



MVLCO

## CCPSP™ Certified Card Payment Systems Professional

**MVLCO** offers a four full days comprehensive CCPSP program extensively focused on Payment Card Systems. The course covers how payment cards e.g. credit/debit cards are issued, overview of EMV standards for Chip/ICC cards, how magstripe, Chip/ NFC/RFID card transactions are

processed, the use of Switch/HSM, Key Management, inter-bank settlements, merchant settlements and all important aspects of card payment processes.

The CCPSP program emphasizes on active participation from delegates and includes exercises and case studies.

CCPSP certification will help you in enhancing your skills in Card Payment Systems.

The certification will provide you with an insight in end-to-end card payment operations.





## Course contents

### Module 1

#### Introduction

- History of Payment Cards
- Players in Payment Card Industry
- Card payments life cycle
- Card Schemes
- Types of Cards
  - Products viz. credit card, debit card etc.
  - Physical ; Magstripe, ICC, Contactless, NFC, Virtual
  - Structure of cards : Magstripe, ICC, Contactless, NFC
  - PIN, CVV, iCVV, CVV2
- Access devices : ATM, POS terminal/M-POS, Internet and MOTO

### Module 2

#### Card Issue Process

- Card Types
- Track Types
- Chip card / RFID / NFC cards
- Secure Elements / Host Card Simulation
- EMV card / terminal specifications
- EVM ICC personalisation
- Card Production and PAN / CAF

### Module 3

#### Generation for Switch

- PAN / CAF Upload in Switch
- PIN Generation and PIN Blocks

### Electronic Fund Transfer Switch

- Introduction to Switch and its Functions
- Brief Introduction to Hardware Requirements
- Brief Introduction to Software Components

### Module 4

#### HSM and its Functions

- Host/Hardware Security Module
- Hardware Components
- Key Management Function
  - Local Master Keys
  - Zone Master Key
  - Zone PIN Key
  - Terminal Master Key
  - Terminal PIN Key
  - Terminal Authentication Key
  - PIN Verification Key
  - Card Verification Key
  - Master/Session Key Scheme
- Automated Key Distribution System

### Module 5

#### Introduction to Card Operations

- Introduction to ISO 8583, ASN.1/BER and ISO 20022 Messages.
- Functions of Issuer, Acquirer, Merchants and Inter-connect

# Course contents

(Continued)

- Revenue Streams
- Costs of Card Operation

## Card Operations

- Overview of EMV standards
- EMV L1/L2/L3 Certification requirements
- Communication protocols T=0/T=1
- Kernels and Kernel Tags
- DE55 and ASN.1/BER Tags
- Permitted Transactions
  - Card Present Transaction (CP)
  - Card Not Present Transactions (CNP)
- Transaction flow for CP and CNP Transactions
  - Full EMV and Early/Quick EMV
  - Data Authentication : SDA/DDA/CDA
  - CVM/Offline/Online PIN verification
  - Accounting
  - Authorisations
  - Online/offline authorization processes e.g. PBF/SAF, Grading
  - EMV Commands and APDU Command/Response Pairs
  - EMV process of GENERATE 1st AC/ GENERATE 2nd AC
  - Full STIP, Partial STIP, Co-operative Processing
- Reconciliations
  - Importance of Reconciliations
  - Various types of Reconciliations
- Customer Billing, Collection and Recovery
- Presentments and Chargebacks
- Settlements
  - VISA/Master Settlements

- Partner Settlements
- Merchant Settlements

## Card Frauds and Security Issues:

- Card frauds
- Use of Applications for Fraud Detection and Prevention e.g. FICO Falcon

## Module 6

### Card Standards

- Payment Card Industry Data Security Standards (PCI DSS)
- EMV Standards
- Other relevant ISO standards e.g. ISO9564

## Module 7

### Regulation

- Dodd-Frank, USA
- EPC regulation on mobile cards in European Union and SEPA Cards



### Pre-requisites:

- Prior understanding of payment systems is necessary.

### Program Duration:

- 32 Hours

### Course Fee Inclusions:

- Program delivery with recordings
- Reading & reference material
- 1 attempt of certification exam & mock text
- Life-time certification
- Networking Opportunity

### Examination Pattern:

- Online (auto-proctored)
- Multiple Choice Questions
- Open book test
- Passing Score: 60%



## Course available in three modes

Classroom



Live Virtual Classroom



Recordings



**4.86**  
★★★★★  
CCPSP™ Course  
Evaluation  
*From our esteemed  
clients*

...

**300+**  
Corporate &  
Open Batches

...

**2500+**  
Certifications

## About MVLCO

**MVL Consulting Private Limited** is a consulting and training firm based in Pune, India that has been providing practical solutions to clients since 1996. We serve a diverse range of clients, including banks, financial institutions, corporations, and software developers.

MVLCO offers payment certification programs that cover wholesale and retail, as well as international and domestic payment systems. These programs are recognised and accepted by central banks, global commercial banks, clearing houses, IT and software companies around the world, and are used to enhance the skills of payment professionals.



### Centre for Banking and Fintech

(A division of MVL Consulting Private Limited)

17, Laxman Villa Condominium,  
Near Jehangir Speciality Hospital,  
Paud Road, Kothrud,  
Pune, India - 411038

+91-9764835350 / 9168435350

[www.mvlco.com](http://www.mvlco.com)



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“Knowledge is Power.  
Knowledge shared is  
power multiplied.”

- Robert Noyce

