



Smart Card
Alliance



EMV Testing and Certification

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EMV Testing and Certification

- **Testing and Certification at a Glance – Today’s View**
- **New Certification Requirements**
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- **Test Card Facilities/Use**
- **EMV T&C Considerations**
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- **EMV T&C Summary**



T&C at a Glance – Today’s View

- **Development and Testing Process Well Defined**
 - Clear processes, procedures, support systems, all in place today
 - Industry standards, PCI, PA-DSS and others are clearly defined and known
 - Acquirer certification process clearly defined, roles/responsibilities known
 - Class “A” and “B” certifications exist depending on solution needs

- **Testing Tools**
 - Test cards, plenty available, easily replicated as needed (with permission)
 - Host specifications, well defined
 - Test hosts, procedures to obtain desired testing result
 - MSD cards and Contactless MSD cards available for testing

- **Knowledge Base**
 - Many developers in the US market know and can execute the process
 - Automation in place at some levels to make this a quick and easy process



New Certification Requirements

- **New Certification Requirements**
 - EMVCo L1 (hardware) certification
 - EMVCo L2 (software) certification
 - Card Brand Testing (AKA, End to End, or Level 3)
 - Visa - ADVT, aVSDC
 - MasterCard - M-Tip, PayPass Tip
 - Amex/JCB – AEIPS
 - Discover - P-DAS, ZIP



T&C Procedure Changes

- **Certification Consistencies**
 - PA-DSS requirements, data protection of the card
 - General testing, message formats, settlement testing
- **Pre-Certification Submission**
 - Acquirers will likely require solution testing to all card brand kits
 - Contact/Contactless testing across card decks/simulators
 - Receipt requirements, new data to consider
 - Exception handling, fall back processing, error messages
 - EMV configuration, set to acquirer needs verification



T&C Procedure Changes

- **Certification Submission**
 - Requirements may dictate more “involved” end to end
 - Research required on any issue reported
 - Problem with code, with test card, with script, with L1 or L2? Or no issue at all as behavior is explained. All possible!
 - Certification timing, expect longer times for this process
 - Heightened expectations for quality of the submission due to the cycle time



T&C Test Card Facilities/Use

- **Test Cards, Test Facilities for EMV**
 - Actual test cards (decks) are available from card brands
 - Simulators for the card products also available
 - Cost considerations, decks and simulators are one time cost, plus maintenance
- **Card Usage**
 - EMV card functions, Interoperability
 - Cards/Simulators guide the card brand testing
 - Contact and Contactless products have their own tests
- **Training for the Card Brand Testing, Card Usage**
 - Initial training a must for card decks, and for simulators. “You need to understand the test, and the results”
 - Ongoing training, should be considered for decks and simulator(s)



EMV T&C Considerations

- **Vendor Choices, Hardware and System Software**
 - Requirements of L1/L2 certifications
 - EMVCo provides a current certified list
 - EMV Certification Expiration Dates, Sunset Dates
- **Tool Sets for Development, Testing and Certification**
 - Choose what kits best fit your organization, cost/usage being a factor
 - Consider number of developers, testing and cert staff
 - Scalability of tool to deliver “cert proof” results through scripts and support of the tool



EMV T&C Considerations

- **Payment System Development**
 - Where/how payments exist in your system
 - Areas you change frequently, know and isolate
 - As possible, isolate the payment components
 - Choose solutions that help isolations
 - Work with your acquirer to minimize your use cases for recertification



T&C Organization Considerations

- **Training Plan for EMV**
 - Initial training on EMV, ongoing for updates
 - Make training mandatory, learn and know EMV
 - Include all areas of the company, from development to help desk employees
 - Determine correct level of knowledge needed by each group, set the standard
- **Understanding of Acquirer Implementation**
 - Learn the implementation, covering all EMV areas
 - Expect training but own the process for your org
- **Demo/Marketing Trade Shows**
 - Don't forget test cards!



T&C Impacts – “Real World”

From the Canadian Roll Out of EMV

- **Transaction Flow Changes**
- **Card Decks/Tools, Necessary Investment**
- **Time to Prepare for a Certification**
- **Time to Execute the Certification, Support During**
- **Exception cases higher, requiring research**
- **Card product changes in field, repercussions to installed systems**
- **Industry learning together**



EMV T&C Summary

- **Plan your solutions, software and hardware, with testing and certification as a decision criteria**
- **Plan training, initial and ongoing, to become knowledgeable**
- **Determine tools that fit your organization and your T&C needs**
- **Know your certification requirements, for your system, your acquirer**



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Questions?

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