



## EMVCo Operating Principles

This document provides an overview of EMVCo's operating principles, including its governance, operations, and the role of EMV® Specifications in the wider payment community. Audiences reading this material will gain a better understanding of the relationship and distinctions between EMVCo and its member-owners.

### Organisation

1

**EMVCo is a member-owned technical body that owns, enhances and promotes the EMV Specifications to facilitate their adoption as an inter-industry compatibility standard.**

Throughout the 1990s, companies in countries across the globe began to enhance payment card security by deploying microprocessor chip technology that was designed to meet domestic payment requirements and specifications. These domestic designs were not interoperable across geographic borders, however, and posed challenges to both business and consumers. As a result, although chip technology could be used to protect against fraud in domestic transactions, magnetic stripe technology was the only acceptance method when cardholders travelled outside their home countries.

EMVCo's formation in 1999 as a global technical body enabled the development and management of specifications to address this challenge by facilitating global interoperability and enhancing payment security. EMV Chip Specifications were therefore designed to reduce fraud at retail store locations, as the payment information stored on an embedded microchip is very difficult to counterfeit. Chip cards offer transaction security that traditional magnetic stripe cards could not provide.

2

**EMVCo's scope has evolved over the past two decades beyond exclusively focusing on face to face payment acceptance to also include e-commerce and digital transaction environments.**

The EMV Specifications have evolved beyond EMV chip and now provide a comprehensive technology toolbox to help industry participants develop and use secure and globally interoperable payment methods for both physical and digital commerce.

For more information on EMVCo please visit: [www.emvco.com](http://www.emvco.com)

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.

# EMV Technologies

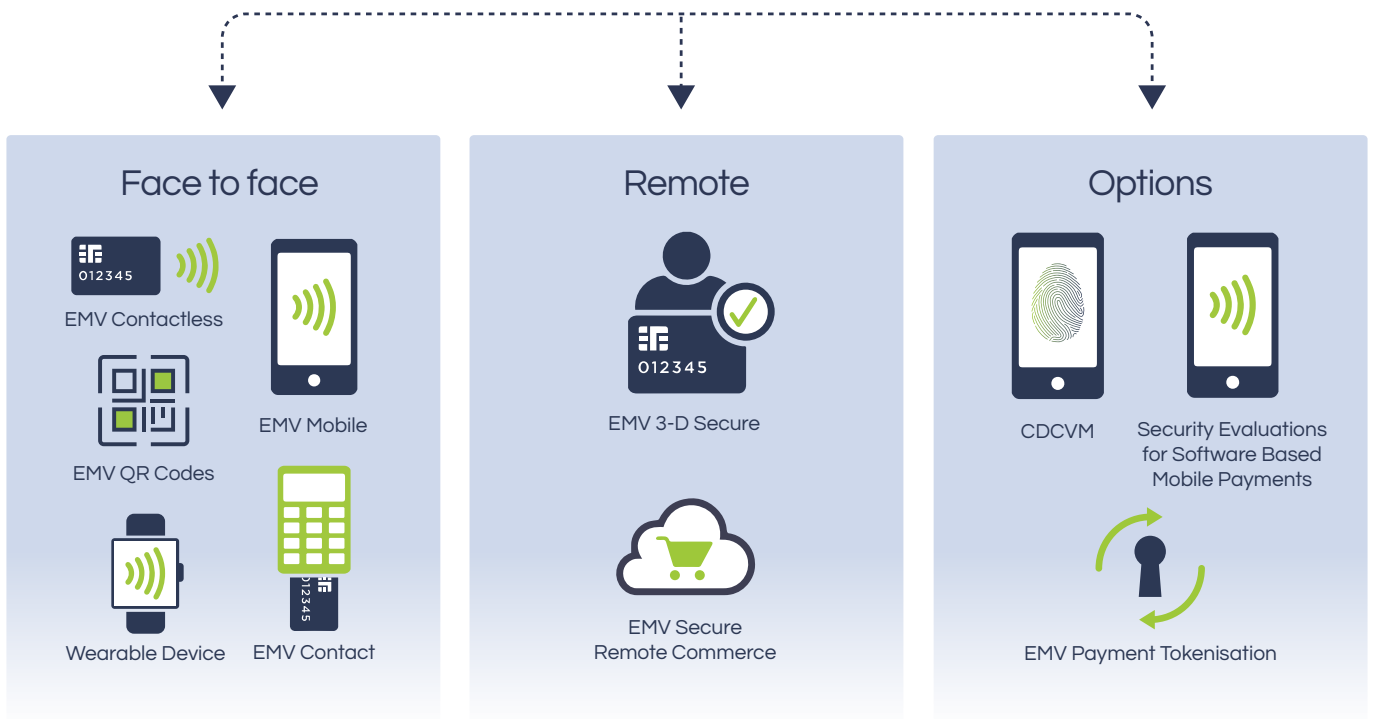


Figure 1: The EMV technology toolbox

## Face-to-face:

- EMV Chip - describes the requirements for global interoperability between chip-based payment applications and acceptance terminals to enable secure contact and contactless transactions and other emerging payment technologies.
- EMV QR Codes<sup>1</sup> - simplifies the development and potentially broadens the acceptance of both consumer-presented and merchant-presented QR Code payment solutions.

<sup>1</sup>QR Code is a registered trademark of DENSO WAVE.

## Remote:

- EMV 3-D Secure (3DS) - promotes frictionless consumer authentication and enables consumers to authenticate themselves with their card issuer when making card-not-present (CNP) e-commerce purchases. The additional security layer helps prevent unauthorised CNP transactions and protect the merchant from exposure to CNP fraud.
- EMV Secure Remote Commerce (SRC) - offers an approach to promote security and interoperability within the card payment experience in a remote payment environment.

## Additional security:

- EMV Payment Tokenisation - enhances the underlying security of digital payments by potentially limiting the risk typically associated with compromised, unauthorised or fraudulent use of Primary Account Numbers.
- Consumer Device Cardholder Verification Method (CDCVM) - promotes confidence and consistency for Cardholder Verification Methods (CVM) performed on the consumer device, rather than the merchant system.
- Security Evaluations for Software Based Mobile Payments - security evaluations promote a robust security foundation for software-based mobile payment solutions.

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EMVCo is a global technical body with worldwide reach and relevance

Implementation of EMV Specifications enables participants in the payment ecosystem to have confidence that the products they issue work on a global secure acceptance infrastructure, regardless of where their customers make a payment.



Figure 2: EMVCo's mission is to focus on global interoperability

EMVCo currently has six members.

American Express, Discover, JCB, Mastercard, UnionPay and Visa all have equal 1/6 ownership of EMVCo.

A Board of Managers directs the operations of the technical body, and an Executive Committee provides oversight and a strategic direction as it relates to the evolution and management of the organisation.

EMVCo also has various working groups and task forces, which are responsible for developing and publishing the EMV Specifications, and evolving and managing EMVCo's testing and approval processes.

These groups consist of payment systems members' staff who are technical subject matter experts.

No individual member is able to unilaterally control the direction of EMVCo. In the decision-making process, the members take guidance from the industry through the EMVCo Associates Programme (see further details below).

Visit About EMVCo for more information or to view the latest organisational structure and Board of Managers representatives.

For more information on EMVCo please visit: [www.emvco.com](http://www.emvco.com)

# Objectives




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**Adoption of EMV Specifications promotes a unified international payments framework, which supports a range of secure and globally interoperable payment methods, technologies and acceptance environments.**

EMV is a technology toolbox that enables globally interoperable secure payment across face-to-face and remote environments.

Where relevant and possible, EMVCo administers testing and approval processes, enabling EMV stakeholders to test products and solutions for compliance with the EMV Specifications.

EMV adoption enables the payments community to:

-  Support payment security and transaction risk management. The more engagement and higher adoption, the more robust the entire infrastructure.
-  Deliver innovative payment solutions.
-  Enhance security, interoperability and acceptance of EMV based payments globally.

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**The EMV Specifications are flexible to accommodate global and local needs.**

The EMV technology toolbox is flexible and designed to be adapted for national payment requirements. There have been multiple implementations globally, each adjusting to accommodate local regulations / needs. These different adaptations are implemented in a way to interoperate within a global payment infrastructure. Stability across borders mitigates points of weakness and creates an international barrier against payment fraud.

The flexibility of the EMV Specifications enables third party implementers to design EMV-compliant solutions that address local needs and legal regulatory requirements.



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**EMVCo makes the EMV Specifications available on a royalty-free basis to all industry participants and to the public.**

Any interested party can obtain the EMV Specifications by downloading them for free from the EMVCo website. They can also contribute to the development of the EMV Specifications through EMVCo's participation programmes outlined below.

For more information on EMVCo please visit:  [www.emvco.com](http://www.emvco.com)

# Roles and responsibilities

**EMVCo has no involvement in setting liability shift dates or implementation mandates.**

As an organisation striving to facilitate a payments infrastructure that is standardised in terms of security and interoperability, EMVCo plays an important role in bringing together stakeholder interests among payments industry participants. EMVCo, however, does not establish obligations, requirements, or otherwise for the implementation of its specifications. EMVCo does not mandate or enforce EMV compliance or the implementation policies for issuers, merchants and acquirers, which are handled by payment networks independently outside of EMVCo.

For example, individual payment networks publish their own EMV compliance requirements, which may vary from country to country or among industries within a country. Likewise, EMVCo does not engage or contribute to business rules to help encourage the adoption of EMV. These are the independent decisions of the payment systems.

EMVCo	Global, Regional and Domestic Payment Systems
<ul style="list-style-type: none"> <li>• Manage and evolve EMV Specifications</li> <li>• Perform certification of EMV products (where relevant)                             <ul style="list-style-type: none"> <li>• Enhance payment security</li> </ul> </li> <li>• Support emerging payment technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Product development and implementation certification                             <ul style="list-style-type: none"> <li>• EMV mandates or compliance</li> <li>• Commercial incentives</li> </ul> </li> <li>• Fraud liability shift and other policies</li> </ul>

Figure 3: Roles of EMVCo and global, regional and domestic payment systems

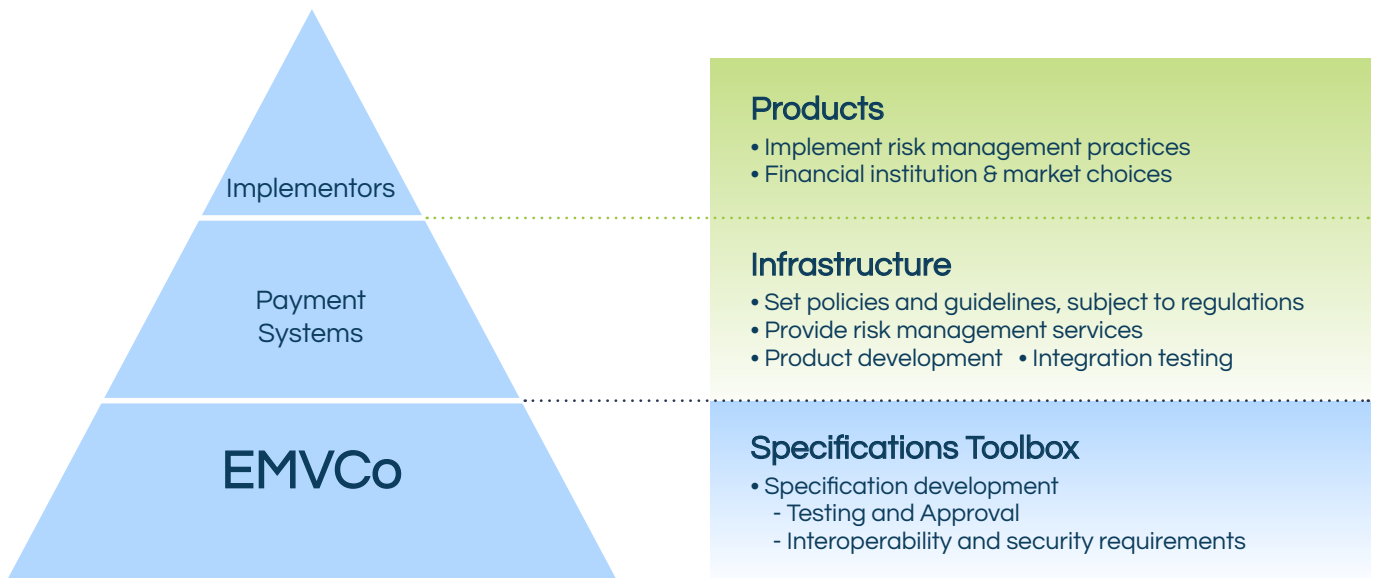


Figure 4: EMVCo provides a foundation for secure payments

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**EMVCo actively engages the payment community in shaping future specifications.**

Active engagement and collaboration with the payments industry is key to EMVCo's proven model for creating, evolving and promoting globally adopted specifications that support innovation and address marketplace needs.

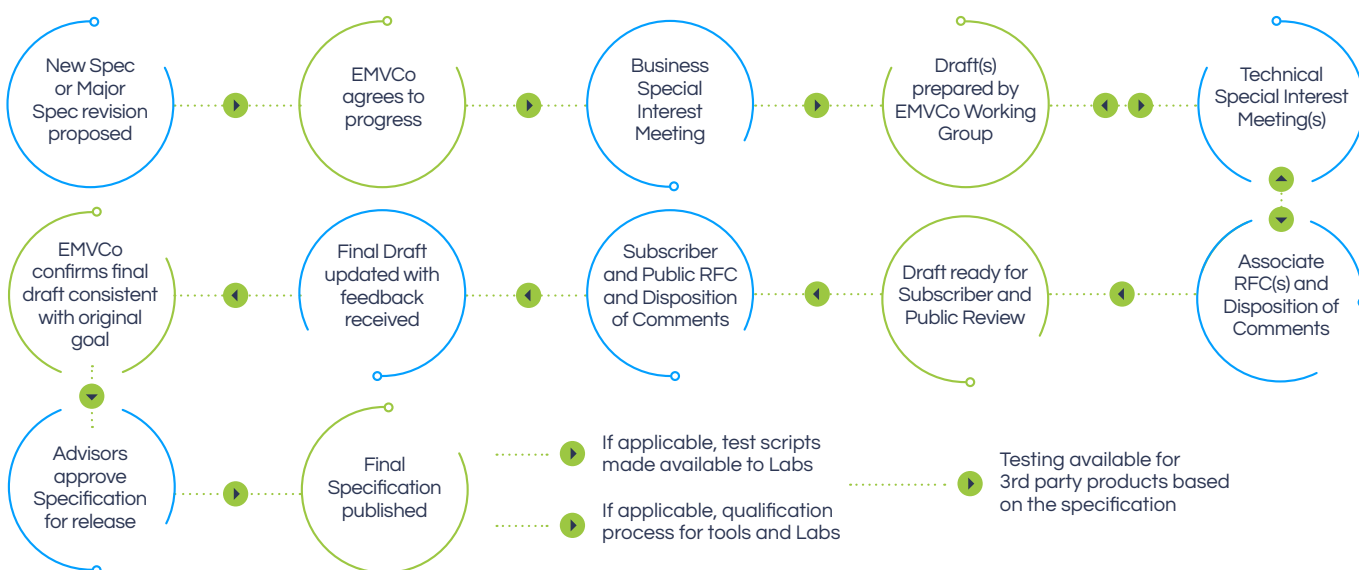
Through the EMVCo **Associates** and **Subscriber** Programmes, merchants, issuers, acquirers, payment networks, financial institutions, manufacturers, technology providers and testing laboratories contribute their knowledge and expertise to the development of EMV Specifications.

To find out more, visit the [EMVCo website](#).

Opportunities to participate in the specification development process include:

- 🌀 Business and Technical Special Interest Meetings (SIM) when new specifications are being developed or major updates are being considered.
- 🌀 Request for comments enabling EMVCo Associates to review proposals, and a Disposition of Comments being published to summarise the responses.
- 🌀 The release of all EMV Specifications during their development for public consultation.
- 🌀 Voting by EMVCo Advisors to approve the release of new/ or major updates to EMV Specifications.
- 🌀 EMVCo Queries, whereby an Associate, Subscriber or member of the public may ask a question or provide a comment or other input related to an EMV specification or draft specification.

## Specification Development Process



For more information on EMVCo please visit: [www.emvco.com](http://www.emvco.com)

EMVCo connects with other relevant industry bodies.

EMVCo engages with regional and global organisations to receive input and share perspective on areas of respective interest. EMVCo also periodically engages in public education outreach initiatives in regions around the world.

## Multiple bodies provide requirements for security and interoperability

Requirements:



Security Standards Council™



Payment Systems



National Regulators

Specifications:



Standards:



Figure 6: EMVCo works with several technical bodies to ensure alignment

Visit  
[www.emvco.com](http://www.emvco.com) to...

### ...download the latest resources.

A range of materials are available to provide further details on all EMVCo work initiatives, including webinars, webcasts, recorded educational session, FAQs, infographics and much more.

### ...get involved.

Organisations from around the world participate as EMVCo Subscribers and Associates to contribute their knowledge and expertise to the EMV Specifications.