

EMV and Payments Masterclass



The UL EMV Masterclass is a two-day training course that will bring you true understanding of EMV, its effects on the industry, your business and practical implementations of the underlying technology. This EMV education program is suitable for business leaders, decision makers, project managers, and system developers. There is no easier way to prepare you and your employees for a role in an EMV project than the UL EMV Masterclass.

Upon completion of the 2-day training, the attendees will be capable of making well-informed decisions related to EMV migration and management for their organization and sufficiently skilled to steer or be assigned to EMV projects straight away.



WHAT YOU WILL LEARN

- The Functional Architecture, security framework and business decisions needed to benefit from EMV
- relevant technological insights to the cryptography used in EMV
- how EMV transactions are protected against fraud
- future of EMV with an emphasis on the new trends of EMV payments and what EMV Next Generation will bring to the market
- algorithms used in EMV transactions and for how they are managed in the wider EMV environment

KEY TOPICS

- EMV Functional Architecture
- Tag-Length-Value (TLV)
- EMV Transaction Flows
- Cryptography in EMV
- EMV Next Gen Timelines and Impact

WHO SHOULD ATTEND?

- Business leaders
- Decision makers
- Project managers
- System developers.

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AGENDA - DAY 1

Payment Industry Basics

- Basic understanding of card payment: 3 and 4-party scheme, processor, authorization, settlement, single message etc. are given a place in this easy-to-understand frame of reference.

EMV Functional Architecture

- functional aspects of an EMV transaction, giving insights to whole architecture covering both POS terminals and Card/Mobile payments
- Introduction of the various EMV certification requirements

EMV Security Framework

- A look at the security mechanisms provided by EMV, understands the security impact of EMV migration, why the liability shifts from merchant to issuer and how EMV protects transactions against fraud.

EMV in a Nutshell

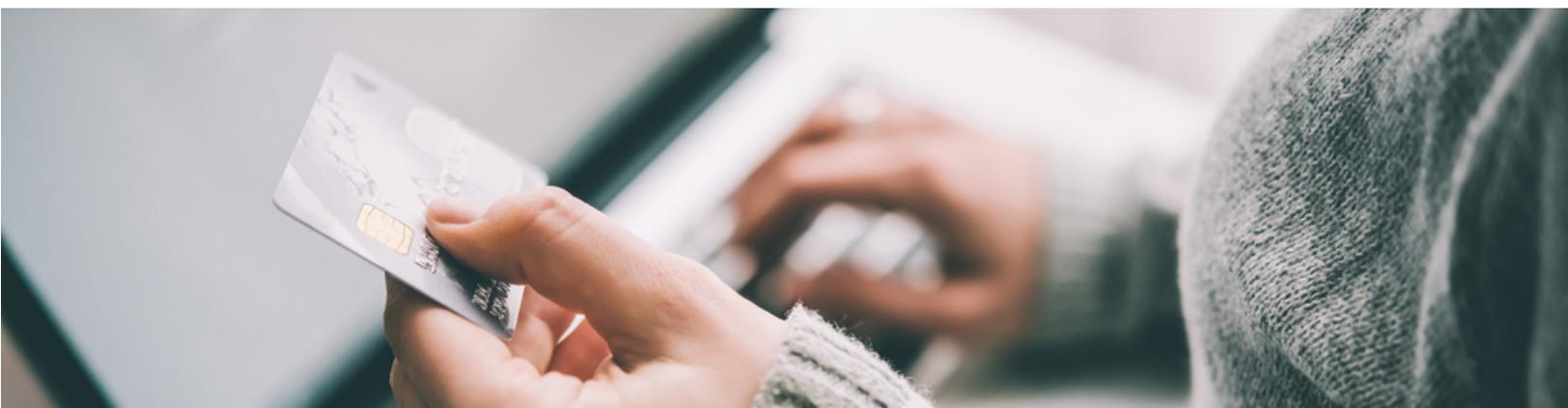
- The 'EMV in a Nutshell' presentation shows the relation between generic specifications (EMV) and scheme specifics (Visa, MasterCard, Amex etc.) is explained. We also discuss EMV adoption and liability shifts

EMV Transaction Flows

- In this module we will start from the basic of EMV transaction, to understand how commands are structured and exchanged between cards and terminal. The attendees will learn how the hexadecimal is used, what Tag-Length-Value (TLV) command structure is, what Application Protocol Data Unit (APDU) is and how it is used. After this module, attendees will be able to understand and interpret the conversation between cards and terminals.
- Every EMV transaction follows a predefined sequence of smart card interactions – the EMV Transaction Flow. This presentation covers in detail the steps of this transaction flow, for both contact and contactless interfaces, and explains in a clear way the 'inner workings' of EMV. The difference in transaction flows between different schemes is also covered. Real-time EMV-card transactions will be demoed and professional interpretation software are used to make the link between theory and reality!

EMV Business Considerations

- This module focuses on the business decisions that both issuers and acquirers are required to make for their EMV products. Topics such as card personalization, card issuance and terminal configuration will be explained.



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AGENDA - Day 2

Practical Use Case

- This module consists of a series of exercises, to be completed by the attendees. The exercises focus on both business decisions and technical transaction flows. Attendees will enhance their understanding of EMV through practice and have the opportunity to apply the knowledge acquired in the first day in a supervised environment.

Introduction to Cryptography

- This training module familiarizes the attendees with all relevant cryptographic concepts required for understanding the EMV security architecture (see next module). Relevant cryptography methods, their related algorithms and standard terminology are covered.

Cryptography in EMV

- In this module, attendees will be shown to the use of cryptography in EMV. Effective explanations will be given for the type of keys and algorithms used in EMV transactions and for how they are managed in the wider EMV environment. The role of stakeholders such as Certification Authorities, processing switches and personalization bureaus, is explained.

Issuer Online Authorization

- ISO 8583 is the main inter-banking message specifications used in the card payment ecosystem. In this module, the attendees will learn how the ISO 8583-based protocols are impacted by EMV transactions, how the EMV data is transmitted and how the transactions are validated by the Issuer (best practices on authorization validation in issuer authorization host will be discussed).

Trends in Card Payments

- Learn about the latest developments in card payments. Key topics such as Digitization/Tokenization, new Cardholder Verification Methods (CVM) such as biometrics and mobile CVM, and Alternate Payment Methods such as MasterCard Digital Secure Remote Payments (DSRP), to show how EMV is used over Internet, will be covered in the context.

EMV Next Gen

- EMVCo will release the next generation EMV (EMV Next Gen) kernel specification in 2016 and the first EMV Next Gen product will be on market as early as 2018. This module will discuss the motivation for introducing EMV Next Gen and explain how the new EMV Next Gen transaction flow differs from the current EMV transaction flow.

EMV Next Gen Timelines and Impact

- This module will discuss the timelines and prepares the attendees for the changes and impacts of EMV Next Gen from both a technical and business perspective.

General information

Course duration: 2 days

Language: English Location: Worldwide

Registration

