

# ► EMV & NFC Technologies

# Secure EMV Chip-based & NFC-enabled POS Technologies Are Here!

### What is EMV?

Named after the original organizations that created the specification, Europay, MasterCard and Visa, EMV, is a global standard for inter-operation of integrated circuit cards (IC cards or "chip cards") and IC card capable point of sale (POS) terminals and automated teller machines (ATMs), for authenticating credit and debit card transactions.

### Source: Wikipedia, http://en.wikipedia.org/wiki/EMV

### What is NFC?

Near field communication (NFC) is a set of standards for smartphones and similar devices to establish radio communication with each other by touching them together or bringing them into close proximity, usually no more than a few inches. Present and anticipated applications include contactless transactions, data exchange, and simplified setup of more complex communications such as Wi-Fi. Communication is also possible between an NFC device and an unpowered NFC chip, called a "tag".

Source: Wikipedia, http://en.wikipedia.org/wiki/Near\_field\_communication





Smartcard

Security

Contactless





# New payment technologies are coming. Are you ready?

#### Visa Announces Plans to Accelerate Chip Migration and Adoption of Mobile Payments August 9, 2011

August 9, 2011

Visa Inc. (NYSE: V) today announced plans to accelerate the migration to **EMV contact and contactless chip technology** in the United States. The adoption of dual-interface chip technology will help prepare the U.S. payment infrastructure for the arrival of **NFC-based mobile payments** by building the necessary infrastructure to accept and process chip transactions that support either a signature or PIN at the point of sale. Effective October 1, 2012, Visa will expand its Technology Innovation Program (TIP) to the U.S. TIP will eliminate the requirement for eligible merchants to annually validate their compliance with the PCI Data Security Standard for any year in which at least 75 percent of the merchant's Visa transactions originate from chip-enabled terminals. To qualify, **terminals must be enabled to support both contact and contactless chip acceptance**, including **mobile contactless payments based on NFC technology**. Contact chip-only or contactless-only terminals will not qualify for the U.S. program.

Source: VISA, http://corporate.visa.com/newsroom/press-releases/press1142.jsp

## MasterCard Introduces U.S. Roadmap to Enable Next Generation of Electronic Payment

#### January 30, 2012

PURCHASE, N.Y.-(BUSINESS WIRE)-Jan. 30, 2012- MasterCard today introduced a comprehensive roadmap focused on advancing the U.S. electronic payments system. The roadmap, which includes the path for migration from magnetic stripe to EMV technology currently available on "chip" cards, will serve as the foundation for the next generation of products and services developed to enhance the way consumers pay. As payments continue to evolve to include new devices and new channels, such as mobile and eCommerce, the roadmap takes steps to address how consumers really shop, providing them greater security and control in their payment choices and the potential to seamlessly integrate loyalty programs and offers into the purchasing experience.

#### Source: MasterCard,

http://newsroom.mastercard.com/press-releases/mastercard-introduces-u-s-roadmap-to-enable-next-generation-of-electronic-payments/

#### **Discover Joins EMV Bandwagon**

#### March 15, 2012

Discover Financial Services has fallen in line behind larger rivals Visa and MasterCard, setting out a timetable for the US abandonment of mag-stripe cards in favour of EMV chip technology. In August Visa set out a three-step plan to encourage dynamic chip authentication adoption, requiring US processors to be able to support merchant acceptance of the technology by April 2013 before switching liability to retailers that have not upgraded in October 2015. At the beginning of the year MasterCard followed suit and now Discover has promised to implement a 2013 EMV mandate for acquirers and direct-connect merchants in the US, as well as Canada and Mexico.

Source: Finextra, http://finextra.com/news/fullstory.aspx?newsitemid=23534

## Researcher Predicts Almost 90% of U.S. POS Terminals Will Be EMV-Capable by 2017

#### July 10, 2013

Nearly 90% of U.S. point-of-sale terminals will be ready to accept Europay-MasterCard-Visa (EMV) chip cards by 2017, according to a new Aite Group LLC study. The report examines the reterminalization of card-acceptance locations triggered by the payment card networks' plans announced in 2011 and 2012 to wean America off of fraud-prone magnetic-stripe credit and debit cards. Aite senior analyst Rick Oglesby predicts that 88% U.S. card-acceptance locations in 2017, an estimated 10.2 million, will have **the hardware needed to accept EMV cards as well as near-field communication (NFC) payments**, which the card networks are promoting simultaneously with EMV to jump-start mobile payments.

*Source: Digital Transactions, http://digitaltransactions.net/news/story/4187* 

# U.S. Migration to Chip Payments Accelerates as EMV Migration Forum Expects More Than 100 Million Cards Issued to Consumers by Year End

#### June 12, 2014

The U.S. payments industry is on track to see 100 million or more EMV chip cards issued, and more than double the number of chip-capable terminals to an estimated 4.5 million installed in the market by year end, according to the EMV Migration Forum.

Source: EMV Connection, http://www.emv-connection.com

# EMV & NFC are coming! Be ready to accept chip card payments with Ingenico terminals.



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Igenico North America



# iCT 220CL

# Sophisticated merchant services in a compact standalone countertop device

• Provide merchants with a compact payment device using minimum countertop space.

• Offer a unique payment experience from an ergonomic, intuitive device.

• Accept all electronic payment methods including EMV chip & PIN, magstripe and NFC/ contactless.





#### **Highest Security**

The iCT 220CL meets the highest security requirements and is PCI PTS 3.x certified with SRED and Open protocol modules. The optional PIN privacy shield provides additional PIN entry confidentiality.

#### All Payment Options

Offering EMV chip & PIN, magstripe & NFC/contactless payment, the iCT 220CL also enables new NFC couponing and wallet applications.

#### **Designed for Merchants**

Among the world's smallest and lightest devices, the iCT 220CL is designed for easy handling and robust daily use. The backlit keypad and color LCD display make PIN entry and menu navigation easy and intuitive. Large keys, power buzzer and visual indicators speed transactions and reduce PIN entry errors.

#### All Connectivity & Communication

Equipped with an unparalleled array of communication technologies such as high speed modem or Ethernet, the iCT 220CL delivers anytime, anywhere connectivity.

#### **Brand Promotion**

Brand promotion is empowered by a crisp color graphic display, software customization and hardware personalization options (top casing, printer cover flap or lens).

#### Telium 2

Powered by the Ingenico Group, Telium 2 technology is the result of 30 years' experience in the payment industry. Secure, highly integrated and fast, Telium 2 is the world's best platform for secure payment services. With advanced functions, it can easily manage more than 2,000 graphical libraries and handle new business service apps. Telium 2 is the fully scalable, reliable operating system embedded into Ingenico Group's 20 million terminals deployed worldwide.











Feature		Description
Processor	ARM 9 & ARM 7	0
Memory	16 RAM /128 Flash	•
	μSD Card	Option
SAM		Up to 3
Card readers	Smart card	1 + 2nd optional
	Magstripe	•
	Contactless	•
Display	Size & Resolution	Black and white, 2.7" graphic 128 x 64 pixels
	Backlit	•
Terminal connectivity	Dial-up modem	•
	Ethernet	Standard
Keypad	Backlit operational keys	15
	Navigation keys	4
Audio	Buzzer	•
Thermal printer	Speed in lines/second	18 l/s
Connections on terminal	RS232	1 (+1 optional)
	USB host	1
	USB slave	1
	Power supply connector	1
Power supply	External power supply	230V 50Hz
Terminal size	LxWxH	7.28 x 3.26 x 2.48
Weight	Terminal without paper roll/cable	11.46 oz
Privacy shield		Option
Customization	Lens marking	Option
	Printer cover flap	Option
	Top casing	Option
Connections on Magic Box (optional)	Power supply connector	1
	RS232	1 (+1 optional)
	Line in	1
	Ethernet	1
Environment	Operating temperature	41°F to 113°F
	Storage temperature	4°F to 131°F
	Relative humidity, non-condensing	85% HR at +104°F
Security	Online & offline	PCI PTS 3.x

