

# Creating the digital workplace at Microsoft

The physical work environment at Microsoft represents a massive, ongoing investment in our employees. Its design empowers employees to maximize their productivity individually and collaboratively. We want our employees to connect within and across teams and organizations, and with customers, partners, vendors, suppliers, and guests.

As part of the Microsoft Core Services Engineering and Operations (CSEO) Productive Enterprise initiative, we're partnering with Microsoft Real Estate and Facilities (RE&F) to build the most empowering digital workplace experiences possible for Microsoft employees. We envision a workplace that uses physical infrastructure, devices, and cloud services to create a world-class, integrated experience for every employee. The digital workplace is deeply integrated with our own Microsoft products and services, including Microsoft Azure IoT, Microsoft Dynamics 365, and Microsoft 365. It increases productivity, creates efficiency, enables accessibility, and eliminates friction. It fosters connections and collaboration; it provides safety and security. It accommodates and facilitates; it delights and inspires.

The Digital Workplace investment is creating a leading example to inspire and guide other enterprises to transform their workplaces. Throughout this paper, we will demonstrate the benefits of increased employee satisfaction and productivity. Additionally, we will showcase how to deploy digital workplace experiences at scale and how to make them secure, inclusive, accessible, and manageable. To find out more about how the Digital Workplace investment fits into the broader vision for a better employee experience at Microsoft, refer to [Reinventing the employee experience at Microsoft](#).

## Catalyst for change

In an effort to be more open, transparent, and collaborative, many companies have been moving their employees from traditional office settings into contemporary, team-based space environments. Teams are becoming more collaborative, and the nature of work is also changing. As the marketplace becomes more global and competitive, teams are adapting to become more agile and innovative. Product cycles are getting shorter, and companies are feeling the pressure to move their employees closer together to speed up the decision-making process.

At Microsoft, we want an environment that empowers employees, before they even get to work, and continues empowering them throughout the workday. We want to improve the methods our employees use to get to a Microsoft campus, including reducing single-occupant vehicles and the carbon footprint for our transportation services. We've reassessed our facilities and identified the need for more intelligent and user-friendly systems and methods for navigating our campuses, both outdoors and indoors.

Our teams are collaborating more and adapting to be increasingly agile and innovative. Our development timeframes are decreasing, and our employees are working in multiple teams across organizational boundaries. At the same time, teams are becoming more distributed as the global talent quest is embracing new technology, workplace mobility, and a "work from anywhere" approach. The nature of collaboration has changed as a result of employees needing to keep global communication chains open and efficient. Our employees want a workplace that enables them to be productive in their work, engage with team members, and feel empowered within a dynamic work environment.

## Establishing priorities

We've created three priorities that capture the experiences in which the Digital Workplace investment is relevant. We want to add value and inspiration to help employees get here, be here, and work here. These three priorities encompass most interactions that Microsoft employees experience with their workplace.



Figure 1. The three priorities of the Digital Workplace investment at Microsoft

- **Get here.** How do our employees get to and around work efficiently? From the morning commute to navigating buildings to getting home at the end of the day, moving around efficiently is a foundational need for our employees, and within the communities where our workplaces are located.
- **Be here.** How do we provide dynamic access to our services? Interacting with the Microsoft workplace should be friction-free and straightforward. It should be well designed for its purpose, well maintained, and reliable. It should also be fundamentally digitally accessible, whether entering buildings securely, reserving conference rooms and dining, or using campus resources. Microsoft Real Estate & Facilities operations and services management should be optimized and efficient. This includes operational activities such as building maintenance and landscaping as well as services such as dining and transportation.
- **Work here.** What tools can we provide to enable effective collaboration and focus? The workplace should offer the most powerful solutions available for getting work done, both when employees are working collaboratively and when they're focusing on their own work.

We're using these priorities to create a framework for improving the employee experience through powerful capabilities that are simple and easy to use. These capabilities will integrate and combine securely and efficiently with other initiatives that exist within the productive enterprise and the larger scope of digital transformation at Microsoft.

## Making the digital workplace a reality

The vision for the digital workplace focuses heavily on investments in infrastructure and physical components that support the workplace experience. To create an environment that truly delights and empowers our employees, we're driving transformation across our three priorities in multiple ways, and observing specific key results for each of them.

### Get here: Easily get to and around work

We want to reduce the time employees spend moving to and around Microsoft campuses while improving environmental sustainability.

#### Commute

Microsoft employees begin their day by planning their commute. This experience should be supported with smart recommendations about the best way to get to work, navigate traffic, and park. Access to transportation services and information must be real-time and dynamic. In other words, information must be provided in employees' preferred consumption mode, whether that occurs from a mobile app or a kiosk, or is integrated into our first-party software such as Microsoft Outlook and Microsoft Teams.

For those who choose to drive to work, we want the parking experience to be seamless and fast. Smart parking allows for a proactive response to users' parking needs. The parking design will lead to better space utilization, greater employee satisfaction, and improved safety and productivity when employees can easily and quickly find a vacant parking spot.

#### Navigate on campus

When employees and visitors arrive at our buildings, they'll have an arrival experience that's welcoming and secure, and that supports the Microsoft brand. Our employees' commute doesn't end after they reach their office; they spend time moving within buildings and campuses during their workday. We enable this travel by providing quick and easy shuttle bookings for employees on campuses, and providing indoor and outdoor wayfinding to help employees find a

colleague, conference room, or other location. The goal is to improve employees' ability to get directions from one location to another across Microsoft facilities.

After people reach our facilities, we want the arrival experience to be frictionless. For employees that means that we will offer a badge-less access option to enable fast and secure entry into Microsoft buildings, which we're currently piloting in several of our buildings globally. This system also eliminates the lost-badge scenario and helps Microsoft ensure the safety of our employees while they're in our buildings. For visitors, our primary goals are rapid check-in, host notification, and access to the Microsoft guest Wi-Fi network. The visitor arrival experience should include engaging guests while they wait, through gamification options or activities of interest. Ideally, the visitor welcome experience begins prior to a visit, by providing visitors with a preregistration check-in and helpful information about their upcoming visit.

In addition to enhancing the employee and visitor experience, we'll help RE&F improve transportation offerings and deepen Microsoft's commitment to reducing our impact on the environment. Our goal is to provide RE&F with transportation-utilization information so that they can optimize fleet operations and provide the best possible employee experience.

## Key initiatives

We're enabling these commuting and navigation experiences by focusing on several key initiatives:

- **Improve commuting.** We're improving seat utilization for our employee shuttle and bus services, which will enable more employees to ride the shuttles, increase trust in the commute system, and reduce the use of single-occupancy vehicles.
- **Improve parking.** We want to improve the parking experience for Microsoft employees globally. Our goal is to determine a global solution standard for parking that will provide more efficient and intelligent options for all Microsoft employees.
- **Implement indoor wayfinding.** Wayfinding will make employees more productive by helping them find people and places more quickly within Microsoft buildings. Our goal is to demonstrate indoor wayfinding via pilot implementations in the near future, with full-scale rollouts to follow.
- **Improve visitor arrival and departure experiences.** The visitor check-in process should be fast and easy because it provides the first impression of our Microsoft buildings. We want to reduce visitor check-in time while achieving high utilization and satisfaction scores.

## Be here: great workplace services

After employees get to work, they want on-demand and intelligent access to workplace services such as finding and booking a conference room, accessing transportation, making facility requests, dining, and utilizing wellness services.

### Improved service access

These improved employee experiences will be available through a variety of interfaces that meet employees where they are: a company-wide employee mobile app, smart-building and lobby kiosks, desktop applications, and AI/bots that make our applications predictive. Our telemetry results demonstrate that employees have varying preferences for accessing services. For example, 42 percent of our employees in the Puget Sound area use a kiosk to book shuttle services, while 23 percent use reception or dispatch, 21 percent use a desktop app, and 14 percent use a mobile device.

Health and well-being are emerging imperatives for our Digital Workplace investment. The campus of the future will have a strong focus on employee health and well-being. The onsite food and beverage program will enable users to order ahead, minimize waits, access customized food-delivery options, and obtain catering for special events. This experience will also help empower users to manage their health and wellness goals.

### Optimized facilities usage

We want to ensure that Microsoft optimizes usage of its space, whether by building the right size facilities or determining the optimal floorplan layout for occupants. For example, this might mean determining how much space

is needed for large conference rooms or collaboration gatherings, versus space allocated for small focus rooms. We're using data science to provide timely and accurate facilities data to the RE&F team so they can make the most informed decisions.

We're also optimizing how Microsoft manages its facilities and operations, including efficient facility management, energy-smart buildings, and back-of-the-office processes such as lease management and utility-bill payments. To achieve this optimization, we're building a state-of-the-art facility management system using Dynamics 365 Field Services and a Digital Workplace Azure Data Lake that will combine to influence this transformation of facilities usage and management throughout the industry.

## Key initiatives

We're enabling these workplace experiences by focusing on several key activities and results:

- **Enable order-ahead dining.** Dining order-ahead will reduce employee wait time for food. Our goal is to provide order-ahead dining to 100 percent of Puget Sound cafeterias.
- **Implement a global facilities management platform.** Fast and accurate response to facility trouble tickets makes Microsoft environments better places to work for employees and enables RE&F to optimize its business. We're consolidating disparate facility management tools into a global facility management platform, and moving towards smart building technology that self-reports and remediates issues to prevent facility incidents.
- **Move toward smart-building capabilities.** The smart building kiosk is a key pillar to providing the employee experience of the future. We want to demonstrate employee engagement with smart-building scenarios by increasing smart-building kiosk usage.

## Work here: simple, consistent, and reliable meeting spaces and collaboration devices

We want to make Microsoft the world's leading workplace for digital collaboration to empower and engage our employees, and to provide leadership and inspiration for other organizations to follow.

Over the past five years, investment in CSEO has focused on addressing the challenges of the core conference room experience at scale: simplifying the process for joining a meeting and sharing content, improving audio reliability, and driving video availability and adoption. We're expanding the scope of our efforts to improve collaboration in the workplace even as we continue to scale out and improve our meeting experiences. We'll make use of new initiatives from the Microsoft product groups to address problems that we previously haven't had the resources to address.

### Meeting-space improvements

Every one of our nearly 16,000 meeting spaces should provide a simple, consistent, reliable experience. We're leaning heavily on Microsoft Teams Rooms and Microsoft Surface Hub as the focal points of easy-to-use meeting experiences. To date, we've been most effective at achieving this goal in the Puget Sound region. This year, we'll move beyond our corporate headquarters and focus on delivering better meeting spaces globally, while continuing to improve Puget Sound. We'll continue to drive more capability at a lower cost, increase the number and type of spaces we support, and deliver new scenarios such as collaborative digital signs.

### Transformed, empowered remote-meeting experiences

Remote attendees should find it simple and easy to join a meeting from wherever they are, be that at their desk, or working remotely. At the same time, we'll provide ways to connect that enable others to stay focused on their work and avoid distractions. We're using Microsoft Teams to reimagine the meeting experience beyond the conference room or traditional desktop connection method. We're working toward a friction-free, fully-featured, and inclusive remote-connection experience with the right peripherals and companion devices so that everyone is joined and represented as equally as possible within the meeting environment.

We're also working on ways to empower our remote-meeting attendees to provide an experience on par with that of in-person attendees. We're examining technical improvements to make sure remote attendees are included equally, and can access meeting-specific content such as whiteboard drawings. Along with these improvements, we're

building functionality to ensure that Microsoft employees of every ability have access to a full-featured meeting experience, including automated notetaking, automated task creation, and more intelligent integration of meeting information into the collaboration experience.

## Efficient meeting-space reservations

Finding a meeting room is now the top challenge in the meeting experience, especially in Puget Sound, where employees are temporarily compressed into tighter spaces while construction on the new campus takes place. We want our resource management practices and scheduling systems to offer more efficient use of available rooms. We're enabling automated booking and management processes that continually reevaluate meeting-room usage to reduce occurrences of double bookings, unused rooms, and booking cancellations that aren't reflected in room availability.

## Centralized portfolio planning and inventory management

We recently introduced a new distribution and deployment model for meeting-room assets to increase efficiency and reduce costs. We're working on deploying this model globally, and improving facilities in field sites to deliver our best experiences throughout the organization across all locations. We're enabling more accurate inventories, better visibility across more assets, better alerting, and improved remote access. We're also developing more streamlined support processes. With these improvements, we're building manageability and support for a new generation of communal devices.

## Key initiatives

We're enabling these meeting and collaboration experiences by focusing on several key initiatives:

- **Deploy Teams Rooms.** We're creating a simple, consistent, and reliable meeting experience by deploying Teams Rooms to all audio- and video-enabled conference rooms worldwide. Employees have stated that consistency across Teams Rooms is key to overall satisfaction with their meeting experience, so employing this solution in all conference rooms is among our top priorities.
- **Decommission old conferencing technology.** Today, we have thousands of legacy phones across our infrastructure. Removing these devices where they're no longer used or upgrading them to a new generation of native Teams-based companion devices will prepare the Microsoft phone infrastructure for the future.
- **Improve meeting space reservation time.** We're improving the meeting space reservation experience and reducing the time it takes to reserve a space. We want to reduce meeting space reservation time to an average of fewer than 30 seconds in new meeting scenarios.
- **Improve inventory accuracy and device visibility.** We're building more intelligent user experiences with communal devices that need to be network connected and constantly available. To track and monitor these devices, we must have an accurate inventory and know where all devices are located. Each device type must have a defined optimal configuration or "good state" that ensures the best possible user experience. We're identifying and taking corrective action for devices that are misconfigured or aren't reporting healthy functionality. Support work and operations will be automated to reduce time and increase the availability of devices. We want to achieve 99 percent inventory accuracy and 100 percent visibility of device configuration and health.

## Building the campus of the future

Industry-wide, IT and facilities organizations are working more closely to achieve workplace digital transformation. Meeting rooms that were once built and operated largely by facilities staff are becoming critical endpoints for IT collaboration services. Computer-driven room systems (such as Microsoft Teams Rooms) can now be cost-effectively deployed and supported at scale, across every conference room.

Our RE&F team has embarked on a multiyear project to digitally transform Microsoft real estate facilities operations. This effort was initiated with the major construction project underway on the Redmond East campus, but it's not limited to Puget Sound. Microsoft buildings around the globe are being remodeled or will be newly opened over the next few years, and these facilities will be part of the digital transformation initiative. Additionally, we're designing our transformation technology for incorporation in buildings not designated for remodeling. The RE&F future campus

provides a vision for our physical and digital infrastructure that will support the digital workplace and increase the productivity and satisfaction of every person who enters a Microsoft campus. Our new Singapore office is a perfect example.

This year, we're embarking on three key global activities that support and drive digital-workplace efforts for the future campus:

- **Global Design Experience Blueprint (GDEB).** The GDEB was an effort led by our design, research, and accessibility team in CSEO in partnership with RE&F, to define the employee experience of the future. The GDEB produced a design blueprint for the digital experiences that we must design and build to support the digital workplace.
- **Global Technology Standards.** The results of the GDEB will help CSEO and RE&F create a playbook of standards that examine and define the technology we should adopt and integrate into Microsoft buildings, and how that technology will support employee experiences. CSEO and RE&F will conduct pilot projects and proof-of-concept implementations to validate the GDEB scenario recommendations. The results of these pilot projects will inform a new building standard for technology.
- **Azure Digital Twins digital integration platform development.** The Microsoft Azure Digital Twins service is a core enabler of digital transformation within the workplace. Azure Digital Twins will provide the brains of our digital transformation, integrating with numerous sensors throughout Microsoft facilities. This real-time data creates a digital data asset that helps RE&F better manage and operate the real estate portfolio and optimize the employee experience. We're currently finalizing architecture, determining the feasibility of key scenarios, and beginning to build the platform.

## Conclusion

The Digital Workplace investment is enabling our Microsoft employees to get here, be here, and work here. Our vision of a digital workplace that empowers employees and visitors to achieve more will transform the everyday reality of hundreds of thousands of employees, vendors, partners, visitors, and guests. We want the digital workplace at Microsoft to serve as a model of workplace productivity and an inspiration to our customers around the world.

## For more information

### Microsoft IT Showcase

[www.microsoft.com/itshowcase](http://www.microsoft.com/itshowcase)

[Reinventing the employee experience at Microsoft](#)

[Enabling simplified, modern meetings with an integrated Microsoft Teams solution](#)

[With Microsoft Teams Rooms, comes a globally scalable modern meeting experience](#)

[Rethinking how Microsoft employees get to work](#)

[New Microsoft smart buildings showcase Azure Digital Twins](#)

[Microsoft launches smart building era with debut of new Singapore office](#)

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