HTNG NFC CONTACTLESS PAYMENTS WHITE PAPER

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About HTNG

Hospitality Technology Next Generation (HTNG) is a non-profit association with a mission to foster, through collaboration and partnership, the development of next-generation systems and solutions that will enable hoteliers and their technology vendors to do business globally in the 21st century. HTNG is recognized as the leading voice of the global hospitality community, articulating the technology requirements of hotel companies of all sizes to the vendor community. HTNG facilitates the development of technology models for hospitality that will foster innovation, improve the guest experience, increase the effectiveness and efficiency of hotels, and create a healthy ecosystem of technology suppliers.

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1 DOCUMENT INFORMATION

1.1 DOCUMENT HISTORY

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0.01	06 NOV 2018	Sandy Angel	Inserted document into templat
0.01	10 DEC 2018	Sandy Angel	Included changes from comment review
0.02	17 DEC 2018	Sandy Angel	Updates from document review
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2   THIS DOCUMENT AT A GLANCE

This document provides an overview of EMV contactless payment technology for the hospitality industry. It includes the following sections:

- **Benefits**
- **How it Works**
- **Getting Started:** Outlines the implementation tasks to add contactless functionality to the merchant's environment.
- **Resources:** Provides a list of resources that can be used to obtain more information.

2.1 Audience

This document is for payment program managers in the hospitality industry. It provides an introduction to contactless payment along with information to help get infrastructure ready to be able to support it.

2.2 Key Terms

Key terms used in this document:

- **Contactless Payment**: In this guide, the term "contactless payment" refers to a contactless transaction using the *EMV® Contactless Specifications*, Book C-3 (or equivalent). The transaction may take place with a contactless chip card or via another contactless form factor (see form factor definition below).

  Important: There is an earlier form of contactless payment that mimicked magnetic-stripe transaction processing called Magnetic Stripe Data (MSD). MSD does not adhere to the EMV security standards. It is no longer supported by many of the payment brands and is not within the scope of this document.

- **Contactless Terminal[1]:** A terminal that has been upgraded to support contactless payment per the *EMV Contactless Specifications*, Book C-3 (or equivalent).

- **Form Factors**: Consumer personal payment cards or devices that have been enabled to support contactless payment. Examples include: cards, mobile phones and wearables such as watches, wristbands or rings. The term "**card/mobile device"** is used in this document to represent the various form factors.

- **Near-Field Communication (NFC)**: A form of contactless communication between devices. NFC enables contactless cards and mobile devices such as phones and wearables to communicate with a merchant's contactless terminal. With this technology, the consumer can wave or tap their mobile device over the merchant's contactless terminal to exchange information without needing to connect the devices together.

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[1] Also called a PIN pad.

3 Benefits

Contactless payment provides a wide variety of benefits to merchants and consumers alike:

- **Choice**: When a merchant's environment has been upgraded to support contactless transactions, it allows consumers to choose their own convenient way to pay. They can use a contactless payment card or mobile device such as a mobile phone, wristwatch/wristband, or ring that has been enabled to support contactless payment.

- **Faster, Easier Transactions**: During a contactless transaction, the consumer briefly holds their contactless card/mobile device above the terminal, creating a fast and easy transaction.

- **Innovation**: A contactless environment can also enhance the customer experience throughout the merchant's facility. This may include using a self-service kiosk to checkin and download the room key, paying for meals and drinks at restaurants, bars, or the pool, and accessing the hotel gym.

- **Security**: Contactless payments utilize EMV technology to help ensure transactions are secure and to help prevent fraud and skimming.

- **Leveraging EMV Infrastructure**: Since contactless is built on EMV, it allows merchants to leverage their EMV infrastructure.

4 How Does a Contactless Transaction Work?

This section outlines how a contactless transaction works and includes specifics for the hospitality industry.

4.1 Contactless Transaction Flow

A contactless transaction is quick and easy:

- A consumer with a contactless payment card/mobile device performs a payment transaction at a terminal that has been upgraded to support contactless transactions.

- The consumer briefly holds the card/mobile device close to the merchant's contactless termin (about 1-2 inches). The terminal will have a contactless symbol on it so the consumer knows where to place their card/mobile device. It may also display a phrase similar to "Tap to pay with your card or device here.

Figure 1: EMV Contactless Symbol for Merchant Acceptance

- The payment terminal uses Fear Field Communication (NFC) technology to communicate with the card/mobile device.

- The consumer will quickly hear a beep signaling for the card/mobile device to be taken away from the payment terminal.

- The rest of the transaction takes place as it does today for an EMV contact or magnetic-stripe card:
  - The merchant sends the transaction online to their gateway where it is forwarded to the acquirer and then on to the issuer through the payment network.
  - The issuer responds with an approval signaling that the transaction has been successfully completed.

- The transaction includes data to identify it as contactless and to support cyptography to protect against fraud and skimming (this is the same data used on EMV contact-chip transactions).

Figure 2: Contactless Transaction Flow

Point-of-Sale Merchant Gateway Acquirer Network Issuer
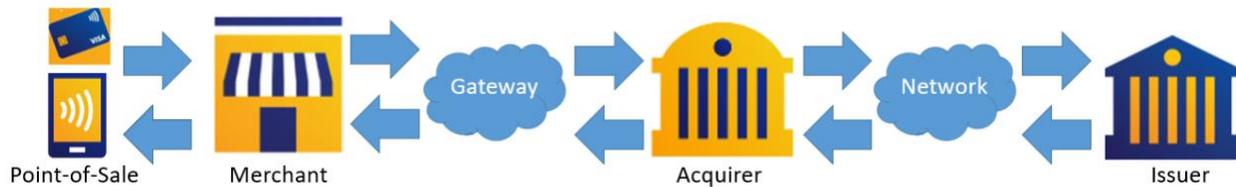
4.2 Hospitality-Industry Specifics

There are specific contactless considerations for the hospitality industry:

- **Check-in**: Check-in procedures will be similar to today except that the card can be tapped (contactless) or inserted (contact) to conduct the initial pre-authorization. The customer will sign for the transaction to signal their agreement to pay, while also agreeing to hotel terms and conditions. This pre-authorization will contain chip data, which is transmitted in the tap or during insertion, which is used by the gateway or ECR to send the authorization.

- **Check-out**: The check-out process will take place as it does today. A sale completion message (following the initial pre-authorization and any incremental authorizations) is used to finalize the bill for the customer's stay. The card does not need to be present for this transaction.

   Note: For some payment brands, the chip data obtained in the original pre-authorization performed at check-in may need to be provided in the sale completion message.

- **Self-Service Kiosks**: To enhance the customer experience, hospitality environments with self-service check-in kiosks should consider enabling them for contactless to speed the check-in process. This could include downloading the customer's room key on the card/mobile device[2] and allowing it to be used to access guest amenities such as the hotel gym or pool area. With this approach, the customer doesn't need to carry their wallet throughout the hotel since their card/mobile device can be used for all activities and purchases.

- **Guest Purchases**: Restaurants, cafes, bars, shops, spas and other guest services at the hotel can be upgraded to support contactless payments to give consumers a fast and easy way to pay for all of their experiences while staying at the hotel. Many of these transactions can take place without a signature or PIN, giving cardholders added speed and convenience.

- **Tips/Gratuities**: With contactless, tips/gratuities work the same as they do today:

   o In dining environments, the transaction is authorized and then the tip is added to the bill and submitted with the clearing transaction.

   o When paying at the counter or using a "pay at the table" solution, the tip may be added to the amount of the bill and submitted as the full authorization amount.

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[2] This requires a separate application on the card/mobile device.

5 Getting Started

This section outlines activities that merchants in the hospitality industry need to consider to support EMV contactless payments:

- **Point-of-Sale/Terminal:** Upgrading the point-of-sale environment to support contactless payments

- **Payment Processing/Gateway:** Ensuring that the gateway is ready to support contactless transactions

- **Training:** Training staff to support contactless acceptance at the point-of-sale

- **Consumer Experience:** Displaying promotional materials and the contactless symbol at the point-of-sale to promote usage

5.1 Point-of-Sale/Terminal

Hospitality merchants should check with their solution provider to understand what is needed to upgrade their environment to support EMV contactless payments:

- In many cases, as part of a merchant's migration to EMV, the point-of-sale system will already support contactless payments and the contactless functionality simply needs to be turned on to begin accepting contactless cards/mobile devices.

- Merchants that do not currently support EMV should upgrade their environment to support EMV contact and contactless at the same time as they go hand in hand. This will save both time and money in installation and configuration of the solution and training of staff.

Important: Merchants supporting EMV that do not already support the faster implementation of it (e.g., Visa Quick Chip, MasterCard M/Chip Fast, Amex Quick Chip, etc.) are strongly encouraged to add support for it as they upgrade their environment for contactless. Not only will this upgrade make EMV contact-chip transactions faster, but it also streamlines and simplifies the migration to contactless. Contact your solution provider for more information.

Note: "Contactless payment" in this document refers to contactless transactions based on the *EMV Contactless Specifications*, Book C-3 (or equivalent). The contactless solution that mimicked magnetic-stripe transaction processing (called Magnetic Stripe Data, MSD) is no longer supported by many of the payment brands and should not be implemented.

5.2 Payment Processing/Gateway

Hospitality merchants should ensure their gateway provider:

- Can support the data required for EMV contactless-transaction processing. This data is similar to the data already required for EMV contact-chip transactions, so merchants that support contact-chip transactions have minimal changes to make.

- Is set up to handle contactless transactions via mobile devices (i.e., Apple Pay, Samsung Pay, Google Pay).

- Has completed the appropriate terminal testing and obtained the proper certifications.

5.3 Training

While the acceptance of contactless cards/mobile devices is straight forward and familiar to many consumers from experience in other environments, hotel staff still need to be trained on how to assist unfamiliar consumers with their contactless payment. Merchants need to develop training plans and train customer-facing staff.

5.4 Consumer Experience

It is important for hospitality merchants to follow industry best practices to ensure the consumer experience at the point-of-sale runs smoothly. The point-of-sale should include promotional materials advertising that contactless cards are accepted, and the contactless symbol must be displayed on the device. See Section 6: Resources for more information.

6 Resources

There is a wealth of information available to hospitality merchants to support them in their acceptance of contactless cards/mobile devices. Some of these key materials include:

- **Merchant Contactless Infographic**: An overview of the merchant benefits associated with contactless payment

- **Visa's Best Practices for Customer Experience at Point-of-Sale**: Best practices to ensure a smooth contactless payment experience for customers at the point-of-sale

- **Contactless Payments: Proposed Implementation Recommendations**: Key recommendations for implementing contactless and Near Field Communication (NFC)-enabled form factors on point-of-sale acceptance devices in the North American market

- **EMVCo Contactless Symbol Reproduction Requirements**: Information for displaying the contactless symbol at point-of-sale terminals

- **Understanding the 2015 U.S. Fraud Liability Shifts**: Information about the EMV liability shift; as of October 2015, liability for in-store fraudulent transactions shifts to the party (either issuer or merchant) that has not adopted chip technology

- **EMV Testing and Certification White Paper: Current Global Payment Network Requirements for the U.S. Acquiring Community**: Testing and certification requirements for terminals that support EMV contact and contactless transactions.

- **Marketing Materials, Payment Brand Rules, and Implementation Guides**: Each payment brand has sample marketing materials, payment brand rules and implementation guides for merchants to use to support their migration to EMV contact and contactless transactions. For details, refer to these individual payment brand websites:

    o www.visa.com/chip

    o www.mastercard.us

    o www.americanexpress.com

For additional information, refer to the U.S. Payments Forum. This website has an extensive set of documents, FAQs and white papers to aid merchants in their migration to EMV contact and contactless: www.uspaymentsforum.com.