

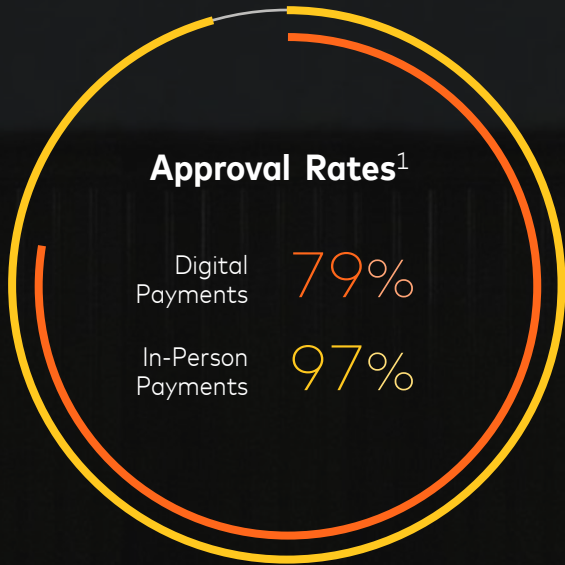
Driving simple and secure digital payments

EMV® 3-D Secure & Mastercard Identity Check™

October 13, 2022



Global data indicates the need for better authentication remains



7x

Card-not-present (CNP) fraud is more than 7 times the amount of card present (i.e., physical) fraud¹

\$3.9 trillion

is estimated in total ecommerce sales in 2020—with nine countries seeing more than a 20% growth¹



1. MASTERCARD. OCTOBER 2018 THROUGH OCTOBER 2019 DATA, ACROSS ALL CARD TYPES. 2019. 2. EMARKETER. GLOBAL ECOMMERCE 2020 ECOMMERCE DECELERATES AMID GLOBAL RETAIL CONTRACTION BUT REMAINS A BRIGHT SPOT. 2020.

Digital commerce is the new normal and securing this channel is more important than ever



Consumers

are being impacted by **fraud and high false decline rates**



Merchants

are facing **higher costs and losing more revenue**



Issuers

are managing **growing competition and cybersecurity issues**



Identity Check and EMV 3-D Secure help drive simple and secure digital payments

With the power to exchange 10X more data between merchants and issuers—plus the elimination of static passwords, **Identity Check and EMV 3-D Secure raise the bar on authentication.**

Enabling greater security and a consistent user-friendly digital payment experience, next generation authentication helps reduce fraud, false declines and unnecessary friction—meeting the need for simple and secure payments.




3DS1 Standards were created in 1999 and have now become **obsolete**. The EMV® 3-D Secure standard drives **greater security and profitability** – while **enhancing the user experience (UX)** for all cardholders

New standards help drive greater security, profitability, and an optimal user experience

	3DS 1 Standards	EMV 3DS Standards	Benefits of EMV 3DS
METHOD	Static passwords, security questions, and risk-based authentication	Eliminates static passwords for stronger two-factor authentication	<ul style="list-style-type: none"> • Greater security • Greater convenience
INTERFACES	Browser dependent	Supports different payment channels , e.g., in-app, IoT, browser, etc.	<ul style="list-style-type: none"> • Better UX • Wider applications
DATA	Only 15 data elements available	Enables 10X more data to be exchanged	<ul style="list-style-type: none"> • Improved decisioning
USE CASES	Supports guest check-out only	Supports guest checkout with additional use cases , e.g., Card on File, wallets, tokenization, etc.	<ul style="list-style-type: none"> • Expanded use • Greater security
DECISIONING	Merchants bound by Issuer decisioning	Enhances decisioning by increasing merchant flow of data	<ul style="list-style-type: none"> • Greater flexibility



Mastercard® Identity Check™ builds upon the enhanced EMV® 3DS protocol to address digital payment changes and challenges

Secure Code (based on 3DS1 Standards)	Mastercard Identity Check (based on NEW EMV 3DS Standards, replaces Secure Code)
	
<p>Limited static authentication methods</p> 	<p>Multiple authentication methods</p> <p>Fingerprint Face Voice Eye</p>  <p>Biometrics, SMS OTP, and others</p>
<ul style="list-style-type: none">▪ Web only▪ Limited data▪ Payments only	<ul style="list-style-type: none">▪ Multiple channels (web and mobile App)▪ Much more data and options (to better manage the risk)▪ Payments and beyond



Mastercard provides a holistic solution for successful migrations

Identity Check offers a best-in-class EMV 3-D Secure roadmap:

- **Global Network** that authenticates billions of transactions, facilitates a rich data exchange and is integrated with best-in-class fraud systems
- **Continuous Innovation** in areas such as biometrics, risk-based authentication, behavioral analytics and artificial intelligence
- **Plug-and-Play Biometrics** via a mobile solution that can help secure digital payments, mobile banking, and other channels
- **Simple Path** built on industry standards and proven success, designed to reduce resource needs and time to market

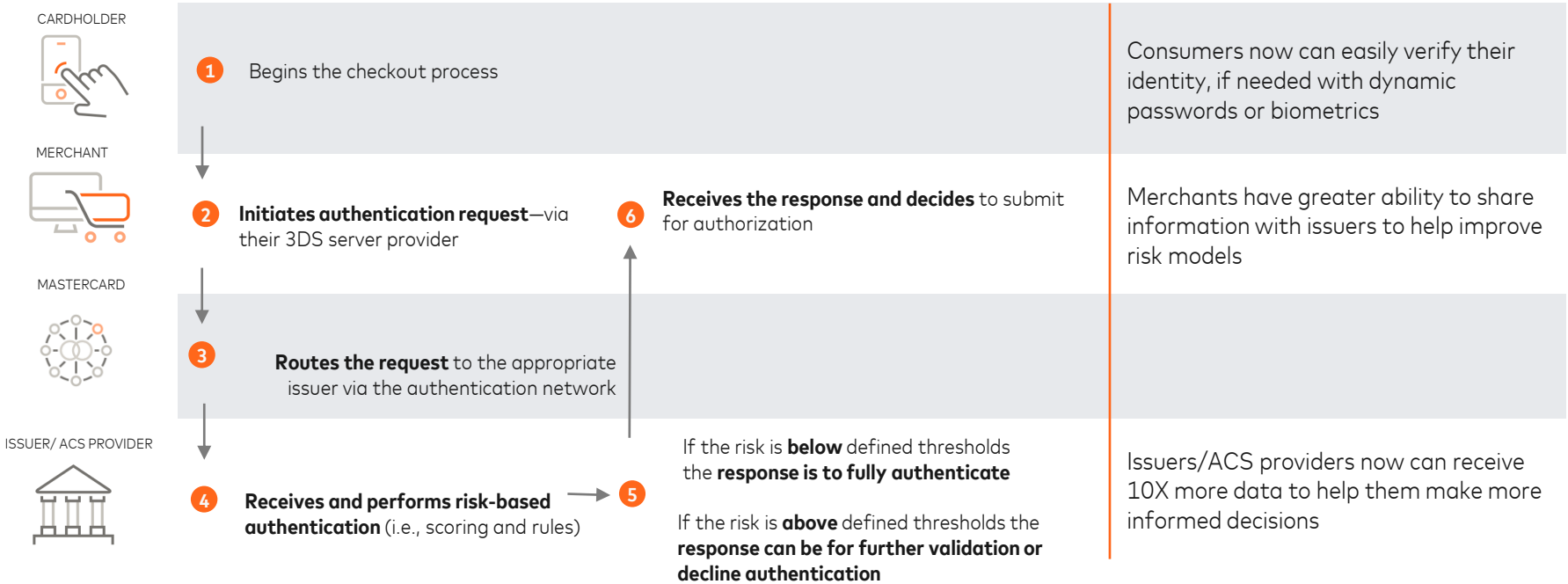


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AUTHENTICATION BASED ON THE NEW
EMV 3-D SECURE STANDARD

- Built on industry standards
- Flexible to meet stakeholder needs
- Replaces 3DS 1.0 & SecureCode
- Proven success
- Raises bar on consumer experience
- Long-term vision

Identity Check seamlessly integrates into the transaction flow to deliver secure authentication



Identity Check is simple and easy for cardholders to use

If the cardholder is required to authenticate themselves at checkout, the issuer can insert intelligent friction multiple ways; here are two examples:



EXAMPLE 1:

One-time code via SMS Authentication

- Cardholder receives a one-time use code in an SMS text message from issuer
- Cardholder enters code on the authentication page and is verified as correct
- Cardholder is directed to merchant order acknowledgment page



EXAMPLE 2:

Biometric Authentication

- Cardholder places a finger on smartphone scanner, scans their eyes with their camera, or uses their camera lens to take a "selfie" to confirm their identity to complete payment
- Once identity is verified, the cardholder can return to the merchant order acknowledgment page



Identity Check helps everyone 'win' from EMV 3-D Secure



Consumers

- **Eliminates the frustration** of managing and remembering passwords
- **Minimizes unnecessary friction**



Merchants

- Helps drive revenue by **reducing cart abandonment** and **increased approval rates**
- Hassle-free authentication can help merchants **gain greater share** in their category



Financial Institutions

- **Decreases fraud** from static passwords
- Enhances cardholder **engagement** and loyalty
- Increases revenues via **increased completed transactions**



Applied strategically, authentication can help drive results

INCREASE APPROVALS

+17ppt Potential lift in approvals, when transactions are fully authenticated¹

REDUCE FRAUD

-50% Lower digital fraud when authentication is used¹

OPTIMIZE EXPERIENCE

+13% Authentication success rate for frictionless vs. challenge²



1.. MASTERCARD. OCTOBER 2020 THROUGH JUNE 2021 DATA, ACROSS ALL CARD TYPES.
2. MASTERCARD IDENTITY CHECK DATA GLOBAL AVERAGE, 1H 2021

Let's get started.

Contact your Mastercard representative today.

- Discuss current card-not-present authentication solutions to see how Mastercard can help increase approvals
- Demo Mastercard Identity Check
- Map-out how Identity Check can be part of your authentication strategy

