

## The PCI Security Standards Council

Bob Russo  
June 2011



What are the threats to card data?

How can you defend your card data?

What is the Council doing to help you?

What tools are available to get you secure?

How can you be involved?





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## Why SECURITY matters...

“The attackers have changed with the emergence of organized crime into these cybercrimes...It's all about the money now ... Profit is driving these groups.” - **FBI agent J. Keith Mularski, May 2009**

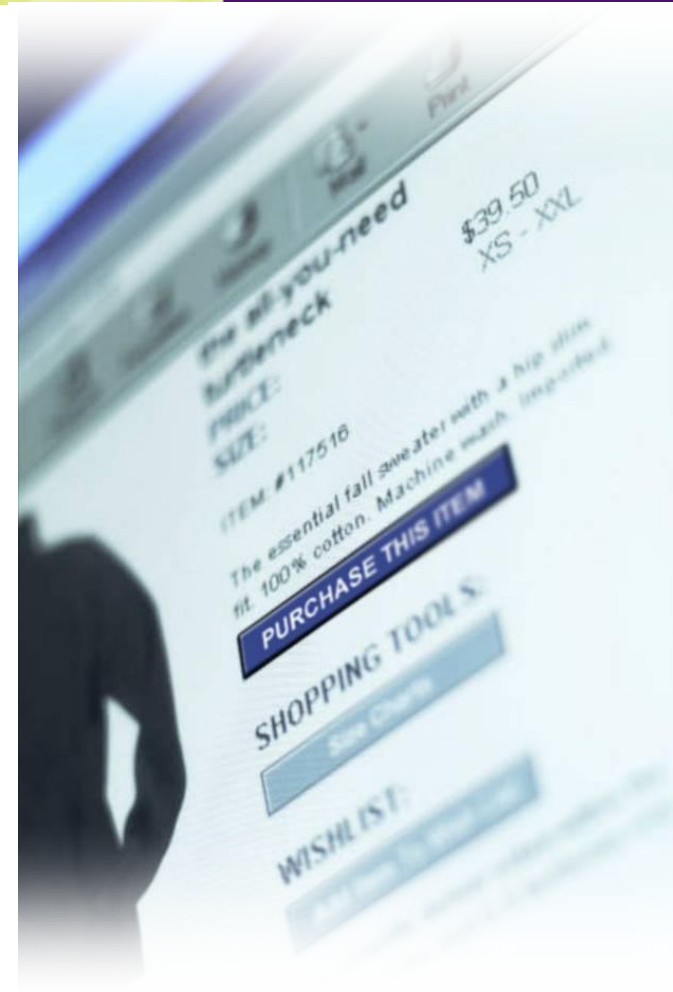
According to Gartner, payment card fraud was the method most actively used by crooks to steal money, claiming 36 percent more victims in 2008 than other types of fraud. - **Gartner, March 2009**

There were more than 222 million potentially compromised records in 2009 - **Identity Theft Resource Center Breach Report, Jan. 8, 2010**

“Nearly twice as many people who lost money to fraud in 2008 changed their shopping, payment and e-commerce behavior,” **said Avivah Litan, vice president and distinguished analyst at Gartner, March 2009**

*Is your focus on compliance audits rather than security making you a target? Is your risky behavior potentially causing you to lose customers?*

**Remember, compliance is a byproduct of SECURITY**



*According to Verizon's 2011 Data Breach Investigations Report (DBIR)*

**79%** of records were compromised through malware

**2/3** of malware investigated was customized

**79%** of compromises were not discovered until, weeks, months or years had past

Data security is not all about prevention; it also requires detection and monitoring!



Breached organizations are 50 percent less likely to be PCI-compliant than a "normal population of PCI clients."

Top attack methods used to compromise payment card data:

- malware and hacking (25%)
- SQL injections (24%)
- exploitation of default or guessable credentials (21%)

## VERIZON 2010 PAYMENT CARD INDUSTRY COMPLIANCE REPORT

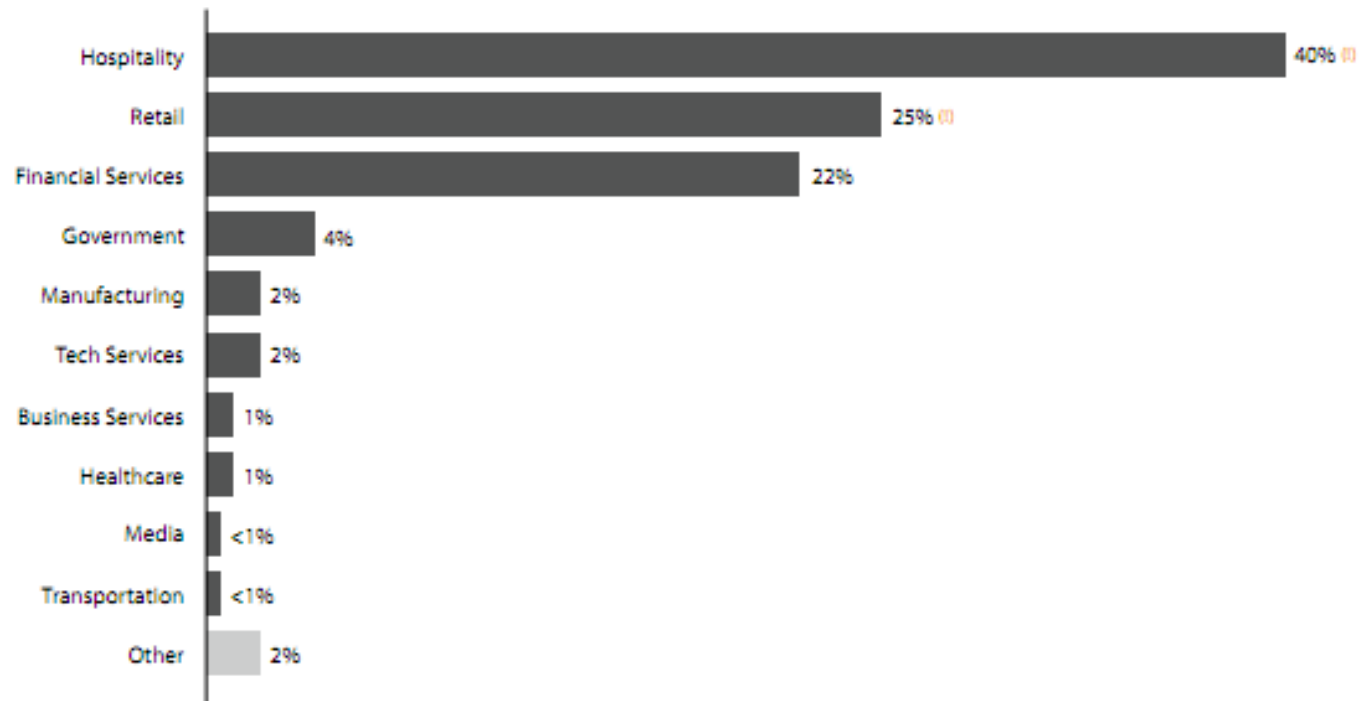
A study conducted by the Verizon PCI and RISK Intelligence teams.

PARTNERS  
INSIDERS  
INTRUSION  
RISK  
CARDHOLDER DATA  
BREACHES  
VALIDATION  
COMPLIANCE  
SECURITY

Figure 4. Compromised records by industry group (1)



Figure 3. Industry groups represented by percent of breaches





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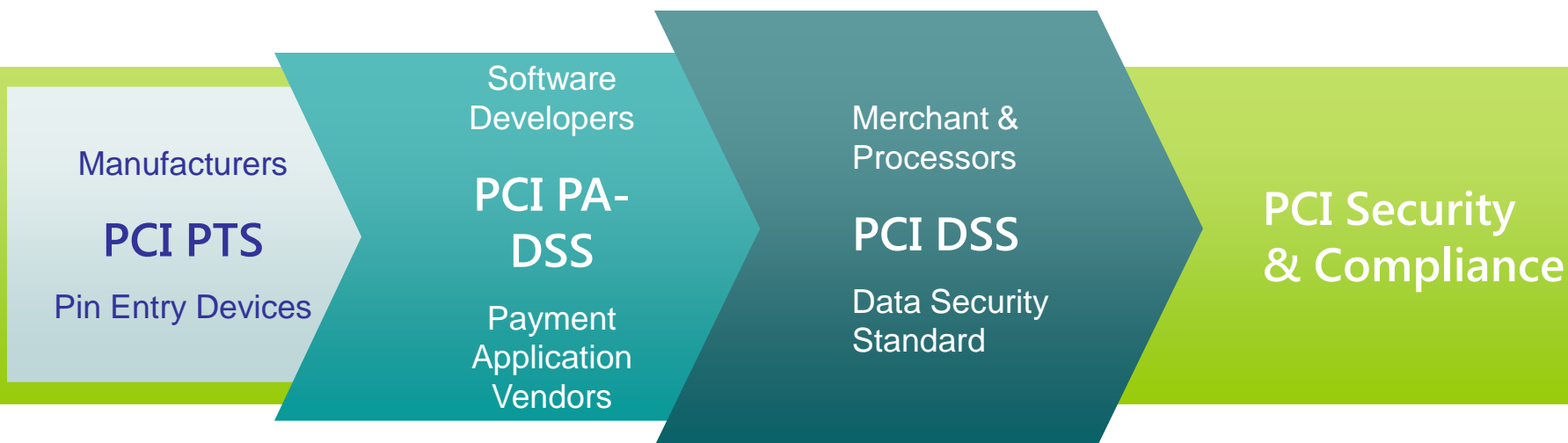


How can you be involved?

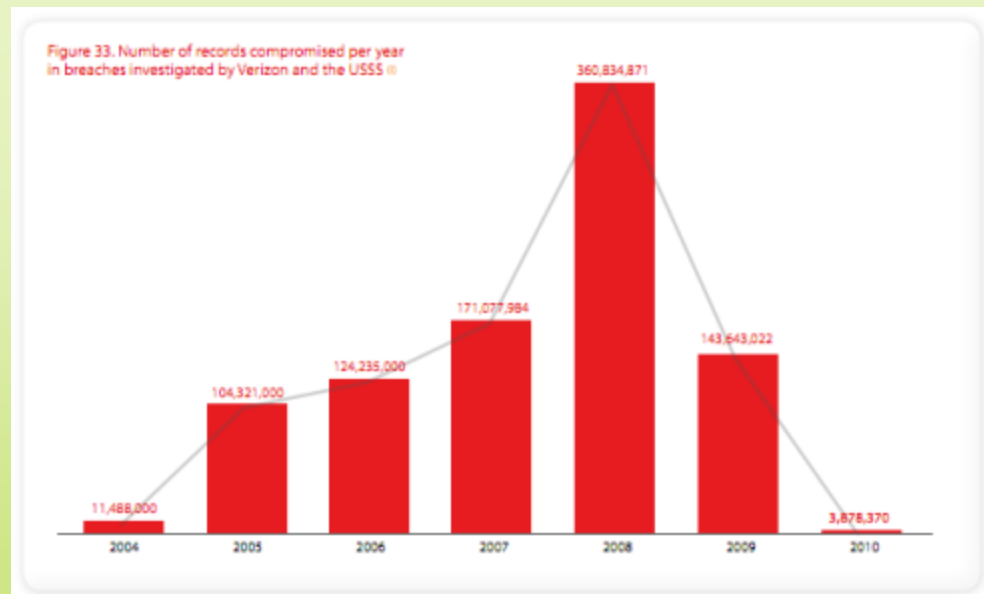


## Payment Card Industry Security Standards

Protection of Cardholder Payment Data



*Ecosystem of payment devices, applications, infrastructure and users*



## Breached Records by Year

- *PCI compliant organizations suffer fewer data breaches*
- *Organizations reporting compliance with the standards has increased tremendously over the last year*
- *The volume of breaches reported in the Verizon DBIR decreased close to a hundredfold from their 2008 peaks*

## Open, global forum

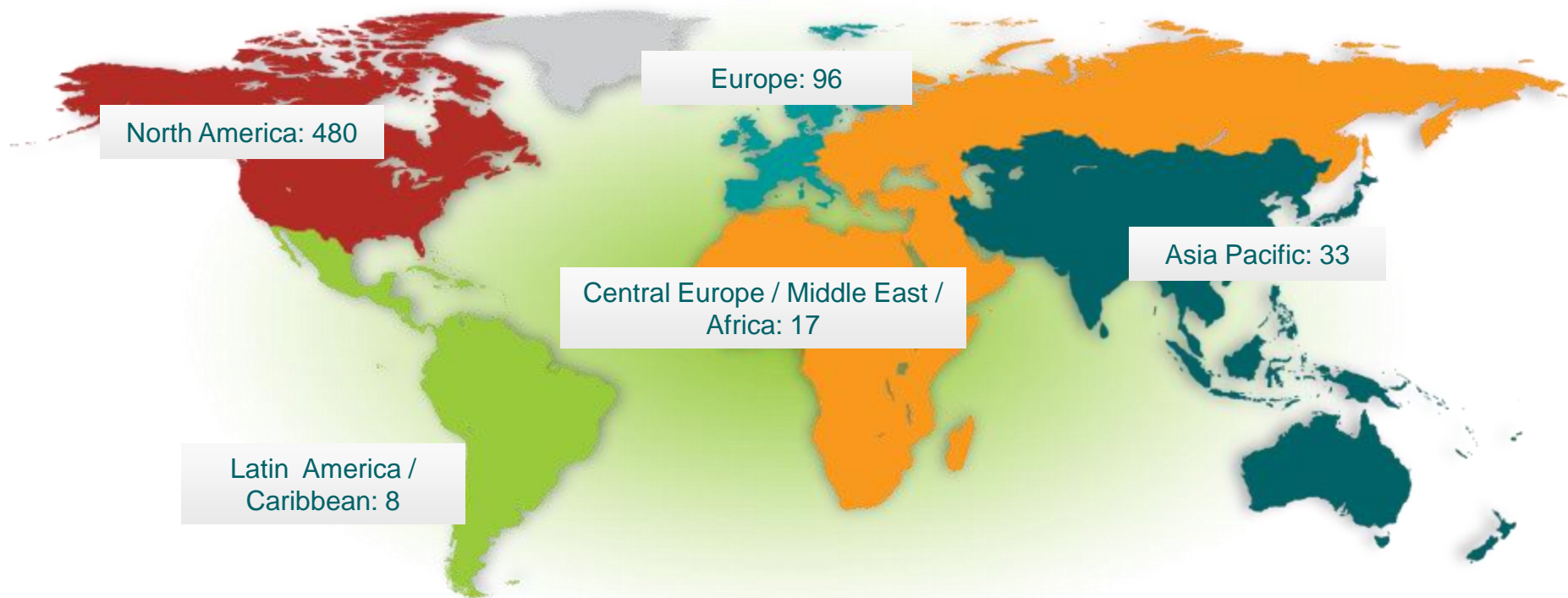
*Founded 2006*

Responsible for PCI Security Standards

- Development
- Management
- Education
- Awareness



**More than 600 organizations have joined**





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## Payment Card Industry (PCI) Data Security Standard

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### Requirements and Security Assessment Procedures

Version 2.0

October 2010



## Payment Card Industry (PCI) Payment Application Data Security Standard

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### Requirements and Security Assessment Procedures

Version 2.0

October 2010



**Payment Card Industry (PCI)  
PIN Transaction Security (PTS)  
Point of Interaction (POI)**

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**Modular Security Requirements**

Version 3.0

April 2010

## Clarifications

## Additional guidance

## Evolving requirements

Your feedback has made the standard more mature and will help secure payment card data well into the future!



Requirement Impact	Reason for Change	Proposed Change	Category
PCI DSS Intro	Clarify Applicability of PCI DSS and cardholder data	Clarify that PCI DSS Requirements 3.3 and 3.4 apply only to PAN. Align language with PTS Secure Reading and Exchange of Data (SRED) module.	Clarification
Scope of Assessment	Ensure all locations of cardholder data are included in scope of PCI DSS assessments	Clarify that all locations and flows of cardholder data should be identified and documented to ensure accurate scoping of cardholder data environment.	Additional Guidance
PCI DSS Intro and various requirements	Provide guidance on virtualization	Expanded definition of system components to include virtual components. Updated requirement 2.2.1 to clarify intent of "one primary function per server" and use of virtualization.	Additional Guidance
PCI DSS Requirement 1	Further clarification of the DMZ	Provide clarification on secure boundaries between internet and card holder data environment.	Clarification
PCI DSS Requirement 3.2	Clarify applicability of PCI DSS to issuers or Issuer Processors	Recognize that issuers have a legitimate business need to store Sensitive Authentication Data.	Clarification
PCI DSS Requirement 3.6	Clarify key management processes	Clarify processes and increase flexibility for cryptographic key changes, retired or replaced keys, and use of split control and dual knowledge.	Clarification
PCI DSS Requirement 6.2	Apply a risk based approach for addressing vulnerabilities	Update requirement to allow vulnerabilities to be ranked and prioritized according to risk.	Evolving Requirement
PCI DSS Requirement 6.5	Merge requirements to eliminate redundancy and Expand examples of secure coding standards to include more than OWASP.	Merge requirement 6.3.1 into 6.5 to eliminate redundancy for secure coding for internal and Web-facing applications. Include examples of additional secure coding standards, such as CWE and CERT.	Clarification
PCI DSS Requirement 12.3.10	Clarify remote copy, move, and storage of CHD	Update requirement to allow business justification for copy, move, and storage of CHD during remote access.	Clarification
PA DSS General	Payment Applications on Hardware Terminals	Provide further guidance on PA-DSS applicability to hardware terminals.	Additional Guidance
PA-DSS Requirement 4.4	Payment applications should facilitate centralized logging	Add sub-requirement for payment applications to support centralized logging, in alignment with PCI DSS requirement 10.5.3.	Evolving Requirement
PA-DSS Requirements 10 & 11	Merge PA-DSS Requirements 10 and 11	Combine requirements 10 and 11 (remote update and access requirements) to remove redundancies.	Clarification



- Scoping
- Logging
- Risk-based approach
- Alignment between PA-DSS & PCI-DSS
- Recognition of small merchant environments
- New website and updated supporting documentation



Tokenization



Encryption



Wireless



EMV



Virtualization



Mobile

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# Website

PCI Security Standards Council, LLC [US] https://www.pcisecuritystandards.org



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## Welcome to the PCI Security Standards Council



### MERCHANTS

Find out why and how to become compliant with PCI Security Standards

[Learn More](#)



### FINANCIAL INSTITUTIONS

Resources to assist with compliance efforts for your organization

[Learn More](#)



### HARDWARE / SOFTWARE

Resources designed for developers and device manufacturers

[Learn More](#)



### SERVICES AND PROFESSIONALS

Quick access to resources developed for industry professionals

[Learn More](#)



### PCI DSS 2.0 and PA-DSS Version 2.0 Now Available!

Please click here to download the new standards and supporting documents from the document library.

### EVENTS

- NRF 100th Annual Convention & Expo  
January 09, 2011
- European Card Acquiring Forum  
February 06, 2011
- 2011 Hospitality Law Conference  
February 09, 2011

### NEWS

**December 10, 2010**

PCI Security Standards Council Announces PCI Forensic Investigator (PFI) Program

**October 28, 2010**

PCI Security Standards Council Releases PCI DSS 2.0



Meet our Participating Organizations

# HITEC 2011



## Lifecycle for Changes to

The Payment Card Industry PIN Transaction Security (PTS) requirements are used primarily by point-of-sale equipment manufacturers to secure cardholder data at the physical point of sale. The standard is managed by the PCI Security Standards Council (PCI SSC). Input for proposed changes to the standard are also made by PCI SSC stakeholders – Participating Organizations, including merchants, banks, processors, hardware and software developers, point-of-sale vendors, and approved security evaluation laboratories.

Changes to the standard follow a defined 36-month lifecycle with eight stages, described below. The lifecycle ensures a gradual, phased use of new versions of the standard without invalidating current implementations noncompliant when changes are published and throughout the lifecycle, the Council will continue ongoing guidance about these standards.

### NEW STANDARD PUBLISHED

- Major new release of PTS
- Presented at Community Meetings in October
- Initiates 3-year lifecycle
- Previous version remains effective for 12 months after the new standard becomes effective

### Stage 1: Start

Stage 1 occurs at a new lifecycle of security to the

### Stage 2: Feedback

Stage 2 is an open feedback to all laboratories, the goal is assessing enable guidance, collectivity use. If a new threat will take immediate protect cardholder



## Overview of the PCI DSS Wireless Information Supplement

The near ubiquity of wireless networks makes this a top priority for organizations that store, process, or transmit cardholder data. In response, the PCI Security Standards Council Special Interest Group Implementation Team has published an information supplement called PCI DSS Wireless Guideline. The goal of this document is to help organizations understand how PCI DSS applies to wireless environments, how to limit the PCI DSS scope as it pertains to wireless, and provide practical methods and concepts for deployment of secure wireless in payment card transaction environments. It is also intended for assessors who audit PCI DSS compliance. This At-a-Glance is a summary of the 32-page Guideline.



### HIGHLIGHTS

- Provides guidance for testing or deploying 802.11 Wireless Local Area Networks (WLAN)
- Focuses on suggestions for deploying WLAN in the Cardholder Data Environment
- Includes operational procedures required to make WLAN part of a PCI DSS compliant network

### Wireless Requirements

The wireless requirements in Cardholder Data Environment data is transferred, process that environment. The 32-page Wireless Guideline addresses Generally applicable wireless should have in place to protect access points and clients. This technology is part of the CO organizations that wish to Requirements applicable to organizations that transmit in place to protect these wireless scope for PCI DSS compliance apply in addition to the usual

### Using the PCI DSS

Download the Guideline. The Guideline provides step-by-step this At-a-Glance, left sidebar for complying with PCI DSS including authority documents v1.2 cross reference.



## Skimming Prevention: Overview of Best Practices

Skimming is the unauthorized capture and transfer of payment data to another source. Its purpose is to commit fraud, the threat is serious, and it can be any merchant's environment. With skimming, thieves steal payment data directly from the consumer's payment card or from the payment infrastructure at merchant location. Both techniques typically require the use of a rogue physical device planted onsite. PCI Security Standards currently contain a number of requirements and recommendations to guard against skimming. In addition, the Council has introduced an overview document for merchants containing a "do's and don'ts" about skimming, examples, best practices and tools to thwart its use. This "At-a-Glance" provides a snapshot of skimming and introduces areas requiring countermeasures to ensure an appropriate level of security for cardholder data.



### HIGHLIGHTS

Describes the problem of skimming with several examples of actual gear used to steal cardholder data. Provides best practices to mitigate the risk of skimming. Includes written methodology to quantify risk or skimming and a checklist for tracking assets in a specific merchant location and terminal environment.

### Merchants

Skimming equipment (page). Merchants familiar with this. Who Does It? Pin and organized on un sophisticated Targets for Attack data, often visual entry device, and volume (allowing heavy volume of Impact of Skim process, employ. There is a cost to and services.

### Using the

Download the document on this At-a-Glance best practices, a



AT A GLANCE  
PCI DATA STORAGE

## PCI Data Storage Do's and Don'ts

Requirement 3 of the Payment Card Industry's Data Security Standard (PCI DSS) is to "protect stored cardholder data." The public assumes merchants and financial institutions will protect data on payment cards to thwart theft and prevent unauthorized use. But merchants should take note. Requirement 3 applies only if cardholder data is stored. Merchants who do not store any cardholder data automatically provide stronger protection by having eliminated a key target for data thieves. For merchants who have a legitimate business reason to store cardholder data, it is important to understand what data elements PCI DSS allows them to store and what measures they must take to protect those data. To prevent unauthorized storage, only Council certified PIN entry devices and payment applications may be used. PCI DSS compliance is enforced by the major payment card brands who established the PCI DSS and the PCI Security Standards Council. American Express, Discover Financial Services, JCB International, MasterCard Worldwide and Visa Inc.



### PCI SSC FOUNDERS



### PARTICIPATING ORGANIZATIONS

Merchants, Banks, Processors, Hardware and Software Developers and Point-of-Sale Vendors

### Basic PCI Data Storage Guidelines for Merchants

Cardholder data refers to any information contained on a customer's payment card. The data is printed on either side of the card and is contained in digital format on the magnetic stripe embedded in the backside of the card. Some payment cards store data in chips embedded on the front side. The front side usually has the primary account number (PAN), cardholder name and expiration date. The magnetic stripe or chip holds these plus other sensitive data for authentication and authorization. In general, no payment card data should ever be stored by a merchant unless it's necessary to meet the needs of the business. Sensitive data on the magnetic stripe or chip must never be stored. Only the PAN, expiration date, service code, or cardholder name may be stored, and merchants must use technical precautions for safe storage (see back of this fact sheet for a summary). The matrix below shows basic "do's" and "don'ts" for data storage security.

Data Do's	Data Don'ts
Do understand when payment card data flows for the entire transaction process	Do not store cardholder data unless it's absolutely necessary
Do verify that your payment card terminals comply with the PCI personal identification number (PIN) entry device (PED) security requirements	Do not store sensitive authentication data contained in the payment card's storage chip or full magnetic stripe, including the printed 3-4 digit card validation code on the front or back of the payment card after authorization
Do verify that your payment applications comply with the Payment Application Data Security Standard (PA-DSS)	Do not have PED terminals print out personally identifiable payment card data; printouts should be truncated or masked
Do retain if you have a legitimate business need cardholder data only if authorized, and ensure it's protected	Do not store any payment card data in payment card terminals or other unprotected endpoint devices, such as PCs, laptops or smart phones
Do use strong cryptography to render unaccessible cardholder data that you store, and use other layered security technologies to minimize the risk of exploits by criminals	Do not locate servers or other payment card system storage devices outside of a locked, fully-secured and access-controlled room
Do ensure that third parties who process your customers' payment cards comply with PCI DSS, PED and/or PA-DSS as applicable. Have clear access and password protection policies	Do not permit any unauthorized people to access stored cardholder data

# HITEC 2011

A service of  
**HFTP**



Standard: PCI Data Security Standard (PCI DSS)  
Version: 2.0  
Date: March 2011

Information Supplement:  
**Protecting Telephone-based  
Payment Card Data**

## Welcome to the PCI Security Standards Council's Services & Professionals area!



### Who Should Attend?

Open to anyone who is interested in learning more about PCI, with a focus on those individuals working for organizations that must meet compliance with the PCI DSS or have a vested interest in the Payment Card Industry

### Upcoming Training Dates

August 24<sup>th</sup>, 2011 – Boston, MA, USA

## PCI Awareness Training – Online!

- At your home or office, at your pace
- Offers general PCI training across your business to ensure a universal understanding of PCI compliance
- Provides **four** CPE hours
- Available all the time, anytime!

Number of Employees Registered	Price Per Person
1 - 24	\$495 USD
25 - 99	\$395 USD
100+	\$295 USD

Discounts are available for group registration. Please contact the PCI SSC Training Coordinator at [training@pcisecuritystandards.org](mailto:training@pcisecuritystandards.org) for more information.

Security standards and supporting documents



Quick Reference Guide



Searchable Frequently Asked Questions



List of approved QSAs, ASVs, PA-QSAs, PED Labs



Education and outreach - e.g., fact sheets, webinars



Participating membership, meetings, collaboration



A global voice for the industry



## 2011 Community Meetings:

**Scottsdale, Arizona**  
September 20 – 22, 2011



**London, UK**  
October 17 – 19, 2011



Join us as a Participating Organization to get involved  
in setting global PCI standards!

Focus on security, not compliance

Understand the process of PCI standards development

Join us as a Participating Organization and increase our global presence

Take advantage of the Council's resources and guidance

Participate in the 2011 Annual Community Meetings

Adopt version 2.0 and share the PCI SSC roadmap with internal stakeholders

Any Questions?



Please visit our website at [www.pcisecuritystandards.org](http://www.pcisecuritystandards.org)

## What Did You Think?

In order to help us create/provide a better HITEC experience in the future, please take a second to fill out the short survey that will be sent to you via e-mail at the end of the day.

And THANK YOU for attending HITEC!



Learn how HFTP membership can benefit you,  
visit [www.hftp.org](http://www.hftp.org)