

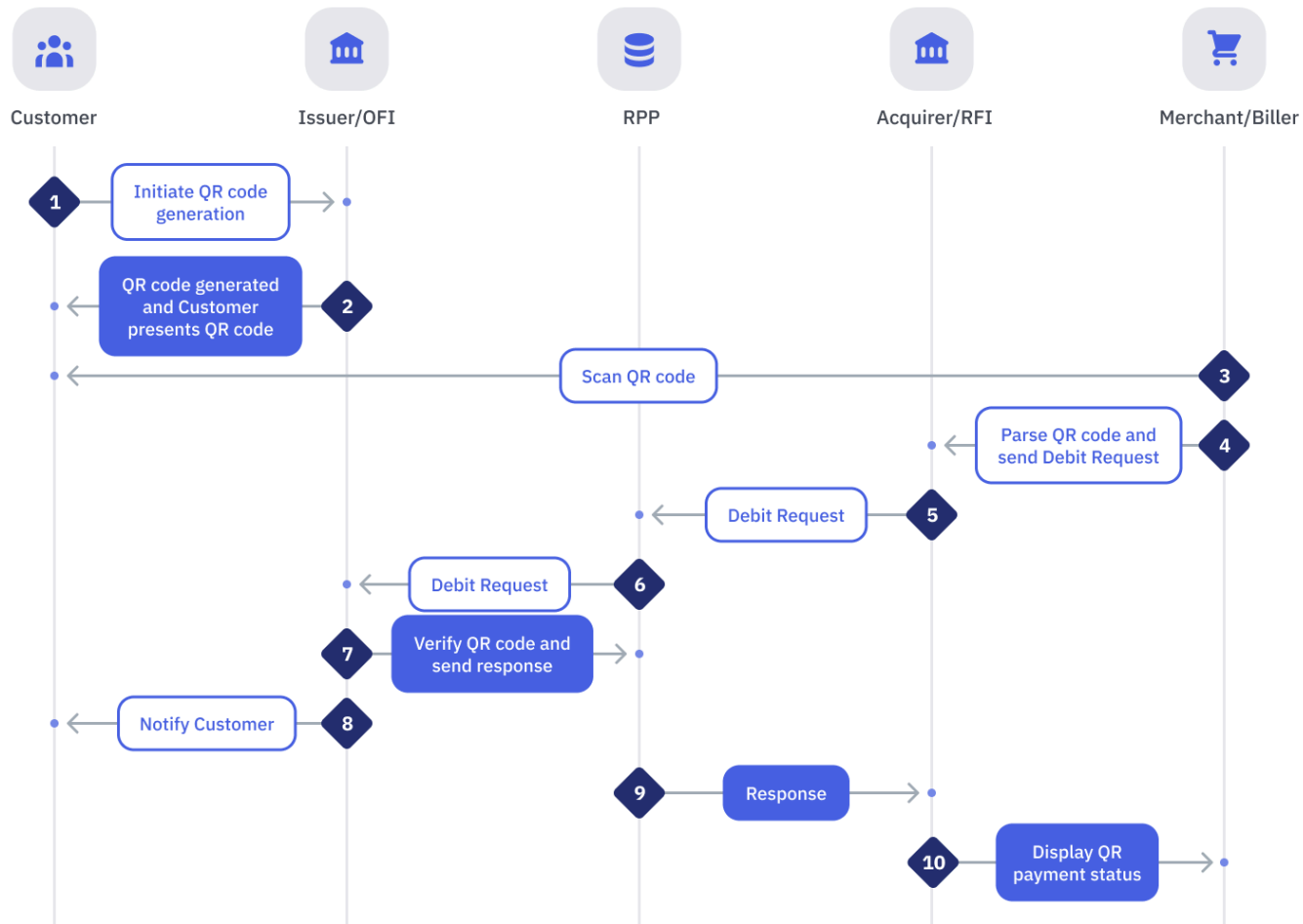
## Consumer-Presented QR

 See also API reference for DuitNow QR

[Check API](#) >

### End-to-End Flow

#### Successful End-to-End Consumer-Presented QR Flow



Step	Sender	Receiver	Process
1	Customer	Issuer	Customer logs into Online Banking or Mobile Banking app and initiates a QR code generation
2	Issuer	Customer	Issuer generates a QR code and Customer presents the generated QR to Merchant

Step	Sender	Receiver	Process
3	Merchant	Acquirer	Merchant scans the QR code presented by the Customer
4	Merchant	Acquirer	Merchant initiates QR Debit request
5	Acquirer	RPP	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>• Authorize and validate the QR Debit transaction</li> <li>• Parse the QR code to extract <ul style="list-style-type: none"> <li>◦ Application Identifier (AID)</li> <li>◦ Issuer ID</li> <li>◦ Type of Source of Funds</li> </ul> </li> <li>• Validate Type of Source of Funds against Merchant's Acceptable Source of Funds</li> <li>• Any internal validations.</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• If AID belongs to PayNet, Issuer will: <ul style="list-style-type: none"> <li>◦ For On-Us Customer <ul style="list-style-type: none"> <li>▪ NOT route the request to RPP</li> </ul> </li> <li>◦ For Off-Us Customer <ul style="list-style-type: none"> <li>▪ Send QR Debit request to RPP</li> </ul> </li> </ul> </li> <li>• If AID does not belongs to PayNet, Issuer will: <ul style="list-style-type: none"> <li>◦ Send QR Debit request to RPP</li> </ul> </li> </ul>

Step	Sender	Receiver	Process
6	RPP	Issuer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a REJECT response to Acquirer</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a NEGATIVE response to Acquirer</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Send QR Debit message request</li> </ul>
7	Issuer	RPP	<p>RPI performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> <li>• Beneficiary Account Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If any of the Beneficiary Account Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Debit fund from customer account</li> </ul>

Step	Sender	Receiver	Process
			<ul style="list-style-type: none"> <li>• Send QR Debit message response</li> </ul>
8	Issuer	Customer	Issuer notifies Customer on QR payment status
9	RPP	Acquirer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Update liquidity and settlement positions of both Issuer and Acquirer</li> <li>• Send QR Debit request message response</li> </ul> <p>Notes:</p> <p>If the signature received from Issuer could not be verified:</p> <ul style="list-style-type: none"> <li>• RPP will send an ACCEPTED (signature error) response to the Acquirer if the Issuer responds with a SUCCESSFUL transaction status</li> <li>• RPP will send an actual REJECT response to the Acquirer if Issuer responds with a REJECT transaction status</li> </ul> <p>This should take care of any message manipulation done within the data when a signature could not be verified</p>

Step	Sender	Receiver	Process
10	Acquirer	Merchant	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• If SUCCESSFUL response is received: <ul style="list-style-type: none"> <li>◦ Credit to Merchant</li> <li>◦ Display the final payment status to the Customer</li> </ul> </li> <li>• If UNSUCCESSFUL response is received: <ul style="list-style-type: none"> <li>◦ Display an error message to the Customer</li> </ul> </li> </ul>

## Pre-Authorization and QR Debit Request Flow



Step	Sender	Receiver	Process
1	Customer	Issuer	Customer logs into Online Banking or Mobile Banking app and initiates a QR code generation
2	Issuer	Customer	Issuer generates a QR code and Customer presents the generated QR to Merchant
3	Merchant	Acquirer	Merchant scans the QR code presented by the Customer
4	Merchant	Acquirer	Merchant initiates QR Debit request
5	Acquirer	RPP	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>• Authorize and validate the QR Debit transaction</li> <li>• Parse the QR code to extract <ul style="list-style-type: none"> <li>◦ Application Identifier (AID)</li> <li>◦ Issuer ID</li> <li>◦ Type of Source of Funds</li> </ul> </li> <li>• Validate Type of Source of Funds against Merchant's Acceptable Source of Funds</li> <li>• Any internal validations.</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• If AID belongs to PayNet, Issuer will: <ul style="list-style-type: none"> <li>◦ For On-Us Customer <ul style="list-style-type: none"> <li>▪ NOT route the request to RPP</li> </ul> </li> <li>◦ For Off-Us Customer <ul style="list-style-type: none"> <li>▪ Send QR Debit request to RPP</li> </ul> </li> </ul> </li> </ul>



Step	Sender	Receiver	Process
			<ul style="list-style-type: none"> <li>▪ Transaction type : 880</li> <li>▪ Start timer</li> </ul> <ul style="list-style-type: none"> <li>• If AID does not belongs to PayNet, Issuer will:               <ul style="list-style-type: none"> <li>◦ Send QR Debit request to RPP</li> <li>◦ Transaction type : 881</li> <li>◦ Start timer</li> </ul> </li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Send QR Debit request to RPP</li> <li>• Transaction type : 881</li> <li>• Start timer</li> </ul>

Step	Sender	Receiver	Process
6	RPP	Issuer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a REJECT response to Acquirer</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a NEGATIVE response to Acquirer</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Generate Pre-authorization ID</li> <li>• Send Pre-Authorization message request with the generated Pre-authorization ID</li> </ul>
7	Issuer	RPP	<p>RFI performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> <li>• Beneficiary Account Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If any of the Beneficiary Account Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul>

Step	Sender	Receiver	Process
			<p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Pre-authorize Customer account</li> </ul>
8	RPP	Acquirer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Send Pre-Authorization message response with Pre-authorization ID</li> </ul> <p>Notes:</p> <p>If the signature received from Issuer could not be verified:</p> <ul style="list-style-type: none"> <li>• RPP will send an ACCEPTED (signature error) response to the Acquirer if the Issuer responds with a SUCCESSFUL transaction status</li> <li>• RPP will send an actual REJECT response to the Acquirer if Issuer responds with a REJECT transaction status</li> </ul> <p>This should take care of any message manipulation done within the data when a signature could not be verified</p>
9	Acquirer	Merchant	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> </ul>

Step	Sender	Receiver	Process
			<ul style="list-style-type: none"> <li>Business Validations</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>If SUCCESSFUL response is received: <ul style="list-style-type: none"> <li>Display the final payment status to the Customer</li> </ul> </li> <li>If UNSUCCESSFUL response is received: <ul style="list-style-type: none"> <li>Display an error message to the Customer</li> </ul> </li> </ul>
10	Merchant	Acquirer	Merchant scans the QR code presented by the Customer
11	Merchant	Acquirer	Merchant initiates QR Debit request
12	Acquirer	RPP	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>Authorize and validate the QR Debit transaction</li> <li>Parse the QR code to extract <ul style="list-style-type: none"> <li>Application Identifier (AID)</li> <li>Issuer ID</li> <li>Type of Source of Funds</li> </ul> </li> <li>Validate Type of Source of Funds against Merchant's Acceptable Source of Funds</li> <li>Any internal validations.</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>If AID belongs to PayNet, Issuer will: <ul style="list-style-type: none"> <li>For On-Us Customer <ul style="list-style-type: none"> <li>NOT route the request to RPP</li> </ul> </li> </ul> </li> </ul>

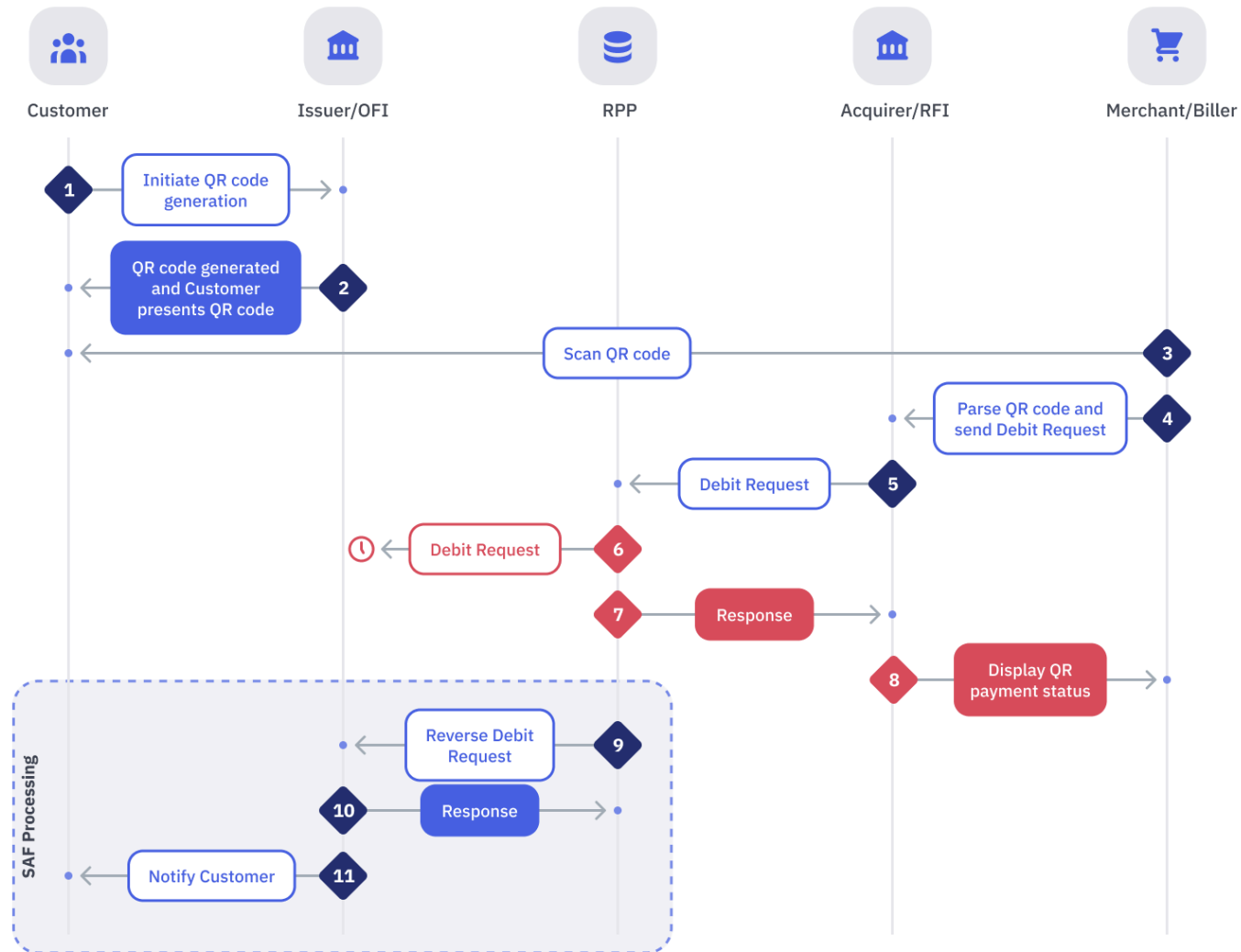
Step	Sender	Receiver	Process
			<ul style="list-style-type: none"> <li>○ For Off-Us Customer <ul style="list-style-type: none"> <li>▪ Send QR Debit request to RPP</li> </ul> </li> <li>• If AID does not belongs to PayNet, Issuer will: <ul style="list-style-type: none"> <li>○ Send QR Debit request to RPP</li> </ul> </li> </ul>
13	RPP	Issuer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a REJECT response to Acquirer</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Return a NEGATIVE response to Acquirer</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Send QR Debit message request</li> </ul>
14	Issuer	RPP	<p>RFI performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> <li>• Beneficiary Account Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul>

Step	Sender	Receiver	Process
			<p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If any of the Beneficiary Account Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Release pre-authorized amount and debit fund from customer account</li> <li>• Send QR Debit message response</li> </ul>
15	Issuer	Customer	Issuer notifies Customer on QR payment status
16	RPP	Acquirer	<p>RPP performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If any of the Message Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a REJECT response</li> </ul> <p>If any of the Business Validations fails:</p> <ul style="list-style-type: none"> <li>• Send a NEGATIVE response</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• Update liquidity and settlement positions of both Issuer and Acquirer</li> <li>• Send QR Debit request message response</li> </ul> <p>Notes:</p> <p>If the signature received from Issuer could not be verified:</p>

Step	Sender	Receiver	Process
			<ul style="list-style-type: none"> <li>• RPP will send an ACCEPTED (signature error) response to the Acquirer if the Issuer responds with a SUCCESSFUL transaction status</li> <li>• RPP will send an actual REJECT response to the Acquirer if Issuer responds with a REJECT transaction status</li> </ul> <p>This should take care of any message manipulation done within the data when a signature could not be verified</p>
17	Acquirer	Merchant	<p>Acquirer performs the following:</p> <ul style="list-style-type: none"> <li>• Message Validations</li> <li>• Business Validations</li> </ul> <p>If all validations are successful:</p> <ul style="list-style-type: none"> <li>• If SUCCESSFUL response is received: <ul style="list-style-type: none"> <li>◦ Credit to Merchant</li> <li>◦ Display the final payment status to the Customer</li> </ul> </li> <li>• If UNSUCCESSFUL response is received: <ul style="list-style-type: none"> <li>◦ Display an error message to the Customer</li> </ul> </li> </ul>

## Exception Flows

### Issuer Failed to Receive Request from RPP



Condition	Actions	Alternatives
RPP sent a request to Issuer, and Issuer did receive the request. However, Issuer response did not reach to RPP	RPP shall: <ul style="list-style-type: none"> <li>• Timeout</li> <li>• Send a Debit Cancellation request</li> </ul>	-



Condition	Actions	Alternatives
As no response is received from Issuer after x period of time, RPP eventually timeout	OFI shall: <ul style="list-style-type: none"> <li>• Display an appropriate error message to the Customer</li> <li>• Stop processing</li> </ul>	

## See also

- [Recommended validations](#)
- [How does credit transfer reversal work](#)
- [How does repeat message work](#)
- [How does SAF work](#)