



# **Webinar - Skimming and Fraud Protection for Petroleum Merchants**

**November 14<sup>th</sup> 2013**



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# **Skimming and Fraud Protection for Petroleum Merchants Webinar**

## **Skimming at the AFD**

Mario Rivero, Jr  
Business Leader, Visa Inc.  
November 14, 2013  
Visa Public

# What to do if a skimmer is detected



- Notify Corporate office, Franchisor or Distributor
- Local Law Enforcement or US Secret Service field office
- Notify Retailer's Acquiring Bank or Processor
- Contact Visa Fraud Investigations at: [usfraudcontrol@visa.com](mailto:usfraudcontrol@visa.com)
- Provide Visa a summary of event:
  1. Date, time & how it was discovered
  2. Provide photograph of device and installation
  3. Time frame device was installed
  4. Provide accounts processed thru the tampered AFD during time frame
- Visa will distribute at risk accounts to Issuers to prevent fraudulent use and minimize impact

**Dealers must have documented notification procedures before an event occurs...**

# Practices to minimize the risk of a data compromise



- Ensure entry and access to AFDs is limited to specific employees according to job functions
- Schedule frequent inspections of AFDs
- Train staff on what interior of AFD should look like
- Ensure AFD access keys are not shared among large numbers of devices and are securely managed
- Verify that AFD and POS PED access is restricted to designated employees and service technicians
- Use CCTV video cameras to monitor and deter
- Work with Vendors to upgrade equipment and anti-tampering tools

# Monitoring Suspicious Activity



- Single customer activating multiple AFDs
- Filling multiple vehicles from one AFD
- Filling large non-commercial vehicle containers
- Fueling several times a day (location and chain-wide)
- “Using” several cards without dispensing fuel (testing)
- Individuals offering to use their card to pump fuels for customers in exchange for cash





# Skimming and Fraud Protection for Petroleum Merchants – Securing PIN Acceptance

November 14, 2013

Stoddard Lambertson  
Payment System Security  
Visa Inc.

Note: This presentation will be posted on [www.visa.com/cisp](http://www.visa.com/cisp)

# Agenda

- Compliant PIN-Entry Device (PED) Acquisitions
- Expiration of PCI Approved Devices V1.X
- Visa mandates for PED usage
- Best Practices for PED Acquisitions
- Visa's new PIN Security Compliance Framework



# PIN Entry Device (PED) Testing



- PCI Security Standards Council (SSC) manages and approves laboratories for testing PEDs and PED approvals
- Visa started program in 2002 (Pre-PCI PEDs)
- Adopted by PCI SSC in 2007
- Testing consists of verification of the Hardware, **Firmware** and TDES capability
- Separate processes for the evaluation of device types – POS, Encrypting PIN PAD etc.
- [www.pcisecuritystandards.org/pin](http://www.pcisecuritystandards.org/pin)
- Visa has mandates for the purchasing, use and deployment of PCI-Approved PEDs



# Compliant U.S. AFD EPP Acquisitions



**Effective January 1, 2009** - all newly deployed U.S. AFDs must have a PCI approved Encrypting PIN Pad (EPP)

- Ensure newly purchased EPPs are PCI-approved and listed on the PCI Approved Device List... **and not expired**
- PIN Security Requirements enforced via *Visa International Operating Regulations* ID#: 151013-100512-0027086
- **Develop EPP purchase policies to:**
  - Never purchase expired EPPs – Version 1.X PEDs Expire April 2014
  - Ensure that **both** the EPP and the firmware are PCI approved

## **Best Practices:**

- Attempt to purchase the highest version of PCI approved EPPs – currently some Vendors are testing PEDs against Version 4.X
- Include language in purchase agreement that binds manufacturer or reseller to supply only PCI approved EPPs
- Attach the relevant section of the PCI Approved Device List to the purchase contract
- Purchase EPP versions that support EMV upgrades
- Attempt to purchase and deploy PCI Unattended Payment Terminal (UPT) approved devices



# PCI Approved Unattended Payment Terminals – UPT



## Currently 16 UPT devices listed and approved

Class of cardholder-operated payment devices that read, capture and transmit card information in conjunction with an unattended self-service device:

1. Automated Fuel Dispensers
2. Ticketing Machines / Vending Machines / Kiosks

UPTs may have a compound architecture directly combining payment and the delivery of services and/or goods

- PIN support
  - Prompt control
  - Key management
  - PIN-entry technology
- 
- Use of PCI Approved UPTs is a Best Practice
  - Use of PCI Approved EPPs is required



# PCI PIN Transaction Security Devices



Always validate Hardware, Firmware and Application prior to purchase

The screenshot shows the PCI Security Standards Council website. The navigation bar includes 'Home', 'Contact', 'FAQs', and 'Change Your Language'. The main menu has 'For Merchants', 'PCI Standards & Documents', 'Approved Companies & Providers', 'Training', 'News & Events', 'About Us', and 'Get Involved'. The breadcrumb trail is 'Home > Approved Companies & Providers > Approved PIN Transaction Security Devices'. The left sidebar lists various categories, with 'Approved PIN Transaction Security' highlighted. The main content area is titled 'Approved PIN Transaction Security Devices' and features a search filter for 'Product Type' set to 'UPT'. Below the search results, a table lists the details for 'Cryptera A/S'.

**Approved PIN Transaction Security Devices**

[www.pcisecuritystandards.org](http://www.pcisecuritystandards.org)

Please review the legal conditions and restrictions regarding PCI PTS approval contained in the **Payment Card Industry PIN Transaction Security Testing and Approval Program Guide**.

**PCI Security Standards Council bulletin on determination of PCI approval status for PTS devices Payment Card Industry (PCI) Recognized Laboratories Derived Test Requirements**

Additional PIN Transaction Security (PTS) documents are available in the **document library**.

Search by Company Name, Product Name, Approval Number, Product Type, Version or Expiration Date, Functions Provided.

Product Type: UPT Search Clear

PIN Acceptance Devices: Non PED HSM SCR

Results: 16 Page: 1

Company	Approval Number	Version	Product Type	Expiry Date
<b>Cryptera A/S</b> <a href="http://www.cryptera.com">www.cryptera.com</a>				
<b>INT 7000</b>				
Hardware #: xxx-3310-62xx R2x (online&offline), xxx-3310-62xx R1x (online only)	4-20190	1.x	UPT	30 Apr 2017
Firmware #: 414-0580 R2x (online & offline), 414 -0580 R1x (online only)				
Applic #:				
<b>Gilbarco s.r.l.</b>				

# POS PED Categories and Usage



## Non Lab-Evaluated / Non Visa Approved

### Attended PEDs

- Deployed prior to Jan. 2004
- Mandatory Visa sunset date July 2010

### US AFD PEDs

- No Visa Inc. sunset date
- No new deployments

## Pre-PCI Approved PEDs

### Attended PEDs

- Deployed after Jan. 2004
- Expired on Dec. 2007
- Visa sunset date Dec. 2014
- Listed by Visa - [visa.com/cisp](http://visa.com/cisp)

### US AFD PEDs

- No Visa Inc. sunset date\*
- No new deployments

## PCI Approved PEDs

### Attended PEDs

- Deployed after Dec. 2007
- V1.X PEDs expire April 2014 – purchases not allowed
- No Visa Inc. sunset date
- Listed by PCI SSC

### US AFD PEDs

- EPPs deployed since Jan. 2009
- No Visa Inc. sunset date\*
- Listed by PCI SSC



## Best Practices for POS PED Acquisitions:

▶ **Locate PED on PCI SSC website to validate approval status**

▶ **Keep print screen of PCI PED approval with PO**

▶ **Purchase the latest version of PCI PEDs when possible – V4**

\* **NOTE: Visa Europe requires all Unattended pre-PCI and PCI V1.X PEDs be replaced by December 2020**  
For more information contact: [visaeuropepin@visa.com](mailto:visaeuropepin@visa.com)

# Visa What to Do If Compromised

- New notification requirements for PIN Entry Device (PED) attacks
- If PCI PTS Approved device is suspected, compromised entity must provide Vendor the with all relevant information
- Vendors that manufacture PCI PTS Approved PEDs are required to inform the PCI Security Standards Council
- Includes attended POS PEDs or Encrypting PIN PADs (EPPs) deployed at the AFD
- Some of the PEDs may be sent to the Vendor for inspection
- PCI SSC may de-list the PED based on analysis of Vendor provided reporting



[www.visa.com/cisp](http://www.visa.com/cisp)

# Compromised PIN-Entry Device List



- Review PEDs in use to identify any known vulnerable devices
- *Visa Bulletin* available on [www.visa.com/cisp](http://www.visa.com/cisp)
- Take precautions to secure all PEDs in use...or in storage
- To date no Encrypting PIN Pads (EPP) listed



**VISA**

Visa Security Alert

16 November 2012

**Help Protect Cardholder Data From Attacks on PIN Entry Devices**  
*U.S. | Acquirers, Processors, Merchants, Agents*

To promote the security and integrity of the payment system, Visa is reminding clients, merchants and payment system participants of their responsibility to protect cardholder account and PIN data.

Criminals trying to obtain cardholder account and PIN data at the point of sale (POS) frequently target PIN Entry Devices (PEDs) that are known to be vulnerable. Last year, Visa alerted clients that the VeriFone Everest Plus PED was used in tampering and skimming attacks.

Evidence indicates that these devices were removed from the point of sale and replaced with modified devices designed to capture magnetic stripe card and PIN data, which was then transmitted to criminals wirelessly. Surveillance footage shows that the suspects were able to remove a PED and install a modified device in less than one minute.

**Recommended Mitigation Strategies**

All VeriFone Everest Plus users are encouraged to upgrade to systems that feature the most up-to-date security.

# Best Practices to Prevent AFD Skimming



1. Leverage and use vendor controls for AFDs to their fullest extent - Physically secure and alarm AFDs
2. Implement long standing physical security concepts: lighting, robust locks etc.
3. Use terminal authentication systems to detect internal serial numbers and monitor connectivity changes
4. Use terminal asset tracking procedures for devices deployed, stored and shipped



**PCI PIN Security Requirements require secure PED management**

Standard: PIN Transaction Security Program Requirements and PCI Data Security Standard  
Date: August 2009  
Author: PCI SSC PIN Transaction Security Working Group

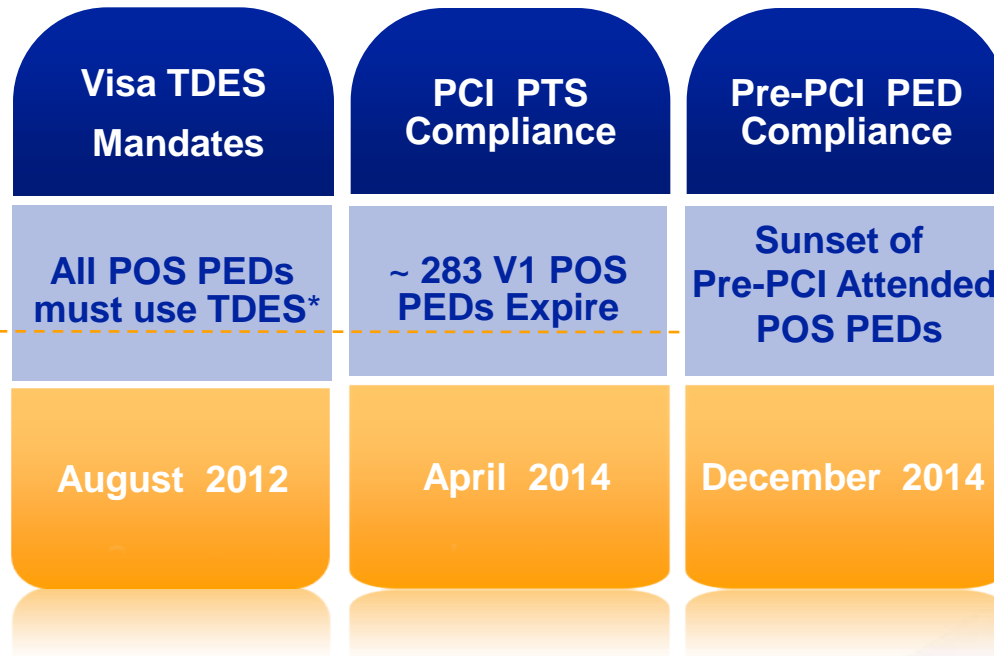
**Information Supplement:  
Skimming Prevention –  
Best Practices for Merchants**



# Future Proof POS Acceptance



- Stay ahead of emerging threats by investing in the most secure equipment
- Align PED retirement / usage mandates with Authentication Roadmap
- Adopt a 'touch once' approach



\* TBD for US Automated Fuel Dispensers (AFD)

# New PIN Security Compliance Validation Program

## Proposed program changes include:

- *Elimination of PIN Security Self-Assessment Questionnaire submission*
- *Introduction of PIN Security Assessors (SA)*
- *Compliant entities listed on Global Registry of Service Providers*
- *Validation cycle every two years*

## Program Participants Defined

- PIN Acquiring Third-party VisaNet Processors
- PIN Acquiring Member Service Provider VisaNet Processors
- PIN Acquiring Third-party Servicers (TPS)
- Encryption and Support Organizations (ESO)



**VISA** Global Registry of Service Providers

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The Visa Global Registry of Service Providers contains information on service providers that are registered with Visa and have met Visa program requirements within Asia Pacific, Canada, Central Europe, Middle East, Africa, Latin America and the Caribbean, and the U.S. The Registry contains service provider information such as company name, company website, corporate headquarter country, region(s) of operation, types of services offered and PCI DSS compliance validation date.

It serves as a platform where service providers can broadcast their compliance with Visa Inc. rules and any applicable PCI DSS requirements. This channel allows service providers to promote their services to potential clients worldwide and differentiate themselves from other service providers. Visa clients and merchants reference the registry to select registered and compliant service providers for outsourcing their payment-related services.

[learn more](#) [begin search](#)

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more people go with Visa. **VISA**

[www.visa.com/splisting](http://www.visa.com/splisting)

# Visa PIN Security Resources



[www.visa.com/cisp](http://www.visa.com/cisp)

## PIN Security Program Information:

- Compromised POS PED Bulletins
- PIN Security Alerts & Bulletins
- *Listing of Pre-PCI Approved PEDs*
- *Visa PED Frequently Asked Questions*
- *Visa PIN Security Auditor's Guide*
- *Visa What to do if Compromised*
- Other PIN security related information

[pinna@visa.com](mailto:pinna@visa.com)

Visa Security Bulletin  
Risk Management | Data Security  
6 May 2013  
**Maximize Point-of-Sale PIN-Entry Device Security**  
*Acquirers, Issuers, Processors, Merchants, Agents*

Visa Security Bulletin  
Risk Management | Data Security  
6 December 2012  
**Encrypting PIN Pads Must Be Industry-Approved**  
*Acquirers, Issuers, Processors, Agents*

VISA BULLETIN  
30 October 2013  
**Changes to PIN Security Program Announced**  
Visa is updating its PIN Security Program, simplifying and unifying PIN security compliance validation across all Visa Inc. regions, and providing greater transparency into the validation status of PIN program participants.

**PROTECT YOUR MERCHANT TERMINALS FROM ILLEGAL TAMPERING**  
INSIGHT FROM VISA TO KEEP YOUR POINT-OF-SALE EQUIPMENT SECURE

through a risk-based, prioritized approach that focuses on entities on behalf of Visa clients.

submit an annual PIN Security SAQs to Visa as part of compliance completed through on-site reviews performed by a Visa-

ance to Visa will include the following:

**VNP**—A third-party entity that is directly connected to VisaNet to clients.

**as a Service Provider**—A Visa client or client-owned entity PIN-acquiring processing services to clients and merchants.

PIN-acquiring agent that stores, processes or transmits Visa nts.

An entity deploying ATM, point-of-sale (POS) or kiosk PIN holder PINs and/or manage encryption keys (i.e., key injection