

# wiCode Platform

## Recon and Settlement

### Generic Specification

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## Version Control

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# 1 Introduction

This document provides generic details surrounding the recon and settlement processes at wiGroup. It also includes the specifications of the reconciliation and settlement files that are generated by the wiCode Platform.

## 1.1 wiCode Platform Overview

The wiCode platform is a mobile switching system to connect retailers to value store providers (VSP). A VSP is any entity that has a 'Value Store' [a store of monetary value]. Through the wiCode platform, it can be used at the point of sale (POS) to transact or pay for goods or services. For example: e-wallets, banking institutions, loyalty processing systems, coupon and vouchering systems.

The goal of the platform is to simplify payments for all parties involved. Retailers only need to integrate into the platform once to gain access to multiple VSP. Similarly VSPs can have access to a wide retail footprint by integrating into the platform. Reconciliation and analytics are all managed from one central system further simplifying both retailer and VSP relationship.

The platform can facilitate the movement of funds between the retailer and the VSPs. This document details the transaction, reconciliation and settlement processes.

The retailer will be settled for all transactions that have been processed through the platform and the VSPs will be debited for all transactions switched.

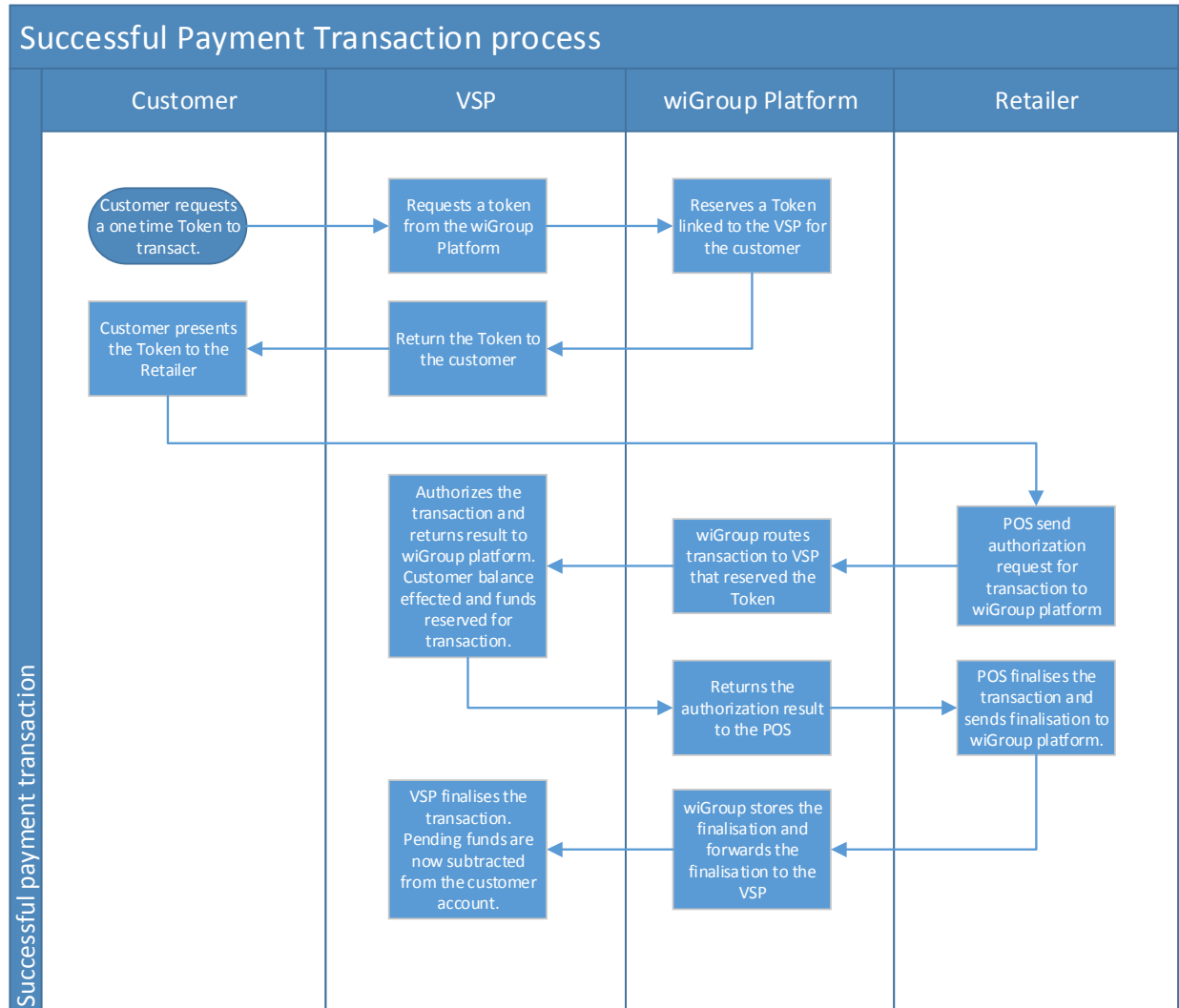
Similarly retailers will be debited for cash deposits in store and the VSP will be credited. The nett difference between payments/withdrawals and deposits will be moved between the retailer and VSP.

This document describes the transaction process, the recon process and the settlement process.



## 2 Transaction Overview

This section describes the transaction flow between the customer, the VSP, the wiGroup platform, and the retailer for a successful payment transaction. Withdrawals and deposits follow the exact same process.



During this transaction process it is possible that any one of the interactions fail. This will result in the transaction state being different between the various entities.



## 2.1 Potential transaction outcomes

### 2.1.1 Failure between POS and wiGroup

- The authorisation could not be pushed to the wiGroup platform.
  - o In this case the transaction would not be logged on the wiGroup platform. The transaction would be marked as failed on the retailer side.
- The VSP responds with the successful authorization, but wiGroup cannot deliver the result to the retailer POS.
  - o In this case wiGroup will push a reversal to the VSP and log the transaction as failed. The transaction will be marked as failed on all the entities.
- The authorization result was sent to the retailer, but no finalisation/reversal was received from the retailer.
  - o The transaction state on the VSP and wiGroup platform would be “successful pending recon” as the final state is unknown. The final state of the transaction will be determined the following day during recon with the retailer. The wiGroup platform will change the state to reflect the retailer’s state and pass it onto the VSP both by automatically pushing the finalisation/reversal and by adding the final state into the VSP recon file.

### 2.1.2 Failure between wiGroup and VSP

- The wiGroup platform could not push the transaction to the VSP.
  - o The transaction would be both on the retailer and wiGroup platform side as failed.
- The authorisation was sent to the VSP, but no response was received from the VSP. The transaction state on the VSP is unknown.
  - o The transaction would be on both the retailer and wiGroup system as failed. The state on the VSP is unknown and will be corrected by recon the following day.
- The finalisation/reversal was received from the retailer, but could not be pushed to the VSP.
- The state on the retailer and wiGroup platform will be in-sync, however the state on the VSP will be “successful pending recon”. This will be resolved during VSP recon the following day.
- The finalisation/reversal was sent to the VSP, but no acknowledgement was received to indicate that the VSP received it.
  - o The state on the retailer and wiGroup platforms will be in-sync, however the state on the VSP is unknown. This will be resolved during VSP recon the following day.
- The finalisation/reversal was successfully delivered to the VSP.
  - o The state on all systems are in-sync.

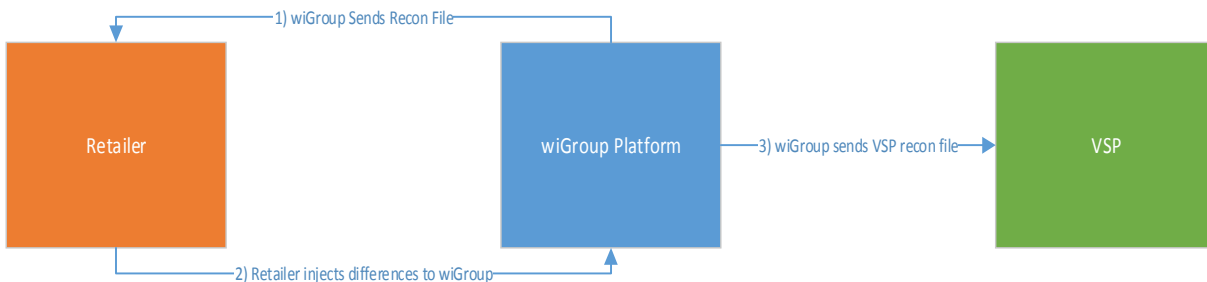


### 3 Store Owner Recon

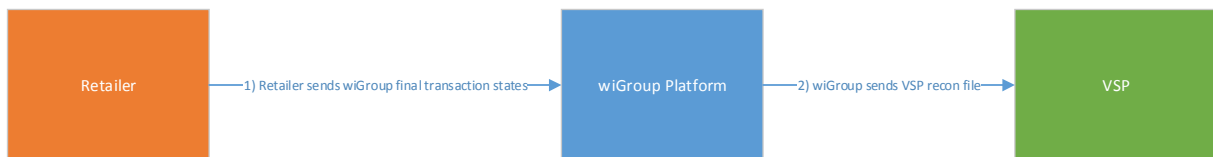
To ensure the final transaction state is consistent throughout all the entities involved, the platform performs a recon process with both the retailer and the VSP. Since the retailer dictates the final state of a transaction (only the retailer knows whether they supplied the goods to the customer or cancelled the transaction), the recon between the wiGroup platform and retailer is done first. Once this is complete a recon file is sent to the VSP containing the final state of all transactions. The VSP will then either reverse or finalise the transactions should they still be in the “successful pending recon” state.

Depending on the retailer capabilities the recon process between the platform and the retailer can follow one of two processes:

- wiGroup sends the retailer a recon file containing all the transactions for the previous day and their current state on the platform. The retailer checks this against their records and then push through the finalise / reversals to the wiGroup platform as required. The retailer does not have to push the transactions if they don't have the capability as it will be resolved when wiGroup receives the final recon file from the retailer. It just speeds up the process should the retailer have the capability. Once the retailer has completed recon, it sends a recon file containing all the final transaction states to the wiGroup platform. The platform then updates the transactions and pushes the finalisations/reversals to the VSP as required.



- wiGroup does not send the retailer the recon file. The retailer simply sends the recon file to wiGroup and the platform will process the file as per the final phase of the above recon process.





## 4 Settlement

Settlement occurs independently from the recon process. This is due to the cut off times in submitting debit orders and settlements to the banking systems. Should the retailer recon process complete for the settlement process, the retailer will be fully settled for all transactions of the previous day. If it happens post recon, the retailer will only be settled for the “successful pending recon” transaction the following day. Transactions in “successful pending recon” state are not included in the settlement process.

The retailer and VSP settlement process is executed independently from one another. They can happen at different intervals (daily/weekly/monthly) and at different times during the day. Based on the interval and time it runs, all unsettled transactions for that entity (retailer/VSP) not in “successful pending recon” state will be settled.

Due to the differences in when VSP and retailers settle, the wiGroup platform will carry the difference between what was settled to the retailer and what has been debited from the VSP. For larger retailers and VSPs the settlement should be performed on a daily basis.

### 4.1 Settlement Structure

Settlement is completed on a Store Owner / Bank Account level and the settlement intervals and details are setup on the wiGroup portal.





## 5 Generic Recon File Description

### 5.1 Store Owner Recon

The File name is as follows: StoreOwner\_StoreOwnerID\_Recon\_YYYYMMDDHHMMSS

e.g. StoreOwner\_15\_Recon\_20150601050312

The Recon CSV file is detailed below:

Header	Detail
WISOR	StoreGroupID
StoreOwnerID	StoreID
FromDateTime	StoreName
toDateTime	RetailerID
ExtractionDate	RetailerName
NumberOfRecordsInFile	RemoteStoreID
	TrxID
	TokenID
	TokenType
	TransactionType
	TotalAmount
	BasketAmount
	CashbackAmount
	TipAmount
	TotalAmountProcessed
	BasketAmountProcessed
	cashbackAmountProcessed
	TipAmountProcessed
	TotalAmountsettled
	StoreBasketID
	StoreTrxID
	StorePOSID
	StoreCashierID
	SwitchTrxID
	vspID
	vspName
	VSpTrxID



createDate
AdviceDate
State

The table below provides a description for each of the data fields, whether or not it is present in the POS request or response, and the origin of the data (i.e. the component that contributed the data to the transaction).

Section	Description	POS Request	POS Response	Origin
<b>Header</b>				
WISOR	Unique identifier of the file format and version number.	-	-	wiCode Platform
StoreOwnerID	Unique identifier of the Store Owner.	-	-	wiCode Platform
FromDateTime	Timestamp of the left edge of the interval over which the recon was generated (inclusive).	-	-	wiCode Platform
toDateTime	Timestamp of the right edge of the interval over which the recon was generated (exclusive).	-	-	wiCode Platform
ExtractionDate	Timestamp on which the recon file was generated by the wiCode Platform.	-	-	wiCode Platform
NumberOfRecordsInFile	Total number of transaction line items in the file.	-	-	wiCode Platform
<b>Detail</b>				
StoreGroupID	Unique identifier of the Store as configured on the wiCode Platform.	-	-	wiCode Platform
StoreID	Unique identifier of the Store as configured on the wiCode Platform. Sent through by POS.	Yes	Echo	wiCode Platform
StoreName	Name of the store as configured on the wiCode Platform.	-	-	wiCode Platform
RetailerID	Retailer assigned unique identifier of the store. [Use in conjunction with remote store Id]	Optional	Echo	wiCode Platform
RetailerName	Name of the retailer as configured on the wiCode Platform.	-	-	wiCode Platform
RemoteStoreID	wiGroup assigned unique identifier of the retailer. [Use in conjunction with retailerId]	Optional	Echo	wiCode Platform



TrxID	Unique identifier of the basket. (Same as wiTrxId). Generated by the wiCode Platform.	-	Yes	wiCode Platform
TokenID	Unique identifier of the token.	Yes	Echo	wiCode Platform
TokenType	{WICODE, WIQR, BIN}	Yes	Echo	wiCode Platform
TransactionType	{PAYMENT, DEPOSIT, WITHDRAWL}	Yes	Echo	wiCode Platform
TotalAmount	Total transaction amount (Basket + Cashback + Tip) [Cents]	Yes	Echo	POS
BasketAmount	Value of the sum of the products in the Basket. [Cents]	Optional	Echo	POS
CashbackAmount	Value of the cash to be withdrawn. [Cents]	Optional	Echo	POS
TipAmount	Tip amount. [Cents]	Optional	Echo	POS
TotalAmountProcessed	Total amount processed by the VSP.	-	Yes	VSP
BasketAmountProcessed	Value of the basket which the VSP processed.	-	Yes	VSP
cashbackAmountProcessed	Value of the cashback processed by the VSP.	-	Yes	VSP
TipAmountProcessed	Value of the tip amount processed by the VSP.	-	Yes	VSP
TotalAmountsettled	The amount that the VSP will settle for the transaction. Typically equal to the total processed amount, or zero.	-	-	VSP
StoreBasketID	Unique identifier of the Basket of goods at the given store and POS. Used for product filtering between transactions.	Yes	Echo	POS
StoreTrxID	Unique identifier of the transaction at the store/merchant.	Yes	Echo	POS
StorePOSID	Unique identifier of the point-of-sale at the store.	Yes	Echo	POS
StoreCashierID	Unique identifier of the store cashier.	Optional	Echo	POS



SwitchTrxID	Unique identifier of the transaction on the switch.	Optional	Echo	POS
vspID	wiGroup's unique identifier of the VSP.	-	Yes	wiCode Platform
vspName	Name of the VSP. E.g. FlickPay.	-	Yes	wiCode Platform
VSpTrxID	VSP's unique identifier of the transaction.	-	Yes	VSP
createDate	The timestamp of the instant at which the transaction() leg of the dual-leg transaction protocol hits the wiCode Platform (sent by POS).	-	-	wiCode Platform
AdviceDate	The timestamp of the instant at which the advice(finalise/reversal) leg of the dual-leg transaction protocol hits the wiCode Platform (sent by POS). If NULL, the advice(finalise/reversal) has not yet hit the wiCode Platform.	-	-	wiCode Platform
State	Current state of the transaction. For a full list of states and their descriptions see XX.	-	-	wiCode Platform



## 6 Generic Settlement File Description

The File name is as follows: *StoreOwnerID-StoreOwnerName-BatchDate-BankAccountID-*

e.g. 111-wiGroup (Pty) Ltd-20150610-156.csv

The Settlement CSV file is detailed below:

Header	Detail
WISOS	StoreGroupID
StoreOwnerID	StoreID
FromDateTime	StoreName
toDateTime	RetailerID
ExtractionDate	RetailerName
NumberOfRecordsInFile	RemoteStoreID
TotalValueSettled	TrxID
BatchDate	TokenID
StatementReference	TokenType
	TransactionType
	TotalAmount
	BasketAmount
	CashbackAmount
	TipAmount
	TotalAmountProcessed
	BasketAmountProcessed
	cashbackAmountProcessed
	TipAmountProcessed
	TotalAmountsettled
	StoreBasketID
	StoreTrxID
	StorePOSID
	StoreCashierID
	SwitchTrxID
	vspID
	vspName
	VSpTrxID
	createDate



AdviceDate
State

Note: The Statement Reference is *WG-BatchDate-BankAccountID*