

# Parking options for cities

Products and advances in technology offer new systems for municipalities to consider

by Jane Gurin

**P**arking is a rapidly-changing industry that is getting more attention as an opportunity for local governments to increase revenue while improving city services and enhancing the experiences of citizens and visitors. Although many high-tech advances in the field are new, municipalities are already well on their way to integrating them into how they manage parking services.

“It’s a whole new era in parking,” explains Shawn Conrad, CAE, executive director of the International Parking Institute (IPI), the world’s largest association for parking professionals. “Local governments are realizing that understanding new technologies and working with experienced parking professionals can have a significant return on investment.”

## New ways to pay

New high-tech parking meters allow motorists to pay for parking with money, credit and debit cards, cell phones and smartphones, and soon payment cards issued by municipalities. Installed at single spaces or at kiosks for multiple spaces, the meters prompt users through each payment step via an easy-to-read screen.

The convenience to motorists is apparent: no more searching for coins under their seats or scrambling for change. But the benefits of these new products to municipalities are even greater. The city of Winnipeg has already found that incorporating new parking technologies also generates more revenue.

Parking revenues increased 30 percent per machine location each year after the city of Winnipeg installed multi-space parking meters three years ago, according to David Hill, formerly chief operating officer of Winnipeg’s Parking Authority and now national practice leader of parking solutions for MMM Group Limited. “The results were amazing,” he said.

Multi-space meters save cities money



by minimizing the effects of broken meters. Because drivers can use any meter on a street to pay for parking, no revenue is lost when one meter is down. Also, wireless multi-space meters are able to report their own maintenance problems in real time, allowing for faster repairs.

What gave Winnipeg’s program an even greater return on investment was its decision to combine installation of the new meters with automation of parking enforcement through mobile license plate recognition technology.

Winnipeg isn’t the only city incorporating new technologies into its parking programs. In 2010, the city of Calgary won recognition from IPI, capturing an Award of Excellence for its ParkPlus management system. ParkPlus combines new street parking zones with innovative digital photo enforcement capabilities. Customers register their license plates online, and those with cell phone parking accounts call a number to indicate their zones. Another quick call will credit their accounts for any unused time upon their return. Alternatively, license plate and zone information can be entered at the solar-powered pay kiosks that have replaced downtown meters.

Hill says that in his view, the develop-

ment of the multi-space parking meter and mobile license plate recognition technology are the two greatest recent advances in municipal parking. But he adds that they are just the beginning. The following technologies for finding parking, charging for parking, and paying for it are either already in use or being piloted.

- Real-time parking information – Mobile applications guide motorists to available parking spaces through phones, in-vehicle navigation systems, and dynamic on-street signs.

- Payment options – Consumers want more cashless options, and municipalities are adding credit cards, debit cards, and mobile applications to their menus of payment options. Using a cell phone or smartphone, customers can call a toll-free number or access a mobile app to start and end their parking sessions. They can receive text message reminders when their parking sessions are about to end, or reload money from any location.

- Parking sensors – Data from parking sensors installed in parking spaces and from wireless meters provide information for municipalities to manage parking in real time and for mobile parking applications. The same data can be used to set rates that encourage turnover and main-

tain parking availability for businesses and consumers around the clock.

- Solar-powered parking meters – Powering new meters by solar panels cuts installation costs by avoiding the need to access underground power mains, and saves on the cost of electricity long-term.

- Global positioning systems (GPS) – In the near future, GPS will be used to identify when and for how long vehicles occupy parking spaces, and to bill customers remotely for parking.

### Better enforcement benefits cities and citizens

More efficient and effective parking enforcement has all-around benefits. Citizens appreciate consistent and reliable enforcement.

Businesses rely on available parking that depends on spaces that turn over, and governments cannot afford to lose revenue when enforcement is lax. Mobile license plate recognition isn't the only technology that aids enforcement. The following are recent additions to the marketplace or are expected soon:

- Electronic chalking – License plate recognition systems, time-stamped photos, and GPS combine to monitor a vehicle's parked position. Not only does e-chalking make violations difficult to contest, but it also turns up cars with unpaid fines, which can be booted or towed.

- Car boots – At least one company has developed an electromechanical boot that is released with access codes that motorists receive as soon they pay their parking fines over the phone through a credit card or by phone.

- Remote violation detection – Parking sensors that provide data about available parking also provide real-time data about cars that have overstayed parking limits. This information can be used to direct enforcement personnel.

- Handheld automation and digital cameras – In an earlier parking initiative, Winnipeg automated its ticketing procedure using wireless handheld devices and created a database of old and new tickets. Then, to save money, the city used consumer-grade digital cameras to photograph every offense.

Saved on a data chip and burned to CDs filed by date and time, the photos could be retrieved within one minute and attached

to the court file as evidence, which resulted in a 96 percent drop in acquittals and reprimands.

- Wireless sensing devices and GPS devices for license plate recognition – Wireless sensing devices combined with GPS data can automatically detect and notify parking enforcement officers of unmoved vehicles. The devices are equipped with cameras for photographing violations.

There is no doubt parking has changed a great deal in just the past few years. Local government officials can benefit greatly by exploring advances in parking technology and by tapping the wisdom and expertise of parking professionals to ensure their municipalities are on the road to success.

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