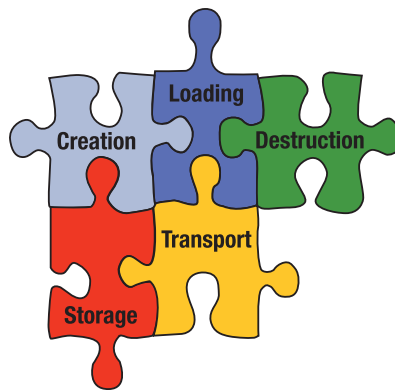


2018

Pin Security and Key Management Compliance Training and Exam

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 v3.0
- PCI DSS Assessments
- SSAE 16 (SOC reports)
- PCI PIN Readiness and Remediation
- Cryptographic Key Management Consulting — Symmetric and PKI

X9 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 ANSI X9/TR-39-2009 Compliance Review for NYCE Payments Network, LLC, Pulse® Corporation, and STAR® Network.

4-Day Core Class (CPE 32 credits)

Level: Basic

Prerequisites:None.

Day One:

- Processor and Auditor Responsibilities
- Compliance Review Objectives
- Network Respondent Forms
- Symmetric Key Management Introduction
- Key Names and Hierarchy
- Cryptogram Notation
- Diagram of PIN Transaction Flow
- PIN Translation
- Characteristics of TRSMs
- Group Project

Day Two:

- Cardholder Authentication Methods
- PIN Block Formats
- Exclusive-or
- Introduction to Symmetric Key Life Cycle, including:
 - Key Check Values
 - Single-Length vs. Double-Length Keys
 - Single DES vs. Triple DES
- Approved Key Methodologies
- Asymmetric Keys for Distributing Symmetric Keys
 - High Level
- Group Project



Day Three:

- Review and Obtain an Understanding of Each Control Objective in the ANS X9/TR-39 current version, Section 4
- Techniques for Measuring Compliance
- Group Project

Day Four:

- Compliance Review Field Work Activities
- General Key Management Documentation
- Reporting the Findings

Exam

A passing grade is required for all auditors performing a TR-39 review at the processor level, for Pulse® Corporation and STAR® participants only. Auditors receiving a passing grade will also receive the CTGA designation. Examination criteria and relevant information will be provided through each network's normal communication methods. Exam time allowance is four hours. Delap will offer three opportunities in 2018 to sit for the exam.

Once you have passed the exam, there is no need to re-take it, but you will need to take a refresher class every 24 months.

Note: Please allow 2-4 weeks to receive exam results..

Delap is authorized to teach this PCI SSC PIN course through endorsement by Discover Financial Services.

PCI v3.0 Core Class - TBA



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: www.learningmarket.org

“Refresher” Classes

A “refresher” class is required every 24 months. We offer two group-live refresher classes based on X9 standards as described below. PCI PIN & X9 Standard Core Class also satisfy this requirement.

3-Day Class (CPE 24 credits)

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

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
- 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

Day Three:

- Payment Tokenization
 - Card Emulation (CE)
 - Host Card Emulation - Device
 - Host Card Emulation - Cloud
 - Registration and Transaction Flow
 - 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.

Please note all classes meet the Network requirements for “Refresher Class”.

Latest Student Testimonials:

.....
“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.”
.....



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2018 Course Dates

PCI PIN v3 Core Class TBA

Dates	Location	Course Type	Prerequisites
April 23-26	Annapolis, MD	4-Day Core Class	None
April 30 - May 1	Annapolis, MD	2-Day Asymmetric; Remote Key	4-Day Core Class
May 2-4	Annapolis, MD	3-Day Class	4-Day Core Class; 2-Day Asymmetric
July 9-12	Annapolis, MD	4-Day Core Class	None
July 16-17	Annapolis, MD	2-Day Asymmetric; Remote Key	4-Day Core Class
July 18-20	Annapolis, MD	3-Day Class	4-Day Core Class; 2-Day Asymmetric
September 10-13	Annapolis, MD	4-Day Core Class	None
September 17-18	Annapolis, MD	2-Day Asymmetric; Remote Key	4-Day Core Class
September 19-21	Annapolis, MD	3-Day Class	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'.

These courses have been approved by NYCE Payments Network, LLC, Pulse® Corporation and STAR® Network for auditors to complete the ANSI X9/TR-39-2009 Compliance Review.

Exam Dates and Times

Dates	Location	Exam Time
April 27	Annapolis, MD	Exam (1/2 day 8:00 - Noon)
July 13	Annapolis, MD	Exam (1/2 day 8:00 - Noon)
September 14	Annapolis, MD	Exam (1/2 day 8:00 - Noon)



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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

Exam fee...\$425

3-Day Symmetric Key Class fee...\$1,365

2-Day Asymmetric Key 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

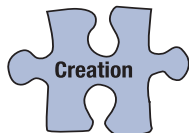
Cancellation and Substitution Policy

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

Recommended Hotel

The Westin Annapolis

100 Westgate Circle

Annapolis, MD 21401

Telephone

ASC X9 Rate: \$129

Cancellation Policy: 24 Hours



Please visit this website for hotel information and reservations <http://www.westinannapolis.com/>

Instructions for booking at AXC X9 rate:

Guest room daily rate:\$129.

- Visit link
- Choose applicable dates and click "Book Now"
- Select "Change Rates" near top of page
- Remove check marks from all rates selected
- Click "Promotion Code/SET#" and a box will appear
- Type "526459" in box and click "Update"
- The room rate should then reflect the ASC X9 rate of \$129

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 Exam \$425 2-Day Asymmetric Key \$995

3-Day Core Class \$1,365 PCI Pin Core Class

Class Date _____ Exam 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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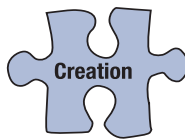
**EMV • E2E
• Payment
Tokenization**

*“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 and
Exam**



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