

Exploring What's in Store with EMV 3-D Secure

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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 and Collaboration

Engage and collaborate with the payments industry

EMV® 3-D Secure

(EMV 3DS)



Key Benefits of EMV® 3DS Solutions



EMV 3DS solutions help card issuers to identify fraudulent transactions more quickly and accurately, so that merchants can prevent e-commerce fraud with minimal friction, and consumers can expect a safe and easy checkout experience.



Issuers

Enhanced authentication and fraud management

Increased transaction approval rates

Less e-commerce fraud

Greater consumer confidence that transactions will not be falsely declined



Merchants

Greater security, less friction

Improved transaction security

Liability for fraudulent transactions shifted away from the merchant

Fewer false declines

Reduced risk of checkout abandonment



Consumers

Better, safer checkout experience

Quicker, easier authentication

Fewer purchases inaccurately declined

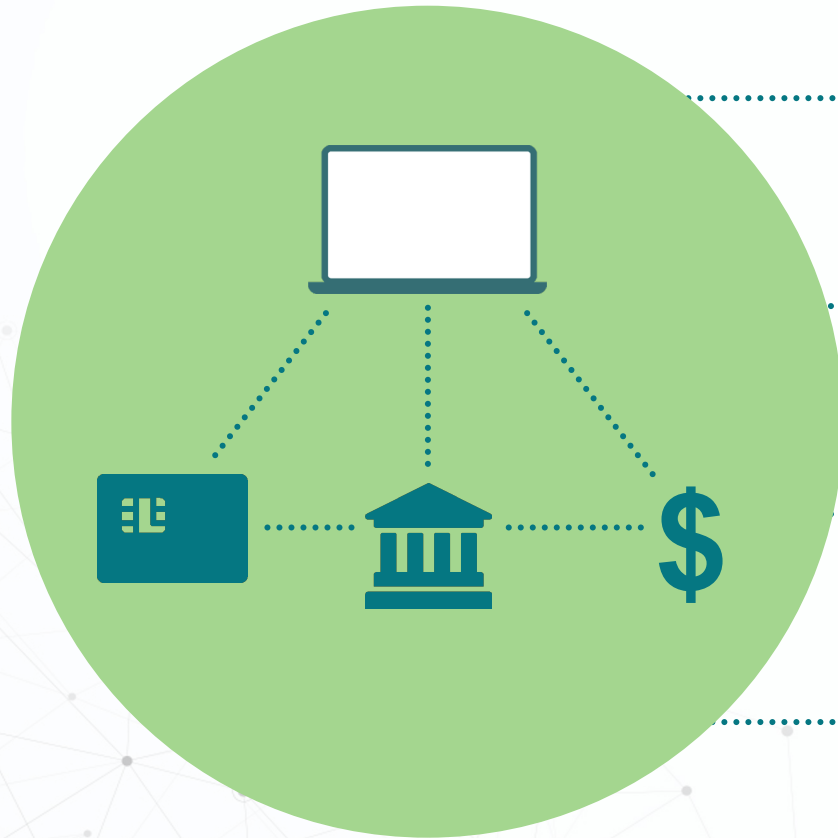
Confidence in safety of the transaction

Latest Functionalities

EMV® 3DS v2.3 Key Enhancements



EMV[®] 3DS v2.3 Key Enhancements Overview



Additional authentication approaches to enhance security and fraud prevention

Support for FIDO-based WebAuthn (Web Authentication) and SPC (Secure Payment Confirmation)

Streamlined consumer authentication to minimise friction and optimise the payment experience

Automated out-of-band (OOB) transitions

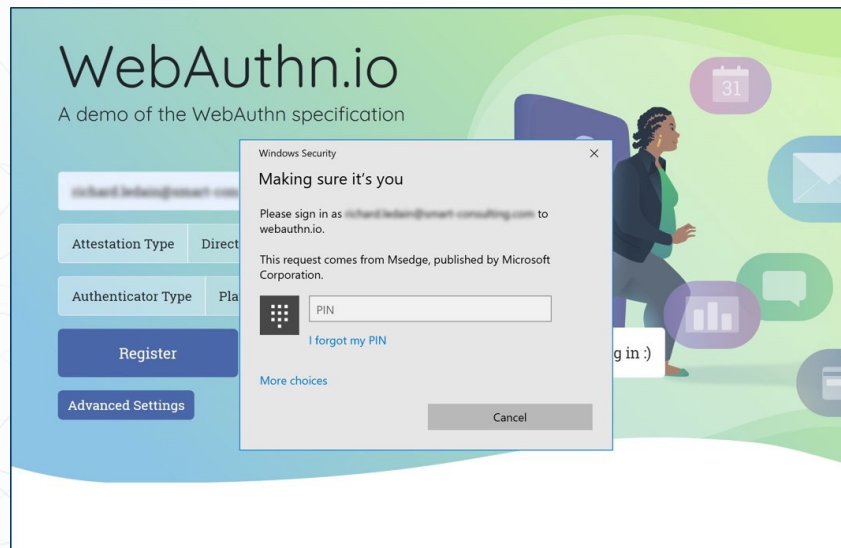
User Interface (UI) improvements

WebAuthn and SPC Support

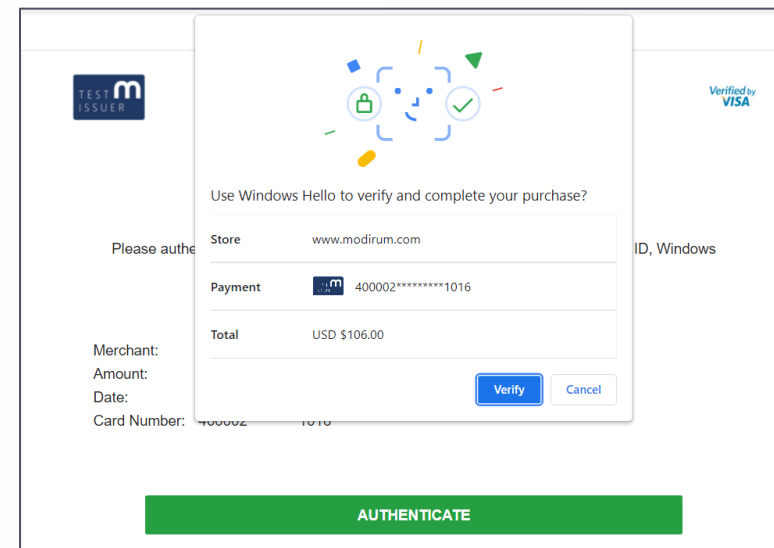


Issuers and merchants can use FIDO-based WebAuthn and SPC (Secure Payment Confirmation) within the EMV 3DS flow to better determine the legitimacy of a transaction in order to reduce the risk of fraud.

WebAuthn



Secure Payment Confirmation (SPC)

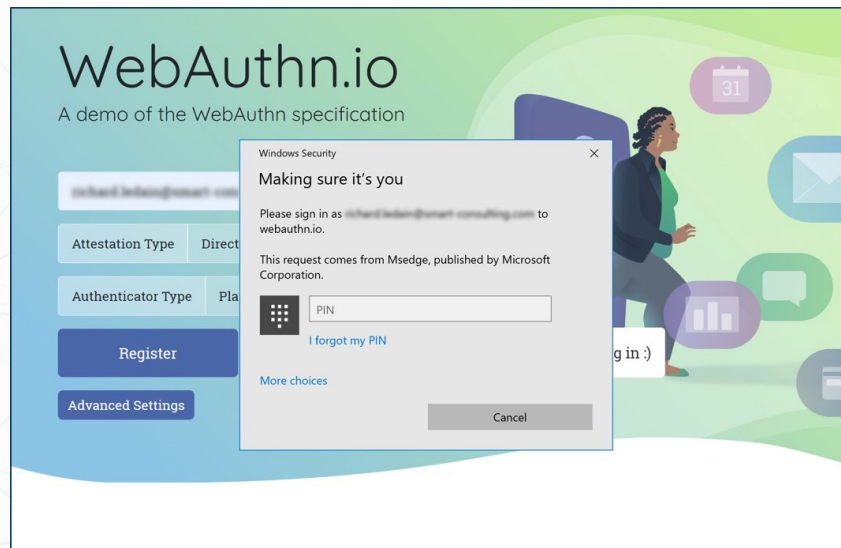


WebAuthn and SPC Support

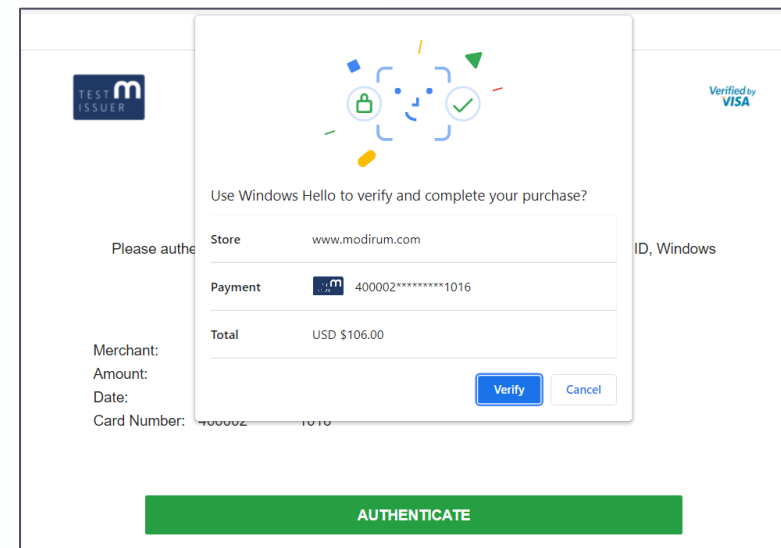


Issuers and merchants can use FIDO-based WebAuthn and SPC (Secure Payment Confirmation) within the EMV 3DS flow to better determine the legitimacy of a transaction in order to reduce the risk of fraud.

WebAuthn



Secure Payment Confirmation (SPC)



EMV® 3DS Supporting Resources

EMVCo EMV® 3DS for E-Commerce: Fighting Fraud and Friction

Fighting payment fraud and checkout friction is key to businesses delivering a safe and convenient e-commerce experience for their customers. EMV® 3-D Secure (EMV 3DS) provides a way to identify fraudulent card payments more quickly and accurately, so that issuers and e-commerce merchants can prevent fraud without disrupting the purchase process, and consumers can expect a safe and easy checkout experience every time.

Why EMV 3DS?

- More and more consumers are shopping online using a variety of devices.
- E-commerce fraud is a growing challenge for businesses to manage.
- Consumers expect a secure, quick and convenient e-commerce checkout experience.

\$800 billion* Projected total of U.S. e-commerce sales in 2020, an increase of more than 30% year-over-year.

20%* Projected percentage of U.S. retail sales that are online by 2024.

\$6.4 billion* Projected U.S. e-commerce fraud losses in 2021.

False declines are a key problem in the fight against fraud. Merchants are also losing money and customers because of false declines, which are legitimate transactions that are rejected due to suspected fraud.

\$443 billion* Projected U.S. e-commerce losses due to false declines in 2021.

77% Percentage of surveyed U.S. consumers that indicated keeping payment information safe is one of the most important factors when choosing how to pay.

Key Insights:
Given the rapid growth of e-commerce globally, merchants must engage with the digital channels of risk following the path of the consumer, but they also have to manage digital channel activity with friction to increase sales while improving security in an environment in which there is an ever-growing and consumers demand an easy, quick and convenient checkout experience.
The E-Commerce Consortium Balancing False Declines and Fraud Prevention White Paper
Solutions like EMV 3-D Secure (3DS) are being more widely adopted to combat e-commerce fraud risks without adding friction to the checkout process.

U.S. Retail E-Commerce Sales, 2019-2024 (Projected)
***Data: U.S. Consumers Credit Card Payments Survey (CreditCards.org)**

The importance of authenticating the individual making the payment continues to be key in the fight against fraud. EMV 3DS is a fraud-prevention technology that enables consumers to authenticate themselves with their card issuer, without adding unnecessary friction to the payment process that often leads to abandoned purchases. The EMV 3DS Specification provides a common set of requirements product providers can use to integrate this technology into their solutions to support seamless and secure e-commerce payments.

For more information on EMVCo please visit: www.emvco.com

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EMV 3DS Browser Flow Best Practices

EMV® Insights

EMVCo Quick Resources

EMV 3DS Testing Programme

Currently under development to align with EMV 3DS v2.3.

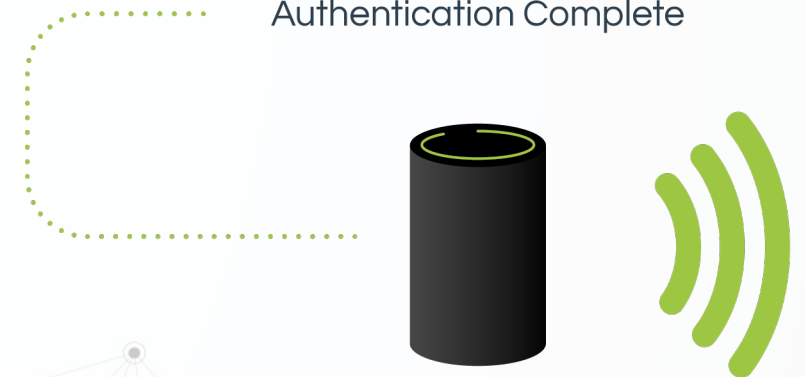
All EMV 3DS Specifications and supporting documents are publicly available on www.EMVCo.com

What's Next for EMV® 3DS?

- Continuous collaboration to ensure EMV 3DS evolves.
- Refining information shared across different payment scenarios, supporting new payment environments.
- Exploration of how EMV Specifications can work together to deliver more acceptance options for merchants and provide greater security and convenience for consumers.
- **Interested parties can get involved, join the discussion and become an EMVCo Associate or Subscriber.**



Thanks!
Authentication Complete



Thank You



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

Merchants, issuers, acquirers, payment networks, financial institutions, manufacturers, technology providers and testing laboratories collaborate with EMVCo to develop EMV® Specifications and supporting testing, product certification and marks programmes that support the delivery of reliable and convenient payments globally.

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PCI SSC 3DS Efforts



PCI 3-D Secure Standards



Two currently published PCI 3-D Secure (3DS) standards:

- Core Components (Core)
- Software Development Kit (SDK)



**Payment Card Industry
3-D Secure (PCI 3DS)**

**Security Requirements and Assessment Procedures for
EMV® 3-D Secure Core Components: ACS, DS, and 3DS Server**

Version 1.0
October 2017



**Security Requirements and Assessment Procedures for EMV®
3-D Secure SDK**

Version 1.1
December 2018



PCI 3DS "Core" Standard

Physical and logical security requirements for entities that perform or provide the following functions*:

- 3DS Server (3DSS)
- 3DS Directory Server (DS)
- 3DS Access Control Server (ACS)

*As defined in the EMV® 3-D Secure SDK Specification



PCI 3DS "Core" Standard



PCI 3DS Part 1: Baseline Security Requirements	
1. Maintain security policies for all personnel	1.1 Maintain security policies 1.2 Evaluate risk 1.3 Educate personnel 1.4 Screen personnel
2. Secure network connectivity	2.1 Protect 3DS systems from untrusted systems and networks 2.2 Protect 3DS systems from network threats
3. Develop and maintain secure systems	3.1 Secure application development 3.2 Configuration standards 3.3 Change management
4. Vulnerability management	4.1 Protect against malicious software 4.2 Address vulnerabilities and security weaknesses
5. Manage access	5.1 Access management 5.2 Account management 5.3 Authentication
6. Physical security	6.1 Restrict physical access 6.2 Secure media
7. Incident response preparedness	7.1 Incident response plan 7.2 Audit logs

PCI 3DS Part 2: 3DS Security Requirements	
1. Validate scope	1.1 Scoping
2. Security governance	2.1 Security governance 2.2 Manage risk 2.3 Business as usual (BAU) 2.4 Manage third-party relationships
3. Protect 3DS systems and applications	3.1 Protect boundaries 3.2 Protect baseline configurations 3.3 Protect applications and application interfaces 3.4 Secure web configurations 3.5 Maintain availability of 3DS operations
4. Secure logical access to 3DS systems	4.1 Secure connections for issuer and merchant customers 4.2 Secure internal network connections 4.3 Secure remote access 4.4 Restrict wireless exposure 4.5 Secure VPNs
5. Protect 3DS data	5.1 Data lifecycle 5.2 Data transmission 5.3 TLS configuration 5.4 Data storage 5.5 Monitoring 3DS transactions
6. Cryptography and key management	6.1 Key management 6.2 Secure logical access to HSMs 6.3 Secure physical access to HSMs
7. Physically secure 3DS systems	7.1 Data center security 7.2 CCTV

Overview of PCI 3DS Core Security Standard Requirements



PCI 3DS "SDK" Standard

- Security requirements for 3-D Secure (3DS)*
Software Development Kits (SDK)



*As defined in the EMV® 3-D Secure SDK Specification



PCI SSC 3DS Revision Efforts

The Council is currently revising both the PCI 3DS Core & 3DS SDK Standards

RFCs on the currently published PCI 3DS standards conducted 4th quarter 2021

Another round of RFCs will be announced when the draft revisions are ready



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Key Takeaways



**EMVCo
published the
3DS v2.3
specifications**



**The Council
has 2 PCI 3DS
Security
Standards**



**They are both
undergoing
a major
revision effort**



**2nd RFCs
will be
announced**



Stay Tuned!

Thank you

