EMVCo Encourages Domestic Payment Systems To Use Terminal Integration Testing Framework

Process optimises and streamlines EMV® terminal testing requirements in local marketplaces

31 March 2020 – EMVCo is encouraging domestic payment systems (and other similar entities) to use its new EMV® terminal integration testing framework to reduce the time needed to get new and updated acceptance terminals live and operational.

The global technical body has launched its new Level 3 (L3) Participant System Identifier (PSI) service. This allows domestic payment systems to include their own terminal integration testing requirements using an EMVCo pre-assigned identifier in an EMVCo qualified test tool, alongside those of the international payment systems, providing full testing synergy.

These tools can then be used to automate the selection and execution of applicable tests that confirm the integration of a new or upgraded (hardware and/or software) EMV payment or cash dispensing terminal with any merchant or bank system. This process supports end-to-end transaction acceptance testing before use.

“The value and role of product testing cannot be underestimated as it brings technical stability and confidence to all stakeholders, but it can also be time-consuming and complex,” comments Bruce Rutherford, Chair of the EMVCo Executive Committee. “As a community, we need to continually work to achieve the right balance between interoperability and innovation.”

Following feedback from the merchant and wider payment community to identify potential synergies to deliver a more streamlined integration testing experience, EMVCo has been working to address this balance and provide a common framework to enhance interoperability, reduce ambiguity and encourage automation through digital machine-readable testing files.

Rutherford adds: “By standardising the testing file formats and tool qualification in this manner, we improve the quality of the test tools, increase flexibility and consistency, and reduce time spent testing and certifying the integration of EMV terminals. This benefits the entire payment community – domestic and global payment systems, processors, merchants, test tool providers and test laboratories – and enables any interoperability issues to be quickly identified and resolved.”

To learn more read the Level 3 Testing FAQs.

– ENDS –
Notes to Editors:

EMV® is a registered trademark in the U.S. and other countries and an unregistered trademark elsewhere. The EMV trademark is owned by EMVCo, LLC.

What does EMV Level 3 mean?

EMVCo Level 3 (L3) Testing aims to validate the integration of an EMV payment or cash dispensing terminal with any merchant or bank systems to ensure end-to-end transaction acceptance. L3 testing includes the series of processes required to ensure that a new or upgraded terminal (hardware and/or software) meets the specific requirements and recommendations of the individual payment systems before being deployed in the field.

EMVCo has historically been involved in managing Level 1 and Level 2 acceptance device testing processes, collectively known as Type Approval.

- Level 1 focuses on the physical hardware capabilities of a payment card or device, ensuring its electromechanical components meet the required specifications.
- Level 2 focuses on the software or firmware interactions between the card and terminal, specifically driven on the terminal side by a component called the ‘EMV Kernel’.

For Level 1 and 2 testing, the requirements for compliance are detailed in the EMV Chip Specifications. More information about the Type Approval process can be found here. Level 1 and Level 2 testing is typically performed in ‘component’ mode – meaning that each area is tested independently of the other, and typically only within a laboratory environment.

In contrast, L3 requires that the terminal be complete with its EMVCo-approved hardware, software kernel, and payment application in place, and must be connected to a test environment or host simulator which mimics authorisation responses from payment systems.

Unlike Level 1 and 2, EMVCo does not plan to incorporate EMV L3 technical requirements into its core specification development.

About EMVCo:

EMVCo is the global technical body that facilitates the worldwide interoperability and acceptance of secure payment transactions by managing and evolving the EMV Specifications and related testing processes. EMV is a technology toolbox that enables globally interoperable secure payments across face-to-face and remote environments. Adoption of EMV Specifications and associated approval and certification processes promotes a unified international payments framework, which supports an advancing range of payment methods, technologies and acceptance environments. The specifications are available royalty free, designed to be flexible, and can be adapted regionally to meet national payment requirements and accommodate local regulations.

EMVCo is collectively owned by American Express, Discover, JCB, Mastercard, UnionPay and Visa, and focuses on the technical advancement of the EMV Specifications. To provide all payment stakeholders with a platform to engage in its strategic and technical direction, EMVCo operates an Associates Programme and encourages all interested parties to get involved.

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