

# Unloading Online Payments

# Contents

INTRODUCTION	2
CHAPTER 1. PARAMETERS OF "RBS ONLINE PAYMENTS EXPORT" PIPE	3
CHAPTER 2. FORMATS OF OUTGOING FILES (UNLOADING ONLINE PAYMENTS)	5

## Introduction

The WAY4™ system allows unloading information about the successfully completed online payments into third party billing systems like those of mobile communications operators. Such payments are unloaded through the NetServer's Billing Gateway channel.

Information is unloaded by the "RBS Online Payments Export" pipe into the \$RBS\_INTERCHANGE\_DIR\$\OUT\<RECEIVER>\ folder where RECEIVER is the value of a parameter of the pipe.

The pipe functions in two modes:

The technical mode: the value of the CREATE\_FIN\_DOC parameter of the pipe is "N". In this mode, payments are unloaded to be verified by the recipient of the file, that is, a service provider. Payments are grouped into files in accordance with the value of the GROUP\_FILE\_BY parameter. This mode allows to control the status of a service with the CHANGE\_STATUS parameter of the pipe, that is, to either change or not the status from "Posted" or "Rejected" to "Closed" in the ADD\_SERVICE table. If the value of the CHANGE\_STATUS parameter is "N", that is, the status of a service does not change, data may be unloaded once again. Payments in different currencies may be grouped in one file.

The financial mode: the value of the CREATE\_FIN\_DOC parameter of the pipe is "Y". In this mode, payments are unloaded into a file and a financial document is created for the sum total of all payments in the file. The document has a link to the file through FILE\_INFO.ID and the FILE\_INFO.SEND\_FILE\_NAME parameters entered into its REASON\_DETAILS field. The characteristics of the financial document are determined by the SOURCE\_NUMBER, TARGET\_NUMBER and SOURCE\_MSG\_CODE parameters of the pipe. In this mode, the statuses of services are always changed from "Posted" or "Rejected" to "Closed" after the unloading of payments and the repeated unloading of payments is impossible. Payments are grouped into files in accordance with the value of the GROUP\_FILE\_BY parameter. In this mode, the GROUP\_FILE\_BY parameter must group files according to currencies, that is, the value of the parameter must include the "d.TRANS\_CURR" element.

## Chapter 1. Parameters of "RBS Online Payments Export" Pipe

The parameters of the "RBS Online Payments Export" pipe are as follows:

Parameter	Values	Descriptions
SERVICE_TYPES	'<code>','<code>'...	The list of the of the payments codes for which payments are being unloaded (codes from the Additional Online Services dictionary (Full → Configuration Setup → Merchant Device Setup → Additional Online Services).
SENDER	1 to 32 symbols	The bank code in accordance with the roster of payment recipients of a service provider.
RECEIVER	1 to 32 symbols	The code of a service recipient organization.
FILTER	<conditions>	The additional conditions of the SQL query selecting input data. The following synonyms may be used to determine what tables the fields belong to: st – for the ADD_SERVICE_TYPE table sr – for the ADD_SERVICE table d – for the DOC table
SOURCE_HINT	The parameter of SELECT operator	This parameter is an optimizing condition (HINT) added to SELECT operator. This parameter is used only while working with the Oracle database manager – upon the approval of OpenWay.
CHANGE_STATUS	Y/N	The parameter determining whether or not the status of the server is changed in the ADD_SERVICE table after the unloading of payments. Its default value is "Y".
GROUP_FILE_BY		An expression (a field or a concatenation of fields) defining the rule of grouping payments in a file. The values of the GROUP_FILE_BY must not include symbols inadmissible in filenames. Concatenations of fields are marked by the "  " symbol. See some examples below: 1) "st.CODE"; 2) "st.CODE  d.SOURCE_NUMBER"; 3) "st.CODE  d.TRANS_CURR".
PAN_MASK	'<template>'	A card number masking template in the <N1><S><N2> format, where N1 is the number of opening symbols in a number, N2 is the number of trailing symbols in a number and S is the symbol that may replace other symbols. For instance, the "1*4" template will bring numbers to the following appearance: 9*****9999 where 9 is an appropriate digit in a card number.
CREATE_FIN_DOC	Y/N	The parameter determining whether or not a financial document for the sum total of the payments contained in a file shall be created. If its value is "Y", the value of the CHANGE_STATUS parameter is also "Y". The default value of this parameter is "N".

Parameter	Values	Descriptions
SOURCE_NUMBER		The identification number of the sender of a transaction.
TARGET_NUMBER		The identification number of the recipient of a transaction.
SOURCE_MSG_CODE		The source message code given by the sender of a message. These codes are set in the Full → Configuration Setup → Transaction Types → Transactions - All → [Msg Types] dictionary.
FILE_CODING		A coding admissible for XML files. Such as: "utf-8"; "windows-1251".
CASH_CARD_MIN	card number	A card number setting off the lower boundary of a range of card numbers. If a card number falls within this range, the transaction is considered to be cash.
CASH_CARD_MAX	card number	A card number setting off the upper boundary of a range of card numbers. If a card number falls within this range, the transaction is considered to be cash.

## Chapter 2. Formats of Outgoing Files (Unloading Online Payments)

The transactions export procedure creates outgoing files in the mailing directories of financial institutions.

An outgoing file contains payment documents pertaining to online operations and is intended for the systems of third party service providers.

Outgoing files are generated in the XML format. All its aggregates and separate fields are XML elements. The upper-order element must be named "PaymentsExportFile". The following elements must always begin at the first position of a file line: "PaymentsExportFile", "FileHeader", "PaymentsList", "Payment", "FileTrailer". The following elements, including their sub-elements, must always fill exactly one file line: "FileHeader", "Payment", "FileTrailer".

The data types are as follows:

- **C-xx** – a text field that may contain all printable symbols.
- **Integer** – any natural number or zero.
- **Date** – a date in the YYYY-MM-DD format, where YYYY is a year (0000 ... 9999), MM is a month in a year (01 ... 12) and DD is a day in a month (01 ... 31).
- **Date (JJJ)** – a date in the JJJ format, where JJJ is the sequential number of a day in a year (001 ... 366).
- **Time** – time in the HH:MI:SS format, where HH are hours (00 ... 23), MI are minutes (00 ... 59) and SS are seconds (00 ... 59).
- **aggregate** – a further described in this document conglomerate of data that includes data elements or other aggregates; a data element is a piece of data delimited by an opening and trailing tags.

Usage flags:

- **M** – data must be input
- **O** – data input is optional
- **C** – whether or not data are input depends on the values of other fields

## Filename structure:

No.	Field	Type	Use	Comment
1.	File Name Prefix	C-6	M	"ONPAYM"
2.	Delimiter	C-1	M	"_" (underscore symbol).
3.	Receiver	C-6	M	The code of a payment recipient organization determined by the RECEIVER parameter of the "RBS Online Payments Export" pipe.
4.	Delimiter	C-1	M	"_" (underscore symbol).
5.	Sender	C-6	M	A bank code determined by the SENDER parameter of the "RBS Online Payments Export" pipe.
6.	Delimiter	C-1	M	Delimiter symbol ".".
7.	Group Factor	C-32	M	The value of an expression according to which payments are grouped in files; see the GROUP_FILE_BY parameter of the pipe. If no values input, the default value is "N".
8.	File Creation Date	C-8	M	The creation date of an outgoing file in the YYYYMMDD format.
9.	Delimiter	C-1	M	"_" (underscore symbol).
10.	Inward File Number	Integer C-6	M	The sequential number in a day of an outgoing file; padded by zeroes on the left to the length of 6 digits.
11.	Delimiter	C-1	M	"." symbol
12.	File Extension	C-3	M	"xml"

*PaymentsExportFile* Aggregate Structure

No.	Field	Type	Use	Comment
1.	FileHeader	FileHeader aggregate	M	File registration information.
2.	PaymentsList	Payment aggregates list	M	A list of payments.
3.	FileTrailer	FileTrailer aggregate	M	File trailing information.

*FileHeader* Aggregate Structure

No.	Field	Type	Use	Comment
1.	FileLabel	C	M	The value of a field: "ONLINE.PAYM-EXP"
2.	FormatVersion	C	M	File format version: "1.0"
3.	Receiver	C-6	M	The code of a payment recipient organization determined by the RECEIVER parameter of the "RBS Online Payments Export" pipe.

No.	Field	Type	Use	Comment
4.	Sender	C-6	M	A bank code determined by the SENDER parameter of the "RBS Online Payments Export" pipe.
5.	CreationDate	Date	M	File creation date.
6.	CreationTime	Time	M	File creation time.
7.	Number	Integer	M	The sequential number of a file on the date of creation.
8.	GroupFactor	C-32	O	The value of an expression according to which payments are grouped in files; see the GROUP_FILE_BY parameter of the pipe in "Parameters of "RBS Online Payments Export"".

*PmtRec* Aggregate Structure

No.	Field	Type	Use	Comment
1.	PmtId	Integer	M	The unique document number in the WAY4 system.
2.	RecPmtId	C-12	M	The unique transaction number (receipt number).
3.	PmtInfo	PmtInfo aggregate	M	Information about a payment.
4.	PmtStatus	PmtStatus aggregate	M	Information about the status of a payment.

*PmtStatus* Aggregate Structure

No.	Field	Type	Use	Comment
1.	PmtStatusCode	C-1	M	A status code: Posted – operation accepted, Cancelled – operation cancelled.
2.	EffDt	C-19	M	Transaction date and time in the YYYY-MM-DD HH:MM:SS format.
3.	PmtAuthId	C-6	M	Authorization code.
4.	Memo	C-100	O	Additional information (the content of the 111.04 field in the ISO8583 standard).
5.	PmtMethod	C-20	M	Payment instrument type The content of the 063.51 field).

*PmtInfo* Aggregate Structure

No.	Field	Type	Use	Comment
1.	CardAcctIdFrom	OWAcctId aggregate	M	Contract number.
2.	RemitInfo	RemitInfo aggregate	M	Information about a payment.
3.	Category	C-32	M	Service type code.



No.	Field	Type	Use	Comment
4.	PrcDt	C-10	M	The processing date of a transaction (Posting Date) in the (YYYY-MM-DD format).
5.	PmtRefId	C-25	O	TransactionRef (the content of the 111.02I field in SO8583 standard).

***OWAcctId*** Aggregate Structure

No.	Field	Type	Use	Comment
1.	AcctType	C-80	M	Reserved for future use.
2.	AcctId	C-24	M	Identification number.
3.	BankInfo	BankInfo aggregate	M	The identifier of a financial institution.

***BankInfo*** Aggregate Structure

No.	Field	Type	Use	Comment
1.	BranchId	C-6	M	The ID of an Acquiring Institution (the content of the 032 field in ISO8583 format).

***RemitInfo*** Aggregate Structure

No.	Field	Type	Use	Comment
1.	SettlementInfo	OWAcctId aggregate	M	Detailed information about a payment.
2.	CustPayeeId	C-36	M	Reserved for future use.
3.	CurAmt	CurAmt aggregate	M	The amount and currency of a payment.
4.	RemitDetail	RemitDetail aggregate	O	Additional information about a payment.
5.	PmtId	C-25	O	ReconcilRef (the content of the 111.05 field in ISO8583 format).

***CurAmt*** Aggregate Structure

No.	Field	Type	Use	Comment
1.	Amt	C-15	M	Transaction amount.
2.	CurCode	C-3	M	Transaction currency.

***SettlementInfo*** Aggregate Structure

No.	Field	Type	Use	Comment
1.	SettlementMethod	C-80	M	Reserved for future use.
2.	DepAcctId	OWAcctId aggregate	M	Terminal ID.

No.	Field	Type	Use	Comment
3.	Memo	C-25	O	NetworkRef (the content of the 111.01 field in ISO8583 format).

**RemitDetail** Aggregate Structure

No.	Field	Type	Use	Comment
1.	BillId	C-8	O	Period paid for (the content of the 111.03 field in ISO8583 format).
2.	Memo	C-100	M	Payment order description (the content of the 104 field in ISO8583 format), for instance, a client's mobile phone number.
3.	BillingAcct	C-32	M	The ID of a client in the DB of a mobile service operator (the content of the 047 field in ISO8583 format).
4.	PmtSummAmt	PmtSummAmt aggregate	M	The amount owed by a bank to an operator.

**PmtSummAmt** Aggregate Structure

No.	Field	Type	Use	Comment
1.	BillSummAmtId	C-10	M	"AmtToPay"
2.	CurAmt	CurAmt aggregate	M	Transaction amount and currency.

**FileTrailer** Aggregate Structure

No.	Field	Type	Use	Comment
1.	NumberOfPayments	Integer	M	The number of payments in the PaymentsList aggregate.
2.	TotalAmount	C-18	M	The control amount as to the PmtRec/PmtInfo/RemitInfo/CurAmt/Amt field, disregarding currency.
3.	TotalAmountToPay	C-18	M	The control amount as to the PmtRec/PmtInfo/RemitInfo/RemitDetail/PmtSummAmt/CurAmt/Amt field, disregarding currency.