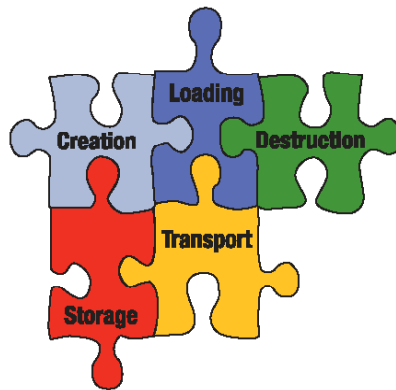


2019

PIN Security and Key Management Compliance Training

Presented by
Delap LLP



delap

SINCE 1933

About the Instructors

Delap LLP:



Andrea Beatty, Principal has spent over 20 years in the financial services industry, cultivating and narrowing her technical expertise to focus in PIN Security and Key Management related to POS and ATM transactions. Ms. Beatty developed and implemented the most extensive Processor-driven PIN Security and Key Management compliance

reporting program in the retail banking industry. As a subject matter expert, she has provided risk review and consulting services to banks, processors, merchant processors, device manufacturers, certificate authorities, remote key delivery hosts, and key injection facilities in the US and internationally.

Ms. Beatty is vice chairperson of the ASC X9F6 Working Group, serving as the Technical Editor for the extensive rewrite of ANS X9.24 Part 1, published in 2017. Andrea also serves as a X9 board member and US Expert to ISO TC68 SC2 WG13, involved in development of international versions of security standards.



David Buchanan, Partner has over 10 years of extensive experience in information technology (IT) systems across multiple industries, including healthcare, banking, and retail payments. David leads Delap's PCI DSS and SOC reporting practices, providing domestic and international clients with information security services including risk assessments,

internal control reviews, network security analysis, and information security consulting.

Mr. Buchanan holds the following certifications: CPA, QSA, CEH, CCNA & Security, CTGA, PCIP

Other Services:

- ANSI TR-39 and PCI PIN v2.0
- PCI DSS Assessments
- SSAE 16 (SOC reports)
- PCI PIN Readiness and Remediation
- Cryptographic Key Management Consulting — Symmetric and PKI

Core Class

The group-live 4-day training course is designed to provide both internal and external auditors with the necessary tools to complete the PIN Security Compliance Review for Payment Network such as NYCE Payments Network, LLC, Pulse® Corporation, and STAR® Network or for internal risk identification; or for personnel to understand the requirements applicable to implementation.

4-Day Core Class with PCI PIN (CPE 32 credits)

Level: Basic

Prerequisites:None.

Day One:

- Processor and Auditor Responsibilities
- Compliance Review Objectives
- TR-39 and PCI PIN Security Requirements history
- Network Respondent Forms
- Symmetric Key Management Introduction
- Key Names and Hierarchy
- Cryptogram Notation
- Diagram of PIN Transaction Flow
- PIN Translation
- Characteristics of SCDs
- Group Project

Day Two:

- PIN Block Formats
- Exclusive-or
- Introduction to Symmetric Key Life Cycle, including:
 - Key Check Values
 - Dual Control and Split Knowledge
 - Key Forms
 - Environments
 - Single-Length vs. Double-Length Keys
 - Single DES vs. Triple DES
- Group Project

Day Three:

- Key Life Cycle Requirements
- Approved Key Methodologies
- Key Blocks
- Group Project

Day Four:

- Review PCI PIN Security Control Objectives and Requirements
- Techniques for measuring compliance



Latest Student Testimonials:

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“It is hard to find REAL training that teaches relevant skills. This class was a GREAT FIND! I will be recommending it to colleagues. Thank you.”

.....



Delap LLP is registered with the National Association of State Boards of Accountancy (NASBA), as a sponsor of continuing professional education on the National Registry of CPE Sponsors. State boards of accountancy have final authority on the acceptance of individual courses for CPE credit. Complaints regarding registered sponsors may be submitted to the National Registry of CPE Sponsors through its website: NASBARegistry.org

“Refresher” Classes

A “refresher” class is required every 24 months. We offer two group-live refresher classes based on X9 standards and PCI PIN Security Requirement v3.0 as described below. The Core Class also satisfies this requirement.

2-Day X9 Refresher Class (CPE 16 credits)

Symmetric Key Management Review, ANSI/ISO/Network Updates, Introduction to EMV and E2E

Level: Intermediate

Prerequisites: 4-day Core Class and 2-day Asymmetric Class

Day One:

- Updates on Relevant ANSI Standards and Network Operating Rules
- Review and Obtain an Understanding of Each Control Objective in the ANSI X9/TR-39 Current Version, Section 4
- Group Projects:
 - Analysis of Reports/Applications to TR-39 Section 4
 - Analysis of Various Work Papers/Application to TR-39 Section 4

Day Two:

- Chip Card Technology
 - Concepts of Contact Chip Cards for ATM and POS
 - Introduction to EMV Specifications Documents
 - PIN and Sensitive Data Security
 - Key Management
 - Online and Offline PIN Transactions
 - Group Project
- E2E (End-To-End Encryption) / P2PE (Point-to-Point Encryption)
 - Concepts of Encrypting Sensitive Data for Transport and Storage
 - Update on the ANSI Standard X9.119
 - Sensitive Data Security
 - Key Management
 - Group Project
 - Lab
 - Diagram EMV Transactions

2-Day Asymmetric Key Class (CPE 16 credits)

Level: Intermediate

Prerequisites: 4-day Core Class

Day One:

- Concepts of Public Key Infrastructure (PKI)
- Remote Symmetric Key Distribution Using Asymmetric Methods Described in ANSI X9.24, Part 2 for:
 - ATM Key Loading
 - POS Key Loading
 - HSM Key Loading
 - ‘Proxy Host’ Solutions

Day Two:

- Obtain an understanding of each control objective in the ANSI TR-39 current version, Section 5 including updates to X9.24 Part 2 – 2017.

3-Day Refresher Class with PCI PIN v3.0 (CPE 24 credits)

Symmetric Key Management Review, ANSI/ISO/Network Updates, PCI PIN v3.0, Introduction to EMV and E2E

Level: Intermediate

Prerequisites: 4-day Core Class and 2-day Asymmetric Class

Day One:

- Updates on Relevant ANSI Standards and Network Operating Rules
- Review of Each Control Objective in the ANSI X9/TR-39 Current Version, Section 4
- Group Projects:
 - Analysis of Reports/Applications to TR-39 Section 4
 - Analysis of Various Work Papers/Application to TR-39 Section 4

Day Two:

- Review PCI PIN Security Requirements v3.0 - Transaction Processing Operations
- Techniques for measuring compliance

Day Three:

- Chip Card Technology
 - Concepts of Contact Chip Cards for ATM and POS
 - Introduction to EMV Specifications Documents
 - PIN and Sensitive Data Security
 - Key Management
 - Online and Offline PIN Transactions
- E2E (End-To-End Encryption) /P2PE (Point-to-Point Encryption)
 - Concepts of Encrypting Sensitive Data for Transport and Storage
 - Update on the ANSI Standard X9.119
 - Sensitive Data Security
 - Key Management
 - Group Project
- Lab
- Diagram EMV Transactions



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2019 Course Dates

Dates	Location	Course Type	Prerequisites
April 29-30	Annapolis, MD	2-Day X9 Refresher	4-Day Core Class and 2-Day Asymmetric
July 8-11	Annapolis, MD	4-Day Core Class with PCI PIN v3.0	None
August 19-20	Annapolis, MD	2-Day Asymmetric Class	4-Day Core Class
August 21-23	Annapolis, MD	3-Day Refresher with PCI PIN v3.0	4-Day Core Class; 2-Day Asymmetric
September 16-19	Annapolis, MD	4-Day Core Class with PCI PIN v3.0	None
October 14-15	Annapolis, MD	2-Day Asymmetric Class	4-Day Core Class
October 16-18	Annapolis, MD	3-Day Refresher with PCI PIN v3.0	4-Day Core Class; 2-Day Asymmetric
October 21-22	Annapolis, MD	2-Day Asymmetric Class	4-Day Core Class
October 23-25	Annapolis, MD	3-Day Refresher with PCI PIN v3	4-Day Core Class; 2-Day Asymmetric

Note: any of the above classes will meet the NYCE Payments Network, LLC, Pulse[®] Corporation and STAR[®] Network requirements for a 'Refresher Class'.



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Registration

Please fax your registration to (503) 343-9456. Online registration form for faxing is at [registration form](#). For more information call Delap LLP (Sheryl Malm or Jeanette Smith) at (888) 697-1040 (7 a.m. – 5 p.m. Pacific time).

4-Day Core Class fee...\$1,675

3-Day Refresher with PCI PIN v3.0 Class fee...\$1,365

2-Day Asymmetric Class fee...\$995

2-Day X9 Refresher Class fee...\$995

Class hours (all days): 8:00 a.m. – 4:30 p.m.

Continental breakfast starts (all days): 7:30 a.m.

Fee includes classroom materials, continental breakfast, lunch, and afternoon break refreshments. Registration will be confirmed upon receipt of payment. Payment can be made by:

- 1) American Express®, Discover®, MasterCard®, or Visa®, or
- 2) sending a check

Cancellation and Substitution Policy

Registrations may be cancelled up to 14 days prior to class by paying a \$100 cancellation fee. Cancellations within 14 days will not be refunded; however, substitutions will be accepted.

Schedule Changes

Delap may occasionally find it necessary to reschedule or cancel sessions and will give registrants advance notice of such changes.

For details on Cancellation/Refunds and Schedule Changes policy, please see our website at [Refunds & Cancellations](#) or contact Ms. Sheryl Malm at (888) 697-1040.



Location Information — Annapolis, MD

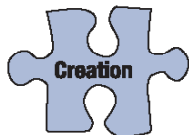
Annapolis Class Location

Classes will be held at Accredited Standards Committee X9, Inc headquarters.
275 West Street, Suite 107
Annapolis, MD 21401
Telephone: (410) 267-7707

Annapolis Hotel Locations

ASC X9 has negotiated rates at both the Westin Annapolis and Hilton Garden Inn Downtown Annapolis.

- Hilton Garden Inn: Please call 410-990-1100 and reference corporate #3185785 to receive the discounted rate of \$139 USD.
- Westin: Please use Corporate/Promo/Set Code of S2491 (under Special Rates) when booking to receive the discounted rate of \$131 USD. For issues with booking, please contact Kaelan Landis at 410-972-4361 or klandis@westinannapolis.com



Registration Form

Please use this form to register by fax, regardless of payment method. Or use our convenient on-line form, which can be downloaded at: [Registration form](#)

Name _____

Company _____

Address _____ City, State, Zip _____

Phone _____ Fax _____ email _____

4-Day Core Class \$1,675

2-Day X9 Refresher Class \$995

3-Day Refresher with PCI PIN v3.0 Class \$1,365

2-Day Asymmetric Class \$995

Class Date _____

Payment Method

Check enclosed (Delap LLP)

Charge to my: American Express Discover MasterCard VISA

Account # _____ V-Code _____ Expiration Date _____ Signature _____

Card-owner's Name _____

Card-owner's Billing Address (if different than Company address) _____

Address _____ City, State, Zip _____

FAX this form to (503) 343-9456. We cannot accept registration or payment via email or phone.

If paying by check, mail a copy of this form and your check to:

Delap LLP
5885 Meadows Rd, Suite 200
Lake Oswego, OR 97035

For more information,

call Sheryl Malm or Jeanette Smith at (888) 697-1040 (Pacific time)

email: smalm@delapcpa.com, jsmith@delapcpa.com or

Fax: (503) 343-9456, or

visit our Web site at <http://www.delapcyber.com>



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EMV • E2E

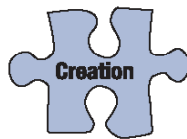
“Better? IMPOSSIBLE!

What a talent to be able to take complex terminology and explain it to such a diverse audience and keeping everyone awake and interested.”

Annapolis



PIN Security and Key Management Compliance Training



“Andrea was extremely knowledgeable. I appreciate her willingness to help me understand the materials.”