

EMVCo Launches the EMV® Contactless Kernel Testing Process

16 October 2024 – Global technical body [EMVCo](#) has confirmed the [testing process](#) for the new EMV® Contactless Kernel Specification ([EMV® Contactless Specifications for Payment Systems: Book C-8 – Kernel 8 Specification](#)) is now available. By evaluating whether products will perform in accordance with the specification when deployed, approval testing will support the evolution of contactless and mobile payments and simplify global acceptance.

A kernel is software that enables payment acceptance devices to process transactions. The new EMV Contactless Kernel Specification was published in 2022 to address industry demand for a contactless kernel that can be used by all stakeholders globally. Over time, this can help reduce the number of contactless kernels that stakeholders need to support and maintain – creating opportunities for merchants, solution providers and payment systems to reduce costs and improve time to market. The new EMV Contactless Kernel can be used with the existing terminal infrastructure, can co-exist with existing contactless kernels, and includes advanced security technologies to protect against future threats.

The EMV Contactless Kernel approval process leverages EMVCo’s proven and established testing infrastructure to confirm products meet the technical baseline for performance and functionality when deployed. An [EMVCo accredited laboratory](#) tests the product using qualified tools according to the test plan defined by EMVCo. If the requirements are met, EMVCo issues a Letter of Approval (LoA) to the product provider and lists the [approved product](#) on the EMVCo website.

To ease the transition for stakeholders deploying the new EMV Contactless Kernel, the approval process supports two approaches. The EMV Contactless Kernel can be tested as one element of a full contactless acceptance device, which reflects the approach currently used for other contactless kernels. Additionally, EMVCo has introduced standalone testing of the EMV Contactless Kernel itself to support different deployment options for product providers.

EMVCo has also worked to enhance and streamline the approval testing process by enabling increased automation, helping to realise efficiencies and further accelerate the development cycle.

“EMVCo’s work to advance testing processes and the supporting infrastructure is key to enabling seamless and secure payments,” comments Aaron Armstrong, EMVCo Executive Committee Chair.

“The availability of testing for the new EMV Contactless Kernel marks a significant milestone. Stakeholders can now rely on EMVCo for comprehensive approval testing for EMV Contactless products, just as they have for EMV Contact Chip for over 25 years. This will help to simplify global acceptance, while laying a strong foundation for innovation to support the continued evolution of contactless payments across the globe.”

EMVCo engaged extensively with the wider payments industry to understand marketplace needs and determine the best approach for a new EMV Contactless Kernel Specification and the supporting approval process. It will continue to work closely with its Associates, Subscribers and industry partners to explore opportunities to enhance testing and approval activities.

– ENDS –

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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.

About EMVCo:

EMVCo creates and manages EMV Specifications and programmes that enable seamless and secure card-based payments for businesses and consumers worldwide.

EMV Specifications support technologies including EMV Chip [Contact](#), EMV Chip [Contactless](#), [Mobile](#), [QR Code](#), [Secure Remote Commerce](#) (SRC), [3-D Secure](#) (3DS) and [Payment Tokenisation](#) and are widely used by the payments industry to develop products and services that deliver trusted and convenient in-store, online and remote card-based payments.

As a global technical body, EMVCo is collectively owned by American Express, Discover, JCB, Mastercard, UnionPay and Visa. Hundreds of payments stakeholders, including merchants, banks and technology providers, participate as EMVCo [Associates](#) and [Subscribers](#) to develop, evolve and enhance flexible EMV Specifications that support innovation and address marketplace needs. All EMV Specifications are available royalty free on the EMVCo website.

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