

AN 6042 Mastercard Authorization Optimizer Enhancements

Type:

Switching release announcement

Audience:

Acquirers
Issuers
Network enablement partners
Processors

Region:

Global

Brand:

Mastercard®
Debit Mastercard®
Maestro®

Release:

22.Q4

Action Indicator:

Attention warranted (network-related):
acquirers
Information only: issuers
Testing recommended: acquirers

System:

Authorization
Single Message System

Published:

17 May 2022

Effective:

14 October 2022

Executive overview

Mastercard is providing acquirers with timing insights for resubmitting authorization requests after a financial decline. Mastercard is updating the Mastercard Authorization Optimizer, formerly known as the Decline Reason Code Service.

Effective date details

Date	Details
14 October 2022	Dual Message System (Authorization) and Single Message System

Customer benefit

The Mastercard Authorization Optimizer helps acquirers and issuers when authorization requests are declined.

Acquirer benefit	Issuer benefit
The service provides more meaningful decline information to help optimize authorization retry strategies. This could lead to higher approval rates and reduced costs involving unsuccessful authorization attempts.	Fewer authorization retries could lead to lower costs and a better user experience for the cardholders, resulting in an increase in successful transactions.

What Mastercard is doing

Mastercard is leveraging its network visibility and artificial intelligence to report the optimal retry time frame in which an authorization approval is likely to be successful.

When...	Then...
an issuer declines a transaction and uses Data Element (DE) 39 (Response Code), value 51 (Insufficient Funds)	Mastercard generates a merchant advice code, when applicable, in DE 48 (Additional Data), subelement 84 (Merchant Advice Code) for merchants and acquirers to use together to determine the best action.

Mastercard Authorization Optimizer is

- limited to card-not-present declines
- excludes mail and telephone order and ATM transactions, and
- only pertains to transactions processed on the Mastercard Network.

Background

The original Decline Reason Code service previously announced *AN 4761 Decline reason code Service for Select Card-Not-Present Transactions* is being expanded to provide intelligence on optimal retry time for insufficient fund declines. These times will be in the new DE 48, subelement 84 values.

Version history

Each customer must determine the impact on its operations.

Date	Description of change
14 June 2022	Removed 250-byte batch data file impact.
17 May 2022	Added Other media section to Related documentation
26 April 2022	Initial publication date

Customer impact

This section provides high-level information about customer impact. Refer to the Enhancements section for more details.

Attention warranted (network-related): acquirers

Acquirers should update their retry logic to help ensure values in DE 48, subelement 84 is used to determine subsequent action.

Acquirers should provide the new merchant advice code or the proprietary equivalent to the merchant for authorization retry purposes.

Information only: issuers

Issuers should be aware of the new merchant advice codes in DE 48, subelement 84, with the understanding that Mastercard provides these values. No action is required by issuers. Refer to *AN 2921 Dual and Single Message Authorization Best Practices and Data Element 39 Response Codes* regarding how to use existing decline codes.

Testing recommended: acquirers

Mastercard recommends testing for acquirers to support this release announcement.

Transaction message flow impact

The manner in which a customer is connected to Mastercard determines the group of message flows that apply and the transaction message types they send or receive within that group. Customers can interface to the Mastercard Dual Message System, Single Message System, or both, as applicable. This announcement affects the message flows marked in the Transaction message flow impact table.

Transaction message flow impact

Acquirer to Mastercard	Mastercard to issuer	Impacted
Dual Message System	Dual Message System	√
Dual Message System	Single Message System	√
Single Message System	Single Message System	√
Single Message System	Dual Message System	√

Examples of message types within the Dual Message System and Single Message System are

- Authorization Request/0100 and First Presentment/1240 messages and
- Financial Transaction Request/0200 and Financial Transaction Advice/0220 messages.

Enhancements

Mastercard will introduce changes to support this announcement.

Dual Message System (Authorization) and Single Message System

Mastercard is introducing seven new merchant advice codes for issuer insufficient fund decline responses.

When DE 39 contains value 51, DE 48, subelement 84 is present to provide a merchant advice code. Mastercard provides these values to advise merchants when to resubmit the transaction for approval.

Related documentation

Information relevant to this release announcement can be found in the documents listed and available on Mastercard Connect. Mastercard will update the reference manuals with necessary changes after release implementation. Depending on timing, information provided in this release announcement may not be reflected in a manual until it is updated.

Announcements

Refer to these previously published announcements for more information.

- *AN 4761 Decline Reason Code Service for Select Card-Not-Present Transactions*
- *AN 2921 Dual and Single Message Authorization Best Practices and Data Element 39 Response Codes*
- *AN 4536 Revised Standards for the Decline Reason Code Service for Card-Not-Present Transactions*
- *AN 4630 Revised Standards for the Decline Reason Code Service for Card-Not-Present Transactions in the EEA Countries, United Kingdom, and Gibraltar*

Reference manuals

Refer to these reference manuals for information about the current state of Mastercard processing.

- *Single Message System Specification*
- *Single Message System Transaction Manager User Guide*
- *Single Message System Programs and Services*
- *Customer Interface Specification Manual*
- *Authorization Manual*

Other media

Statements made in videos presented at the Customer Technical Conference are current when the video was recorded. Videos are currently available only for those announcements presented at the Customer Technical Conference. Mastercard may update announcements without updating the corresponding video. Refer to the most recent version of the announcement for the most up-to-date information.

- [AN 6042 Mastercard Authorization Optimizer Enhancements video](#), Customer Technical Conference, November 2022

Platform impact

The Platform impact table lists the impact of this announcement. For items that are marked √ (Yes), details are provided below.

Platform impact

Topic	Dual Message System (Authorization)	Dual Message System (Clearing)	Single Message System
Message flows			
Message layouts			
Data element definitions	√		√
IPM MPE			
Interchange			
CAB programs, descriptions, and associated MCCs			
Edits			
Error numbers			
Alternate processing			
Interchange compliance			
Pricing and fees			
Reports			√
Bulk files			
Forms			
Quarterly Mastercard reporting			
Transaction investigator	√		
SAFE			
Single message transaction manager			√
250-byte batch data file			
80-byte financial institution table file			

Authorization

Mastercard will introduce changes to the Authorization Platform to support this announcement.

CIS data element definitions

Mastercard will update data elements to support this announcement.

Subelement 84 (Merchant Advice Code)

DE 48, subelement 84 (Merchant Advice Code) contains the merchant advice code.

Values

Value	Description
24	Retry after 1 hour (Mastercard use only)
25	Retry after 24 hours (Mastercard use only)
26	Retry after 2 days (Mastercard use only)
27	Retry after 4 days (Mastercard use only)
28	Retry after 6 days (Mastercard use only)
29	Retry after 8 days (Mastercard use only)
30	Retry after 10 days (Mastercard use only)

Usage

Subelement 84 is optionally provided by the issuer in the Authorization Request Response/0110 message.

Usage of subelement 84, whether mandatory, conditional, optional, system provided, or not required, is noted by message.

Message	Org	Sys	Dst
Authorization Request Response/0110	O	X	O
Authorization Advice/0120: issuer-generated	C	X	C

Transaction Investigator

Mastercard will update the Transaction Investigator tool to reflect the new private data subelement information in this announcement.

Single Message System

Mastercard will introduce changes to the Single Message System to support this announcement.

Single Message System data element definitions

Mastercard will update data elements to support this announcement.

Subelement 84 (Merchant Advice Code)

DE 48, subelement 84 (Merchant Advice Code) contains a merchant advice code to enable issuers to advise merchants of cardholder account status, or of system status.

Values

Value	Description
24	Retry after 1 hour (Mastercard use only)
25	Retry after 24 hours (Mastercard use only)
26	Retry after 2 days (Mastercard use only)
27	Retry after 4 days (Mastercard use only)
28	Retry after 6 days (Mastercard use only)
29	Retry after 8 days (Mastercard use only)
30	Retry after 10 days (Mastercard use only)

Reports

Mastercard will modify reports to support this announcement.

These reports will contain the new merchant advice codes as applicable.

- Daily Processing Summary Report (SWCHD61) and the
- Month-to-Date Processing Summary Report (SWCHM06)

Single Message Transaction Manager

The Single Message Transaction Manager will support and reflect the new merchant advice codes as applicable.