

# The PCI Security Standards Council

Bob Russo

General Manager, PCI SSC

February 2011

# Agenda

---



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 you can be involved?

What are the threats to card data?

# Is this your data?

	Country	Balance	Price
<b>Bank of America (BOA)</b>	USA	...	Sold
<b>Amsouth Bank</b>	USA	\$16,040	€700
<b>Washington Mutual Bank (WAMU)</b>	USA	\$14,400	€600
<b>Washington Mutual Bank (WAMU)</b>	USA, Multi-Currency Acct.	\$7,950 + £2,612	€500
<b>Washington Mutual Bank (WAMU)</b>	USA	...	Sold
<b>MBNA America Bank</b>	USA	\$22,003	€1,500
<b>BANCO BRADESCO S.A.</b>	Brazil, Dollar Account	\$13,451	€650
<b>CITIBANK</b>	UK, GBP Account	£10,044	€850
<b>NatWest</b>	UK, GBP Account	£12,000	€1000
<b>BNP Paribas Bank</b>	France, Euro Account	€30,792	€2200
<b>Caja de Ahorros de Galicia</b>	Spain, Euro Account	€23,200	€1200
<b>Caja de Ahorros de Galicia</b>	Spain, Euro Account	€7,846	€500
<b>Banc Sabadell</b>	Spain, Euro Account	€25,663	€1450



# The Current Threat Landscape

## 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**

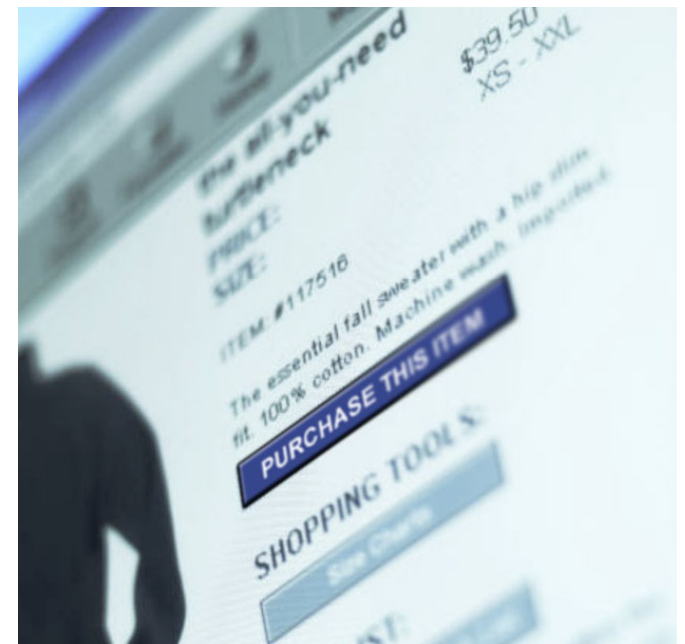
According to Gartner, payment card fraud was the method most actively used by crooks to steal money, claiming 36 percent more victims in 2008 than other types of fraud. - **Gartner, March 2009**

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**



# Forensics Statistics

## Inside Jobs vs. Intrusions

51% Inside ~70% were external sources

External breaches make up 98% of records

Internal breaches are now 90% deliberate

89% of records were stolen in targeted attacks

## Attack vector (by records)

92% Web Application (SQL injection)

5% backdoor or control channel

2% Remote Access

1% Network Devices

## Consumer data:

Payment card information

- Credit / Debit

- Card-present / CNP

Personal Check information

## Identity-related data:

Name, address, email

Social security, Social insurance

IRS / tax return information

## Company-proprietary:

Financial records

HR / employee data

Product strategy & roadmap

Trade secrets & technology

## Time span of Breach Compromise to Discovery

6% - hours

22% - days

24% - weeks

37% - months

7% - years

Over half of the breaches investigated by Verizon in 2009 occurred outside the U.S

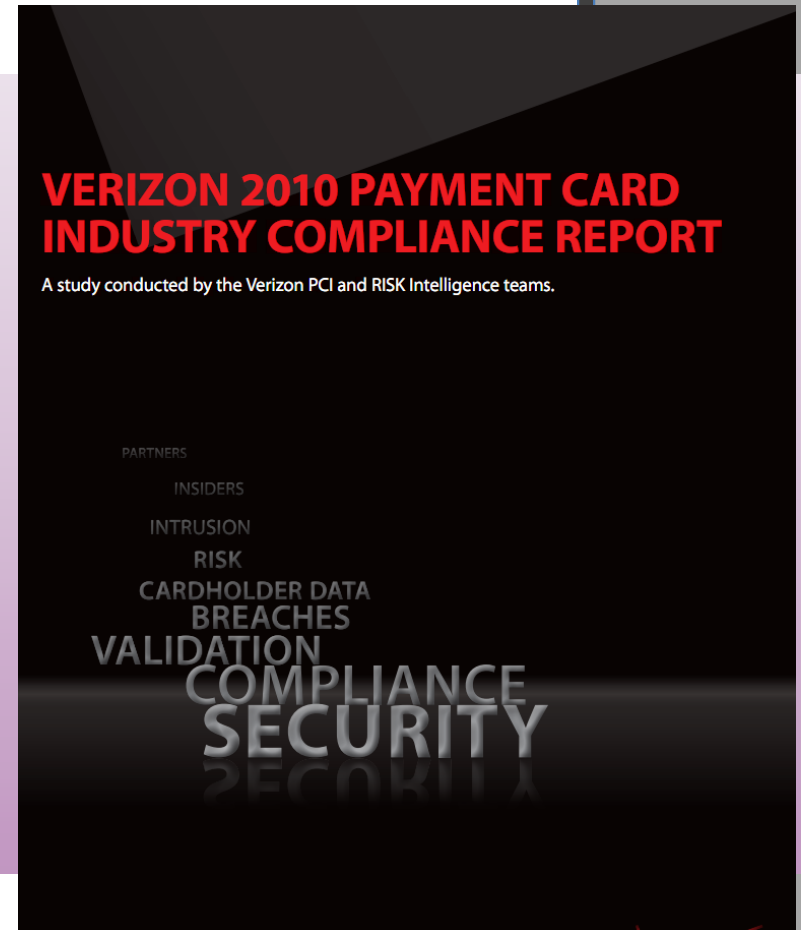
The typical breached organization had met just over a third of the requirements of the PCI DSS

# PCI Specific – Verizon Report

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%)



# Risky Behaviors

71% of respondents do not treat PCI as a strategic initiative, yet 79% have experienced a data breach involving the loss or theft of credit card information<sup>1</sup>

More than half (51%) of QSAs say merchants are not proactively managing data privacy and security<sup>2</sup>

73% of respondents have achieved PCI compliance using a basic, checklist approach<sup>2</sup>

55% of respondents focus only on credit card data protection and do not attempt to secure sensitive information<sup>1</sup>



1. PCI DSS Compliance Survey Results - Ponemon Institute Sep. 25, 2009

2. PCI DSS Trends 2010: QSA Insights Report – Ponemon Institute, March 2010



# Did You Know?

*According to Verizon's 2010 Data Breach Investigations Report (DBIR)*

**92%** of records were compromised through SQL injection

**68%** of compromises were discovered at least weeks after the compromise

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



# Top Violations

---

## Common Audit / Forensic Results

Bad or no firewall

Unprotected stored data

No security policy

No unique user IDs

No tracking or monitoring of access

No regular tests of security

Insecure systems and applications

# Breaches Cost Money

---



# Value of Compliance

## Cost of Complying

- Upgrading payment systems and security
- Verifying compliance via assessment
- Sustaining compliance
- May cost as little as \$150 to \$2,500 per IP address per year for scans for smaller merchants. Can cost millions for complex or older systems<sup>1</sup>

## Cost of a Breach

- "Crisis" upgrades
- Repeat assessments
- Notification
- Brand reputation loss
- Shareholder and consumer lawsuits
- It's estimated that the total cost of a data breach per record is between \$90- \$300, prior to litigation
- May cost 20 times the price of compliance

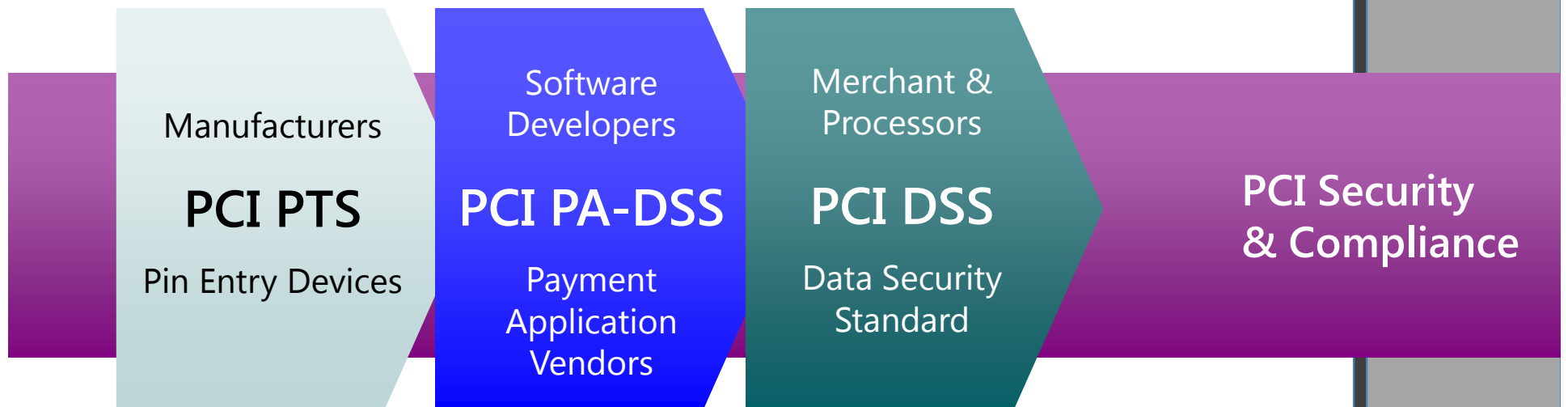
1. PCI Compliance Cost Analysis: A Justified Expense."

A joint analysis conducted by Solidcore Systems, Emagined Security and Fortrex. January 2008 [This study utilized data from several sources including level 1 and level 2 merchants with 2,000 – 2,500 retail locations.]

How can you defend your card data?

# PCI Security Standards

## Payment Card Industry Security Standards Protection of Cardholder Payment Data



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

# About the Council

---

**Open, global forum**

*Founded 2006*

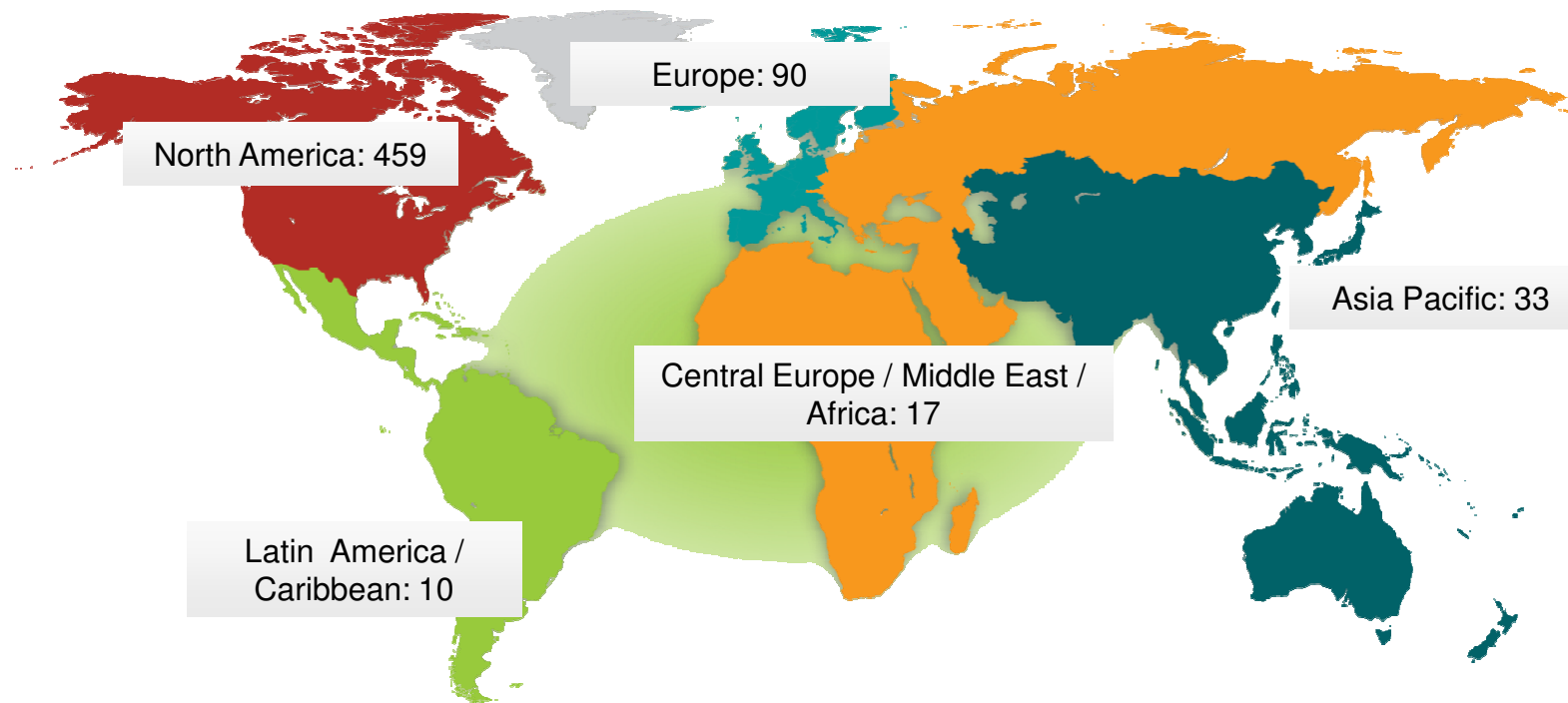
**Responsible for PCI Security Standards**

- Development
- Management
- Education
- Awareness



# Global Growth

More than 600 organizations have been accepted





# Specific Feedback Example

## FEEDBACK:

Where elements of cardholder data must be protected when stored in conjunction with PAN, can we get some clarification on what “in-conjunction” means?

Same record, same table, same database, same server, same building, same company?

Clarify Applicability Table in PCI DSS

## Technical Working Group:

Updated Applicability Updated table and added text to add clarity

## STANDARD CHANGED:

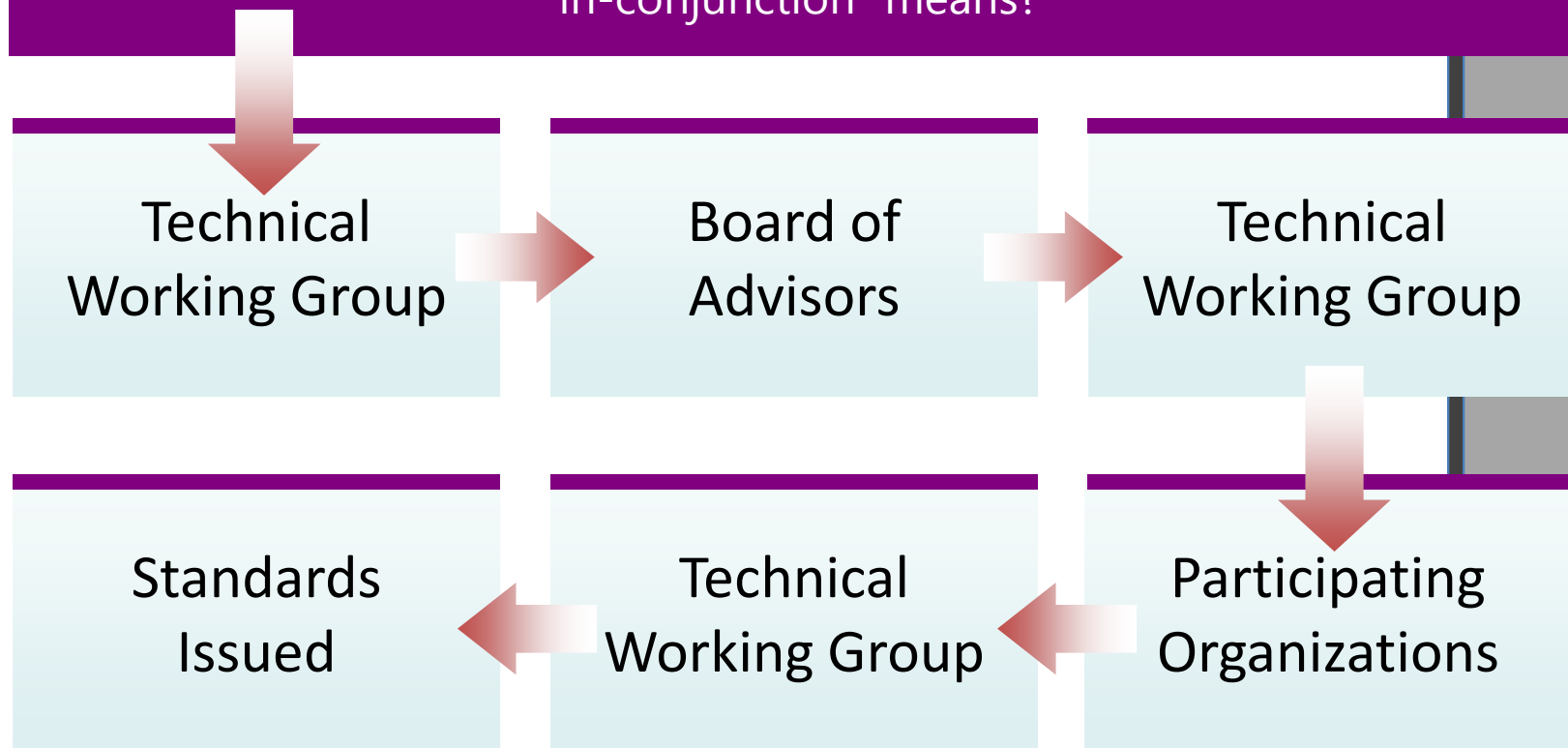
*If PAN is stored, processed, or transmitted, AND cardholder name, service code, and/or expiration date is also present in the cardholder data environment, then, per the table below and PCI DSS requirement 3.4, **only the PAN** must be rendered unreadable if stored. All other PCI DSS requirements, EXCEPT 3.3 and 3.4, apply to all cardholder data and the cardholder data environment.*

*Legislation additional to PCI DSS, may require specific protection of Personally Identifiable Information (for example, cardholder name), or proper disclosure of a company’s practices if consumer-related personal information is being collected during the course of business. Examples include legislation related to consumer personal data protection, privacy, identity theft, or data security.*

*PCI DSS **only applies** if PANs are stored, processed and/or transmitted.*

# How the Process Works

Where elements of cardholder data must be protected when stored in conjunction with PAN, can we get some clarification on what "in-conjunction" means?

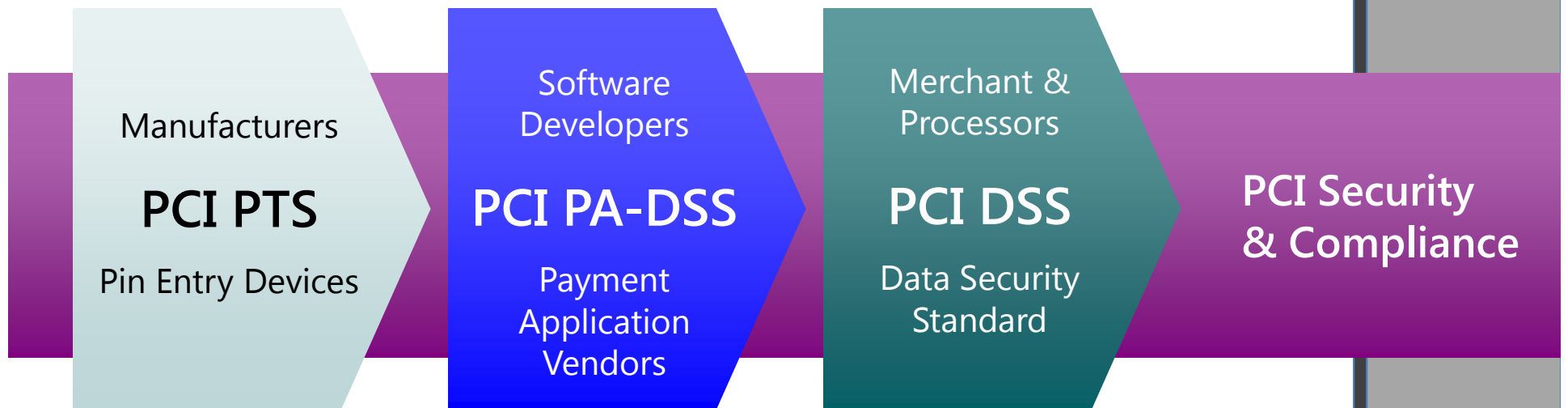


What is the Council doing to help  
you?

# PCI Security Standards

## Payment Card Industry Security Standards

Protection of Cardholder Payment Data



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

# The Five Stages of Grief

---



## Denial

It doesn't apply to me  
*PCI compliance is mandatory*

*de·ni·al*

- 1. : refusal to satisfy a request or desire*
- 2. a (1) : refusal to admit the truth or reality (as of a statement or charge) (2) : assertion that an allegation is false b : refusal to acknowledge a person or a thing : disavowal*
- 3. : the opposing by the defendant of an allegation of the opposite party in a lawsuit*

Source: <http://www.merriam-webster.com/>

# The Five Stages of Grief

---



## Anger

It isn't fair

*PCI applies to all parties in the payment process*

*an·ger*

*transitive verb*

*: to make angry <he was angered by the decision>*

*intransitive verb*

*: to become angry*

Source: <http://www.merriam-webster.com/>

# The Five Stages of Grief

---



## Bargaining

I'll do some of it

*Compliance is "pass / fail"*

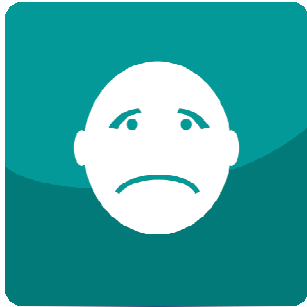
### *bar·ain·ing*

1. *: an agreement between parties settling what each gives or receives in a transaction between them or what course of action or policy each pursues in respect to the other*
2. *: something acquired by or as if by bargaining; especially : an advantageous purchase <at that price the car is a bargain>*
3. *: a transaction, situation, or event regarded in the light of its results <a bad bargain>*

Source: <http://www.merriam-webster.com/>

# The Five Stages of Grief

---



## Depression

I'll never get there  
*Many merchants already have*

*de-pres-sion*

1. (1) : a state of feeling sad : dejection (2) : a psychoneurotic or psychotic disorder marked especially by sadness, inactivity, difficulty in thinking and concentration, a significant increase or decrease in appetite and time spent sleeping, feelings of dejection and hopelessness, and sometimes suicidal tendencies
2. (1) : a reduction in activity, amount, quality, or force (2) : a lowering of vitality or functional activity

Source: <http://www.merriam-webster.com/>



# The Five Stages of Grief

---



## Acceptance

It'll be OK

*PCI doesn't introduce any new, alien concepts*

*ac-cept-ance*

1. *: an agreeing either expressly or by conduct to the act or offer of another so that a contract is concluded and the parties become legally bound*

Source: <http://www.merriam-webster.com/>

# PCI Data Security Standard

---



## Payment Card Industry (PCI) Data Security Standard

---

Version 1.2

# PCI Data Security Standard

Six Goals	Twelve Requirements
<b>Build and Maintain a Secure Network</b>	<ol style="list-style-type: none"><li>1. Install and maintain a firewall configuration to protect cardholder data</li><li>2. Do not use vendor-supplied defaults for system passwords and other security parameters</li></ol>
<b>Protect Cardholder Data</b>	<ol style="list-style-type: none"><li>3. Protect stored cardholder data</li><li>4. Encrypt transmission of cardholder data across open, public networks</li></ol>
<b>Maintain a Vulnerability Management Program</b>	<ol style="list-style-type: none"><li>5. Use and regularly update anti-virus software or programs</li><li>6. Develop and maintain secure systems and applications</li></ol>
<b>Implement Strong Access Control Measures</b>	<ol style="list-style-type: none"><li>7. Restrict access to cardholder data by business need-to-know</li><li>8. Assign a unique ID to each person with computer access</li><li>9. Restrict physical access to cardholder data</li></ol>
<b>Regularly Monitor and Test Networks</b>	<ol style="list-style-type: none"><li>10. Track and monitor all access to network resources and cardholder data</li><li>11. Regularly test security systems and processes</li></ol>
<b>Maintain an Information Security Policy</b>	<ol style="list-style-type: none"><li>12. Maintain a policy that addresses information security for employees and contractors</li></ol>

# PCI Rock

## PCI Data Security Standards Rock

PCICouncil

1 videos

Subscribe



# Payment Application DSS

---



## **Payment Application (PA-DSS) Data Security Standard**

# PIN Transaction Security (PTS)

---



Payment Card Industry (PCI)  
**PIN Transaction Security (PTS)**

# Self-Assessment Questionnaire

---

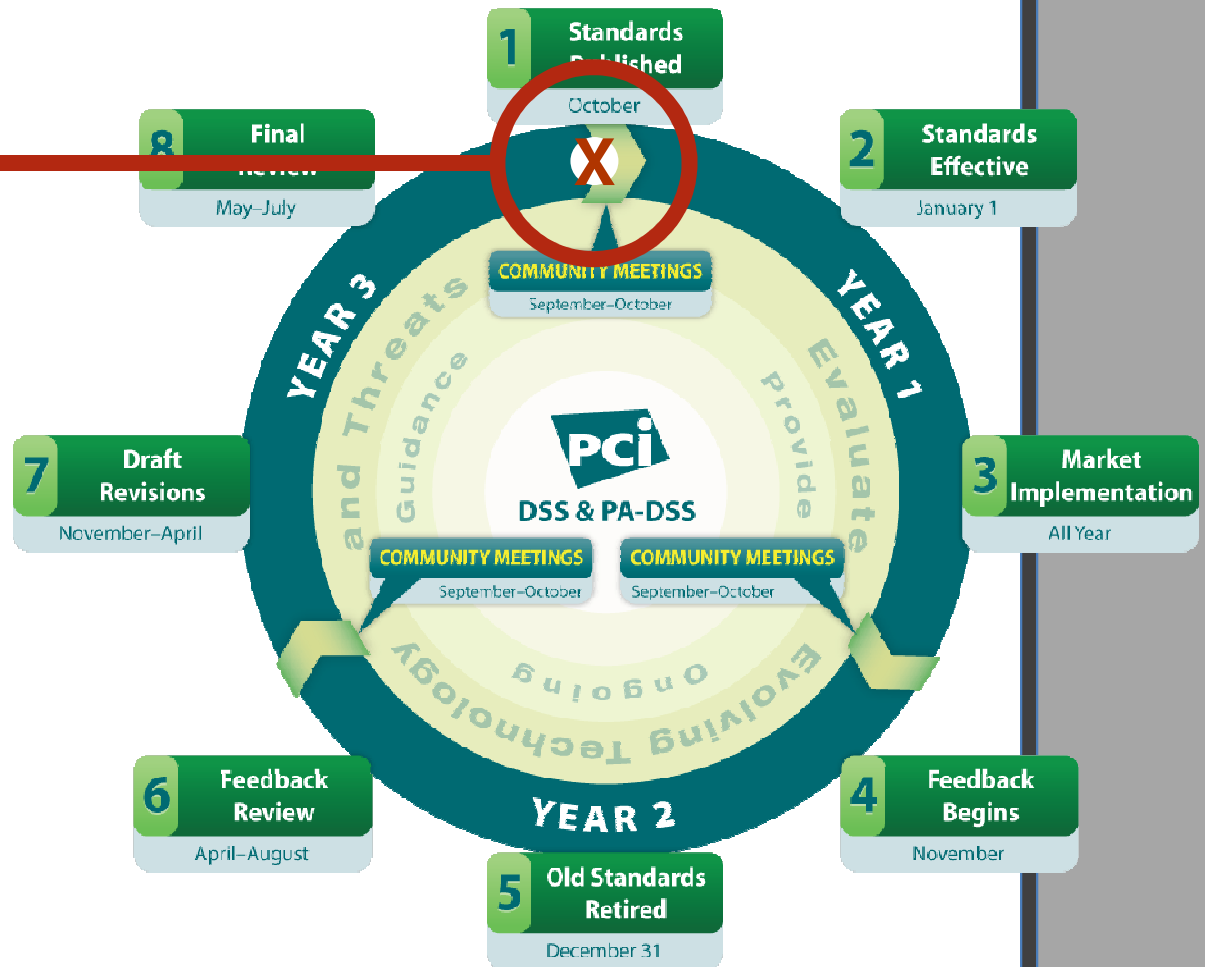


## **Self-Assessment Questionnaire (SAQ) A**

# Standards Development Lifecycle

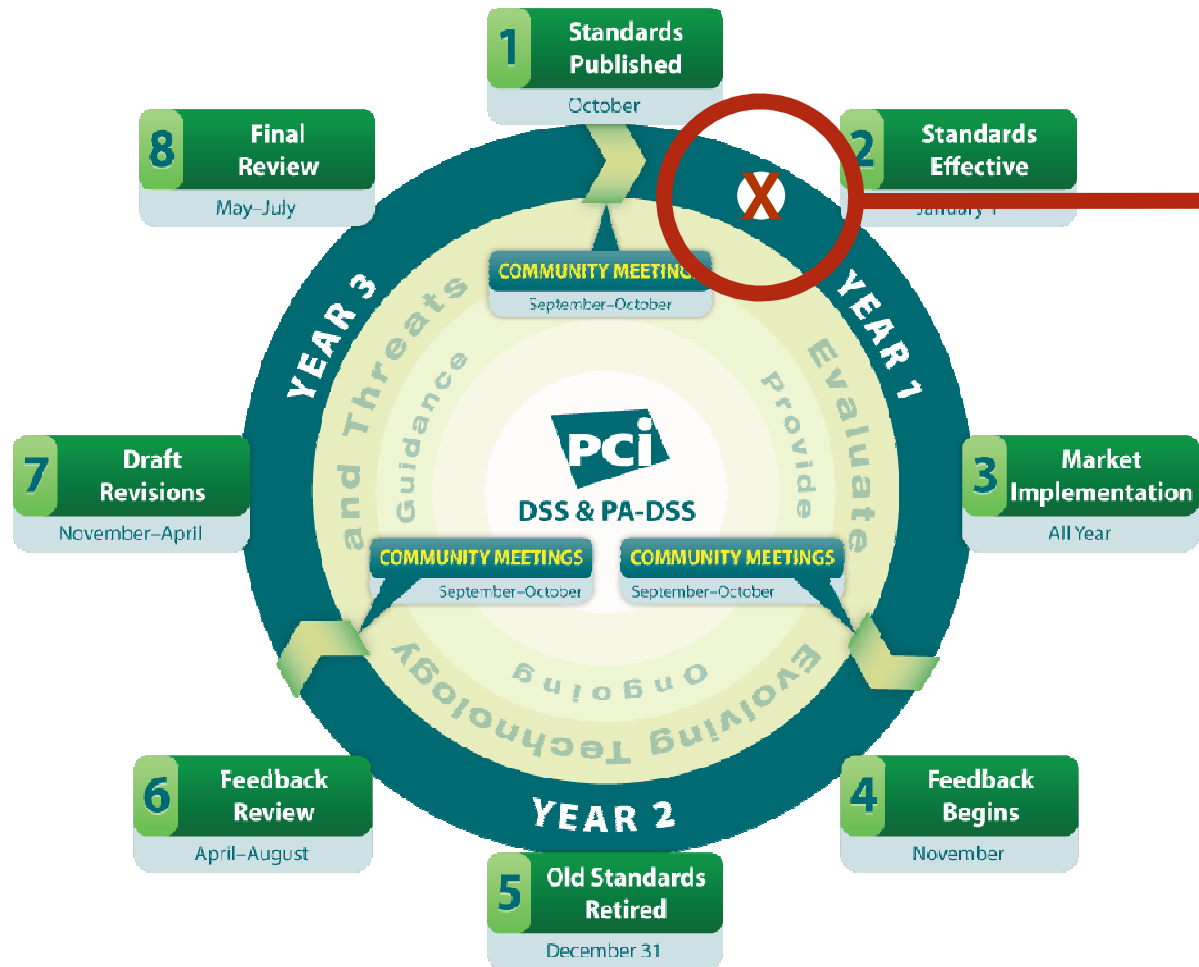
October 2010

Announcement of new standards on October 28, 2010





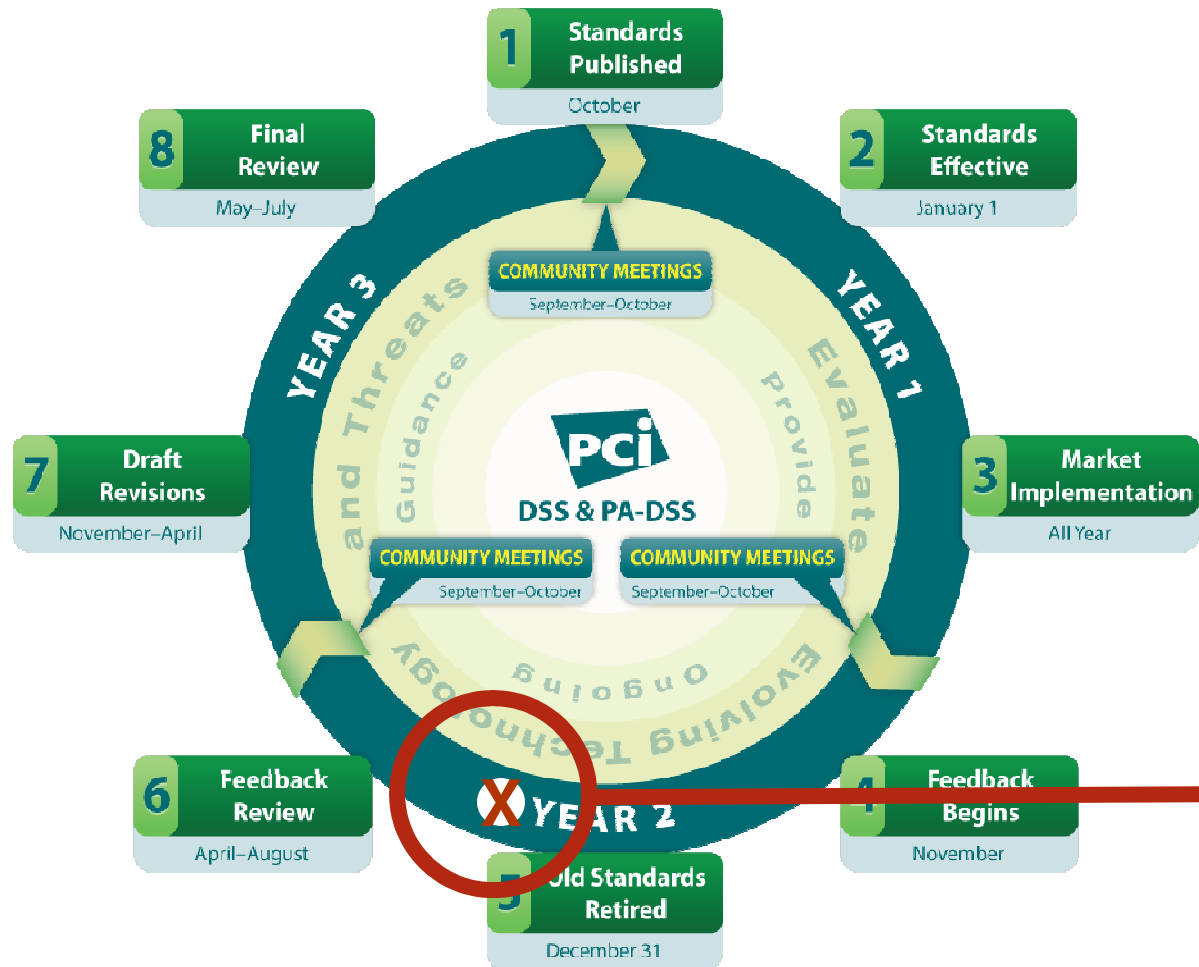
# Standards Development Lifecycle



January 2011

New standards effective  
January 1, 2011

# Standards Development Lifecycle



January 2012

All assessments must be completed against DSS 2.0  
January 1, 2012

# Changes to the DSS and PA-DSS

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

# At a Glance – Key Updates



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

# DSS & PA-DSS 2.0 – What's

## New

---

- PCI DSS applicability
- Clarify boundaries between the Internet and the CDE (DSS 1.3)
- Issuers and sensitive authentication data (DSS 3.2)

- Rendering PAN unreadable (DSS 3.4)
- Additional sources for secure coding for non-web based applications ( DSS 6.5)
- Time synchronization services (DSS 10.4)

# DSS & PA-DSS 2.0 – What's New

- Key management procedures (DSS 3.6.4 – 3.6.6)
- Facilitate secure remote software updates (merge PA-DSS 10 & 11)
- More flexible policy for remote access to CHD (12.3.10)

## AOCs

- Reformatted for better information flow

## SAQs

- Align with new PCI DSS requirements
- Accommodate virtual terminals
- SAQ-C review

# For More Information

The screenshot shows the PCI Security Standards Council website. The browser address bar displays the URL: [https://www.pcisecuritystandards.org/security\\_standards/documents.php?document=pci\\_dss\\_v2-0#1](https://www.pcisecuritystandards.org/security_standards/documents.php?document=pci_dss_v2-0#1). The page features the PCI Security Standards Council logo and a navigation menu with options: Home, Contact, FAQs, Change Your Language, and a search bar. Below the navigation is a secondary menu with categories: For Merchants, PCI Standards & Documents (highlighted), Approved Companies & Providers, Training, News & Events, About Us, and Get Involved. The main content area is titled "Documents Library" and includes a search filter section with dropdowns for "View" (Most Recent Document Versions), "Associated With" (All), and "Language" (All), along with "Search" and "Clear" buttons. A table lists documents with columns for Title / Description, Date Issued / Updated, Associated With, and Download. The table is divided into sections for PCI DSS (PCI Data Security Standard) and PA DSS (Payment Application Data Security Standard).

Title / Description	Date Issued / Updated	Associated With	Download
<b>PCI Standards Documents</b>			
<b>PCI DSS (PCI Data Security Standard)</b>			
PCI DSS v2.0 <i>The PCI DSS is a multifaceted security standard that includes requirements for security management, policies, procedures, network architecture, software design and other critical protective measures. This comprehensive standard is intended to help organizations proactively protect customer account data.</i>	10/28/2010	PCI-DSS	Agreement Required
PCI DSS Summary of Changes Version 1.2.1 to 2.0	10/26/2010	PCI-DSS	Agreement Required
<b>PA DSS (Payment Application Data Security Standard)</b>			
PA-DSS Requirement and Security Assessment Procedures v2.0 <i>This document is to be used by Payment Application-Qualified Security Assessors (PA-QSAs)</i>	10/26/2010	PA-DSS	English - PDF Download

What tools are available to get  
you secure?



# Resources for Merchants and Others

The screenshot shows the PCI Security Standards Council website. The browser address bar displays "PCI Security Standards Council, LLC [US] https://www.pcisecuritystandards.org". The website header includes the PCI Security Standards Council logo, navigation links (Home, Contact, FAQs, Change Your Language), and a search bar. A main navigation menu is visible with options: For Merchants, PCI Standards & Documents, Approved Companies & Providers, Training, News & Events, About Us, and Get Involved. The "For Merchants" section is active, showing a large banner with a photo of a smiling woman in a green apron at a counter. The banner text reads: "Welcome to the PCI Security Standards Council's resources for merchants!". Below the banner, there is introductory text: "This is where you will find what you need to know about the PCI Security Standards. You can also find out why and how to become compliant with PCI Security Standards, and how to make use of the information and services the Council offers to merchants worldwide." To the right of the banner, there is a "PCI ROCK Payment Card Security" graphic featuring a cartoon cowboy playing a guitar and two women singing into a microphone, with a "Watch the video on YouTube" button. Below this is a "Now Available PCI DSS Self-Assessment Questionnaire (SAQ) v2.0" button. At the bottom right, there are two links: "What is the Payment Card Industry (PCI) Data Security Standard (DSS)?" and "Why Comply with PCI Security Standards?".

PCI Security Standards Council

Home · Contact · FAQs · Change Your Language

Search

For Merchants PCI Standards & Documents Approved Companies & Providers Training News & Events About Us Get Involved

For Merchants Text size [ ] [ ] [ ] - Share [ ] [ ] - Print [ ]

**Welcome to the PCI Security Standards Council's resources for merchants!**

This is where you will find what you need to know about the PCI Security Standards. You can also find out why and how to become compliant with PCI Security Standards, and how to make use of the information and services the Council offers to merchants worldwide.

From the world's largest corporations to small Internet stores, compliance with the PCI Data Security Standard (PCI DSS) is vital for all merchants who accept credit cards, online or offline, because nothing is more important than keeping your customer's payment card data secure. The size of your

**PCI ROCK** Payment Card Security

Watch the video on YouTube

Now Available  
PCI DSS  
Self-Assessment  
Questionnaire (SAQ) v2.0

What is the Payment Card Industry (PCI) Data Security Standard (DSS)?

Why Comply with PCI Security Standards?

# Special Resources for Small Merchants

The screenshot shows the PCI Security Standards Council website. The browser address bar displays "PCI Security Standards Council, LLC [US] https://www.pcisecuritystandards.org". The website header includes the PCI Security Standards Council logo and navigation links for "Contact Us", "Privacy Policy", and "Terms & Conditions". A green navigation bar contains four tabs: "PCI FOR SMALL MERCHANTS" (selected), "WHY SECURE?", "WHAT TO SECURE?", and "HOW TO SECURE?".

The main content area features a large image of a smiling woman in a retail setting. Overlaid on this image is a "Guidelines" box with the following points:

- Don't store ANY sensitive cardholder data!
- Secure card readers, point-of-sale, and payment systems

To the right of the image, the text reads:

**PCI DSS**  
**Small Merchants**  
**You must secure cardholder data to meet Payment Card Industry rules!**

Small merchants are prime targets for data thieves. It's *your* job to protect cardholder data at the point-of-sale.

If cardholder data is stolen – *and it's your fault* – you could incur fines, penalties, even termination of the right to accept payment cards!

Learn **how** the PCI Data Security Standard can protect cardholder data and prevent theft.

Below this main section are three smaller articles:

- Protecting cardholder data is good for your business**  
PCI security prevents stolen customer data, and:
  - Prevents lawsuits
  - Can save you money
  - Helps you to stay in business
- You are responsible for preventing theft of cardholder data**  
Follow these steps:
  - Don't store ANY sensitive cardholder data!
  - Secure card readers, point-of-
- Learn how**  
Details are in the PCI DSS. It's a strong, systematic way to secure cardholder data.  
[Read more.](#)

# Internal Security Assessor (ISA) Program

## PCI SSC Internal Security Assessor Program (ISA)

3-day training and certification course for internal assessment staff

### Objective

Test and qualify in-house security personnel on how to validate and maintain ongoing PCI compliance within their organizations

### How does this benefit my organization?

- Opportunity to develop internal security expert for driving and maintaining PCI compliance
- Increase internal understanding of PCI standards and controls
- May reduce compliance costs by encouraging development of ongoing security process before and beyond the annual validation

### Focus

Improving understanding of PCI standards and compliance through:

- Enhancing the quality, reliability, and consistency of internal PCI-DSS self-assessments
- Supporting the consistent and proper application of PCI-DSS measures and controls
- Effectively facilitating QSA relationships

# Internal Security Assessor (ISA) Program



## Where?

Feb. 15-16 San Francisco

Mar. 9-10 London

Mar. 30-31 Sydney

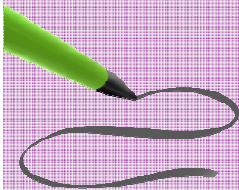
May San Diego



## How much does it cost?

Non-Participating Organization: \$2,595

Participating Organization: \$1,495



## How do I sign up?

Please visit the details in the education section on the website

[https://www.pcisecuritystandards.org/education/isa\\_training.shtml](https://www.pcisecuritystandards.org/education/isa_training.shtml)

# Difference Between ISA and QSA

Difference	ISA	QSA
Limitation of Validation	Intended only for the Sponsoring Entity and can not validate PA-DSS	Can not validate any entity with which they are invested
Demonstration of experience	Sponsoring Entity attests that the ISA is adequately qualified and receives appropriate training	QSA Company attests to qualifications and provides demonstration of resumes, CPE and background check
Sponsor requirements	Sponsoring Entity must verify criteria and attest Validation Requirements can be met	QSA must attest to Val Req and demonstrate insurance, security firm experience, etc
Quality Assurance	Internal QA program only by the Sponsor	Required internal QA program and SSC sampling

# PCI Awareness Training

---

## First PCI SSC Awareness Training

*Merchant training endorsed by PCI SSC*

### Objective

Arm merchants with everything they need to know to best prepare for an onsite PCI DSS inspection or to perform the assessment internally

### Where

- Locations in 2010
- Please visit the Council's Training website for an up to date schedule of courses and registration details

### Focus

Four key modules

- PCI Program – defining the payment card industry
- Scoping a PCI DSS Assessment
- PCI DSS v2.0 Requirements
- Compensating Controls

# PCI Quick Reference Guide



# PCI DSS Prioritized Approach



PCI DSS PRIORITIZED APPROACH

PCI COMPLIANCE IS A CONTINUOUS PROCESS



PCI SSC FOUNDERS



PARTICIPATING ORGANIZATIONS

Merchants, banks, processors, developers and point of sale vendors

## Disclaimer

To achieve PCI DSS compliance, an organization must meet all PCI DSS requirements, regardless of the order in which they are satisfied or whether the organization seeking compliance follows the PCI DSS Prioritized Approach. This document does not modify or abridge the PCI DSS or any of its requirements, and may be changed without notice. PCI SSC is not responsible for errors or damages of any kind resulting from the use of the information contained herein. PCI SSC makes no warranty, guarantee, or representation as to the accuracy or sufficiency of the information provided herein, and assumes no responsibility or liability regarding the use or misuse of such information.

## Milestones for Prioritizing PCI DSS Compliance Efforts

The Prioritized Approach includes six milestones. The matrix below summarizes the high-level goals and intentions of each milestone. The rest of this document maps the milestones to each of all twelve PCI DSS requirements and their sub-requirements.

Milestone	Goals
1	Remove sensitive authentication data and limit data retention. This milestone targets a key area of risk for entities that have been compromised. Remember – if sensitive authentication data and other cardholder data are not stored, the effects of a compromise will be greatly reduced. If you don't need it, don't store it.
2	Protect the perimeter, internal, and wireless networks. This milestone targets controls for points of access to most compromises – the network or a wireless access point.
3	Secure payment card applications. This milestone targets controls for applications, application processes, and application servers. Weaknesses in these areas offer easy prey for compromising systems and obtaining access to cardholder data.
4	Monitor and control access to your systems. Controls for this milestone allow you to detect the who, what, when, and how concerning who is accessing your network and cardholder data environment.
5	Protect stored cardholder data. For those organizations that have analyzed their business processes and determined that they must store Primary Account Numbers, Milestone Five targets key protection mechanisms for that stored data.
6	Finalize all policies, procedures, and processes to support maintenance of PCI DSS compliance. The intent of Milestone 6 is to complete PCI DSS requirements, and to finalize all remaining related policies, procedures, and processes needed to protect the cardholder data environment. The milestone also includes completion of firewall configuration standards, change control procedures, securing audit trails, and network testing processes.

## Prioritized Approach Tools

PCI DSS Requirements		Milestone					
		1	2	3	4	5	6
<b>Requirement 1: Install and maintain a firewall configuration to protect cardholder data</b>							
1.1	Establish firewall and router configuration standards that include the following:						6
1.1.1	A formal process for approving and testing all network connections and changes to the firewall and router configurations		1				
1.1.2	Current network diagram with all connections to cardholder data, including any wireless networks			2			
1.1.3	Requirements for a firewall at each Internet connection and between any demilitarized zone (DMZ) and the internal network zone						
1.1.4	Description of groups, roles, and responsibilities for logical management of network components						6
1.1.5	Documentation and business justification for use of all services, protocols, and ports allowed, including documentation of security features implemented for those protocols considered to be insecure			2			
1.1.6	Requirement to review firewall and router rule sets at least every six months						6
1.2	Build a firewall configuration that restricts connections between untrusted networks and any system components in the cardholder data environment.		2				
1.2.1	Restrict inbound and outbound traffic to that which is necessary for the cardholder data environment.						



# Board of Advisors Election

---



Join as a Participating Organization by going to [https://www.pcisecuritystandards.org/get\\_involved/join.php](https://www.pcisecuritystandards.org/get_involved/join.php) and play a role in electing the next Board of Advisors

# Community Meetings

---

## Two Meetings in 2011:

### **Scottsdale, AZ**

September 20 – 22, 2011



### **Europe, TBD**

October 24 – 26, 2011



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

# Fact Sheets



## Lifecycle for Ch

The Payment Card Industry (PCI) Security (PTS) requirements are primarily by point-of-sale equipment manufacturers to secure cards at the physical point of sale. It is managed by the PCI Security Council (PCI SSC). Input for changes to the standard are provided by PCI SSC stakeholders – Payment Organizations, including merchant banks, processors, hardware developers, point-of-sale vendor approved security evaluation. Changes to the standard follow 36-month lifecycle with eight steps described below. The lifecycle gradual, phased use of new version standard without invalidating current noncompliant when changes are made throughout the lifecycle, the Council ongoing guidance about these

### 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



## Overview of the Information Supp

The near ubiquity of wireless is a top priority for organizations or transmit cardholder data. In Security Standards Council Support Implementation Team has published supplement called PCI DSS Working Group. The goal of this document is to understand how PCI DSS applies in wireless, and provide environments, how to limit the pertains to wireless, and provide in payment card transaction or also intended for assessors with compliance. This At-a-Glance 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



## Skimming Prevention Overview of Best

Skimming is the unauthorized capture of payment data to another source. It to commit fraud, the threat is serious any merchant's environment. With sk steal payment data directly from the payment card or from the payment in merchant location. Both techniques: the use of a rogue physical device or PCI Security Standards currently cover requirements and recommendations skimming. In addition, the Council has overview document for merchants to "diverge" about skimming, examples, be tools to thwart its use. This "At-a-Glance" snapshot of skimming and introduce countermeasures to ensure an appropriate 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 of skimming and a checklist for tracking assets in a specific merchant location and terminal environment.



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 where 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 unreadable 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

# Additional Guidance on Technologies in Payments

Continue to look for guidance from the Council on emerging technologies

These supplements produced by the Council will help you better understand how the implementation of specific technologies define or reshape the cardholder data environment



# Technologies in Payments

---



Tokenization



Encryption



Wireless



EMV



Virtualization

# Technologies in Payments:

## EMV



Payment Card Industry (PCI)  
Data Security Standard

PCI DSS Applicability in an  
EMV environment – A guidance  
document

PCI DSS Applicability in an EMV Environment – A guidance document (DRAFT)  
Copyright 2010 PCI Security Standards Council LLC

Aug 2010  
Page 1

The guidance document provides background information for organizations that are considering implementations of EMV technology within the context of PCI DSS compliance.

# Technologies in Payments

---

The Council is committed to an ongoing assessment of technologies in payments

EMV and P2P guidance are a first step

Reflects your input and industry collaboration

Evaluates the impact of these technologies on PCI DSS compliance efforts

Reinforces the effectiveness of PCI DSS as a strong method for protecting cardholder data

There is more work to be done  
– and we need your continued feedback and participation!

# Council Resources

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

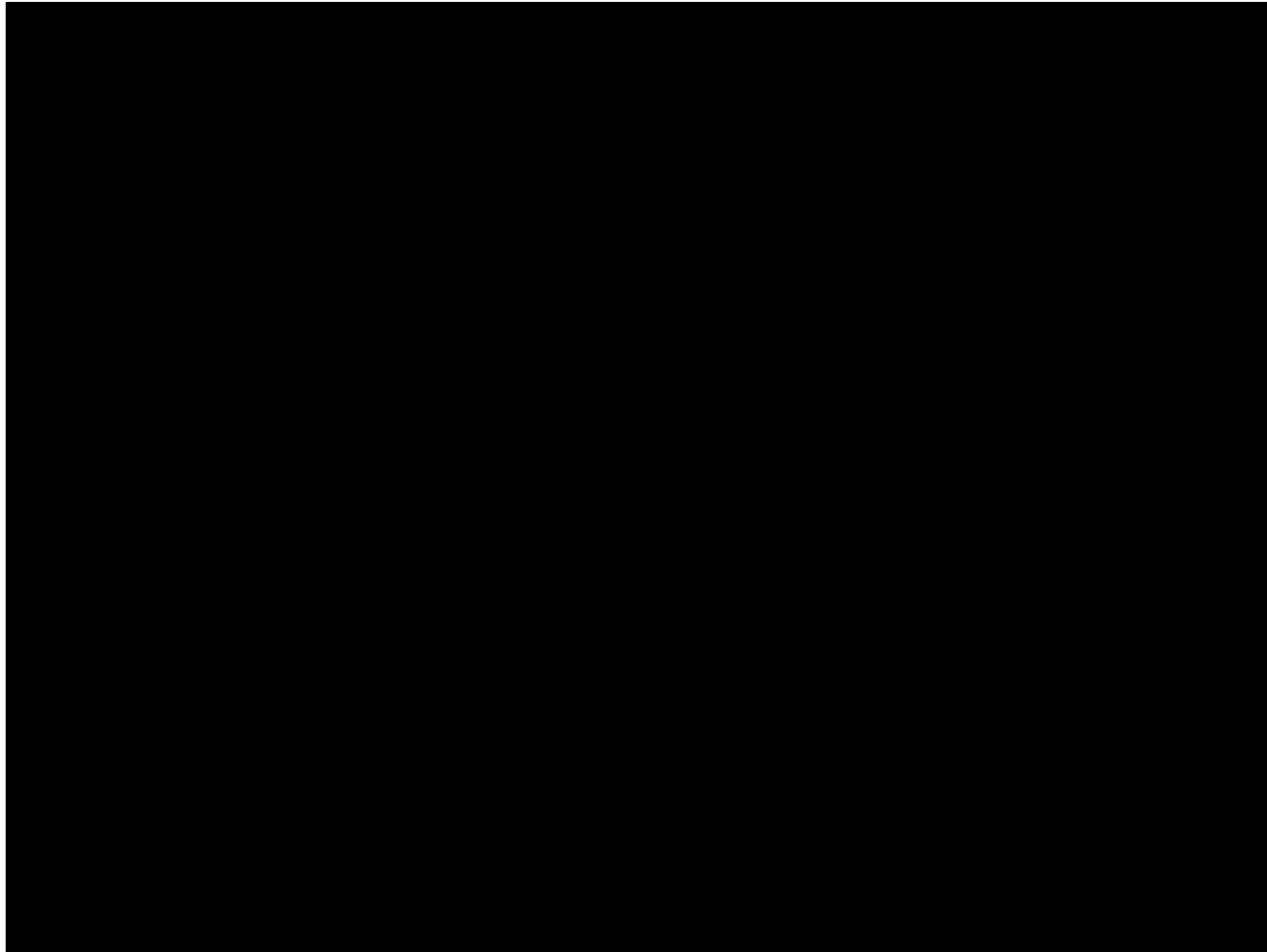




How can you be involved?

# We Welcome Your Involvement

---



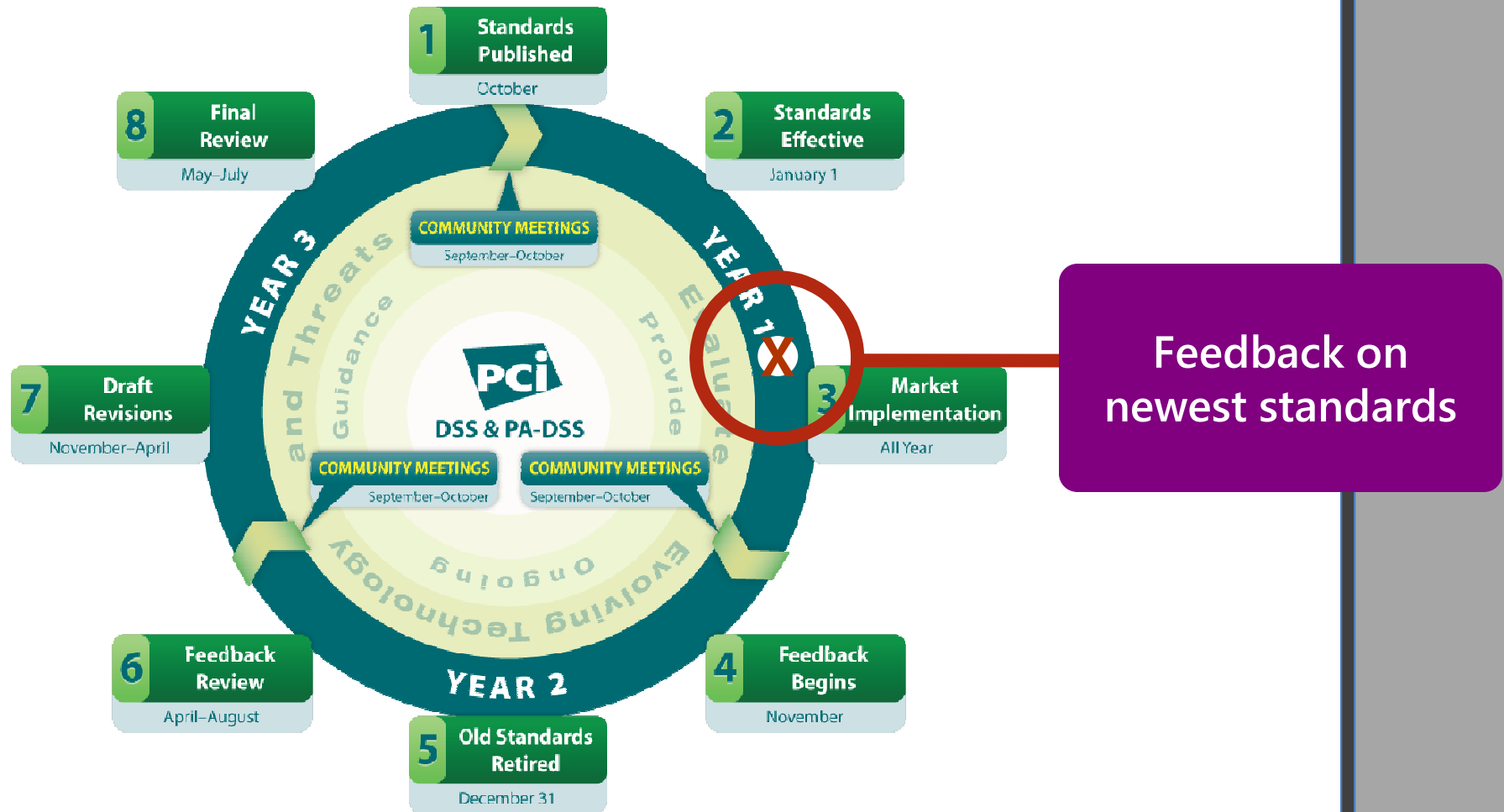
# Get Involved

---

PCI security  
landscape and  
standards are  
maturing globally



# Provide Feedback to the Council



# Special Interest Groups

---

What do Special Interest Groups do?



- Opportunity to leverage Participating Organizations' expertise
- SIGs analyze and address specific industry challenges
- SIGs determine own deliverables
- Recommend changes, clarifications, improvements, best practices, etc.
- Work with Board of Advisor Leader to channel info into the SSC
- SIGs dissolve after deliverable is achieved
- New SIGs can be proposed at any time

# Summary

---

Focus on security, not compliance

Understand the process of PCI standards development

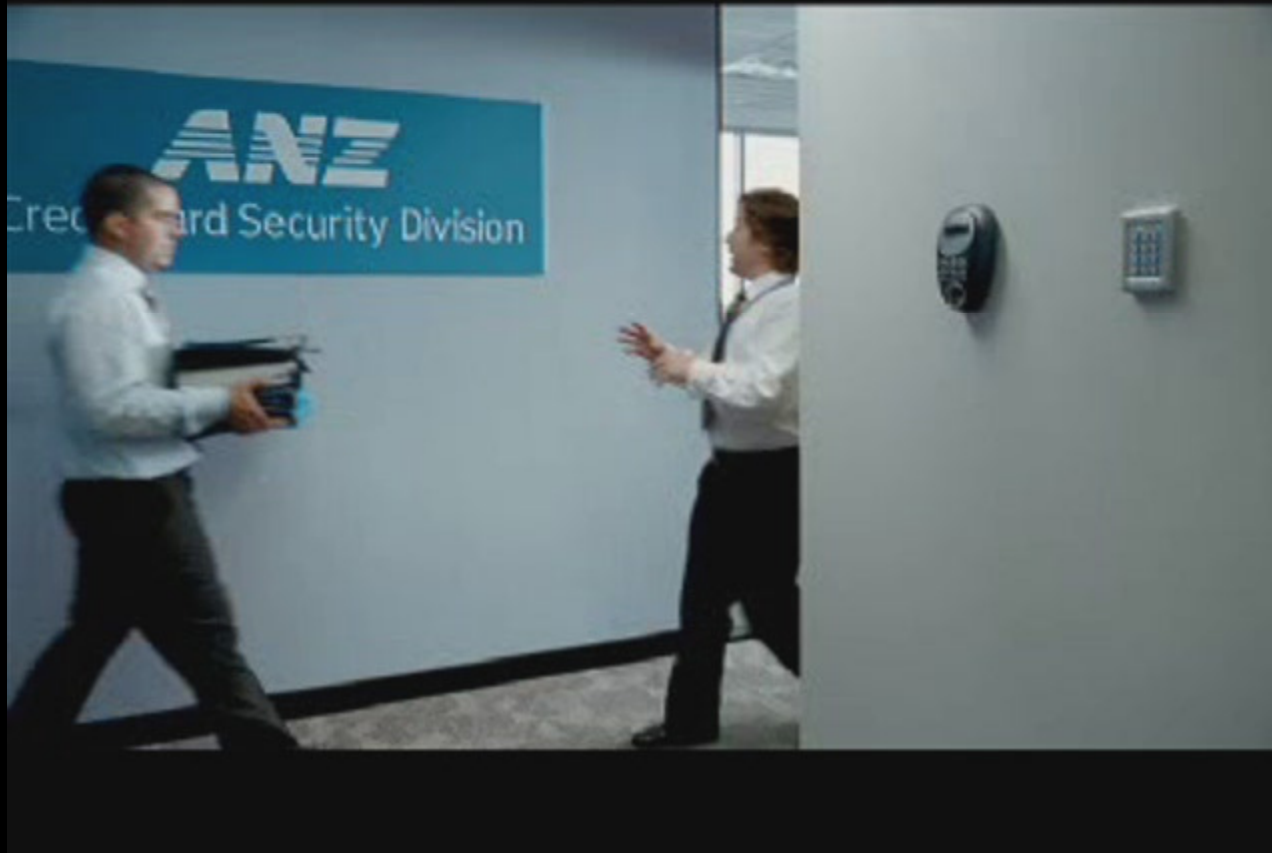
Join us as a Participating Organization and increase our global presence

Play an active role in shaping standards through a Special Interest Group

Participate in the 2011 Annual Community Meetings

Share the PCI SSC roadmap with internal stakeholders

# Security is Only as Good as the Weakest Link



# Stay Involved

---

Even though you have more time, move toward adopting 2.0 ASAP

Take advantage of the Council's resources and guidance

Participate in a SIG



*Keep Sending Us Your Feedback!*