

physical made digital



## Contactless Payment



### Application Solutions for Contactless Payment

#### THREATS:

- » High-touch Transactions
- » Security Concerns
- » Limited Form-factors

#### VENUES IMPACTED:

- » Convenience stores and Gas stations
- » Parking facilities and Fast food restaurants
- » Entertainment venues and Transit facilities
- » Vending machines

#### BENEFITS:

- » Increase number of daily transactions
- » Improved customer satisfaction and loyalty
- » Increased security

### Applications Overview

Fear of credit card fraud and identity theft, the desire to carry less cash, frustration with long wait times, 'traveling light' are all issues that are top of mind with consumers and patrons today.

Convenience stores, gas stations, fast food service restaurants, movie theaters, entertainment and recreation venues, parking facilities, transportation services, and vending machines are all challenged to provide fast, efficient, secure service in order to gain and retain customer loyalty, increase transaction volume and decrease costs.

Traditional payment processes have typically proven incompatible with small dollar purchases where fast service is expected and customers in a hurry are easily frustrated by having to fumble for cash or credit cards. The limitations of traditional payment processes pose an expense for merchants focused on high-volume, low-value transactions as well as inconvenience for their customers from several perspectives:

Threat	Result
High-touch process involves multiple steps including handoff, swipe and signing	• Payment process can be slow
Cards typically need to be handed over to a merchant employee to initiate payment	• Security fears
Traditional payments limited to a single plastic card form-factor	• Inconvenience • Costly replacement
Customers may choose a retailer with shorter lines	• Fewer transactions with less throughput

Merchant segments that experience customer frustration and reduced transaction volume due to delays in the traditional payment process include:

- **Convenience stores and Gas stations:** Where customers are looking to get in and out quickly
- **Parking facilities and Fast food restaurants:** Where long lines can quickly lead to frustration
- **Entertainment venues and Transit facilities:** Where patrons often do not have convenient access to their wallets
- **Vending machines:** Where customers are required to have small increments of cash to make a purchase

SkyeTek is empowering organizations focused on high volume, low ticket size transactions with the ability to quickly and securely capture contactless payment transactions through a cost-effective, end-to-end, embedded RFID solutions approach that does not require existing point of sale terminals to be swapped out. SkyeTek's embedded RFID contactless payment solution is helping organizations to:

- **Increase number of daily transactions:** enabling a payment method that is more convenient than cash or traditional plastic
- **Improved customer satisfaction and loyalty:** using a device 'in hand' such as a cell phone or key fob means shorter wait times
- **Increased security:** payment method doesn't ever leave the customer's hands



www.skyetek.com



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### About SkyeTek:

SkyeTek transforms traditional RFID into a networking technology enabling goods and assets to participate in a connected world. SkyeTek develops readers that serve as intelligent edge devices and software that binds policies to tagged items. By extending networks to the physical world, our customers increase revenue through their ability to predict demand, prevent counterfeiting, and personalize user interactions.

SkyeTek combines intelligent software with an inexpensive hardware platform to provide a modern RFID security model, distributed policy management engine, and network-ready readers. Enterprises deploy SkyeTek's solutions to deliver a seamless RFID edge network capable of centralized management and real-time response for applications in item tracking, product authentication, access control, and patron management.

### For more information:

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## Relevant Technical Solutions

SkyeTek provides complete technical solutions including embedded RFID modules, accessories and software all supported through integration services and custom development where applicable that address the unique characteristics of a Contactless Payment application:

### • Continuous Authentication: What are the identity credentials?



Guarantee authenticity and security of products and individuals alike, fight counterfeits, generics and substitutes to Protect brand integrity, assure product quality and reduce legal liability by network-connecting printers, medical devices and door badge readers to back-office systems.

Reference SkyeTek's *Continuous Authentication Solution Sheet* for full details.

## Support

SkyeTek's firmware and software supports all leading contactless payment provider protocols<sup>1</sup>:

Payment Provider	Protocol
American Express ExpressPay	Proximity ICC Payments Application Level Protocol Version 1.7
Discover Contactless Payments	Discover Network RF Contactless Payment Version 1.01
Europay MasterCard Visa (EMV) <sup>2</sup>	Books v4.1
Europay MasterCard Visa (EMV) <sup>2</sup>	Books v4.0 (aka EMV2000)
Mastercard PayPass	Magstripe Protocol Version 3.1
Visa Contactless Payments	Magnetic Stripe Data Application Protocol Version 1.4.2

Notes: <sup>1</sup>SkyeTek supports all major payment protocols - Customer is responsible for obtaining final certification for finished product. <sup>2</sup>Full European support pending

## Case Study: Isochron

Isochron, a leading provider of networked vending solutions, recognizes embedded RFID as a means to revolutionize the way vending operators manage their businesses. Isochron realizes that using RFID to facilitate cashless and contactless payment drives impulse purchases and ultimately improves the user experience. With instantaneous payment vendors receive cash as much as two weeks faster than traditional collection methods. Additionally, with less cash and coins tendered, vendors reduce the frequency and cost associated with collection. By adding RFID as a feature in the vending machines they manufacture, Isochron is now able to provide its customers with purchase convenience and increased sales.

**SkyeTek Reader Technology** SkyeTek provides a variety of reader technology at both 13.56 MHz (HF) and 860- 960 MHz (UHF). ReaderDNA, a comprehensive reference design, is available for component level integration of the technology including complete design files, BOM, and test fixture. All SkyeTek readers leverage powerful firmware that drastically reduce hardware costs and are delivered in conjunction with ReaderDNA. SkyeModules are controlled via the SkyeTek Protocol, a powerful but simple communication protocol that grants the user access to all features of an RFID transponder. Further, they have been designed with flexible and modular embedded software that allows one to select only the features desired.

