International Payment Scheme
Contactless Payment Seminar
Banking & Payment Services
ADVANCED COURSES
Course Reference: B1008S
Contactless payment is expected to become one of the dominant modes of transaction within the next couple of years with already large deployment in the US, numerous projects in Asia and pilots in Europe.

During this two-day seminar you will study contactless implementations defined by MasterCard and Visa (MasterCard PayPass, Visa Contactless) and focus on the main challenges when launching a contactless payment program.

Objectives
At the end of the training, you will:
- Have an overview of the current contactless payment programs implemented by Visa, MasterCard and EMV
- Evaluate the impact of contactless migration
- Identify and quantify the tasks needed to launch a contactless payment program

Key topics
- MasterCard PayPass contactless payment implementation
- Visa Contactless payment implementation
- Contactless security level defined by Visa and by MasterCard
- EMV Entry Point Specifications
- Impacts and scenarios of migration

Who should attend
People involved in the smart card activity:
- Marketing managers
- Technical project managers
- Banking Project managers
- Product managers

Each session consists of
- A complete course manual

Pre-requisites
- Basic knowledge about smart cards.
- This course is held in English. On customer request a session in French can be organized.

Duration:
- 2 days

Location:
- Onsite at customer premises, or at one of the Thales training centers. Please contact us for more details.

Course fee:
- €1499 per attendee, Price does not include taxes nor travel expenses
When performed at customer premises, the agenda is tailored to customer attendance profile. The standard agenda is provided below:

**AGENDA**

### Business Overview of Contactless Payment

- General technical overview of contactless implementations defined by Visa and MasterCard
  - Comparative analysis of the implementations defined respectively by MasterCard and Visa for magstripe acquiring environment and chip acquiring environment

### EMV Contactless Specifications

- Analysis of the EMV Contactless Entry Point Specifications allowing a terminal to support several contactless implementations (for example contactless implementations defined by MasterCard and Visa)

### Detailed analysis of the contactless implementation defined by MasterCard

- Analysis of the MasterCard Contactless Transaction Flow (PayPass Magstripe / PayPassChip)
- Detailed analysis of MasterCard PayPass Risk Management Algorithm
- Algorithm used for generation of the MasterCard CVC3

### Detailed analysis of the contactless implementation defined by Visa

- Analysis of the Visa Contactless Transaction Flow (Visa MSD / Visa qVSDC)
- Detailed analysis of Visa Risk Management Algorithm (detailed analysis of the options defined by Visa for qVSDC implementation (VL mode, LV and CTTA mode, LV or CTTA mode))
- Analysis of Visa Fast DDA algorithm
- Algorithm used for generation of the Visa Dynamic CVV
- Analysis of Visa Cryptogram version 17

### Conclusion
## Related courses

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMV Business Impacts (B1001I)</td>
<td>Mastering EMV Implementation (B1002I)</td>
</tr>
<tr>
<td>EMV Migration for Issuers (B1003S)</td>
<td>International Payment Scheme Contactless Payment Seminar (B1008S)</td>
</tr>
<tr>
<td>Contactless payment Technology (B1021S)</td>
<td></td>
</tr>
</tbody>
</table>

For further information about registration, course schedule: please contact us via email to: bps_training@thalesgroup.com or visit our web site: https://www.thalesgroup.com/en/markets/digital-identity-and-security/banking-payment/consulting