Paying Power

What you need to know about parking payment technologies and how they'll affect your operation.

By Amie Devero and Brett Wood, CAPP

The parking industry has seen a technological revolution during the past few decades, especially in payment processing and flexibility. This quickly-evolving landscape stands in contrast to our not-so-distant past, when a cigar box and a smile were all the tools frontline parking professionals possessed (or needed) to serve their customers. But as technology within the industry has progressed, so has the demand for better customer service through enhanced payment options, as well as for greater management and operational efficiency with respect to processing and collections.

With all the options available, navigating this sea of change often leaves parking professionals guessing which payment platforms to implement and how to best manage and monitor the terrain. Unfortunately, there are no silver bullets or one-size-fits-all solutions that can be prescribed across the industry. But as professionals, we can arm ourselves with as much information as possible to make the best decisions for our own customers, community, campus, program, or facility.

Finding the right single solution or mix of payment approaches can improve the customer experience, streamline the management of payments and transactions, and increase revenue potential. To realize those many benefits requires understanding both the external factors that influence payment platform implementation and how those choices interact with the other concerns of our enterprises, such as staffing, equipment, and security, to meet the needs of the entire system. Here, we offer general guidance for examining those factors and finding the right fit for your own environment.

Payment Options

Since the 1990s, options for payment acceptance and processing have expanded tremendously, allowing more flexibility than ever before. There are generally five categories of payments:

- Cash.
- Credit/Debit.
- Mobile/App.
- Near-Field Communication (NFC)/Radio Frequency Identification (RFID).
- Smart Card.

Each of these payment types requires specific equipment, although several available options are able to handle multiple payment options. For example, a parking meter can be configured to handle all five payment methods when appropriate.

Table 1 provides general guidelines for equipment considerations, as well as national average transaction rates and the potential percentage that your revenue collection might increase should you add that type of payment.

Table 1: General Considerations

Means of Payment	Equipment	When Added, % Transactions	Likely increase in revenue collections (if applicable)
Cash, Coins	Meters, Honor Boxes, Cashier, Note Acceptors and Dispensers, Coin Acceptors and Dispencers	N/A	
Credit/Debit, Card present	Kiosk, Smart Meters, Cashier	45%–65%	15%–25%
Pay by Cell/App	Kiosks, Meters (smart and not), Event (with or without cashier)	15%–20%	As above if added cash/coin only. 3%–8% if added on top of credit card payment
NFC, RFID, Transponder	Kiosks, Meters (smart and not) Toll Gates, Other Gate-Controlled	60%–75% (usually exclusive of above methods)	
Smart Card	Meters, Kiosks, Access-Controlled	35%–50%	

Implementation Considerations

Whenever you consider adding or changing payment platforms, it is critical to look beyond the equipment needs or immediate cost and focus on the ramifications the change may have beyond the obvious. New payment options can affect and be affected by multiple aspects of program management and operations. Some of the areas that can come into play or be affected by a new payment method include staffing, security, communications, and various external influences that will change the way we do business in the future.

Staffing

Implementing new payment platforms could very well lead to new staffing demands. Existing staff may have to shoulder additional responsibilities; alternatively, a payment change could require adding more staff power or specialized skills to your personnel mix. For example, cash/coin payments require staff that is experienced with secure handling of physical transactions, while credit/debit payments may require more numerate employees who can account for the variety of transaction fees and be able to reconcile records. Payment platform upgrades could also require changes to policies and procedures for enforcement staff, including education and training on how to use any new technologies required for the enforcement operation. Maintaining any new or updated equipment may also call for additional personnel or training to bring current staff up to speed.

In some instances, a big change in methodology for payment processing can make existing management or accounting procedures somewhat obsolete. This may call for the addition of professionals who can audit transactions and ensure that program revenues are secure; alternately, it may be a good idea to hire a comptroller whose responsibilities include monitoring credit card processing and/or transaction fees. Finally, whenever we demand behavior changes of our customers, as we do with new payment equipment or methods, it is critically important to educate the customer. To do that effectively may mean engaging ambassadors or public relations staff to help introduce new payment procedures and technologies to the end user.

Table 2 provides general guidance for staffing requirements for different payment platforms.

Security

You may have noticed the column in Table 2 entitled "Security." As it turns out, most payment platforms have their own unique security considerations to ensure that transactions are secure and that customers are able to engage the payment platform without risk of exposing themselves to fraudulent activity. Security is an important topic as you consider changes in your payment options. The following list expands on these considerations and provides more details for consideration of security standards.

PCI: Payment Card Industry (PCI) Security Standards are information security standards for organizations that handle cardholder information for debit, credit, prepaid, ATM, and point-of-service (POS) cards (see the June 2012 issue of *The Parking Professional*). PCI compliance is done annually by an outside qualified security assessor. When choosing a payment platform or equipment provider, it is essential that PCI compliance standards are met and that the company and equipment hold current certification. The most current compliance requirement is PCI DSS 3.0, issued in November 2013.

EMV: Europay, MasterCard, and Visa (EMV) is a joint effort between the three named credit providers to improve and ensure security and provide global interoperability of chip-based payment cards (see the August 2013 issue of *The Parking Professional*). While EMV standards are not fully integrated into the U.S. parking industry at this time, it is essential that payment considerations you make today have the ability to meet EMV standards as they are implemented. Acceptance of EMV payments began in 2013 and the full liability shift is expected in October 2015.

Audit Trail: An audit trail is a chronological set of records that provides evidence of revenues and transactions for a program's payment processing, ensuring full transparency and limiting (or eliminating) the risk of fraudulent activity.

CCTV: The use of closed-circuit television (CCTV) to monitor payment processing activities at the point of sale allows for off-site monitoring of activity and a secure record of transactions.

LPR: License plate recognition (LPR) technology allows for enhanced enforcement and management of transactions through the use of license plate recording, allowing for specific transactions to be tied to specific vehicles making the transaction. That information is important, and adds intelligence with which to manage the program's or facility's payment operations.

Signage

Another important consideration in the implementation of a new payment platform is efficient communication with customers, which usually takes the form of static and/or dynamic signage. New payment and equipment configurations can be confusing for patrons, resulting in a frustrating experience that could dissuade them from returning to your community or campus. To avoid upsetting or confusing customers, it is essential that signage explaining new payment choices be crystal clear.

It's a good idea to run prospective signage by informal focus groups, especially in situations where populations may not be technologically astute. Test your signs on grandparents, older residents, or your least-sophisticated

Table 2: Method Requirements

Means of Payment	Equipment	Staff	Security
Credit/Debit, Card present	Kiosk, Smart Meters, Cashier	Cashier, skilled enforcement, maintenance contract, accounting audit	PCI, EMV, audit trail, CCTV (for fraud prevention)
Pay by Cell/App	Kiosks, Meters (smart and not), Event (with or without cashier), Digital enforcement services	Help Desk (from vendor) Accounting for audit	
NFC, RFID, Transponder	Kiosks, Meters (smart and not) Toll Gates, Other Gate-Controlled	Equipment maintenance	CCTV, lighting, possible LPR, A/V two-way communication, limited public opening hours
Smart Card	Meters, Kiosks, Access-Controlled	Equipment maintenance	CCTV, LPR, A/V two-way communication, limited public opening hours

customers, and make sure what you think you are saying is what they read and understand. Along with being clear, signage should be simple and easy to read, with contrasting colors and uncomplicated fonts and designs. It's also a good idea to use both graphics and text, as different individuals find each most effective. And don't try to say everything on a sign. Save the details and nuances for a website or brochure.

Other Considerations

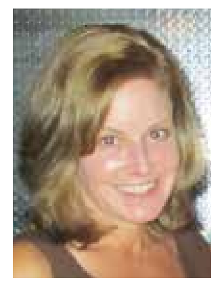
Beyond specific program considerations, you should also stay aware of external influences and cultural changes that will make a difference to the future of payment in our industry. One such ongoing change is the proliferation of mobile device activity and the resulting changes in customer expectations. The use of mobile platforms for everything—including payment—has increased considerably in the past 10 years, and the expectation is that the trend will only accelerate. Recent data shows that more than 80 percent of Americans own cell phones, and more than 50 percent of those people use smartphones. These numbers are only expected to rise, with the mobile payment industry projecting a $600 billion market share by 2016. This increase in mobile transactions engenders a change in customer expectations. Many customers want to be able to manage and pay for transactions through smartphone applications, whether linked electronically to a bank account or through NFC transmission.

General Recommendations

As you consider the many payment options and what to add in your own environment, there are some general rules of thumb to consider:

- Always think about who your customers are and what they are likely to be doing when encountering your payment scenario. Is the customer going to work? Entertainment? Class? Is the weather always sunny or do you have snow that covers street markings and makes walking to a pay station treacherous? Will the customer have the time and ability to stop and follow instructions, or will there be a line of cars waiting? Will lighting be appropriate for reading instructions? Do most of your customers understand technology or are they less sophisticated? All of these points create a profile of the customer and what might serve him best.
- What is the setting? If you are looking for payment options on-street then you must give thought to enforcement and how your current enforcement team will be able to do their jobs efficiently. Are you replacing an old technology or simply adding a new one? Are you expanding the responsibility of your enforcement team and if so, are you going to provide training and additional time? For garage or deck parking, you may need to analyze the access control system you have as you look at new payment options. Are they compatible? Will the payment provider offer integration? Is integration possible? What will it cost?
- Take time to complete a project life-cycle analysis, determining in advance all the costs, changes, and needs (staffing, training, signage, advertising, PR, collection, etc.) for every stage of the project and every stage of the use cycle. In other words, map out every step of implementation starting from the creation of your purchase order or RFP (if needed). And do the same for the parking cycle. What will happen from the moment the equipment is turned on through the first transaction, enforcement, citation, adjudication, collection of funds, settlement of funds, reconciliation and final reporting?

With these concerns addressed, you should be able to make sound choices about which payment options to add and which to leave alone for now. And of course, your peers at the International Parking Institute (IPI) and the members of the IPI Technology Committee are always available as sounding boards and subject-matter experts should you find yourself in a quandary.



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