," Bloomberg, September 23, 2015 (<http://www.bloomberg.com/features/2015-the-edge-the-worlds-greenest-building/>).
- ⁵ Lights transmit their location by VLC to the customer's smartphone, and the app then uses the location information to provide an enhanced shopping experience. Source: "Shopping at light speed in Dubai, with Philips Lighting," Philips press release, March 14, 2016 (<http://www.philips.com/a-w/about/news/archive/standard/news/press/2016/20160314-Shopping-at-light-speed-in-Dubai-with-Philips-Lighting.html>).
- ⁶ Forrester's research shows that enabling workers to do their best work is key to workforce satisfaction. Additionally, when a company's workforce is happy, it tends to have a positive effect on the company's overall financial performance. For more information on enabling worker productivity and engagement, see the Forrester report "[Workforce Enablement Defined: Elevate Productivity And Engagement.](#)"

Breakout Vendors: Workplace Technology Innovation

Three Innovative Workplace Tech Vendors Boost Employee Productivity And Customer Satisfaction

- ⁷ Source: “Los Angeles is blazing the trail for connected street lighting,” Philips Lighting (<http://www.usa.lighting.philips.com/cases/cases/road-and-street/los-angeles.html>).
- ⁸ Though Philips launched connected lighting in 2012, it takes a considerable amount of time to implement a smart lighting solution, as organizations need to complete previous lighting contracts, construct or retrofit an area for smart lighting, and bring together various stakeholders.
- ⁹ The Los Angeles implementation, for example, doesn’t use a single Philips light bulb.
- ¹⁰ Philips measures productivity in terms of time savings for employees. For example, organizations can use third-party tools to measure how much time employees waste looking for empty conference rooms and workspaces and equate that to cost savings. Philips estimates that this typically equates to 2% of an employee’s time.
- ¹¹ It’s essential to consider how you’ll light a space from the beginning of the planning process. Failure to do so severely limits your options when it comes to engaging customers in-store with illuminative displays or providing optimal light levels and colors to support employee productivity.
- ¹² For a full list of the apps that Microsoft provides, visit its website. Source: “Platform for amazing large screen apps and services.” Microsoft (<https://www.microsoft.com/microsoft-surface-hub/en-us/apps>).
- ¹³ Forrester has a wealth of customer journey mapping research. For more information, see the Forrester report “[Use Customer Journey Mapping To Make Your Culture Customer-Obsessed.](#)”
- ¹⁴ Source: “Inspire engaged learning.” Microsoft (<https://www.microsoft.com/microsoft-surface-hub/en-us/case-studies/clevelandclinic>).
- ¹⁵ Source: “See how CNN’s Surface Hub Election app was developed (video),” MSPoweruser, November 9, 2016 (<https://mspoweruser.com/see-cnns-surface-hub-election-app-developed-video/>).
- ¹⁶ Source: Brian Hall, “It’s the most wonderful time of the year – for Surface!” Windows blog, December 12, 2016 (<https://blogs.windows.com/devices/2016/12/12/wonderful-time-year-surface/#pGmUvMEOQhIVxv68.97>).
- ¹⁷ Additionally, if participants don’t show up to a reservation within a certain period (this is configurable), the system will release the reservation to allow others to book the room.
- ¹⁸ After transitioning its client growth strategy to focus on client needs on a daily basis, Cloudbooking.com won more than 10 customers in the second half of 2016.
- ¹⁹ For more information on the vendor ecosystem for smart buildings, see the Forrester report “[IoT Smart Building Solutions Transform The Workplace.](#)”
- ²⁰ These competitors, however, offer only a portion of the booking experience. For example, employees can book a room with Google Calendar, but they don’t have any insight into real-time occupancy data, can’t manage client visits, and can’t inventory room resources and equipment.
- ²¹ However, in the case of connected lighting, the faster you replace your old bulbs, the faster you get your money back in energy savings. If you’ve chosen connected LED lighting, favor short-term turnovers of your traditional incandescent bulbs over longer-term projects. That way, you recoup the energy-saving benefits faster, and there’s less chance that connected lighting companies will release an even more advanced light bulb.

We work with business and technology leaders to develop customer-obsessed strategies that drive growth.

PRODUCTS AND SERVICES

- › Core research and tools
- › Data and analytics
- › Peer collaboration
- › Analyst engagement
- › Consulting
- › Events

Forrester's research and insights are tailored to your role and critical business initiatives.

ROLES WE SERVE

Marketing & Strategy Professionals

CMO
B2B Marketing
B2C Marketing
Customer Experience
Customer Insights
eBusiness & Channel Strategy

Technology Management Professionals

CIO
Application Development & Delivery
Enterprise Architecture
› Infrastructure & Operations
Security & Risk
Sourcing & Vendor Management

Technology Industry Professionals

Analyst Relations

CLIENT SUPPORT

For information on hard-copy or electronic reprints, please contact Client Support at +1 866-367-7378, +1 617-613-5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.