FORTUNE 100 COMPANY

Employees Find Spaces Faster with Cloud-based Parking Notification System

Employees circling garages for parking spaces resulted in traffic backups onto the street and complaints from the town.
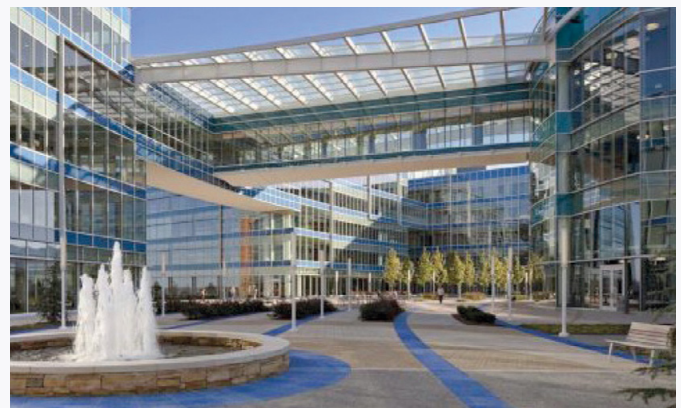
The Challenge

For most corporate campuses, parking can be quite a challenge. Location is critical to recruiting and retaining employees, but oftentimes that prime location comes at the price of convenient, abundant parking.

Managing the parking environment becomes more important the closer a campus is to major travel routes or town centers. Without a system to quickly route cars to the most accessible parking, too much time is spent circling and searching, which can result in lost productivity, frustration, and issues with municipalities as backups from parking facilities create traffic congestion for residents.

This was the situation for an All Traffic Solutions (ATS) client whose large corporate campus is in the middle of a busy suburban center. With over 5,000 employees working at this location, parking is at a premium, especially for limited spaces reserved for handicapped or expectant employees and visitors. The main garage fills up quickly and by 7 am there are usually no spaces left. Without any notification of availability status, however, employees enter the garage, circle through the multi-story structure and— when there are no vacancies to be found—are forced to exit back onto the main road, creating a backup on the already congested street where they drive on to remote lots.

The client tried having parking attendants monitor empty spots by running from floor to floor, keeping count and rushing back down to drivers entering the facility so they could direct them to where a spot might be available. Predictably, this "real-time" monitoring wasn't sufficient for the busy morning rush.

The client then installed a gating system which counted the number of cars entering and exiting the garage, but this did not solve the notification issue. Vehicles entering the garage still did not know where available spots were located, so the circling continued, as did the backup onto the street and employee frustration. Additionally, while the system did collect information on how many general spaces were available, it didn't calculate true availability because it didn't factor in which were premium spaces and off limits to most.

When the town began to complain about the constant road backups, the client knew it was time to find an effective long-term solution.

AllTrafficSolutions.com

PARKINGCLOUD REPORT SHOWS PARKING AVAILABILITY BY FACILITY, INCLUDING PREMIUM SPACES

ParkingCloud™ — Home | Management | Reports | Map | Tools | Admin

Equipment

Parking

Color VMS

Name	Total Spaces	Regular Spaces	Regular Available	Regular Occupied	Special Spaces	Special Available	Special Occupied	Updated
George St. Garage	528	461	283	178	67	21	46	1/19/2017 12:30:54
Staff Garage	979	878	380	498	101	48	53	1/19/2017 12:30:54
Flint Avenue Garage	787	676	166	510	52	41	11	1/19/2017 12:30:54
Jonathan Street Garage	950	890	198	692	60	28	32	1/19/2017 12:30:54
Annex A	506	475	101	374	31	6	25	1/19/2017 12:30:54
Annex B	492	460	377	83	32	9	23	1/19/2017 12:30:54
Annex C	558	499	459	40	59	12	47	1/19/2017 12:30:54

The Solution

The client needed a way to collect the gate data, calculate the number of spaces available and make that information easily available to employees, at the point that it would help them decide whether to enter the lot or go to the next one, reducing congestion at the lot entrance and exit.

Enter ParkingCloud™, the ATS cloud-based IoT parking platform, purpose-built for the parking, transportation and traffic industries. ParkingCloud integrates any Internet-connected device, data source and output in one place to allow ingestion of any sensor-driven or generated information. It performs complex, automated event processing and generates output to notification devices, including message signs, parking availability indicators, apps, websites and other systems.

Our solution includes hardware to monitor premium spaces, a gating system to gather data on general occupancy, TraffiCloud to calculate premium and general occupancy, and parking message signs to display spaces available for each. TrafficBridge by ATS seamlessly provides the integration to ParkingCloud. This secure, fast and scalable solution ensures that as

the client grows and adds new hardware and output devices, all their parking data can be housed in one system, available to any output device or app required.

Results

Our ability to collect the data from sensors embedded in the parking spots and gates, calculate available slots in real time and convey that information back via cellar connection to a network of signs posted as drivers approach the deck, delivered the outcome the client needed. Employees are now efficiently directed to available spots each morning, eliminating circling time, while reducing emissions, congestion, employee angst and road backups.

Implementation has been a straightforward process, with TrafficBridge seamlessly driving ingestion of the various data sources into ParkingCloud and sending outbound availability messages to the signs. Availability data is being collected, and with the launch of message signs on the inbound roads, circling for parking and road congestion will be a thing of the past for employees, visitors and citizens alike.