Originating Institutions or Third-Party Wallet Providers should use this checklist to enable the certification and production validation of the Mastercard Merchant Presented QR Consumer Mobile Application. Customers should first review *Mastercard QR Product Approval Requirements* on Mastercard Connect >Publications and then complete this checklist. Your Mastercard QR regional representatives can provide assistance if needed.

This form comprises of three subsections:

1. Implementation Survey – collects basic background information for payment setup and implementation
2. Functional Certification – validates functional decisions and design consistency of implementation
3. Branding Certification – validates Mastercard QR brand representation within Consumer Mobile Application

**About the Certification Process**

Submitted materials should cover the following user flows/scenarios:

1. QR Code Scanning – All the scenarios mentioned in the Mastercard Merchant Presented QR Program Guide
2. Exception/Error Handling – All the scenarios mentioned in the Mastercard Merchant Presented QR Program Guide
3. Transaction History
4. Other Mastercard QR-relevant user flows

Please submit this completed form and consumer mobile application demonstration materials for each supported mobile platform to your Mastercard QR regional representative.

**How to submit certification supporting materials?**

Review materials must be submitted in video form. Screenshots do not provide enough detail to perform a detailed review.

**Video Guidelines:**

Please submit all flows in one video. However, if multiple videos are required, each video title should reflect the use case(s) covered. Videos must include narration in English.

* Video format must be MP4 or WMV (other formats such as AVI will not be accepted).
* If the Consumer Mobile Application interfaces are not in English, include English narration of messages/errors.
* Video resolution should be at least 480p.
* In the functional certification indicated with **\*\***requirements are must to include in the videos for evaluation purpose

**Video Recording Tools:**

For video recording, the following options are available:

* iOS - By connecting a device to a Mac (OS X Yosemite or later) and recording using QuickTime or by using the Screen Recording option (iOS 11 or later)
* Android - [Google Play Store](https://play.google.com/store/search?q=Screen%20Recorder&c=apps) has various screen recording tools

Large files and videos should be shared using the Mastercard Corporate File Transfer Tool (<https://mastercard.sharefile.com>).Contact your Mastercard certification representative for instructions on how to share the files with Mastercard.

# **Implementation Survey**

*Use Tab key to navigate between fields.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Submitting Entity Details** | | | |
| A.1 | Originating Institution / Third Party Wallet Provider Name |  | |
| A.2 | Vendor Name  [Applicable, if the product is developed by a Vendor] |  | |
| A.3 | Commercial Name of App |  | |
| **Submission Details** | | | |
| B.1 | Submission date (DD/MM/YYYY) | Click here to enter a date. | |
| B.2 | Targeted deployment date (DD/MM/YYYY) | Click here to enter a date. | |
| B.3 | Targeted commercial launch date (DD/MM/YYYY) | Click here to enter a date. | |
| **Mastercard QR** | | | |
| C.1 | Is this Consumer Mobile Application previously reviewed and approved by Mastercard for Mastercard Merchant Presented QR payments? | Choose an item.(If Yes, please complete C.3.1 and C.3.2) | |
| C.1.1 | Please specify the last approval date. | Click here to enter a date. | |
| C.2 | Please describe the changes which are being implemented now in the Consumer Mobile Application related to Mastercard Merchant Presented QR payments. |  | |
| C.3 | Please select the supported methods for Mastercard QR payments. | Choose an item. | |
| C.4 | Is this Consumer Mobile Application implemented with Mastercard Sonic Brand at the QR Payment flows? | Choose an item. | |
| **Consumer Mobile Application** | | | |
| D.1 | Please select the supported mobile platforms for Mastercard QR payments. | Android | iOS |
| Please list other supported platforms, if any: | |
| D.2 | Please select the types of QR codes supported by the Consumer Mobile Application. | |  |  |  |  | | --- | --- | --- | --- | | Static QR |  | Dynamic QR |  | | |
| D.3 | Please specify all languages available in the Consumer Mobile Application. |  | |
| D.4 | Please select how Mastercard QR payment solution is integrated in the mobile application. | Choose an item.  Other: | |
| D.5 | Please select log in credential(s) for Consumer Mobile Application. | Choose an item.  Other:  Home Screen 1 | |
| D.6 | Please provide the details of the authentication method (s) used for authorizing the Mastercard QR payment and second factor authentication, if any. |  | |
| **Mobile Payment Application (MPA)**  This section is applicable only for tokenized wallet which includes Mobile Payment Application (MPA) | | | |
| E.1 | Does the Mobile Payment Application go through the Mastercard Functional Evaluation? | Choose an item.  (If Yes, please submit the functional evaluation approval letter or report issued by Mastercard along with this document)  (If No, please complete E.1.1) | |
| E.1.1 | Please state the reason for not completing the Mastercard Functional Evaluation including the waiver, if any. |  | |
| E.2 | Does the Mobile Payment Application go through the Mastercard Security Evaluation? | Choose an item.  (If Yes, please submit the security evaluation approval letter or report issued by Mastercard along with this document)  (If No, please complete E.2.1) | |
| E.2.1 | Please state the reason for not completing the Mastercard Security Evaluation including the waiver, if any. |  | |
| E.3 | Please select the authentication method used by the Mobile Payment Application for Mastercard QR Payments. | Choose an item.  Other: | |
| E.4 | Please specify the number of authentication attempts allowed for the supported authentication method and the fallback authentication, if any. |  | |
| E.5 | Please describe the mechanism used to pull the money (funding transaction) from the consumer’s account/card including the type of payment credential used (token or PAN) and the transaction type (DSRP or 3DS). |  | |

# **QR Code Specifications - EMV QR Code Specification for Payment Systems: Merchant-Presented Mode**

Originating Institution or the Third-Party Wallet Provider implementing Mastercard QR payment is required to perform extensive functional testing for Consumer Mobile Application in addition to executing the test cases included in the Mastercard QR Program Guide. Test cases included in the Mastercard QR Program Guide are not exhaustive. The Wallet Provider is required to perform additional tests to ensure the Consumer Mobile Application adheres to the EMV QR Code Specification for Payment Systems: Merchant-Presented Mode and other requirements defined in *Mastercard* *QR Product Approval Requirements*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Tag/ID** | | **Please describe how Consumer Mobile Application parses, validates and handles each tag** | |
| Payload Format Indicator | 00 | |  | |
| Point of Initiation Method | 01 | |  | |
| Merchant Account Information | 02 - 03 | |  | |
| 04 | |  | |
| 05 | |  | |
| 06 - 08 | |  | |
| 09 - 10 | |  | |
| 11 - 12 | |  | |
| 13 - 14 | |  | |
| 15 - 16 | |  | |
| 17 - 25 | |  | |
| 26 - 51 | |  | |
| Merchant Category Code | 52 | |  | |
| Transaction Currency | 53 | |  | |
| Transaction Amount | 54 | |  | |
| Tip or Convenience Indicator | 55 | **Value** |  | |
| 01 |  | |
| 02 |  | |
| 03 |  | |
| Value of Convenience Fee Fixed | 56 | |  | |
| Value of Convenience Fee Percentage | 57 | |  | |
| Country Code | 58 | |  | |
| Merchant Name | 59 | |  | |
| Merchant City | 60 | |  | |
| Postal Code | 61 | |  | |
| Additional Data Field Template | 62 | | *If Additional Data is not present in the QR code, the OI must populate with a default value of 000000.* |  |
| If present, the content of the data object value for IDs "01" to "08 must include in the transaction. |  |
| *Indicate the Sub Tag implemented* | |
| CRC | 63 | |  | |
| Merchant Information – Language Template | 64 | |  | |

# **Functional Certification**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Card/Account Add** | | | | | |
| **ID** | | **Description** | **Compliance** | | **Comments** |
| MP\_QR\_CA\_001 | | Third Party non-tokenized wallet **MUST** authenticate the consumer through Mastercard SecureCode or equivalent programs prior to adding their cards to the wallet. | Choose an item. | |  |
| **Account Management** | | | | | |
| **ID** | | **Description** | **Compliance** | | **Comments** |
| MP\_QR\_AM\_001 | | Third Party non-tokenized wallet **MUST** have the option to remove the added account/card from the consumer mobile application. | Choose an item. | |  |
| **User Authentication** | | | | | |
| **ID** | **Description** | | **Compliance** | **Comments** | |
| MP\_QR\_UA\_001 | Consumer Mobile Application **SHOULD** include additional authentication such as re-entry of PIN for payment amounts above certain threshold. | | Choose an item. |  | |
| **QR Scanning and Validation** | | | | | |
| **ID** | **Description** | | **Compliance** | **Comments** | |
| MP\_QR\_SV\_001 | Consumer Mobile Application **SHOULD** allow the consumer to select different funding source (if available) when the selected funding source does not have sufficient funds to cover the transaction else display message of insufficient funds. | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_002 | Consumer Mobile Application **MUST** display an error message and allow the consumer to re-enter/re-authorize PIN or other forms of authentication when authentication fails. | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_003 | Consumer Mobile Application **MUST** display an error message and prompt the user to key in the merchant ID and transaction amount (for static QR) when CRC validation fails. | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_004 | Consumer Mobile Application **MUST** display an error message and prompt the user to key in the manual entry alias ID and transaction amount (for static QR) when application is unable to scan the QR code successfully. | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_005 | When payment is not successful, Consumer Mobile Application **MUST** display an error message and take the user back to the payment confirmation screen with an option to retry the payment and the payment **MUST** be reversed (if the amount is deducted from the consumer’s card/account). | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_006 | When transaction request is timed-out, Consumer Mobile Application **MUST** display an error message informing the user that the payment has been initiated but not successful. | | Choose an item. | Describe the error message | |
| MP\_QR\_SV\_007 | Consumer mobile app **MUST** display a ‘pending’ message for the configured duration of transaction processing e.g. first 5 seconds. After that the appropriate error message should be displayed e.g. ‘Timeout’ or ‘insufficient funds’ if an error has occurred. | | Choose an item. | Describe the error message | |
| \*\*MP\_QR\_SV\_008 | For Static QR Code, Consumer Mobile Application **MUST** present the following information after QR Code is successfully scanned and validated:   * Merchant Name * Merchant ID * Merchant City * Transaction Amount – should be left blank for consumer to input * Source of funds * Date and Time of the transaction   Consumer Mobile Application **MUST** also display the following information, if included in the QR code:   * Tip Amount – value left blank for consumer to input, if Tip is required. * Convenience Fee – Flat or Percentage * Additional Data Fields – value left blank for consumer to input where QR code indicates ‘\*\*\*’ as the value. * Additional Data Fields – with values specified in the QR Code.   Consumer Mobile Application **SHOULD** also include the following information:   * Merchant Street Address (if present in QR) * Total Amount (inclusive of Service Fee, Tip and Transaction Amount) | | Choose an item. |  | |
| \*\*MP\_QR\_SV\_009 | For Dynamic QR Code, Consumer Mobile Application **MUST** present the following information after QR Code is successfully scanned and validated:   * Merchant Name * Merchant ID * Merchant City * Transaction Amount – value shown in the QR code * Source of funds * Date and Time of the transaction   Consumer Mobile Application **MUST** also display the following information, if included in the QR code:   * Tip Amount – value left blank for consumer to input, if Tip is required. * Convenience Fee – Flat or Percentage * Additional Data Fields – value left blank for consumer to input where QR code indicates ‘\*\*\*’ as the value. * Additional Data Fields – with values specified in the QR Code.   Consumer Mobile Application **SHOULD** also include the following information:   * Merchant Street Address (if present in QR) * Total Amount (inclusive of Service Fee, Tip and Transaction Amount) | | Choose an item. |  | |
| \*\*MP\_QR\_SV\_010 | Consumer Mobile Application **MUST** scan the below indicated QR to confirm presence of Merchant Assigned Identifier in the QR code: | | Choose an item. | Indicate QR scanning results here for review | |
| \*\*MP\_QR\_SV\_011 | Consumer Mobile Application **MUST** scan the below indicated QR to confirm presence of Merchant Assigned Identifier and Payment Facilitator included in the QR code: | | Choose an item. | Indicate QR scanning results here for review | |
| \*\*MP\_QR\_SV\_012 | Consumer Mobile Application **MUST** scan the below indicated QR to confirm the Tag 62 included in the QR code: | | Choose an item. | Indicate QR scanning results here for review | |
| \*\*MP\_QR\_SV\_013 | Consumer Mobile Application **MUST** able to handle different merchant country codes and different transaction currency codes, ensure the transaction currency codes are not manually coded(without flagging a technical error, or do a force close). | | Choose an item. |  | |
| \*\*MP\_QR\_SV\_014 | Consumer Mobile Application **MUST** display the Transaction Amount in the Transaction Value (to enable the consumer to confirm they are paying the right amount) when the multi-currency transactions are supported. | | Choose an item. |  | |
| \*\*MP\_QR\_SV\_015 | Consumer Mobile Application **SHOULD** display the Transaction Amount in the Cardholder Billing Currency when the multi-currency transactions are supported. | | Choose an item. |  | |
| **Transaction Confirmation and Transaction History** | | | | | |
| **ID** | **Description** | | **Compliance** | **Comments** | |
| MP\_QR\_TR\_001 | Consumer Mobile Application **MUST** display a confirmation screen after every payment attempt with the following information:   * Payment Status (Success/Failure) * Amount * Name, ID and City of Merchant * Source of funds/card must be masked used for payment * Time and Date of Transaction | | Choose an item. |  | |
| MP\_QR\_TR\_002 | Consumer Mobile Application **MUST** have a transaction history for successful payment for a timeframe deemed appropriate by the originating institution or by the Third Party Wallet Provider. | | Choose an item. |  | |
| MP\_QR\_TR\_003 | Consumer Mobile Application **SHOULD** send a notification via SMS, email or other appropriate method. | | Choose an item. |  | |
| **Operational Stability** | | | | | |
| **ID** | **Description** | | **Compliance** | **Comments** | |
| MP\_QR\_OS\_001 | QR scan in the Consumer Mobile Application **MUST** function in a stable manner. | | Choose an item. |  | |
| MP\_QR\_OS\_002 | All the inoperable functions during QR scanning and Mastercard QR payment process **MUST** be invisible to the consumer. | | Choose an item. |  | |
| MP\_QR\_OS\_003 | Consumer Mobile Application **MUST** not have unexpected errors, timeouts and instability. | | Choose an item. |  | |
| MP\_QR\_OS\_004 | Consumer Mobile Application **MUST** not allow multiple payment transactions to the same merchant within a short period of time to avoid a situation of erroneous duplicate payments.  due to multiple clicks | | Choose an item. |  | |
| **Application Performance** | | | | | |
| **ID** | **Description** | | **Compliance** | **Comments** | |
| MP\_QR\_AP\_001 | Consumer Mobile Application **MUST** enable the customer to scan the QR code and present the payment confirmation screen within 10 seconds and should avoid unnecessary API calls or processing which impacts the performance of the following:   * QR Scan * Display of Merchant Information * Input of Payment Transaction Value (Applicable only for static QR Code) * PIN Entry and Transaction Confirmation | | Choose an item. |  | |

# **Branding Certification**

|  |  |  |  |
| --- | --- | --- | --- |
| **Branding Requirements** | | | |
| **ID** | **Description** | **Compliance** | **Comments** |
| MP\_QR\_BRN\_001 | Consumer Mobile Application **MUST** include Mastercard Brand Mark or a Mastercard image and the last four digits of the account number. | Choose an item. |  |
| MP\_QR\_BRN\_002 | Mastercard® Branding **MUST** appear within the Consumer Mobile Application when:  • Selecting credentials / account for payment  • Displaying QR code for payment (the generated QR Code and Brand Mark size must follow the specifications).  • Confirming the use of credentials / account in a transaction | Choose an item. |  |
| MP\_QR\_BRN\_003 | When Mastercard QR is presented within a menu in the Consumer Mobile Application, one of the following branding options **SHOULD** be applied:  • Full-color Mastercard QR Mark  • Full-color Partner / Mastercard QR Lockup Logo  • “Mastercard QR” or co-brand Mastercard QR descriptor in the same type font as other text within the user interface | Choose an item. |  |
| MP\_QR\_BRN\_004 | Consumer Mobile Application **SHOULD** include the Mastercard brand when confirming the use of card account/credentials in a transaction and showing a transaction history it should include details of the card used, merchant name, transaction amount, and transaction time/date). | Choose an item. |  |