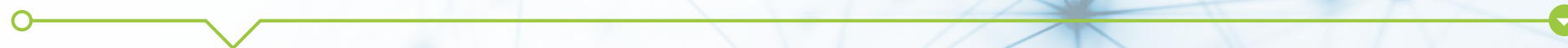


Annual Report 2020

Enabling seamless and secure
card-based payments, globally

Contents



- 03 Enabling Secure and Seamless Payments, Together – Sophie Rainford, Chair of the EMVCo Board of Managers
- 05 2020: EMVCo in Numbers
- 07 2020: Global Industry Collaboration
- 08 2020: Key Technical Milestones
- 10 2021: The Year Ahead in Technology – Bastien Latge, EMVCo Director of Technology
- 12 2021: Engaging an Industry – Brian Byrne, EMVCo Director of Engagement and Operations
- 14 2021: Get Involved
- 15 EMVCo Marks
- 16 Educational Resources

Enabling Secure and Seamless Payments, Together



*Sophie Rainford,
Chair of the EMVCo
Board of Managers*

The role that flexible EMV® Specifications play in supporting innovation and addressing different marketplace needs has been brought into sharp focus over the last year with the unique challenges the world has faced. Rapid advancement means specifications need to develop and evolve accordingly, so it is my clear belief that industry engagement and collaboration has never been so important.

Integral to this are our EMVCo Associate and Subscriber Programmes, which bring together hundreds of organisations from around the world to contribute their knowledge and expertise to shape the development of EMV Specifications.

Like everyone, COVID-19 has meant we had to do things a little differently in 2020. I would like to personally thank all our stakeholders for supporting a successful switch to a virtual engagement model. I am pleased to report that, despite the challenges presented, it has been a year of achievement.

Key initiatives have included our work to support 'touchless' payment technology and new ways of making and accepting payments in-store, cross-sector collaboration to extend the benefits of EMV 3-D Secure to meet regulatory and industry demands, and the launch of the Click to Pay icon to offer familiarity and confidence in a common, seamless, and secure user payment experience.



These, and other significant technical milestones reached in 2020, are testament to the input provided, ideas brought and initiatives proposed by our Associate and Subscriber community, in addition to our close collaboration with technical bodies and industry associations around the world.

As we look ahead to our technical initiatives in 2021 - such as enhancements in cryptography, promoting innovation at the physical point-of-sale and support for safe and convenient online payments - continued engagement will be critical.

While EMVCo's goal is to resume face-to-face meetings with our Associates and payments industry at large, the global situation is uncertain and challenges undoubtedly remain. We are committed to maximising online engagement and education opportunities for our ongoing and new technical development work. Our combination of virtual meetings, webinars, education sessions and conference activity will continue to provide a unique forum for feedback, comment and input from across the payments industry until we can meet in person again and will provide a legacy for enhanced future engagement.



We look forward to working with Associates, Subscribers, industry partners and all other stakeholders to enable card-based payments to work seamlessly and securely worldwide.

EMVCo enables card-based payments to work seamlessly and securely worldwide.



MISSION:

To facilitate the worldwide interoperability of secure payment transactions by developing and publishing the EMV Specifications and their related testing processes



Specifications

Create, evolve and promote EMV Specifications



Testing and Certification

Provide testing processes and certification of products



EMVCo Marks

Manage marks that certify compliance to EMV Specifications



Industry Engagement & Collaboration

Engage & collaborate with the payments industry

2020: EMVCo in Numbers

A roundup of key data points from 2020 highlighting how EMVCo has advanced its mission to enable seamless and secure card-based payments worldwide.

Industry Engagement

EMVCo engages and collaborates with hundreds of organisations around the world to develop EMV Specifications.

"EMVCo casts a wide net of technology providers and payments organizations that it communicates with when developing specs. It's a list that includes virtually every key payments company, technology provider, security firm or financial services organization."

David Heun, Associate Editor, PaymentsSource

EMVCo Associates
94



Subscribers
426

Working Groups and Task Forces
19

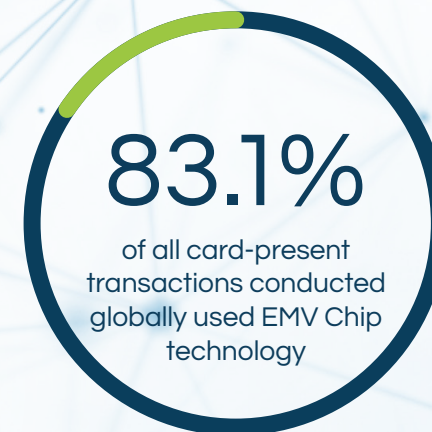
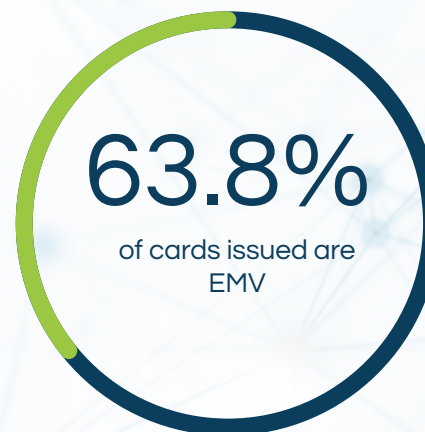
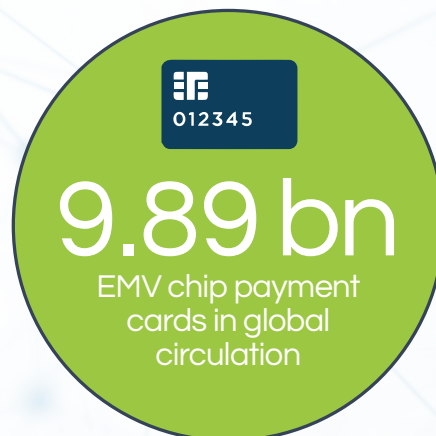
Interactive Meetings
20

Queries Answered
764

2020: EMVCo in Numbers

EMV Chip Deployments

EMV Chip technology has been adopted worldwide to improve face-to-face transaction security, reduce counterfeit cards and limit fraud.



Testing and Certification

EMVCo brings confidence to the payments ecosystem through the testing and certification of card-based payment products that are compatible and secure in accordance with EMV Specifications.



2020: Global Industry Collaboration

EMVCo has continued to collaborate extensively with industry, regional and national bodies to support the advancement of its mission to enable seamless and secure card-based payments.

EMVCo also participates in conferences and events to educate and engage with stakeholders across the world.

- APSCA
- ECSG
- ENISA
- European Payments Council
- FIDO Alliance
- GlobalPlatform
- GSMA
- International Air Transport Association (IATA)
- International Organisation for Standardization (ISO)
- NFC Forum
- Nexo Standards
- PCI Security Standards Council
- Secure Technology Alliance
- U.S. Payments Forum
- Worldwide Web Consortium (W3C)

- MAG Mid-Year Conference
- STA Payments Summit
- MAC Level Up
- MRC webinar
- ETA Transact Connect
- USPF Virtual Member Meeting
- Payments Ed Forum
- Vendorcom
- ICCG
- FIDO Authenticate
- FIDO Plenary
- USPF Member Meeting
- MAG Asia Virtual Connect
- APSCA Next Generation Cards 2020 Virtual Summit and Expo



2020: Key Technical Milestones

EMVCo engages and collaborates with the payments industry to develop EMV Specifications and support testing, product approval and marks programmes which support the delivery of reliable and convenient payments globally.

Initiatives are progressed by various working groups, testing groups and task forces staffed by payment system subject matter experts.



EMV Chip - Contact, Contactless and Mobile Payments

COTS Early Adopter Programme

🕒 Launched a pilot testing programme to evaluate consumer mobile devices for contactless payment acceptance to support merchants and acquirers that want to use commercial off-the-shelf (COTS) consumer mobile devices to accept contactless payments.

Wireless Task Force

🕒 Launched the Wireless Task Force to identify how wireless technologies such as Wi-Fi, ultra-wideband (UWB), Bluetooth Low Energy (BLE) and mobile data may enhance the payment experience.

TapToMobile Task Force

🕒 Created the TapToMobile Working Group to explore the differences between a typical POS (or typical mPOS) and a TapToMobile solution, and how these differences impact the consumer and merchant experiences.

L3 Testing Framework Expansion for Domestic Payment Systems

🕒 Introduced the new Level 3 (L3) Participant System Identifier (PSI) to reduce the time needed for domestic payment systems to get new and updated acceptance terminals live and operational.

Pilot EMV CDCVM Solution ID and Database

🕒 Piloted the EMV Consumer Device Cardholder Verification Method (CDCVM) Solution ID and Database to enable better-informed authorisation decisions.

Secure Element Broker Interface Specification

🕒 Collaborated with GlobalPlatform on the Secure Element Broker Interface Specification to simplify and bring greater trust to the authentication of digital services on smartphones and biometric-enabled cards.

ASRPD Registration Process

🕒 Established a registration process to officially list defined entities that have been assigned EMV Application Selection Registered Proprietary Data Identifier (ASRPD) IDs. The ASRPD ID is a globally defined data object that facilitates the identification of a card product by a merchant's terminal electronically.

Expanding IIN

🕒 Worked to support expanding Issuer Identification Numbers (IIN) as defined by ISO and IEC.

2020: Key Technical Milestones

Online Payments



Web Payment Security Interest Group

Published the first output of the Web Payment Security Interest Group (WPSIG), a collaborative industry-led initiative focused on enhancing the interoperability of web payments. 'How EMVCo, FIDO, and W3C Technologies Relate' outlines the role of complementary technologies that can enhance the security and convenience of web payments for merchants and their e-commerce customers.

EMV 3DS - Travel Industry Message Extension

Working extensively with IATA and Amadeus, EMVCo produced guidelines on how the travel industry can provide data to payment card issuers to better determine the legitimacy of an e-commerce transaction during payment authentication processes.

Use of FIDO Data in 3DS Messages

Published guidance for merchants, card issuers, acquirers and processors on how FIDO Authentication data can be used in EMV 3DS messages to promote a frictionless payment process for consumers and reduce fraud.

EMV 3DS Testing Programme Update

Expanded the number of qualified testing tool organisations and laboratories to support increasing demand for the 3DS Testing Programme.

Click to Pay

Confirmed that consumer-facing solutions and programmes based on the EMV Secure Remote Commerce (SRC) Specifications are to be known as Click to Pay to promote ease of recognition, trust and confidence.

Security Evaluation Processes for IoT

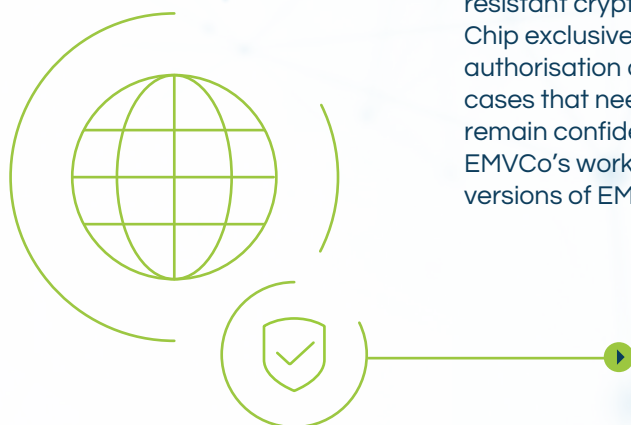
Confirmed that existing security evaluation methodologies and processes support IoT payment use cases, enabling emerging IoT payment solutions and devices to be evaluated using the quick and efficient EMVCo evaluation process.

2021: The Year Ahead in Technology



Bastien Latge,
EMVCo Director of Technology

In 2021 our technical activities will build on EMVCo's role to define and develop capabilities in specifications that support the needs of the payment community, in a secure and innovative approach to enable choice and flexibility. This is further supported by testing and approval programmes that bring confidence, trust and integrity to the payment ecosystem.



Face to Face Payments

Cryptography Enhancements

EMVCo will publish a specification to enable the use of Elliptic Curve Cryptography (ECC) on EMV contact chip payment cards and terminals. ECC provides increased cryptographic strength over RSA with much smaller key sizes. This makes it an attractive option for use in devices with limited storage and processing power and can speed up more traditional connections with servers, potentially resulting in a faster transaction request.

In parallel to the publication and guidelines for contactless transactions, EMVCo will begin work on a testing and certification programme to validate contact terminal kernels that align to this new specification.

EMVCo is also engaged in efforts led by the U.S. National Institute of Standards and Technology (NIST) on quantum-resistant cryptography. It is important to note that EMV Chip exclusively uses cryptography for real-time payment authorisation and terminal PIN protection, unlike some use cases that need information protection now and which must remain confidential after the arrival of quantum computing. EMVCo's work is therefore assessing the requirements for future versions of EMV Chip Specifications.

Consumer Device Dominance

The potential of consumer mobile devices continues to offer endless opportunities (and challenges) for the payments community. We look forward to progressing our new Early Adopter Programme for functional evaluation of COTS consumer mobile devices, and their ability to accept contactless payment. With this programme, we want to ensure a good, consistent consumer experience, and that this meets merchant and acquirer needs.

The initiative's goal is to use the data collated in 2020 and 2021, alongside payment industry feedback through the EMV Associates Programme and dedicated expert gatherings, to fine tune testing processes before the potential launch of a more traditional product approval/evaluation process in the future.

EMVCo has also established a Tap-to-Mobile Task Force as part of work related to COTS mobile devices. The group is focused specifically on evaluating the best way to interact from a user interface and user experience perspective with merchants and consumers, when using COTS mobile devices as acquirer devices. We look forward to updates throughout the coming year.

Following a pilot in 2020, EMVCo will also fully launch a CDCVM solution referencing database to help issuers in their risk evaluation process. This initiative includes leveraging the process developed by FIDO Alliance for biometric functional testing, as part of the strong relationship EMVCo developed with FIDO.

2021: The Year Ahead in Technology



Bastien Latge,
EMVCo Director of Technology



Face to Face Payments (continued)

Wireless Possibilities

EMVCo is evaluating if and how it should address the use of wireless technologies, which are not currently covered by EMV Specifications. The outcomes of this analysis will start to filter into our programme in the coming months.

Initial work is focused on identifying a set of key business payment-related use cases for wireless transactions to offer new flexible and convenient payment experiences for both merchants and consumers.

This initiative is a good example of how members of the payment industry help shape EMVCo's work. Not only was the Wireless Task Force developed in response to feedback from payments stakeholders, but they are also contributing to its efforts via the EMVCo Associates Programme.

Remote Payments

Advancing Authentication

The importance of authenticating the individual making the payment continues to be key in the fight against fraud. But as is recognised, unnecessary friction to the payment process often leads to abandoned purchases. This understanding and desire to reduce friction motivates EMVCo to add new functionality and processes that effectively streamline EMV 3DS, without compromising the security benefits.

In 2021, EMVCo will publish version 2.3 of the specification. There are many new features detailed which add considerable value to the technology, however, the split SDK is creating the most interest. It enables most of the functionality of the 3DS solution to reside on a merchant's server. This approach to security means merchants can effectively update one server app, as opposed to requesting updates across billions of devices' apps, significantly simplifying processes.

EMVCo is also engaged with several industry sectors to define supplementary information to be exchanged as part of the EMV 3DS messaging protocol to enable authentication without friction. For example, the gaming sector, where the extra customer detail will enable in-game purchases to be made without interrupting the gaming experience. Additionally, the travel industry has outlined data to be shared to better verify transactions authenticity using existing systems and without impacting the payment process for consumers. Work in 2021 is scheduled to expand to support the needs of hotels and car-rentals.

In addition, our continued collaboration with the FIDO Alliance and W3C through the WPSIG will continue to provide a major contribution towards advancing secure web-based payments in 2021 and beyond.

Click to Pay

As EMVCo provides a range of different solutions to support the delivery of seamless payments, it is vital that we take time to detail the relationship between these technologies and how they complement one another. In the coming year, the relationship between EMV 3DS and Click to Pay will be analysed to assess how these tools can provide more convenience without compromising security.

The ability to test that Click to Pay products align with the EMV SRC Specification is another priority for us. As with much of our remote payments work, testing can be challenging compared to physical payment kernels. But, wherever possible, we recognise that this brings confidence to the community and reassurances that products are aligned to the EMV Specifications.



" W3C, EMVCo and FIDO have been working together for a number of years, and now is the time for the industry to start to reap the benefits. "

Ian Jacobs, Payments Lead, W3C

2021: Engaging an Industry



Brian Byrne,
EMVCo Director of Engagement and Operations



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



2020 marked the first year of our enhanced EMVCo Associates Programme (EAP) structure, which expanded participation on our Board of Advisors (BoA) to all industry stakeholders¹ to enable broader industry input on the strategic direction of EMVCo and reflect the growing diversity of our initiatives.

Despite the necessary shift to a virtual format from March 2020, increased representation at EMVCo BoA Meetings undoubtedly encouraged a wide spectrum of feedback, a wealth of valid opinions and, ultimately, supported deeper engagement.

Another key focus for EMVCo in 2020 was to ensure our virtual meeting format supported meaningful and interactive discussion. We held our highest ever number of Special Interest Meetings (SIMs), enabling deep dives into topics including EMV® Payment Tokenisation, EMV 3DS, EMV SRC and wireless technology. Our first SIM scheduled for 2021 will explore business cases for EMV SRC.

As we look further ahead into 2021, we will continue with an online engagement model for at least the first half of the year. This includes the March BoA Meetings, April Technical Meetings and the Annual EMV User Meeting in June, in addition to SIMs scheduled to interact on specific topics.

Of course, we have all missed the unique benefits of in-person interaction and we look forward to resuming our face-to-face meeting schedule as soon as is safe to do so. At this time, we are provisionally planning to host our October BoA Meeting in Nashville, USA and our November Technical Meetings in Stockholm, Sweden.

Despite the challenges, I am sure that the experiences of 2020 will leave a long-term legacy of enhanced engagement and increased participation.

"I appreciate the content, the engagement allowed by participants, and it feels like everyone is taking the new [virtual] engagement model in [their] stride. The engagement model is working and time with the participants is necessary and value added."

EMVCo Associate

¹Associates who demonstrate an ongoing commitment to EMV deployment and interoperability.

2021: Engaging an Industry

"As EMVCo Associates, we immediately saw the benefit of extending EMV 3DS authentication request messages with airline information."

Jean-Christophe Lacour,
Head of Merchant Services, Payments, Amadeus

AMADEUS

"Our collaboration with EMVCo has significantly assisted with PASA's stakeholder engagement efforts. It was collectively designed to stimulate the industry conversation on QR code standards and the prospective value it has for South Africa - a key step in the standardisation journey."

Johan Buitendag,
Manager Strategy and Research – Card, PASA



Broadening Horizons

Broad industry collaboration supports the development of specifications and initiatives that improve security and payment experiences around the world, so our work across different sectors and liaison activity with global and regional technical bodies, form a crucial part of our overall engagement efforts.

As reported within the technical milestones, we have seen extensive and productive engagement with organisations and associations in sectors such as travel and gaming, as well as with other technical bodies and standards organisations. This demonstrates how far we have extended industry engagement in recent years and provides a blueprint for success as we move into 2021.

Our dedicated 'Industry Groups' participation option will continue to play an important role in promoting and supporting cross-industry collaboration.

In addition, we remain committed to collaborating with the merchant community and further expanding the opportunity for engagement. As part of our global conference activity in 2020, we were pleased to accept invitations to participate in the Merchant Advisory Group's Mid-Year Conference and Virtual Connect panel. Moving forward, our new 'Merchant' participation category provides a flexible option for engagement and we encourage all interested organisations to get involved.

Addressing Regulatory Trends

EMVCo also engages and advises policymakers and regulators in the U.S., Europe and beyond on the role that EMVCo and the EMV® Specifications play in delivering trusted and convenient payments across the globe.

A topic of interest globally has been the opportunities and challenges posed by QR Code payments, so EMVCo has been proactive in educating on the benefits of the EMV QR Code Specifications in supporting a more consistent experience that offers greater convenience and familiarity.

In 2020, EMVCo engaged extensively with the European Payments Council, the European Commission and the European Central Bank, as well as the U.S. Payments Forum and the Faster Payment Council. We also hosted a dedicated education session in partnership with the Payment Association of South Africa (PASA). This will continue to be a focus as we move into 2021.



2021: Get Involved

EMVCo provides flexible participation options to meet the needs of various industry stakeholders and expand the opportunity for engagement. All interested organisations are encouraged to get involved and maximise the benefits of EMVCo participation:



Provide input to Specifications

Receive access to draft specifications and processes for comments.



Shape meeting agendas

Bring proposals to the table for consideration by all.



Join Board of Advisors

Participate on EMVCo's Board of Advisors to propose new initiatives.



Educational sessions

EMVCo hosts free-to-attend face-to-face sessions for payment industry stakeholders.



Webinars

Host and participate in webinars open to all payment industry participants to educate on the EMVCo technology initiatives.



Networking and engagement

Engage with payment industry stakeholders through virtual and face-to-face meetings.

To become an Associate or Subscriber visit:
www.emvco.com/get-involved/ways-to-participate

EMVCo Marks



EMVCo manages a number of trusted, easy-to recognise visual symbols that promote consumer familiarity and confidence when making payments.



EMV® Chip Terminal icon



Contactless Indicator



Contactless Symbol



Click to Pay Icon



QR Scan Icon



QR Payment Mark

EMVCo also licenses Certification Marks for use by product providers, laboratories and test tool vendors in advertising, promotional materials, documentation and websites.



Payments industry stakeholders use EMVCo marks to demonstrate to their customers that their products are compliant with EMV Specifications for compatibility and security



EMVCo marks provide assurance to users of card-based payment products that they meet EMV Specifications and will function accordingly



Easy-to-recognise visual symbols for point of payments provide consistency and familiarity to the payment experience and inspire consumer confidence and trust in the technology at merchant checkout

For more information and full details of all EMVCo's License Agreements and Reproduction Guidelines, visit the EMVCo Trademark Centre:
<https://www.emvco.com/about/trademark-centre/>

 Webcasts



Subscribe to our channels
to make sure you never miss an update.



All information in this report is correct as of 31 December 2020.

[illegible]

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.