Digital Transformation of Facilities

with MicroStrategy 10
The challenge
Organizations are challenged to provide a safe, secure, and convenient environment for their visitors and employees. Secure access to doors, gateways, and other entry points is critical to protecting not only physical property, but also human lives. Typically, physical access is based on outdated technology like plastic badges. These credentials are easily lost, stolen, or counterfeited and are the source of a great deal of security risk. In order to thrive in the years to come, organizations need to embrace new technology for facilities management. Facility managers need a solution that is compatible with a wide range of physical access control systems, empowers them with analytical insights into space utilization and user behavior, and delivers a top-notch user experience.

The solution
Usher is an integrated platform that allows organizations to replace outdated physical badges with digital badges on users’ mobile devices. With Usher, users can seamlessly access enterprise gateways with their smartphones. The Usher badge is built using industry-leading security standards in order to reduce risk, and can easily integrate with a wide variety of existing physical access control systems. The Usher platform generates access control data that can be used to generate deep analytical insights into user behavior and resource activity. This intelligence allows facility managers to better understand how their resources are being used and can help simplify operations management and optimize workspace utilization and planning.

MICROSTRATEGY transforms facility access and workspace management with digital mobile badges.
APPLICATIONS FOR FACILITIES

- CORPORATE HEADQUARTERS
- FACILITIES ACCESS MANAGEMENT
- WORKSPACE UTILIZATION AND PLANNING
- FACILITY CAPACITY FORECASTING
- EMPLOYEE ACTIVITY MANAGER
- EMPLOYEE
- VISITORS
- ADMINISTRATOR BADGE
- EMPLOYEE BADGE
- VISITOR BADGE
- CORPORATE HEADQUARTERS
- SATELLITE OFFICES
- MOBILE
- DISTRIBUTED WORKFORCE MANAGEMENT
- STAFF COMMUNICATION

STAFF SAFETY AND EMERGENCY RESPONSE

ANALYTICS

DISTRIBUTED WORKFORCE MANAGEMENT

STAFF COMMUNICATION
The challenge

For organizations with a dispersed workforce, managing satellite offices is a major challenge. Facility managers need to be able to manage these offices and provide secure, temporary access for vendors and suppliers. Most facility management professionals lack real-time visibility into their various facilities. A lack of real-time visibility into access patterns and user behavior, coupled with multiple badges for individual users and manual timekeeping processes, can lead to increased security vulnerabilities and missed opportunities for driving productivity improvements.

The solution

Usher enables organizations to seamlessly control access to global facilities via secure digital identity badges on users’ smartphones. Users can quickly unlock doors via Bluetooth proximity, or by tapping a digital key on their phone. Facility managers can quickly and easily provision, personalize, and revoke Usher badges for employees, vendors, contractors, and suppliers. Usher also generates real-time user location data, giving management and facility administrators a high-level view of where team members, vendors, and suppliers are working and improving collaboration and communication across large global organizations.

FACILITIES ACCESS MANAGEMENT empower facility managers with instant visibility into different facilities and user behavior.
The challenge

Facility managers need to be able to analyze resource utilization data to better manage their investments, identify underutilized resources, and plan for future growth.

The solution

Organizations can leverage MicroStrategy dashboards to effectively monitor, analyze, and manage workspace and resource utilization across multiple office locations. By taking a holistic view of peak versus average utilization, it is possible to track and compare space usage and office resources. This type of insight helps facility managers significantly reduce overspend and waste.

This interactive data discovery application enables facility managers to track the utilization of cubes, offices, and parking spaces across an organization’s facilities. With easy-to-use selectors, they are able to quickly switch between multiple office locations to view and identify which offices are being underutilized. The same dashboard can also show the total number of phone lines that are not being used so managers can cut costs and control unnecessary spend. These dashboards can be automatically updated and tied to employee directories to ensure that managers are looking at the most current data.
**The challenge**

Large facilities like amusement parks and airports often have long wait times, resulting in service issues, lost sales, and dissatisfied customers.

**The solution**

MicroStrategy allows organizations to build applications that analyze key factors for determining wait times. These include real-time measurements from Bluetooth or Wi-Fi sensors and comparisons of forecasted vs actual passenger counts. These insights enable airports, and other large facilities with a high volume of visitors, to better understand why lines form like they do, and what they can do to minimize wait times in the future. Using this information, facility managers can pinpoint the culprits of poor performance such as inaccurate forecasting or insufficient staffing, and plan future staffing patterns more efficiently to avoid disruptions and prevent bottlenecks. The facility management team can collect and analyze real-time feedback on operations through interactive, in-app customer surveys.

The attached image shows an incident command center where MicroStrategy dashboards highlight real-time information from facilities across the country. These dashboards enable facility managers to assign security officers, personnel, and other key resources to specific locations—ensuring they are at the right place at the right time.

**FACILITY CAPACITY FORECASTING**

FACILITY CAPACITY FORECASTING analyzes wait times and staffing at large facilities to optimize services and user experience.
Interactive map that displays a real-time view of staff in a particular facility area or geographical location

Instant communication with digital badge users via push notification, text, phone, or email

Real-time visibility of users’ location to get headcount and see who is still left in the building

**STAFF SAFETY AND EMERGENCY RESPONSE apps help responders get visibility into user location, instantly communicate important information, and respond better to emergency situations.**

**The challenge**

Emergency situations present a major challenge for facility managers. Depending on the situation, emergency responders need to be dispatched, and facilities may need to be locked down or evacuated. Facility managers need a quick and easy way to understand user location, communicate important information, and coordinate emergency responses.

**The solution**

Usher Professional gives facility managers at warehouses, factories, offices, and other facilities the ability to take fast, targeted action during emergencies. When facilities are evacuated, the entire workforce can receive a push notification alerting them about dangerous areas. Similarly, people who are still inside an evacuated building can be quickly identified, located, and rescued. During an emergency situation, facility managers can pull up real-time maps of user location and instantly communicate with their dispersed teams at the touch of a button.
The challenge
As organizations grow, facility managers face the daunting task of managing multiple facilities and IT systems. Traditionally, facility management personnel used separate credentials to manage physical and logical access, leading to a fragmented approach to enterprise identity and access management. Traditional physical access credentials like plastic ID badges, passwords, and hardware tokens are cumbersome to issue, manage, and revoke. Their continued use results in the increased risk of security breaches and unauthorized facility access.

The solution
Usher enables organizations to seamlessly control employee access to warehouses, factories, offices, and other enterprise facilities via centrally-managed digital identity badges. With Usher, users can open doors and other physical entryways via Bluetooth proximity, or by tapping a digital key on their smartphone. Usher provides organizations with highly configurable multi-factor authentication that includes support for push notifications, biometrics, one-time passcodes, face-to-face validation, as well as time- and geo-fencing. The Usher platform is compatible with many existing physical access control systems and can be integrated into existing enterprise mobile applications using APIs.
The challenge
Providing temporary visitor ID cards has always been a challenge for organizations. The plastic or paper ID cards that they rely on are easily lost, stolen, or counterfeited—problems that can go unnoticed for days. The main problem is that these physical ID cards grant access based solely on possession, without any means of identity verification. In order to truly secure their facilities, organizations need to embrace technology that allows managers to quickly and easily provision and revoke physical access privileges.

The solution
With Usher, it is easy for facility managers to quickly issue and revoke temporary digital badges for visitors. Once issued, visitors can use their Usher badge to securely access facilities, services, and VIP events and meetings during a designated period of time.

Usher badges are built using market-leading security features including out-of-band communication, encrypted certificates, and a public and private key infrastructure, so sensitive corporate credentials are never breached. There are many ways a user can authenticate themselves at an access point, including: QR codes, biometrics, push notifications, Bluetooth proximity, and one-time passcodes.

VISITOR BADGES provide temporary frictionless access to facilities using a digital identity badge.

Additional information:
- Access to special facilities and concierge services
- Credentials to access special visitor kiosks
- Personalized experience and communication with visitors across the facility
Customer case studies

Learn how our customers are using MicroStrategy to digitally transform their business.
Computer passwords have been in use since the 1960s, RFID cards since 1973. These methods of enterprise authentication have remained virtually unchanged since their inception half a century ago. Not only are they now obsolete, they are increasingly putting organizations’ facilities and information systems at security risk. Usher’s system of digital identity badges is more convenient and significantly more secure than existing authentication solutions.

The Gathering Spot is an elite club that needed a solution for limiting access to members and their guests at their club’s location. Usher was the ideal solution for The Gathering Spot’s young, tech-savvy members because it allows for a sleek and secure alternative to physical badges. Using Usher, The Gathering Spot provides a secure and digital means of easily verifying their members’ identities. Each Usher badge is branded by the issuing organization and personalized with a user’s name, title, and photo. Badges are dynamically and securely linked to an individual’s privileges and access rights. Administrators have a variety of authentication options to choose from when configuring badges, including: Bluetooth proximity, digital keys, QR codes, and biometrics.

Temporary visitor badges can be easily forged, lost, or stolen. Usher can replace these outdated forms of identity with digital security badges. These temporary digital Usher badges can be issued to visitors for events and configured to provide temporary access to parking, specific facilities, and services. Issuing and revoking these digital badges are quick and easy, making enforcement and administration simple and effective, while enhancing the customer experience.

PROFILE
Industry specifics: Hospitality – Members-only club
Location: United States
Products: Usher
Core capabilities: Usher
Hospitals around the country, including NHS Forth Valley, face challenging capacity issues as patient demands and the complexity of cases increased sharply for a variety of demographic reasons. With a much larger volume of patients and a strict “seen within four hours” waiting policy, it was crucial for NHS Forth Valley to allocate beds in the most efficient way possible to effectively cope with patient demand and flow. Before MicroStrategy, NHS Forth Valley was required to undertake an in-person ward-by-ward check of bed and flow status. This was not only time consuming and inefficient but often, by the time it was completed, the staff would find that the provision of beds around the hospital had changed, leaving the reports out of date. NHS Forth Valley wanted a clear, easy-to-understand system that would allow staff to see the entire system capacity, flow, and access in near to real-time.

At the end of November 2012, MicroStrategy set up a project to create a detailed dashboard that pulls data from systems already in place at NHS Forth Valley and produces a real-time, overall picture of patient movement and bed availability. With its clear and intuitive front-end, MicroStrategy’s dashboard shows the previous day’s overall system status and enables users to view three-month trend data relating to demand and access. With various graphical layouts and an automated alerts system, MicroStrategy gives staff the information they need to understand how to best utilize beds to meet the pressure of the four-hour patient access targets. The dashboard is updated three times daily and allows key personnel across the system to see what is happening on other wards in the hospital. This process enables all parts of the system to work together effectively to maintain good patient process flow and care. It also provides the ability to look back and assess the focus of the previous day’s results and its efficiency. By collating data, MicroStrategy’s dashboard made it possible to understand, from a capacity perspective, what was happening throughout the hospital when patients were breaching the four-hour access target. Then, data is used to determine a cause, whether it is a high number of admissions or the high flow of patients, and draw out predictive patterns. The system is used in tandem with a comprehensive resilience and escalation policy, which utilizes the system triggers to define points for escalation of action, in a systematic and consistent manner, to ensure the most effective adherence to clinical governance.
KING SAUD UNIVERSITY: STUDENT BUILDING AND EVENT ACCESS

PROFILE
Industry specifics: Colleges, universities, and professional schools
Location: Saudi Arabia
Products: Usher
Core capabilities: Usher

Application
Universities have long relied on plastic physical ID cards for building and event access, and for on-campus purchases like food, books, and educational supplies. In emergency situations, these ID cards establish a student’s identity and prove membership of the university community. To put it simply, the ID card serves as the center of a student’s on-campus world.

As with all physical objects that we use daily, problems arise when ID cards are lost, stolen, or counterfeited. On a university campus, a stolen student ID card poses a major security threat, giving an unauthorized user access to buildings, events, and even payment methods. And, physical cards provide no intelligence or analytics, since simply showing an ID card to an official can’t be tracked. With no insight, security threats can easily go undetected and take longer to be addressed.

King Saud University (KSU) sought a way to track their students’ attendance, as well as to provide physical access controls to their campus. To tackle both of these goals, KSU turned to Usher as a solution. It provides secure physical access to university buildings, as well as tracks student behavior. With the data collected by Usher, administrators can also analyze and report on their students’ behavior.

One of KSU’s goals was to increase the efficiency of its internal processes while maintaining its status as one of the top universities in the Arab region; Usher allowed them to do just that. It was selected by KSU for its ability to help the university achieve efficiency in areas of student enrollment and records, resource management, and access control. Usher now enables new levels of academic collaboration and helps KSU maintain its high-ranking position through staff improvements and student satisfaction.
HIGHER COLLEGES OF TECHNOLOGY: STUDENT AND STAFF TRACKING

Higher education institutions today face a wide range of challenges. But on a day-to-day basis, the security and safety of students, faculty, and staff are paramount. Because physical security and cybersecurity have traditionally been considered separate, most institutions turn to independent, disconnected solutions that sacrifice both security and ease of use. This is why one of the most elite universities turned to Usher for a consolidated, intelligent, and comprehensive security solution that would be easy for students to use.

Higher Colleges of Technology (HCT) is one of the largest institutions of higher learning in the United Arab Emirates (UAE). HCT requires a sophisticated security/tracking for high profile students and faculty members, some of which include relatives of royalty. Administrators are also able to track student and staff time and attendance.

Using Usher, HCT can accurately track student, faculty and staff activities on campus. Usher also helps secure critical logical systems and physical access gateways for the school. By dematerializing staff and student ID cards and eliminating usernames and passwords, school administration can know the location of faculty, students, and visitors across 17 campuses throughout UAE, tracking up to 250,000 people.

Not only is HCT the first higher education institution to deploy this cutting-edge technology, they will also eliminate the cost of physical ID cards. Usher’s mobile badges make it a seamless and scalable solution to help improve HCT’s time and attendance systems. Usher also provides HCT students and faculty members with an intuitive and secure solution to access critical logical access systems.

PROFILE

Industry specifics: Colleges, universities, and professional schools
Location: United Arab Emirates
Products: Usher
Core capabilities: Usher
DALLAS-FORT WORTH INTERNATIONAL AIRPORT: OPERATIONS ANALYSIS

Application
The Dallas/Fort Worth International Airport (DFW) is the third busiest airport in the world (in terms of aircraft movements). The airport was created in 1968, and is run by a Board of Directors who has the responsibility of managing all aspects of the airport.

The process of accessing critical information was extremely cumbersome for DFW as they had a large amount of data on multiple platforms. Previously, over 50% of the staff’s time was spent compiling, transferring and inputting data. Then, many hours were required to proofread the data to make sure that it was accurate and that the manually created spreadsheet had all the correct formulas in each of the cells.

The MicroStrategy-powered mobile app has allowed DFW management personnel to increase the level of accountability, transparency, and efficiency within the various business units. Their iPad app includes a variety of features including the ability to check crucial key performance indicators (KPIs) with the latest data. One of the most beneficial widgets within the app is the heat map as it allows users to focus on certain key areas of the airport. Kenneth Buchanan, EVP of Revenue Management shares, “we operate out of five different terminals and have over two hundred locations, and we manage over 200,000 square feet of concession-able space. I can't cover all terminals all the time. So the heat map allows me an opportunity to really hone in on those areas that are of concern.” Further, with the new app, users are able to push a button and instantly see how a specific location in the airport is doing and how that location compares to the rest of the terminal.

DFW’s app allows users to create reports, rank terminals, utilize data, and compare and contrast important data factors. The app helps business units and helps them achieve their goals. One of the main areas of focus is parking, as it is the second largest revenue maker at DFW. Parking generated over $100 million dollars last year and DFW is looking for ways to increase this revenue. By using the MicroStrategy platform, DFW is able to analyze parking trends and customer behaviors to understand and provide services customers demand (i.e. valet parking).

PROFILE
Industry specifics: Airports, flying fields, and services
Location: United States
Products: Architect, Mobile, Server, Web
Core capabilities: Enterprise Analytics, Mobile Analytics, Mobile Productivity Apps, Enterprise Data Discovery