CASE STUDY
Reliability to Overcome Extreme Weather

BARRIE
Just 30 minutes north of Toronto lies Barrie, a mid-sized city regarded as one of Canada’s fastest growing urban centers. Once considered a bedroom community of Toronto, Barrie has emerged as an attractive destination for working professionals, with more commuters coming into the city center each day than leaving. While the City’s growing industry makes it an employment hub for the extended region, its proximity to Lake Simcoe’s western shore makes it a popular tourist destination.

However, being in a region with prominent seasons means enduring merciless winters. Snow removal, salting icy roads, and bracing for dangerously low temperatures is commonplace for Barrie locals. And often times, technology throughout the City isn’t dependable enough to make it to spring.

**Barrie Determines Need to Upgrade Parking Technology**

As Barrie grew, so too did its need to reassess municipal programs, such as its paid-parking program, to ensure they were progressively meeting the customer service needs of patrons. The City’s outdated coin-only electronic meters operated on a standard enforcement schedule of Monday – Friday from 9 a.m. – 5 p.m. Parking operations are managed by a small, but efficient parking team consisting of a Manager of Traffic and Parking, Parking Coordinator, two field technicians, and local student interns that help analyze the parking program’s performance.

As Barrie sought to upgrade its parking technology, the goals were to provide greater customer service with multiple payment options and maximize efficiency for the City’s parking team in order to do more with less. Another major challenge Barrie needed to overcome was to ensure that the new parking meters would survive the winter and not become inoperable in extreme conditions. Barrie experiences extreme Canadian winters with heavy snowfall, bitter cold temperatures and drastic weather fluctuations that can cause meters to freeze and condensation to form inside the meter. And in the case of solar-powered devices that rely on sunlight to maintain a charge, loss of power from being covered by snow is another potential hazard. Snow falls in Barrie anytime between November and April, with an average of nearly 235 cm (7 - 8 ft.) of snow each winter and temperatures from -25° C to 10.6° C (17.6° F - 51° F) – averages substantially higher and lower, respectively, than many Canadian cities. In light of such harsh environmental conditions, Barrie expected the technology would falter and ultimately fail.

“We were initially skeptical based on our experience in the past with other solar power devices that couldn’t hold a charge - meter uptime suffered as a result,” said Steve Rose, Manager of Traffic and Parking for the City of Barrie. “How would the IPS technology handle the snow and the weather?”

Inoperable meters due to snow or frigid temperatures could mean loss of revenue for the City, frustration for motorists, and a burden to technicians that brave the elements to provide maintenance.
Barrie Engages IPS on Smart Parking Technology Pilot

In order to decide upon the right Smart Parking technology solution that would prove reliable for a city with few dedicated resources, Barrie selected IPS Group for a pilot of single-space, credit-card enabled Smart Parking meters.

A true test was to see how the IPS parking meters would fare during the harsh winter months that would coincide with the pilot. In Barrie, every winter presents a challenge with traditional coin-only electronic meters – more snow meant more work and a physical burden on technicians. They would need to wipe off solar panels to keep devices operational and conduct frequent maintenance. Parking meters that were going to survive the long-haul needed to be “winterized” to avoid malfunctions that render the device inoperable.

“Leading to a nearly 300% increase in parking revenue in that area.

IPS Smart Parking Meters Prove Reliable Under Winter Stress

IPS meters proved durable enough to withstand one of the most brutal winters experienced in over 10 years in Barrie.

IPS meters are engineered to withstand extreme weather conditions. Featuring the latest in solar power technology, IPS Smart Parking meters remain charged in even the harshest conditions as a result of a patented combined solar power and battery system. The solar panel requires only a nominal amount of ambient sunlight to keep the battery packs charged. IPS meters are also environmentally-sealed to ensure that various weather elements don’t disturb operation and are independently certified to operate in all climate types.

The City of Barrie was pleased with the performance and reliability of the IPS Smart Parking meters and subsequently awarded the contract to IPS Group over three years ago. The meters also resulted in an enhanced customer experience for the businesses in the area. The additional payment options have enhanced the customer experience and credit card transactions now account for 10-15% of all payments in Barrie.

IPS Smart Parking Meters Leads to Increased Revenue

The IPS meters enhanced the parking program efficiency and increased parking revenue. When the credit card-enabled meters were introduced to the Royal Victoria Regional Health Centre and Georgian College, the City of Barrie also raised the rates and extended enforcement hours leading to a nearly 300% increase in parking revenue in that area. The meters are wirelessly networked to the state-of-the-art IPS Data Management System (DMS), which provides Barrie with real-time data including faulty meters and revenue. Easy-to-analyze information allows the City insight into trends, meter health, and collections in ways that they had never experienced before, as well as to help plan long-term strategy by going into deeper levels of data analysis. All of this is achieved from their desktop.

“The old process to keep track was just with pen and paper adding things up and trying to sort out what was what,” says Gary Doiron, Coordinator of Parking for the City of Barrie. “I’ve found with the DMS you can go in and customize pretty much anything you want, which is very convenient. Other people can access the system at the same time to get what they need, which also frees up my time.”

“It impacts our long-term strategy,” says Doiron. “You can see where you are making money, so maybe you can gear more of your parking towards that – which meters are people using the most, when they are using them, how much they are spending. By knowing this, you can forecast the future much easier.”

Ongoing Support to Succeed

Barrie credits the partnership with IPS Group to the program’s success. Aside from having a parking technology solution that provided patrons with greater convenience and maximized efficiency of a small staff, the City has also benefitted from the support provided by IPS.

“We are happy with IPS and the support,” says Rose. “The product works well. If there’s ever an issue, it is resolved promptly. For such a small team here in Barrie, we need to rely on the suppliers to come through. IPS does.”
About IPS Group, Inc.
San Diego-based IPS Group, Inc. is a design, engineering, and manufacturing company focused on low-power wireless telecommunications and parking technologies. IPS manufactures locally in San Diego, CA and has been delivering world-class solutions to the telecommunications and parking industries for over 20 years. The company is best known for their patented credit card-enabled, solar powered single-space parking meter and web-based management system.

Success Highlights

• IPS single-space parking meters were durable enough to survive harsh winter conditions without issues
• City experiences greater than 99% meter uptime
• Credit-card option and remote management capabilities and real-time data accessible via web-based Data Management System helped City make changes leading to a 300% increase in City revenue

Looking to the Future
Barrie continues to enjoy a thriving partnership with IPS Group. The City aims to eventually upgrade more of the coin-only, single-space parking meters throughout the City with IPS meters, offering additional payment options and enhanced customer service to the public. They are choosing IPS as their partner to face the challenges ahead, be it from weather, or city growth.

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