



Remondata-B2 EMV & Contactless Payments Masterclass (3-Days):

The B2 Expert EMV & Contactless Course is a world leading knowledge packed seminar. The course will give the attendees in-depth expertise on EMV and contactless form factors, acceptance devices, transaction processing, card and terminal architectures, do's and don'ts, industry insight, best practices and global trends. Knowledge gained can be applied immediately to any EMV & Contactless project.

The B2 Expert EMV & Contactless Course is a 3-day training with the following topics and agenda:

Day 1

1. **Introduction**

2. **Introduction to EMV**

This module explains in clear, non-technical terms the 'EMV transaction flow'. Many aspects of EMV payment schemes will be put in perspective, such as:

- How does EMV handle offline and online transactions?
What are the advantages and disadvantages?
- Does EMV really protect us against skimming fraud?
What security measures can be taken?

3. **Introduction to Contactless**

This module explains in clear, non-technical terms the 'Contactless Transaction Flow'. During this presentation, many aspects of Contactless payment schemes will be put



in perspective, such as:

- Magstripe vs. EMV grade contactless?
- Functional differences between payWave, PayPass, D-PAS and Expresspay

4. **Compliance**

This module looks at the topic 'EMV compliance' from a regulatory, PCI, and payment scheme point of view. After completing this module, the attendees will be familiar with the concept of being 'EMV compliant' from a regulatory and payment scheme point of view and how to get there (e.g. certification). Other topics relevant to compliance are also discussed.

5. **Cryptography and Key Management (EMV & Contactless)**

Cryptography, EMV and Contactless are topics that are often associated with one another. No wonder, because it is the cryptography that makes EMV-based and Contactless based payment transactions secure!

This module explains what cryptography is and how it is applied within EMV contact and contactless, Magstripe Contactless (key management, asymmetrical/symmetrical cryptography, key distribution, dos and don'ts, Offline and Online Cryptography such as ARQC/ARPC, SDA/DDA/CDA, etc.).

6. **Questions – round up – closure day 1**

Intended Audience

Day 1 is suitable for **Experts** with a technical oriented focus as well as **Executive** level managers. Basic knowledge of EMV and Basic knowledge of financial transaction systems will be an advantage.





Day 2

7. **EMV SmartCard Basics**

Before the technical aspects of an EMV transaction flow are explained, it is important to understand the basics of EMV smartcard technology.

This module explains the basics of EMV smartcard technology by looking at the card topology, file structure and other aspects relevant to EMV.

8. **EMV Technical Transaction Flow**

This module covers in technical detail the EMV transaction flow between card, terminal (POS and/or ATM), acquirer host, payment network, and the issuer host. All relevant techniques (SDA, DDA, CDA, Issuer Scripting, etc.), data-elements, and terminology (CDOL, Issuer Action Codes etc.) are explained. Special attention is paid to the EMV commands, the card file structure, risk management and the different card features between Visa and MasterCard. Best practices, insights and dos and don'ts are covered throughout the various steps of an EMV transaction.

9. **EMV Exercises**

10. **Kernel ICS/LOA**

This presentation covers in detail the various parameters of the Implementation Conformance Statement (ICS) that are required in order to define the EMV behavior of an acceptance device. The ICS is used in conjunction with the EMVCo. Letter of Approval (LOA), which is used by the acquirer to select the relevant ICS from the various ICS' that get approved with each of the vendor's LOAs.



Intended Audience

Day 2 is suitable for people with a technical oriented focus. All attendees must have attended day 1 of this customized training. Day 2 will focus on the technical matters of EMV via presentations, discussions and practical experiments.

Required skills & expertise

To attend day 2 a technical background / view is required. Day 2 will provide a good understanding of what happens 'under the hood' in an EMV infrastructure.



Day 3

11. EMV Impacts Across Various Payment Verticals

This module will explain some of the EMV implementation options and impacts on the following merchant types:

- Gratuity (Tip environments)
- Dynamic Currency Conversion (DCC)
- Lodging
- Refund
- Cashback
- Quick Payment Services (QPS)
- Quick Chip/MChip Fast
- Merchant Stand-in

12. Certification Test Cases

13. EMV Contactless Basics

Before the technical aspects of the various EMV contactless transaction flows are explained, it is important to understand the basics of EMV contactless technology.

In this module we will:

- **Learn** the basics of EMV contactless technology.
- **Understand** the EMV technical standards for contactless payments.

14. CTLS Technical Transaction Flow

This presentation covers in technical detail the various contactless transaction flows (Visa, MasterCard and Amex only) between card, terminal, acquirer host, payment network, and issuer host. All relevant techniques (SDA, CDA, Issuer Scripting, etc.), data-elements, and terminology (CDOL, Issuer Action Codes etc.) are explained. Special attention is made to the differences between Magstripe and EMV grade Contactless. Also the differences between Visa payWave, MasterCard PayPass and Amex Expresspay are described in detail.



15.

Questions – closure day 3

Intended Audience

Day 3 is suitable for people with with a technical oriented focus. All attendees must have attended days 1 & 2 of this customized training. Day 3 will focus on the technical matters of Contact and Contactless EMV via presentations, discussions, exercises and practical experiments.

Required skills & expertise

To attend day 3 a technical background / view is required. Day 3 will provide a good understanding of what happens 'under the hood' in an EMV & Contactless infrastructure.