



EMV Payment Tokenisation Specification – Technical Framework v2.0 Frequently Asked Questions (FAQ)

1. What is an EMV® Payment Token?

An EMV Payment Token is a surrogate value that replaces a primary account number (PAN) in the payment ecosystem. It is used as part of the payment chain and, when submitted in a transaction to the payment system, would cause a payment to occur. One PAN may have multiple EMV Payment Tokens associated with it depending on the usage scenario.

Payment tokens are restricted to specific domains. For example, a payment token may be usable only within the e-commerce acceptance channel at a specific merchant. They can be updated for a variety of reasons, such as in the event of a lost or stolen device or other lifecycle events.

2. What is the role of EMVCo within this area?

EMVCo defines the technical framework to generate, deploy and manage payment tokens in a reliable and interoperable manner globally. This technical framework must maintain compatibility with the existing payment infrastructure while delivering consistency and achieving a common level of robust security.

3. What are the benefits of using a payment token based on EMVCo's framework?

Payment tokenisation enhances the underlying security of digital payments by potentially limiting the risk typically associated with compromised, unauthorised or fraudulent use of PANs. Payment tokenisation achieves this by replacing PANs with payment tokens that differ significantly in terms of the ability to control or restrict usage to a particular transaction environment, device or other domain.

The implementation of payment tokenisation solutions aligned with EMV Payment Tokenisation Specification – Technical Framework v2.0 provides opportunities to enhance the security of digital payments for issuers, merchants, acquirers, payment processors and stakeholders in the broader acceptance community.



4. What are the outputs of EMVCo in relation to payment tokenisation?

- [EMV Payment Tokenisation Specification – Technical Framework v2.0](#). The document describes the payment tokenisation landscape, key entities and the data fields to be implemented to support a payment tokenisation service. From a technical perspective, the framework explains the acceptance of payment tokens as a replacement to PANs and how security can be improved by limiting their use to a specific environment.
- [EMVCo's registration service for token service providers](#). EMVCo has established a Token Service Provider Code (TSP Code), a three-digit code assigned to a TSP and maintained by EMVCo. The TSP Code is included in the 'token requester ID', which uniquely identifies the pairing of a 'token requester' with the TSP. This helps achieve transparency of the entity that provided the payment token.
- [EMV Payment Account Reference \(PAR\)](#). This newly defined data element enables merchants, acquirers and payment processors to link together a cardholder's EMV Payment Token with their PAN transactions without needing to use their underlying card account number. This enables all payment transactions – regardless of how they are initiated - to be processed in a consistent manner providing the payment acceptance community with the mechanism to support its consumers' transactional history for security and regulatory reasons. Examples include risk analysis and anti-money laundering, as well as to value-added services such as loyalty and couponing.
- [EMVCo's registration process for Banking Identification Number \(BIN\) Controllers](#). A BIN Controller is responsible for the governance of PAR for the BINs that are under its direct control, including determining the approach to PAR data generation meeting the industry aligned PAR data format defined by EMVCo. BIN Controllers must register with EMVCo to be assigned a BIN Controller Identifier which is the unique first four characters of a PAR value.

5. What are the main changes in version 2.0 of the payment tokenisation technical framework?

The latest document addresses the adoption of payment token use cases in e-commerce beyond card-on-file, and offers enhancements to how payment tokens can be controlled within a single payment channel. It also builds on the ecosystem established in version 1.0 by refining the EMV payment tokenisation roles of token service provider and token requestor, introducing the roles of token programme merchant and token user, and detailing their interrelationships within the global payments environment.



Key updates within version 2.0 include the:

- Recognition that the entity introducing payment tokenisation to a payment ecosystem is responsible for establishing a **payment token programme**. This programme will define the business policies and processes for the generation, issuance and full lifecycle management of payment tokens to ensure their effective delivery.
- Additional detail on **payment token processing** which clarifies the use of a payment token in the authorisation process.
- Introduction of new concepts around shared and limited use payment token to support the expansion of **e-commerce use cases**.
 - *Limited use payment token is used for a single cardholder-initiated transaction and subsequent merchant-initiated transactions.*
 - *Shared payment token is used by one or more merchants or token users in scenarios where token requestors are not the merchant or token user.*
- Introduction of the **payment token assurance method** (replacing token assurance level) to enable a token requestor, such as an issuer, digital wallet provider or merchant, to have information available related to the identification and verification processes associated with the issuance of a payment token.
- Expansion of the **payment token issuance processes** to enable the request of a payment token with a value other than a PAN.
- Integration of the PAR Specification Bulletin-167.

6. **Will the EMV Payment Tokenisation Specification – Technical Framework v2.0 be available to all parties without charge?**

Yes. The EMV Payment Tokenisation Specification – Technical Framework v2.0 is available on a royalty-free basis to all industry participants.

7. **How can the EMV Payment Tokenisation Specification – Technical Framework v2.0 be adopted by the payment systems and other payments stakeholders?**

EMVCo provides a ‘tool box’ of technical documents and guidelines that facilitate the worldwide interoperability and acceptance of secure payment transactions. These materials are designed to be flexible and can be adapted regionally to meet national payment requirements and accommodate local regulations.

Any industry participant wanting to build an EMV payment token solution can use the technical framework.

EMVCo does not mandate the use of its specifications and industry participants are free to choose from any or all of the related EMV technical documents to address their customer and market needs.



To learn more about the role EMVCo plays within the payments ecosystem, read its [Operating Principles](#).

8. Will EMVCo be offering a supportive testing and certification infrastructure for payment tokenisation?

There can be no certification from EMVCo in its traditional sense due to the framework nature of payment tokenisation and the diverse environment of the ecosystem and related infrastructure.

EMVCo has established and will manage the EMV TSP Code and BIN Controller Identifiers Registration Programmes to facilitate unique identification of the entities within this space.

9. Will the technical framework work for all payment systems, card products, networks and payment types such as credit, debit, commercial or prepaid for example?

The technical framework is designed to be inclusive of all product types and adaptable to implementer requirements.

10. Can industry participants develop proprietary solutions that will operate in adherence to the EMV technical framework?

While all EMVCo technical documents are designed for global interoperability, there is ample opportunity for implementers to create their own business solutions and proprietary add-ons, alongside additional services.

This level of implementation flexibility and support for a range of business models and use cases has been core to EMVCo's work and continues to be a key priority for its payment tokenisation activity.

13. Will other industry stakeholders be able to provide input into EMVCo's payment tokenisation activity?

Yes. The [EMV Payment Tokenisation Specification - Technical Framework v2.0](#) can be downloaded without charge and implemented on a royalty-free basis. EMVCo's aim in publicly sharing this specification technical framework is to promote transparency, maximise industry engagement, and encourage marketplace comments so that the document can continue to evolve in line with commercial and technical industry needs.



EMVCo has already witnessed significant industry interest in the specifications and calls on other parties to engage in its work through the [EMVCo Associates Programme](#), a forum that allows stakeholders to play an active role in providing input to the technical and operational issues connected to all the EMV Specifications – including payment tokenisation – and related processes.

Industry participants can also stay informed of this activity through the [EMVCo Subscriber Service](#).

14. In addition to engagement with industry participants through the EMVCo Associates Programme, how is EMVCo engaging with other standardisation bodies?

EMVCo does not work in isolation. It engages with other industry bodies, including many merchant groups globally, to understand and support individual sector requirements. EMVCo has started engagement with ANSI ASC X9, ISO TC68/SC2/WG13, PCI SSC and other industry partners to advance the various tokenisation standards and specifications to help ensure a harmonised set of industry documents related to payment and non-payment tokenisation. Clarity and consistent use of terminology will allow such standards and specifications to be clearly communicated to the marketplace.