

EMV QR Code Merchant-Presented Mode RFU Processing and New Data Objects

This Specification Bulletin:

- *Clarifies the expected mobile application behaviour when encountering data objects and data values that are Reserved for Future Use (RFU).*
 - *Adds the optional data object Merchant Tax ID.*
 - *Adds the optional data object Merchant Channel.*
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This Specification Bulletin describes proposed changes to EMV QR Code Specification for Payment Systems, Merchant-Presented Mode, version 1.0 [MPM].

Applicability

This Specification Bulletin applies to:

- *EMV QR Code Specification for Payment Systems, Merchant-Presented Mode, version 1.0 [MPM]*

Related Documents

- *None*

Effective Date

- *Immediately*
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Description

This bulletin:

- Clarifies that mobile applications must ignore the presence of a data object or data value that is Reserved for Future Use (RFU) by EMVCo.
It has been noted that some mobile applications terminate the transaction on reading data objects or data values that are defined as RFU in the specification. However, to allow for migration and support of new functionality, the mobile application must not verify the data or data value indicated as RFU.
- Adds the optional data object Merchant Tax ID to the merchant presented QR Code. The Merchant Tax ID contains the tax identification number of the merchant.
- Adds the optional data object Merchant Channel. The Merchant Channel indicates the environment a QR Code is presented to the consumer.

Specification Changes

In *Section 1.4 Data Objects*, add the following new sub-section:

1.4.4 Reserved for Future Use (RFU)

While the QR Code is required to not contain data objects that are RFU, the mobile application must ignore RFU data object IDs and data object values if present in the QR Code.

In *Section 3.1 QR Code Payload, Table 3.5: Additional Data Objects*, add the following entries to the end of the table:

Merchant Tax ID	The tax identification number of the merchant, assigned by the governmental body of the country in which the EMV merchant-presented QR code is being used/displayed. For example, the Merchant Tax ID may be used by the consumer mobile application for receipt display.
Merchant Channel	A merchant channel establishes the environment a QR Code is presented to the consumer. Covering use cases such as retail outlet, Ecommerce, bill payment with the purpose of improving transaction reporting.

In *Section 3.2 Data Organization, Table 3.7: Data Objects for Additional Data Field Template (ID "62")*:

- Add the following entries after the entry for "Additional Consumer Data Request":

Merchant Tax ID	"10"	ans	var. up to "20"	O
Merchant Channel	"11"	ans	"03"	O

- In the entry for "RFU for EMVCo", change the ID from "'10' – '49'" to "'12' – '49'".

In *Section 4.5 Data Object Values*, add the following new sub-section:

4.5.4 Reserved for Future Use (RFU)

4.5.4.1 Data object IDs and data object values that are defined as RFU shall not be included in the QR Code.

In *Section 4.8 Data Objects – Additional Data Field Template (ID "62")*, add the following new sub-section:

4.8.1.6 If present, each of the three positions in the Merchant Channel (ID "11") identifies a characteristic of the channel used for a particular transaction. The values defined and meaning of the values are listed below. All other values not explicitly listed in the tables shall be RFU.

First Character – Media

Value	Meaning
"0"	Print - Merchant sticker
"1"	Print - Bill/Invoice
"2"	Print - Magazine/Poster
"3"	Print - Other
"4"	Screen/Electronic - Merchant POS/POI
"5"	Screen/Electronic - Website
"6"	Screen/Electronic - App
"7"	Screen/Electronic - Other

Second Character – Transaction Location

Value	Meaning
"0"	At Merchant premises/registered address
"1"	Not at Merchant premises/registered address
"2"	Remote Commerce
"3"	Other

Third Character – Merchant Presence

Value	Meaning
"0"	Attended POI
"1"	Unattended
"2"	Semi-attended (self-checkout)
"3"	Other

In Section 4.8 Data Objects – Additional Data Field Template (ID "62"), Table 4.3: Data Object ID Allocation in Additional Data Field Template with ID "62": change the ID ""10"-49"" to ""12"-49"".

Annex A – Data Objects Dictionary

Table A.1: QR Code Data Objects Dictionary

Merchant Tax ID F: ans ID: "10" L: var. up to "20"	"62"	The tax identification number of the merchant.	Please refer to 4.8.
Merchant Channel F: ans ID: "11" L: "03"	"62"	A three character value that corresponds to the method used to present the QR code by the merchant including: display method, transaction location and merchant presence.	Please refer to 4.8.

Annex B – Merchant Channel Use Cases

Table B.8: Examples of Merchant Channel Use Cases

Use Cases	Media	Transaction Location	Merchant Presence	Value
Retail outlet	Screen (Merchant POS)	At Merchant	Attended	"400"
	Print (Merchant sticker)			"000"
Retail outlet self-checkout	Screen (Merchant POS)	At Merchant	Semi-attended	"402"
	Print (Merchant sticker)			"002"
Vending machine, petrol station	Screen (Merchant POS)	At Merchant	Unattended	"401"
	Print (Merchant sticker)			"001"
Street vendors, Markets	Screen (App)	Not at Merchant	Attended	"610"
	Print (Merchant sticker)			"010"
Ecommerce / Website	Screen (Website)	Remote	Unattended	"521"
Bill payment	Print (Bill/Invoice)	Not at Merchant	Unattended	"111"
Magazine / Poster	Print (Magazine/Poster)	Not at Merchant	Unattended	"211"

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