Transaction Notifications

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Introduction

In WAY4™ it is possible to generate notifications about transactions made with a card and crediting/debiting funds to/from a card account. Messages are generated on the basis of authorisation and financial documents containing information about transactions that have been made and can be sent to clients by e-mail or SMS.

This document is intended for bank or processing centre employees responsible for WAY4 setup and describes general principles, setup and use of transaction notifications.

It is recommended to refer to the following resources from the WAY4™ documentation series when working with this document:

- "Events"
- "Configuration of Client Messages"
- "Issuing Modue"

The following conventions are used throughout the document:

- Screen form field names are shown in *italics*.
- Screen form button labels are encased in square brackets, for example [Approve].
- Sequences for selecting user menu items are shown with arrows as follows: "Configuration Setup → Contract Types"
- Warnings that there is a danger of making an incorrect action are marked with the  sign.
- Messages marked with the  sign contain information about important characteristics, additional features or the optimization of certain system functions.

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Chapter 1. Recipient Data

Addresses for delivering notifications are determined based on data registered in the form with additional client and contract addresses (see the paragraph " Address Support" of the document "Issuing Module"). The additional address type (the *Type* field in the same form) can be any of those registered in the "Address Types" list of address types ("Full → Configuration Setup →Client Classifiers → Address Types").

If a specific address type is to be used for sending SMS notifications, the number of the recipient's mobile phone is registered in the *ZIP* field (see Fig. 1). To send notifications by e-mail, the corresponding address is registered in the *E-Mail* field.

⚠ It is recommended to configure one address type for one telephone number. If two address types are registered in the system for the same telephone number, it will be impossible to change this telephone number from an ATM.

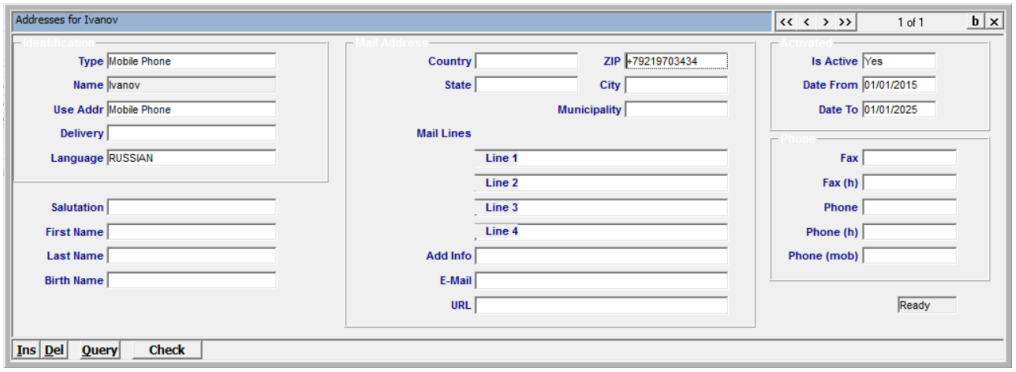

Fig. 1. An example of client mobile phone number registration

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Chapter 2. Event Setup

Messages to be sent to clients are generated when an Event is opened. For more information about Events, see the document "Events". The set of parameters is the same for all the Event Types listed below (see):

- The *Contract* field must contain the "Card" value.
- *Duration Type* – "Unique".

The *Code* field must contain a predefined Event type code, generated with consideration of the following rules:

- To notify a client that an authorisation document has been created, Event types are registered with the code AUTH_<Service Class>_<Request Category>_<Response Code>, where the <Service Class> variable is mandatory and can have the following values:
  - "T" (Transaction) – card transactions.
  - "C" (Credit Limit) – operations for setting and changing credit limits.
  - "P" (Online Payment) – utilities or mobile operator service payments made by the generation of a payment order.
  - "B" (Balance Inquiry) – balance inquiry.
  - "S" (Online Statement) – request for mini-statement

  The <Request Category> variable is mandatory and can have one of the following values:
  - "Q" (Request) – transaction request.
  - "P" (Advice) – notification that a transaction has been made, including chargeback or representment.
  - "R" (Reversal) – notification of reversal.

  The <Response Code> variable is used to specify the internal three-character response code with which the system processed the document. This variable is not mandatory. It can be used to generate a message only as the result of receiving specific system response codes on a processing result. Other functionality of notification according to system response codes is described in detail in the section "Notification of Negative Response Codes" of the document "Alert Notification Messaging".
- To notify clients of financial transactions that have been made, Events with the following codes must be registered:
  - "NON_AUTH" – notification of a financial transaction made without authorisation.
  - "MTR_PAYMENT" – payment to a card contract account.
  - "MTR_CREDIT" – notification that a card has been credited.
  - "MTR_DEBIT" – notification that a card has been debited.

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- "MTR_FIN_REVERSE" – notification of reversal.
- "MTR_FIN_ADJUST" – notification of adjustment.

When an attempt is made to open this Event, a check is performed for whether an Event was opened earlier with the code "AUTH_T_R" or "AUTH_P_R". If an "AUTH_T_R" or "AUTH_P_R" Event was opened, an Event with the code "MTR_FIN_REVERSE" will not open.

For each registered Event Type, Event messages are configured with the corresponding text and address type. For more information about configuring messages, see the document "Configuration of Client Messages".

In a message template, special variables can be used to get information from a document generated as the result of an authorization or financial operation (see "Use of Variables").

The address type for which the mobile phone was registered or the e-mail address of the notification recipient must be specified in the *Address Type* field of the form used to enter a message template.

- The %ADDR_ZIP% template is automatically set for the "SMS" delivery channel (mobile phone number is determined from the *ZIP* field of the corresponding type of address).
- The %E-MAIL% template is automatically set for the "E Mail" delivery channel (e-mail address is determined from the *E-Mail* field of the corresponding type of address).

Fig. 2 shows an example of configuring an Event used to generate a message when authorisation on a card is made.

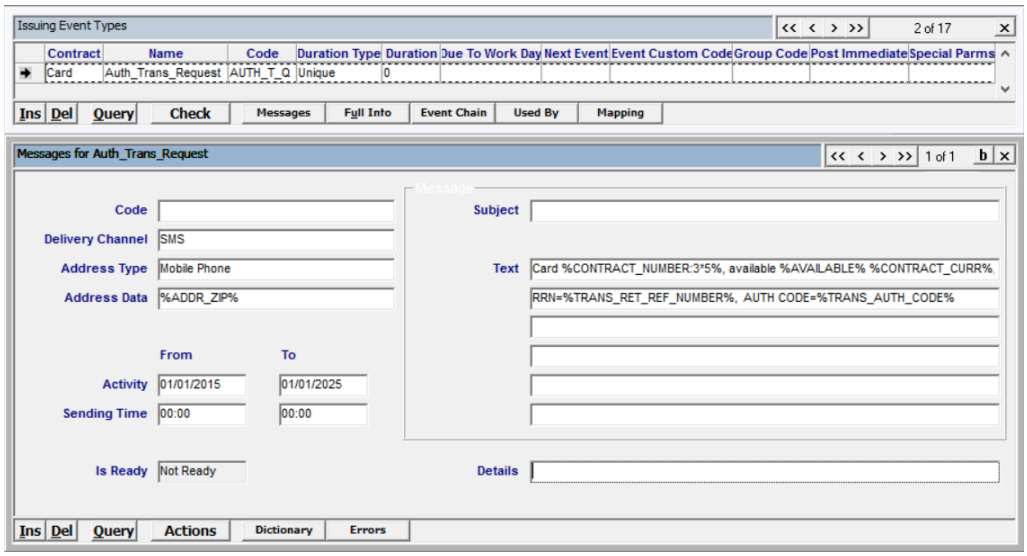

Fig. 2. Example of configuring an Event for generating a message

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Chapter 3. Use of Variables

Variables in message template text are indicated using the "%" (percent) sign. For example, if the variable %TRANS_AMOUNT% is used, the transaction amount will replace it when a message is generated.

List of Variables

The list of variables for getting client and contract information is provided in the document "Configuration of Client Messages".

Below is a list of variables that can be used in message templates for informing clients about transactions that have been made.

Table 1. List of variables for configuring message templates

№	Name	Value
Transaction information (field values from the "All Docs" or "Doc-General" forms)		
1.	%TRANS_AMOUNT%	*Trans Amount* field value
2.	%TRANS_CURR%	*Trans Curr* field value
3.	%TRANS_DATE%	*Trans Date* field value
4.	%TRANS_DR_CR%	Transaction type *DR\CR* field value. Defined by the *Transaction Type* field of the document.
5.	%TRANS_TYPE%	*Trans Type* field value
6.	%TRANS_SIC%	*SIC Code* field value
7.	%TRANS_COUNTRY%	*Trans Country* field value
8.	%TRANS_CITY%	*Trans City* field value
9.	%TRANS_DETAILS%	*Trans Details* field value
10.	%TRANS_SOURCE_CODE%	*Source Code* field value
11.	%TRANS_TARGET_CODE%	*Target Code* field value
12.	%TRANS_RETURN_CODE%	*Return Code* field value
13.	%TRANS_RC_DESCRIPTION%	Text of the message with the code from the *Return Code* field
14.	%TRANS_REASON_DETAILS%	*Reason Details* field value (for details on use, see the section "%TRANS_DETAILS%")
15.	%TRANS_TAGS%	*Add Data* field value (the format for setting additional parameters is the same as %TRANS_REASON_DETAILS%)
16.	%DOC_TAGS%	Same as %TRANS_TAGS%
17.	%TRANS_RET_REF_NUMBER%	*Ret Ref Number* field value
18.	%TRANS_ACQ_REF_NUMBER%	*Acq Ref Number* field value
19.	%TRANS_ISS_REF_NUMBER%	*Iss Ref Number* field value
20.	%TRANS_SOURCE_REG_NUM%	*S Reg Num* field value
21.	%TRANS_AUTH_CODE%	*Auth Code* field value
22.	%TRANS_DOC_AMND_DATE%	*Amendment Date* field value

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№	Name	Value
23.	%TRANS_DOC_AMND_OFFICER%	*Amendment Officer* field value
24.	%TRANS_DOC_ID%	*Record Id* field value
25.	%TRANS_SOURCE_NUMBER%	*Source Number* field value
26.	%TRANS_TARGET_NUMBER%	*Target Number* field value
27.	%TRANS_FX_SETTL_DATE%	*FX Settl Date* field value
28.	%DOC_RECONS_AMOUNT%	*Amount Reconcil* field value
29.	%RECONS_CURR%	*Currency* field value for *Amount Reconcil*
30.	%ADD_SERVICE_INFO%	*Service Info* field value of the "Services for <name of additional online service>" form of the Service on which the transaction was made
31.	%TRANS_NAME%	Name of the transaction according to the "Message Dictionary"
32.	%TRANS_ACC_AMOUNT%	Amount debited from client account when document was posted (see the section "%TRANS_ACC…%").
33.	%TRANS_ACC_CURR%	Currency of the amount debited from the client account (see the section "%TRANS_ACC…%")
34.	%TRANS_ACC_FEE%	Fee charged to the client account (see the section "%TRANS_ACC…%")
35.	%TRANS_ACC_TOTAL%	Sum of the %TRANS_ACC_AMOUNT% and %TRANS_ACC_FEE% values (see the section "%TRANS_ACC…%")
36.	%TRANS_ACC_ADV_AMOUNT%	Amount of an entry for a macrotransaction with the "Advice" request category (see the section "%TRANS_ACC…%")
37.	%TRANS_ACC_ADV_FEE%	Fee for a macrotransaction with the "Advice" category (see the section "%TRANS_ACC…%")
38.	%TRANS_ACC_ADV_TOTAL%	Sum of the %TRANS_ACC_ADV_AMOUNT% and %TRANS_ACC_ADV_FEE% values (see the section "%TRANS_ACC…%")
39.	%TRANS_ACC_REV_AMOUNT%	Amount of an entry for a macrotransaction with the "Reversal" request category (see the section "%TRANS_ACC…%")
40.	%TRANS_ACC_REV_FEE%	Fee for a macrotransaction with the "Reversal" category (see the section "%TRANS_ACC…%")
41.	%TRANS_ACC_REV_TOTAL%	Sum of the %TRANS_ACC_REV_AMOUNT% and %TRANS_ACC_REV_FEE% values (see the section "%TRANS_ACC…%")
42.	%POSTING_DATE%	Value of the *Date* field in the "M-trans for…" form – banking date of posting the macrotransaction for the corresponding document.
43.	%TRANS_ACC_MTR_DETAILS%	*Mtr Details* field value of the form "M-trans for…" – macrotransaction details for the corresponding document.
44.	%ENTRY_FX_RATE_VALUE%	FX rate
45.	%TRANS_BLOCKED_AMOUNT%	Amount blocked as the result of the transaction
46.	%TRANS_BLOCKED_CURR%	Currency of funds blocked as the result of the transaction

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№	Name	Value
47.	%TRANS_BLOCKED_FEE%	Fee amount blocked as the result of the transaction
48.	%TRANS_SERVICE_CLASS%	*Service Class* classifier transaction type.
49.	%TRANS_SOURCE_SPC%	Relation type (*Relation Type* field value) of the source contract and the related contract.
50.	%TRANS_TARGET_SPC%	Relation type (*Relation Type* field value) of the target contract and the related contract
51.	%DOC_ACTION%	Document's ACTION field value
Information on a payment order for which a document was generated ("Full Info For St. Orders for …" form field values)		
52.	%PAYMENT_TYPE%	Payment type (*Payment Type* field value)
53.	%PAYMENT_RECEIVER%	Payment recipient (*Standard Payee* field value)
54.	%TARGET_DETAILS_1%	Additional information about a correspondent account (*Target Details 1* field value)
55.	%TARGET_DETAILS_2	Additional information about a correspondent account *Target Details 2* field value)
56.	%TRANS_DETAILS%	Additional information about a payment (*Payment Details* field value)
57.	%COMMENT_TEXT%	Comments for an order (*Order Comment* field value)
58.	%REASON_DETAILS%	Tagged information from the *Posting Details* field

Characteristics of Variable Use

The variables described below can be used with additional parameters.

%TRANS_DETAILS%

The %TRANS_DETAILS% variable can be used with the following parameters:

```
%TRANS_ DETAILS [:<TAG_NAME>[:<Length>]]%
```

Where:

- <TAG_NAME> is the name of the tag predefined for a document's *Details* field (see "Full → Documents Input & Update → Doc - General Form → Doc - General").
- The <Length> parameter is used if the received data needs to fit in a report; in this case, the width of the column where the data will be placed can be specified in this parameter.

The same configuration is used for the %TRANS_REASON_DETAILS% variable (information from dispute documents),

%TRANS_ACC…%

%TRANS_ACC…% variables (for example, %TRANS_ACC_CURR%, %TRANS_ACC_AMOUNT % and others) can be used with the following additional parameters:

```
%TRANS_ACC_CURR[:<ServiceClasses>[:<AccCodes>]]%
```

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where

- <ServiceClasses> – transaction type code (or comma-delimited list of codes).
- <AccCodes> – account type code (or comma-delimited list of codes), corresponding to the value of the *Code* field in the "Account Types" form (Full → Configuration Setup → Accounting Setup → Account Types).

Variable Prefixes

To carry out various tasks, WAY4 can work with special prefixes for some variables. The "$" (dollar) sign is used to separate the prefix and variable names.

The following prefixes can be used for variables related to transaction information:

- The prefixes TRANS_SRC$ and TRANS_TGT$ are used to send information on the contract involved in a transaction (the source or the target respectively). Information about a client whose contract was involved in a transaction can be sent in the same way.

  Using one of these prefixes will also help avoid the following situation. If the current Event opened as a result of a usage limiter, the variables associated with client and contract data (for example, %CONTRACT_NUMBER%), are substituted with the field values of the contract for which the limiter was activated and not of the contract involved in the transaction. To include information in the message about the contract involved in the transaction and its client, use the prefixes TRANS_SRC$ and TRANS_TGT$.

  For example, a limiter is set on an issuing account contract that has a card subcontract with Usage Scenario = "Main and Own". When this limiter is activated, an Event creating a message will open. To include the contract target number in the message, use the %TRANS_TGT$CONTRACT_NUMBER% variable in the template.
- The TRANS_SUMM$ prefix is used if the current transaction is a separate batch message and the corresponding batch header information needs to be included in the message.
- The TRANS_PREV$ prefix is used to receive information on the previous document, for example, an original document for a reversal or a presentment for a chargeback.
- The TRANS_ORIG$ prefix is used to receive information on the current document or, if the current document is a reversal or a secondary document, information on the original document.
- The TRANS_OPPOSITE$ prefix is used to receive information about the counterparty contract.
- The STANDING_ORDER$ prefix is used to receive information about the payment order for which the document was created.

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Chapter 4. Configuring Service Packages

For a contract to be able to open the aforementioned Event types, these Events must be registered in the form "Events for <Name of Service Package>", opened by clicking the [Events] button in the form for editing a contract's Service Packages.

Since sending notifications to clients is usually a service provided according to an additional agreement, it is recommended to use technology of attaching additional Service Packs for which a set of possible system Events for generating messages is specified.

Conditions for charging fees for notification services are set in an attached Service packages in one of two ways:

- To set up a recurring fee for use of notification services:
  - A new type of custom fee and subtype are registered in the system ("Full → Configuration Setup → Transaction Types → Fee Types") specifying the frequency with which the fee will be charged (for example, Charge Event = "Monthly").
  - In the additional Service Pack, the fee rate and charge date is specified (Miscellaneous service).
- To charge a fee each time an Event is opened:
  - A new type of custom fee and subtype are registered in the system ("Full → Configuration Setup → Transaction Types → Fee Types") with a marker that the fee will be charged once (Charge Event = "Single");
  - The fee rate is specified in the additional Service Pack.
  - The fee type must be specified in the description of Event types used to generate messages.

⚠ A fee that will be charged each time an Event opens cannot be set for "MTR_DEBIT" Event types.

For more detailed information about configuring Service Packages, please refer to the document "Service Packages".

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Chapter 5. Technology of Use

For a client application to connect to notification services, the following actions are executed in the system:

- An Event opens to connect the contract to the notification service. As a result of this procedure, the appropriate additional Service Packages should be connected to the contract.
- During authorisation or a financial transaction, the corresponding Event that generates a message according to a template opens in the database.
- An external module for sending notifications accepts this message from the database, processes it, and sends it to the phone number or e-mail address specified for this message. The message receives the processed status in the WAY4™ database.

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