Digitally Transforming Corporate Productivity

with Enterprise Wayfinding & Indoor Positioning Solutions

In emerging digital workspaces, productivity and employee engagement demand transformative solutions. This whitepaper guides you step-by-step to build IoT-based indoor positioning mobile solutions to boost collaboration, productivity and employee experience in connected workspaces.

SPREO

New Demands of Digital Workspace of the Future

Modern corporate workforce is agile and dynamic. To meet the needs of the digital workforce, flexible workspace concepts like "Office hoteling", "Hot-desking" etc. are trending up fast.

However requirements of dynamic workspaces make it harder for facility managers to optimize workspace occupancy and utilization... while improving corporate productivity and employee engagement, all at once.

Fixed workspaces are no longer cost-effective. HBR [1] says office usage peaks at 42%. To reduce wasted space, corporates need newer ways to improve utilization and reduce property expenses.
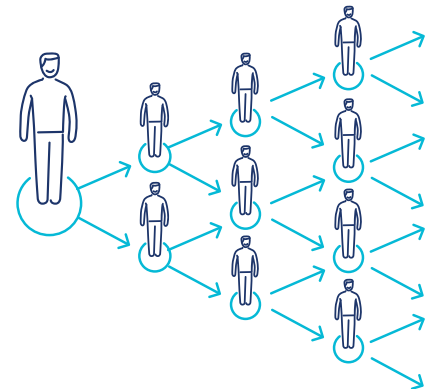
According to Gartner [2] , the "traditional, siloed management of the facilities life cycle is being challenged by bimodal business, the digital workplace, a mobile workforce and the Internet of Things (IoT)." [Can make this a call-out quote]

Traditional office scheduling and reservation applications are falling short to address the demands of agile workspaces. Because in a highly mobile work environment, we must factor in real-time location vectors of the resources and assets to effectively maneuver and manage them.

Indoor positioning technology (commonly termed as IPS) uses advanced IoT and mobile techniques to derive real-time location of assets and people. In large corporates IPS is a much needed capability to deploy agile and efficient workplace solutions.

Some of the proven business benefits of IPS includes:

- Greater mobility and productivity
- Reduced footprint, lesser real-estate and energy cost
- Quicker creation of project specific work teams in close proximity
- Flexible use of office space. Smarter navigation
- Reduce employee attrition by boosting collaboration and satisfaction
- Gain competitive edge as an innovative leader in the industry

Key Considerations for Selecting IPS software for Corporates

In today's gig economy, flexibility, productivity and engagement are the central mantra. To align corporate facilities design In today's gig economy, flexibility, productivity and engagement are the central mantra. As flexible workspaces trend up, mobile workers want easy ways to navigate and share their location with coworkers. But to build such mobile solutions at scale requires location-aware technology that's truly robust, fast and reliable.

Here are some of the key considerations to select the right location and indoor positioning software solution for corporate environment and large venues.

ROBUST ON MOBILE DEVICES
BYOD allows corporate employees to use iOS and Android devices in corporate networks. To support BYOD, the software must be robust and easily pluggable with native apps on both iOS and Android platforms.

INDOOR POSITIONING ACCURACY
Whether you need to digitally geofence, track assets in real-time, or implement indoor navigation, positioning accuracy is most important. The location technology that you use, must be able to abstract multiple sensor inputs, and wisely leverage

advanced positioning algorithms to provide precision in real-time.

Mobile user experience with any locationing app depends on this clarity and accuracy, especially in busy and congested office environments.

LOCATION SHARING FOR IMPROVED COLLABORATION

According to CBRE's 2017 Americas Occupier Survey [3] , 53% of organizations name promoting collaboration as a key component for their workplace strategy.

To collaborate on-site by reserving nearest meeting rooms, group spaces and office desks (for office hoteling), you need a reliable way to determine specific locations of employees and staff. Employees can also locate their team members to meet them in person, or to commission them to meet in a specific collaboration space.

A reliable IPS software not only enables mobile apps to share location, and locate nearby people and POIs in real-time, but also provides turn-by-turn navigation to easily reach them.

INDOOR NAVIGATION AND WAYFINDING

In a complex office building, not finding conference rooms and points of interest frustrates employees. It also means loss of valuable time, productivity and the embarrassment of joining meetings late.

To simplify navigation in large campuses, turn-by-turn navigation to meetings rooms, points of interests (POIs) or even to a coworker's desk reduces hassle and improves employee experience and productivity.

Having a precise "GPS experience" in indoor navigation and enterprise wayfinding is a key feature of IPS software. Seamless indoor to outdoor transition, as the user steps out the building to the parking lot is also a highly desirable capability to have.

EASY INTERFACE WITH OFFICE APPLICATIONS

According to customer surveys by Steelcase Inc. [4], 40% of employees waste up to 30 minutes a day looking for meeting space or lookup meeting room occupancy. And with most employees attending 62 meetings per month [5], this amounts to a significant waste of time.

Before you integrate an IPS software in your mobile app to reduce such wastage, find out if it seamlessly interfaces with your existing corporate efficiency tools. For example, to schedule a meeting, the conference room reservation function of the mobile app need to be capable of interfacing with

EASE OF ADMINISTRATION AND ANALYTICS

Indoor positioning and enterprise wayfinding depends on digital maps of pathways and user-defined routing, directories, place marks, and points of interests (POIs). Keeping these up-to-date and in sync in all mobile apps can get cumbersome. Cloud-based CMS can simplify facility administrators' tasks by allowing easy customization of maps and directories, campaigns and push notifications. Auto-syncing these updates in mobile apps and digital kiosks is also an important feature to have.

Easy-to-use dashboards and reports gives administrators insights into the operational parameters and KPIs. That's why having a strong dashboard component that provides visibility into the stats on utilization, employee experience, asset tracking occupancy etc. is highly desirable.

DEPLOYMENT, MONITORING & INTEGRATION

Location aware solutions involves beacons, Wi-Fi interfaces, precise pathway mapping, mobile app software, digital display hardware and so on. Installation, monitoring and life-cycle maintenance of the hardware and software is often a headache.

Partnering with a reliable location-as-a-service vendor can offload these headaches.

SPREO'S LOCATION-AWARE TECHNOLOGY IMPROVES YOUR ORGANIZATION'S BOTTOM LINE:

- Greater mobility and productivity.
- Reduced footprint, reduced real-estate and energy cost.
- Quicker creation of project specific work teams in close proximity.
- Flexible use of office space.
- Smart wayfinding reduces time to reach meeting venues
- Improved employee experience, lower attrition
- Position company as an innovative industry leader

Finding the Right Indoor Positioning Solution for Corporate Campus:

Introducing SPREO fully integrated Software Development Kit

In the corporate campus industry, most solutions focus only on office and meeting room scheduling and smart onboarding with digital displays stationed in meeting rooms.

However, that addresses only part of the problem. For a mobile workforce, you need a solution that's smart enough to empower employees 'on-the-go' to efficiently reserve rooms and find their way around the campus.

SPREO is a major player in this space with proven success in implementing cloud-based indoor positioning, enterprise wayfinding and geo-fencing solutions worldwide.

SPREO's IPS software development kit containerizes all features to simplify and expedite application development and system integration. Key capabilities of SPREO SDK are listed below:

SPREO TRANSFORMS ROBUST LOCATION TECHNOLOGY INTO PRODUCTIVE MOBILE EXPERIENCES

- 3D Interactive Maps
- Indoor GPS and Wayfinding
- Search & Go
- Reserve Parking & Find My Car
- Seamless Outdoor-Indoor transition
- Points-of-Interest Directory
- Location Sharing
- Reservation and Booking
- Centralized Mapping Engine
- Multi-screen, Multi-touchpoint Architecture
- Asset Tracking

Blue-Dot Positioning and Tracking: Nailing precise blue-dot positioning in indoor environments involves intricate techniques. SPREO abstracts out these intricacies to offer a truly agile and feature-rich SDK. SPREO's beacon agnostic indoor positioning technology abstracts sensor inputs to provide hi-fidelity Blue Dot navigation, asset tracking, and context aware information.

Mapping Engine: Developer-ready indoor mapping engine includes pathways, user-defined routing, directories, place marks, and points of interests (POIs). SPREO's geospatially accurate vector-based maps provides hi-fidelity experience to mobile users. Place marks on the indoor maps can be defined using SPREO's CMS and/or via the API to improve the user experience in real-time.

Cloud-based Content Management: Facility administrators can use web-based SPREO CMS editor to customize and manage directories,

pathways, and points of interest, campaigns, push notifications, and geo-fence zones. Updates to content are auto-synced to SPREO powered apps and digital kiosks. This eliminates the need to republish apps to Apple and Google app stores.

System Management: Monitor current operational and power-radius status of every navigation beacon in each facility, IOT gateways, and connected digital displays. Get auto-notifications for hardware issues and "health" visualization of all facilities.

Proximity, Geo-fencing and Zone-Detection: SPREO's zone-detection technology is highly rated in the industry and deployed across the globe. It can detect with 100% precision if a mobile device is IN ZONE or OUT OF ZONE to trigger proximity-based features and actions.

'Any Platform' Flexibility: The SDK integrates seamlessly with of a wide variety of sensors (Beacons & Wi-Fi), IOT gateways, iOS and Android devices and digital displays.

Seamless Integration: SPREO provides SDK to easily integrate internal corporate productivity tools, Microsoft Exchange, Google Maps etc. to build 360-degree productivity solutions on a wide-range of mobility platforms.

Built-in Security: SPREO SDK has built-in security for all the features it offers. In case of location sharing, for example, permission-based connections are used, the need to track or store personal data is completely eliminated. It allows users to share location only when they want and only with those they trust.

SPREO's Indoor Positioning SDK can be integrated with any industry application. It has been successfully deployed in health, retail, corporate offices, entertainment, and transportation industries world-wide.

You can leverage SPREO's indoor positioning SDK combined with its powerful mapping engine and Cloud-based CMS to deliver advanced IPS solutions. Easy integration with internal corporate productivity tools, Microsoft Exchange, Google Maps etc. provide an enhanced experience for corporates boosting productivity and employee engagement.

SPREO improves employees' work efficiency, and engagement by opening new ways to connect and collaborate.

SPREO supports both immediate implementation and managed life-cycle services that gives you a single contact point for rapid support and maintenance services.

For more information and to schedule a demo of the SPREO wayfinding solution, please contact us at:
www.Spreo.co | info@Spreo.co | +1-646-827-2769

ENDNOTES:

1. Harvard Business Review, Workspaces That Move People, https://hbr.org/2014/10/workspaces-that-move-people

2. Gartner: Market Guide for Integrated Workspace Management Systems https://www.gartner.com/doc/3232319/market-guide-integrated-workplace-management

3. CBRE Americas Occupier Survey 2017, http://www.cbre.com/research-and-reports/americas-occupier-survey-report-2017

4. New Office Flashpoint: Who Gets the Conference Room? WSJ https://www.wsj.com/articles/new-office-flashpoint-who-gets-the-conference-room-1413307377

5. https://www.atlassian.com/time-wasting-at-work-infographic