

Integration Walkthrough

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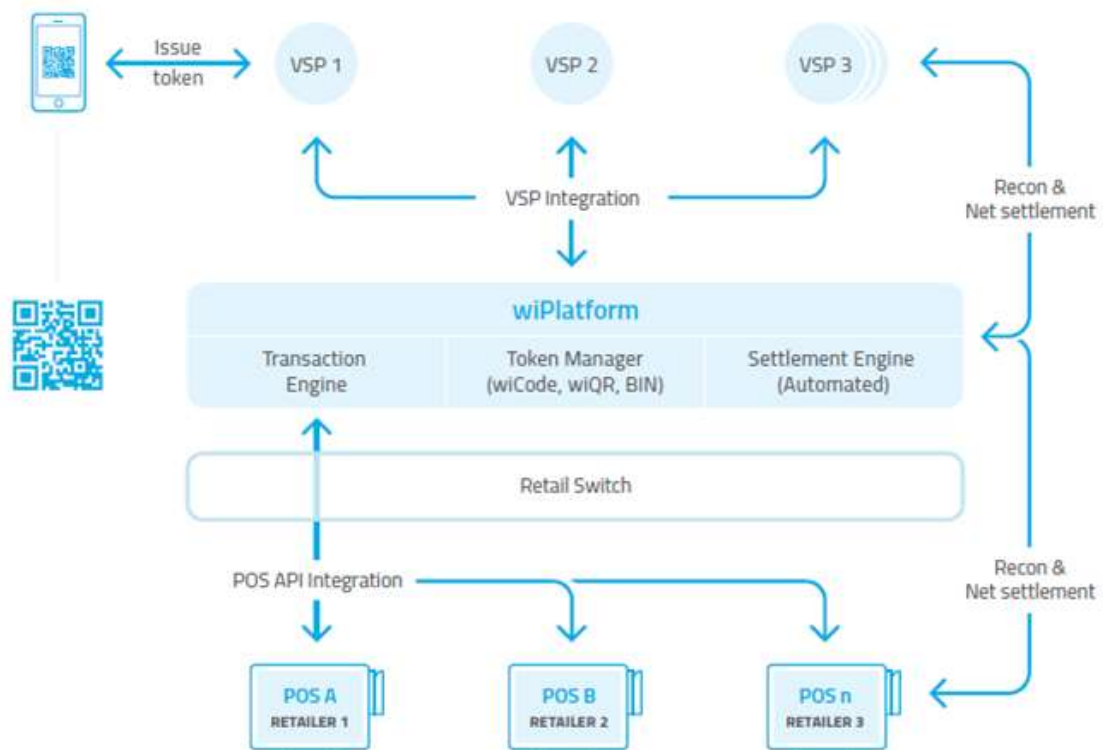
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wiCode Platform Technical Architecture



wiCode Platform Technical Definitions

wiCode

-A transaction token which is generated by the wiCode Platform and issued by a VSP to the consumer.

-Can take the form of a number, QR code or BIN.

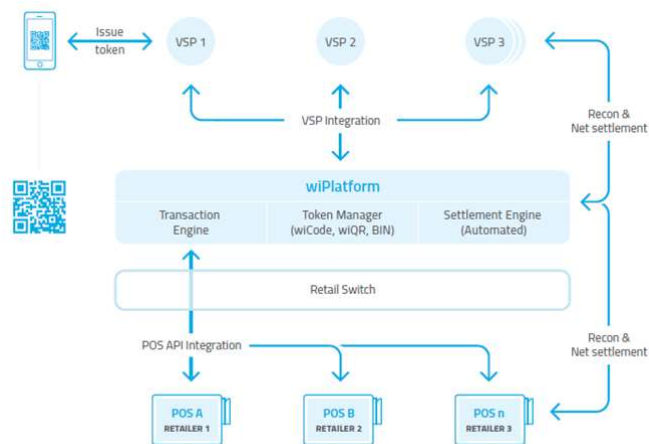
Value Store Provider (VSP)

-Any mobile application or digital entity which houses a store of value.

-Could be a bank account, loyalty wallet voucher, etc.

POS

-Any solution which communicates with the wiCode platform to authorise or query transactions



wiCode Platform Supported Transaction Protocols

'Over the counter' transactions

- Customer / mobile app user will generate a wiCode using their wiCode-enabled mobile app.
- Point of sale / cashier will scan or manually enter the wiCode.
- Point of sale will authorise the transaction through the wiCode platform.



'Sit down' transactions

- Point of sale will generate a unique wiGroup QR on the till slip
- Customer / mobile app user will scan the wiGroup QR using their wiCode-enabled mobile app.
- App will process payment through the wiCode Platform
- Point of sale will confirm payments made against the unique QR through the wiCode Platform.



'Over the counter' integration walkthrough

The following walkthrough will detail the point of sale user interface and technical webservice flows required to perform an over the counter transaction, where a customer will present a QR code (app or card) or a mobile voucher number (called a wiCode).



Chips 1 R10.00 Coke 1 R5.00		Store logo						
Running Total R15.00		Product selections						
SPLIT	INFO	VOID	PREPAID	DISC	CUST	ORDER	PRINT BILL	ENTER
TABLES	EDIT	ORD MSG	LOYALTY	GIFT	WIGROUP			

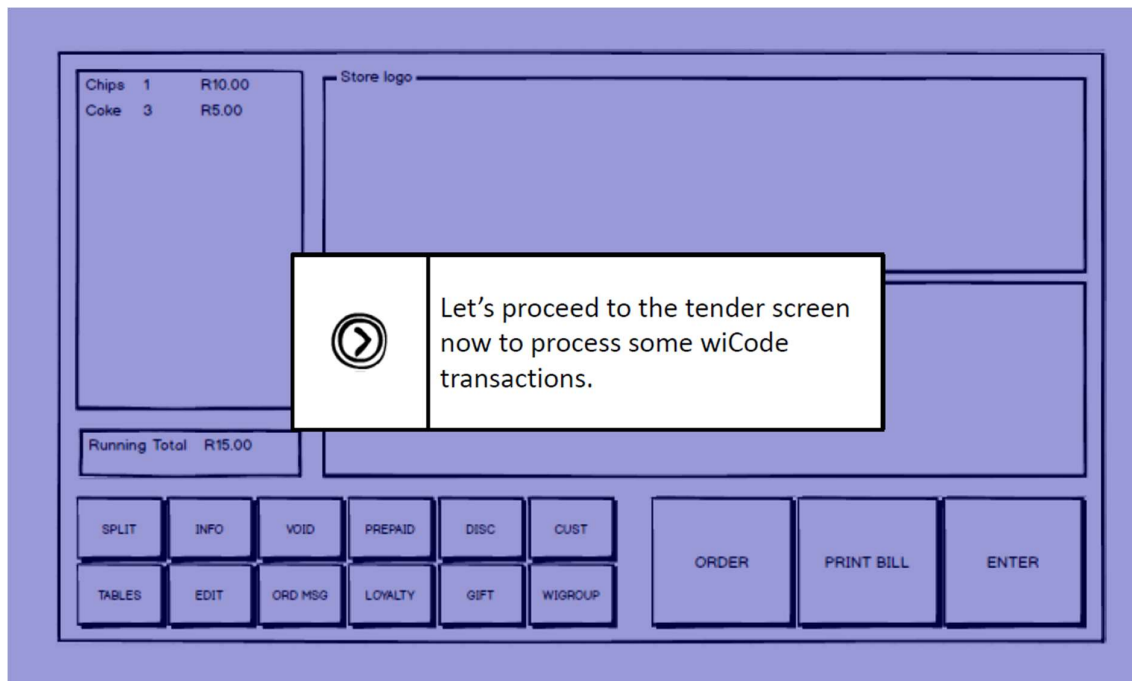
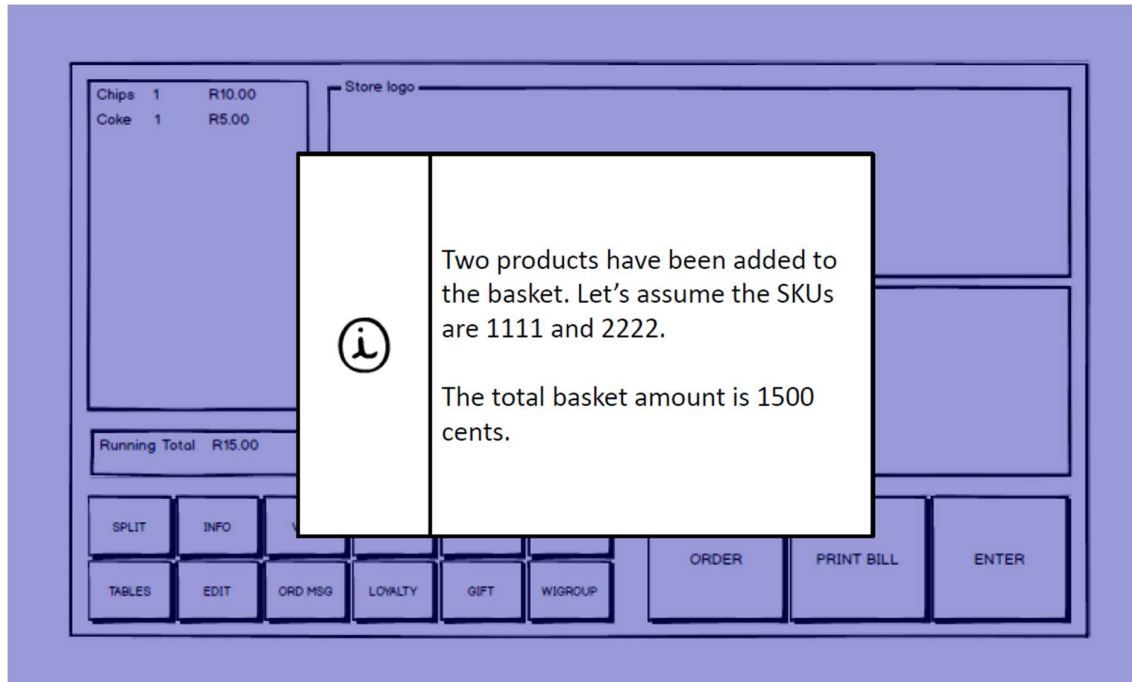


Table: 100		B/No: INV201				
TOTAL		R15.00				
				7	8	9
				4	5	4
				1	2	3
Cash	EFT/Cards	wiCode		ESC	0	ENTER

Table: 100		B/No: INV201				
TOTAL						
					9	
					4	
					3	
Cash	EFT/Cards	wiCode		ESC	0	ENTER


 In your list of available tenders, you will now have an additional tender type called wiCode. All wiCode payment, loyalty and redemption transactions will be processed using this tender type.


Table: 100		B/No: INV201				
TOTAL		R15.00				
<div>  Select wiCode tender to process a wiCode transaction. </div>				7	8	9
						4
				1	2	3
				Cash	EFT/Cards	wiCode

Table: 100		B/No: INV201				
TOTAL		R15.00				
				7	8	9
				4	5	4
				1	2	3
				Cash	EFT/Cards	wiCode

Table: 100 B/No: INV201

TOTAL

wiCode Transaction

Scan or enter wiCode

Total Amount: R 15.00

wiCode / Card #:

Cancel Done

7 8 9
4 5 6
1 2 3
C 0

Cash EFT/Cards wiCode ESC 0 ENTER

Table: 100 B/No: INV201

TOTAL

wiCode Transaction

Scan or enter wiCode

Total Amount: R 15.00

wiCode / Card #:

Cancel Done

Cash EFT/Cards wiCode ESC 0 ENTER

When the POS is ready to scan the wiCode, the detect function of wiGroupDetect.dll should be invoked. This will:

1. Play a beep when the scan is successfully performed
2. Return the wiCode contained in the customer's QR.

yoyo

Beep!



Table:	100	B/No:	INV201	
TOTAL	wiCode Transaction			
Scan or enter wiCode				
Total Amount:		R 15.00		
wiCode / Card #:		<input type="text" value="1122345"/>		
<input type="button" value="Cancel"/>		<input type="button" value="Done"/>		
		<div><div>789</div><div>456</div><div>123</div><div>C0⌫</div><div>✓</div></div>		
<input type="button" value="Cash"/>		<input type="button" value="EFT/Cards"/>	<input type="button" value="wiCode"/>	<div><input type="button" value="ESC"/><input type="button" value="0"/><input type="button" value="ENTER"/></div>

Table:	100	B/No:	INV201
--------	-----	-------	--------

Once the wiCode has been scanned, the POS should automatically send the transaction to the wiCode Platform for authorization.

If the wiCode was manually entered, the cashier will need to select 'Go' / 'Next' / 'Send' etc.

Remember to include all required fields. An example of the transaction request which should be sent to the wiCode platform at this point is displayed next.

Cash	EFT/Cards	wiCode	ESC	0	ENTER
------	-----------	--------	-----	---	-------

```

<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap
/envelope/"
xmlns:pos="http://posprovider.te.wigroup.com/">
<soapenv:Header/>
<soapenv:Body>
<pos:transaction>
<request>
<apiCredentials>
<id>POS_20</id>
<password>yourpassword/password>
</apiCredentials>
<type>PAYMENT</type>
<basketAmount>1500</basketAmount>
<cashbackAmount>0</cashbackAmount>
<tipAmount>0</tipAmount>
<totalAmount>1500</totalAmount>
<switchTrxId></switchTrxId>
<token>
<id>1122345</id>
<type>WICODE</type>
</token>
<storeTrxDetails>
<basketId>INV201</basketId>
<cashierId>John Smith</cashierId>
<posId>POS2</posId>
<remoteStoreId></remoteStoreId>
<retailerId></retailerId>
<storeId>1050</storeId>
<trxId>123456789</trxId>
</storeTrxDetails>
<products>
<product>
<id>1111</id>
<pricePerUnit>1000</pricePerUnit>
<units>1</units>
</product>
<product>
<id>2222</id>
<pricePerUnit>5000</pricePerUnit>
<units>1</units>
</product>
</products>
</request>
</pos:transaction>

```

Table: 100 B/No: INV201

TOTAL

wiCode Transaction

Scan or enter wiCode

Total Amount: R 15.00

wiCode / Card #: 1122345

Cancel Done

7 8 9

4 5 6

1 2 3

C 0

✓

Cash EFT/Cards wiCode ESC 0 ENTER

Table: 100 B/No: INV201

TOTAL

wiCode Transaction

Scan or enter wiCode

Total Amount: R 15.00

wiCode / Card #: 1122345

Cancel Done

7 8 9

4 5 6

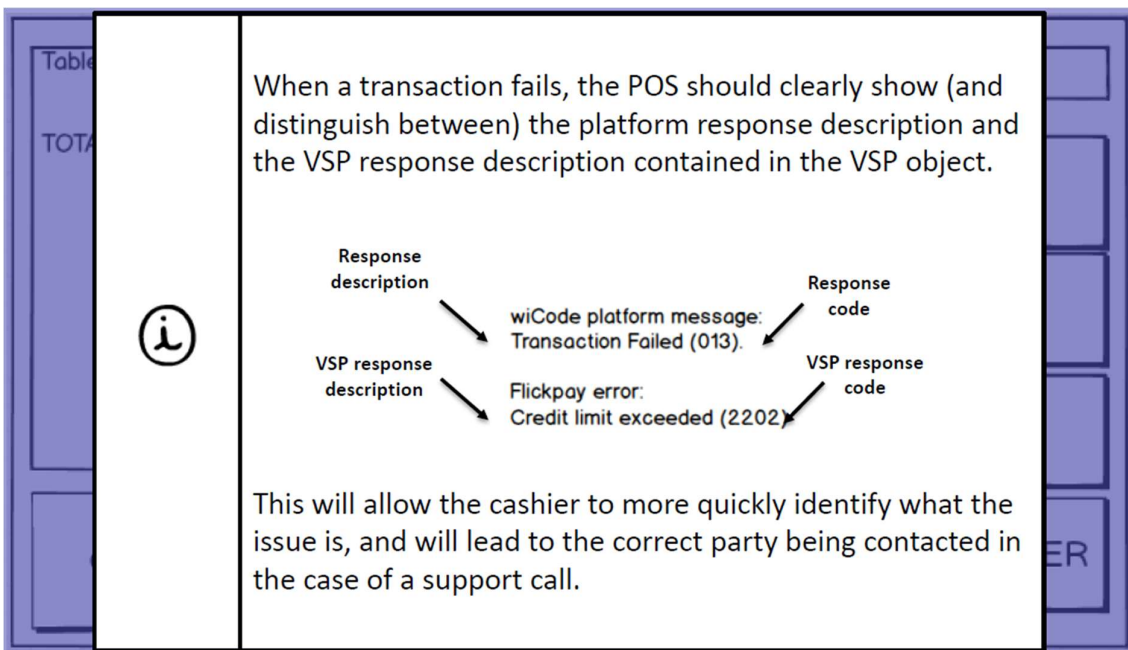
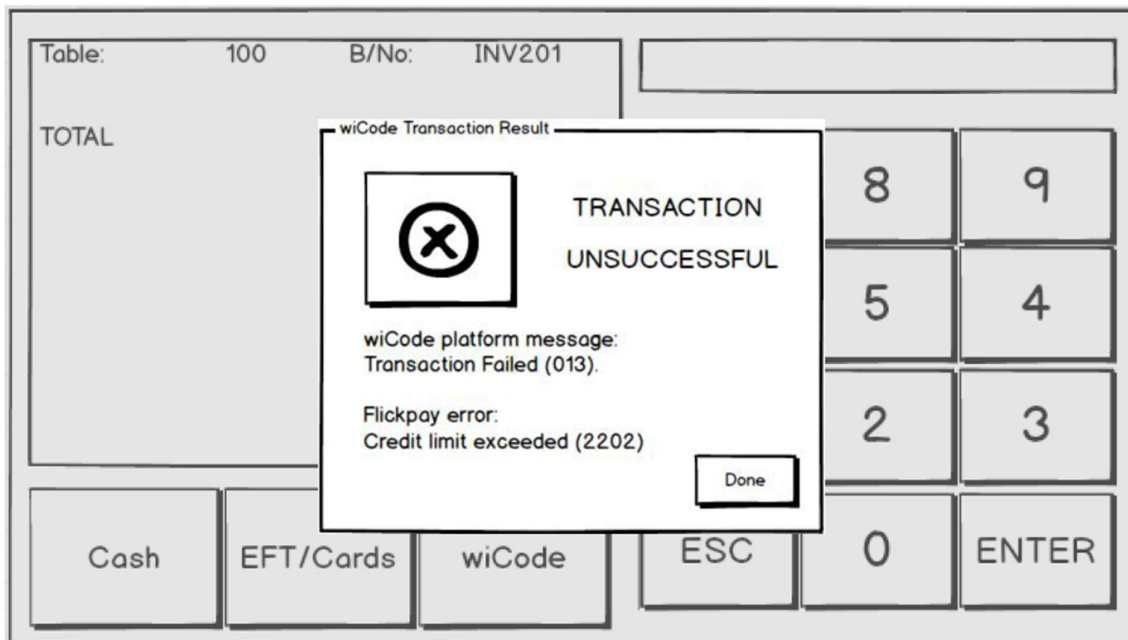
1 2 3

C 0


✓

Cash EFT/Cards wiCode ESC 0 ENTER

Let's see how a failed transaction should be handled...



When a transaction fails, the POS should clearly show (and distinguish between) the platform response description and the VSP response description contained in the VSP object.

 This is the name contained in the VSP object

wiCode platform message:
Transaction Failed (013).

Flickpay error:
Credit limit exceeded (2202)

This will allow the cashier to more quickly identify what the issue is, and will lead to the correct party being contacted in the case of a support call.

Table: 100 B/No: INV201

TOTAL

wiCode Transaction

Scan or enter wiCode

Total Amount

wiCode / O

Cancel

C 0 X

Cash EFT/Cards wiCode ESC 0 ENTER

 Now let's see how a success should be handled...


✓

Table: 10

TOTAL

Cash

wiCode Transaction Result



Transaction successful!

Processed amount: R5.00

Loyalty name loyalty earned: value type

Done

9

4

3


ENTER

Table: 10

TOTAL

Cash

wiCode Transaction Result



Remember, a successful response does **not** indicate that the total amount has been processed. Some VSPs, such as deal apps, will only process a portion of the requested value. The totalAmountProcessed field will indicate what has been processed.

If loyalty earned is present in the Transaction response, it should be displayed. The blue underlined fields in the example are dynamically populated from the response.

9

4

3

ENTER


Table: 10	wiCode Transaction Result		
TOTAL	<div style="text-align: center;">  <p>Transaction successful!</p> <p>Processed amount: R5.00</p> <p><u>Loyalty name</u> loyalty earned: <u>value type</u></p> <p>Done</p> </div>		<div style="text-align: center;"> <p>9</p> <p>4</p> <p>3</p> <p>ENTER</p> </div>
Cash			

Table: 100	B/No: INV201	
SUB TOTAL	R15.00	
<u>VSP Name</u>	-R5.00	
DUE:	R10.00	
		<div style="text-align: center;"> <p>7</p> <p>8</p> <p>9</p> <p>4</p> <p>5</p> <p>4</p> <p>1</p> <p>2</p> <p>3</p> <p>ESC</p> <p>0</p> <p>ENTER</p> </div>
Cash	EFT/Cards	wiCode




Table:	100	B/No:	INV201			
SUB TOTAL		R15.00		7	8	9
<u>VSP Name</u>		-R5.00				4
	DUE:	R10.00		1	2	3
<div style="border: 1px solid black; padding: 5px; display: inline-block;">  <p>R10 is still due, and the customer would like to pay the remainder from their mobile wallet. The above process will be repeated.</p> </div>						
Cash	EFT/Cards	wiCode	ESC	0	ENTER	

Table:	100	B/No:	INV201			
SUB TOTAL		R15.00		7	8	9
<u>VSP Name</u>		-R5.00		4	5	4
<u>VSP Name</u>		-R10.00		1	2	3
	DUE:	R00.00		ESC	0	ENTER
Cash	EFT/Cards	wiCode				

Table:	100	B/No:	INV201			
SUB TOTAL		R15.00		7	8	9
VSP Name		-R5.00				4
VSP Name		-R10.00				3
DU				1	2	
Cash	EFT/Cards	wiCode	ESC	0	ENTER	



Once the total amount due has been tendered, the cashier can close or complete the bill



Now that the **real-world** transaction has been completed, the point of sale should send a Transaction Advice to the wiCode platform, finalising the wiCode transactions. There should be an advice sent for each transaction performed, using the wiTrxId received in the transaction response. In this example, the POS would send 2 transaction advice requests, as there are two wiCode transactions that should be finalized.

```

<pos:advise>
  <request>
    <apiCredentials>
      <id>TEST</id>
      <password>0873d391e987982fbdd3</password>
    </apiCredentials>
    <action>FINALISE</action>
    <originalTrx>
      <storeTrxDetails>
        <basketId>12</basketId>
        <cashierId>ADMIN</cashierId>
        <posId>0011</posId>
        <storeId>1050</storeId>
        <trxId>12</trxId>
      </storeTrxDetails>
      <type>PAYMENT</type>
      <wiTrxId>3843</wiTrxId>
    </originalTrx>
  </request>
</pos:advise>

```

'Sit down' integration walkthrough


The following walkthrough will detail the point of sale user interface and technical webservice flows required to perform a sit down transaction, where a customer will scan a QR printed on the bill to make a payment.

In the following example, two customers order a pizza and a pasta, and make two separate payments against the bill.



Pizza 1 R70.00 Pasta 1 R85.00 Running Total R155.00	Store logo Product selections
---	--

SPLIT	INFO	VOID	PREPAID	DISC	CUST	ORDER	PRINT BILL	ENTER
TABLES	EDIT	ORD MSG	LOYALTY	GIFT	WIGROUP			

Pizza 1 R70.00 Pasta 1 R85.00 Running Total R155.00	Store logo <div>  <p>Unlike 'over the counter' transactions, which are initiated by the point of sale, sit down transactions are initiated by the customer's mobile. Once the customer is ready to pay, the cashier will print a till slip</p> </div>
---	---

SPLIT	INFO					ORDER	PRINT BILL	ENTER
TABLES	EDIT	ORD MSG	LOYALTY	GIFT	WIGROUP			



When the POS prints a proforma invoice, a QR code should be included below the bill information. The contents of this QR code should be (including new lines):

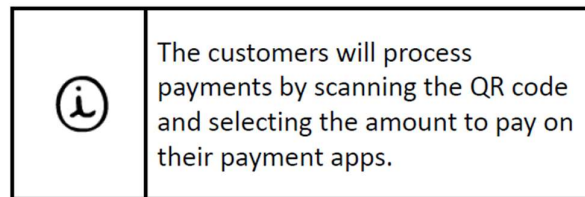
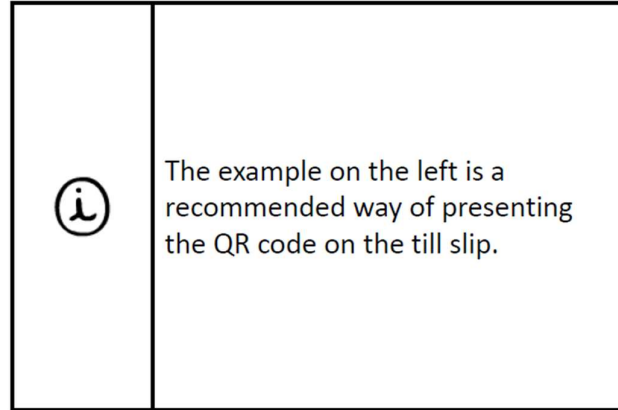
BILL
BasketID
StoreID
Bill value in cents



An example would be:

BILL
INV201
1050
15500







Once the customers have paid, the waitron will confirm payment at point of sale



Let's proceed to the tender screen now to process confirm payment.

Pizza 1 R70.00	Store logo															
Pasta 1 R85.00																
Running Total R155.00																
<table border="1"><tr><td>SPLIT</td><td>INFO</td><td>VOID</td><td>PREPAID</td><td>DISC</td><td>CUST</td><td rowspan="2">ORDER</td><td rowspan="2">PRINT BILL</td><td rowspan="2">ENTER</td></tr><tr><td>TABLES</td><td>EDIT</td><td>ORD MSG</td><td>LOYALTY</td><td>GIFT</td><td>WIGROUP</td></tr></table>		SPLIT	INFO	VOID	PREPAID	DISC	CUST	ORDER	PRINT BILL	ENTER	TABLES	EDIT	ORD MSG	LOYALTY	GIFT	WIGROUP
SPLIT	INFO	VOID	PREPAID	DISC	CUST	ORDER	PRINT BILL				ENTER					
TABLES	EDIT	ORD MSG	LOYALTY	GIFT	WIGROUP											

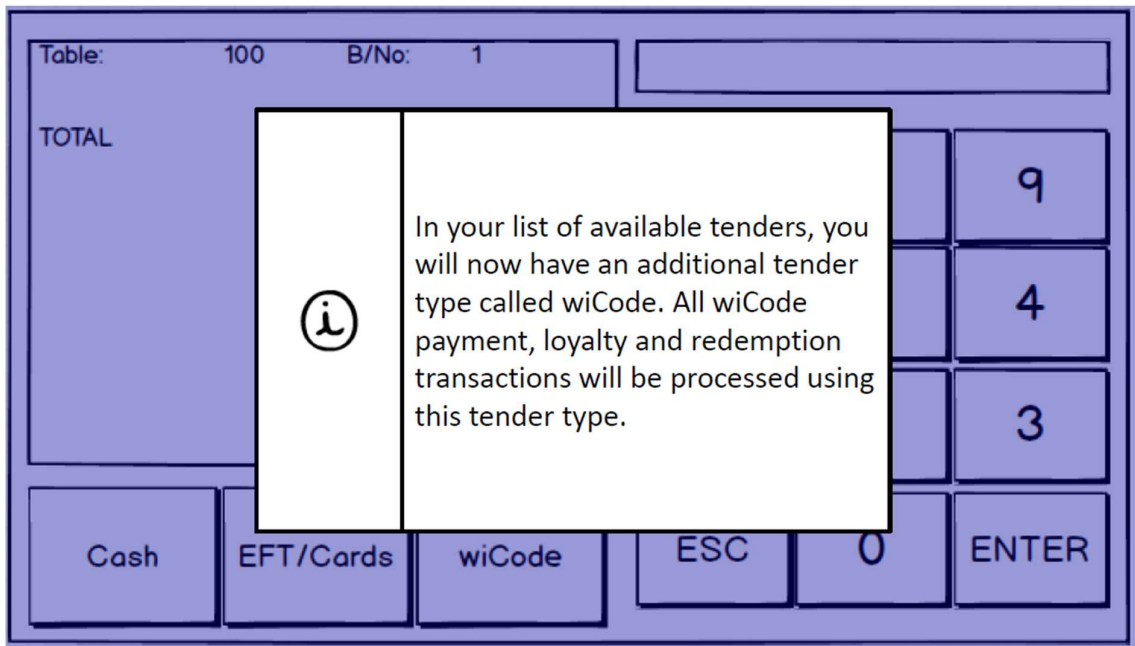



Table:	100	B/No:	INV201	
	<p>For the 'sit down' implementation, when the wiCode tender has been selected, the POS should perform a <i>transaction history request</i> using the same information which was imbedded in the QR code that was generated specifically for this table / bill.</p>			
	<p>Remember to include all required fields, and to use the same information that was used to create the bill's QR code. An example of the <i>transaction history request</i> which should be sent to the wiCode platform at this point is displayed next.</p>			
Cash	EFT/Cards	wiCode	ESC	ENTER

	<pre><soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap /envelope/" xmlns:pos="http://posprovider.te.wigroup.com/"> <soapenv:Header/> <soapenv:Body> <pos:transaction> <request> <apiCredentials> <id>POS_20</id> <password>yourpassword/password> </apiCredentials> <type>PAYMENT</type> <basketAmount>1500</basketAmount> <cashbackAmount>0</cashbackAmount> <tipAmount>0</tipAmount> <totalAmount>1500</totalAmount> <switchTrxId></switchTrxId> <token> <id>1122345</id> <type>WICODE</type> </token> <storeTrxDetails></pre>	<pre><basketId>INV201</basketId> <cashierId>John Smith</cashierId> <posId>POS2</posId> <remoteStoreId></remoteStoreId> <retailerId></retailerId> <storeId>1050</storeId> <trxId>123456789</trxId> </storeTrxDetails> <products> <product> <id>1111</id> <pricePerUnit>1000</pricePerUnit> <units>1</units> </product> <product> <id>2222</id> <pricePerUnit>5000</pricePerUnit> <units>1</units> </product> </products> </request> </pos:transaction></pre>
---	--	---

Sit down payments made by customers will appear here

Confirmed payments

Total Amount	Tip Amount	Time	App
R25.00	R5.00	18:35	Flickpay
R25.00	R5.00	18:34	MTN Mobile Money



Refresh

TOTAL: R 50.00

Done

Enter/Scan wiCode