



## Installation and Configuration Manual

# Way4 CB Gate

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This document is intended for Way4 CB Gate administrators (bank or processing center employees) responsible for installing and configuring the product.

When working with this document, it is recommended to use the following resources from the OpenWay documentation series:

- "Way4 CB Gate" (CB\_Gate\_Function\_Specification.pdf)
- "STIP Balance File Formats" (STIP\_Balance\_Format.pdf)
- "Way4 CB Gate Operation" (CB\_Gate\_Operation.pdf)
- "WAY4™ NetServer" (NetServer.pdf)
- "Events" (Events.pdf)
- "Balance Types" (Balance\_types.pdf)
- "WAY4™ Service Packages" (Service\_Packages.pdf)
- "Working with Stop Lists" (stop\_list.pdf)
- "WAY4™ Client and Contract Classifiers" (Contract\_and\_Client\_Classifiers.pdf)
- "Documents" (Documents.pdf)
- "Usage Limiters" (Usage\_Limiters.pdf)

The following notation is used in the document:

- Screen form field labels are shown in *italics*.
- Screen form button labels are shown in square brackets, such as [Approve].
- Sequences for selecting user menu items are shown using arrows as follows: "Issuing → Contracts Input & Update".
- Sequences for selecting system menu items are shown using arrows as follows: "Database => Change password".
- Key combinations in DB Manager are shown in angular brackets, for example <Ctrl>+<F3>.
- Variables that differ for each local instance, for example, directory and file names, as well as file paths, are shown in angular brackets; for example, <OWS\_HOME>.
- Warnings and information messages are indicated as follows:



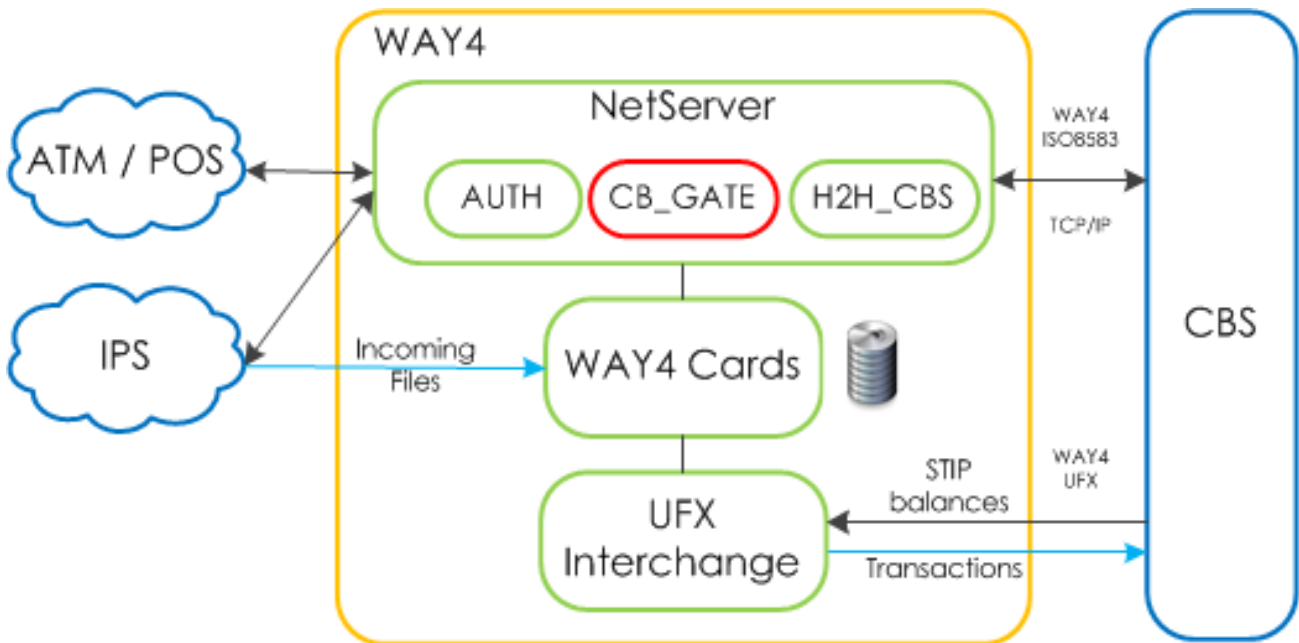
Warnings about potentially hazardous situations or actions.



Messages with information about important features, additional options, or the best use of certain system functions.

# 1 Overview

Way4 CB Gate provides issuers an online interface between Way4 and the core banking system (CBS) to check for available funds when making card transactions. If the CBS is unavailable, Stand-In Processing (STIP) mode can be used. In this case, an authorization request may be approved based on data loaded earlier to Way4 from the CBS.



## Solution architecture

CB Gate places the task of balance checking on the CBS. When an authorization request comes in, Way4 is used to check control values, card status, and contract usage limiters. Then a request is sent to the CBS to check that the client's account contains the required funds, and depending on the response, the transaction is either permitted or declined.

Way4 CB Gate allows bank clients to make card transactions within the limits of an account contract's balance. This makes it possible for clients to control their funds and lower the risk of overdraft.

Way4 CB Gate makes it possible to calculate fees and transmit them to the CBS when posting authorizations.

A more detailed description of the solution's architecture is provided in the functional specification "Way4 CB Gate".

## 2 Installation and Setup

Procedure for installing and setting up Way4 CB Gate:

- [Configuring Way4 NetServer](#).
- [Configuring Way4 CB Gate](#).
- [Additional Functionality](#): configuring substitution of acquirer ID in messages (ISO8583 standard, field 32) sent to the CBS, settings required to process authorisation requests in STIP mode and to send authorisation notifications with guaranteed delivery using the Store-and-Forward (SaF) queue.

### 2.1 Configuring Way4 NetServer

When configuring Way4 NetServer, channels responsible for the system's logic are created, configured, and registered:

- own authorization channel.
- CB\_GATE channel.
- H2H channel to the CBS (H2H\_CBS).

Routing tables from the own authorization channel to the CB\_GATE channel, and from the CB\_GATE channel to the H2H\_CBS channel should also be created and configured.

The main configuration parameters for NetServer are described in the section "Configuring NetServer" of the document "Way4™ NetServer".

These settings are made by OpenWay specialists.

The user independently sets up the connection to the CBS.

#### 2.1.1 Transport Connection to the CBS

To connect to the CBS, copy the h2h\_rbs.xml file from the distribution's directory to the "user" directory of the NetServer configuration. If necessary, rename the configuration file – conf/user/h2h\_<rbs\_name>.xml.

The H2H\_CBS channel on the Way4 side is a server, and the CBS connects to it as a client. Respectively, in the parameters IP\_ADDRESS and IP\_PORT, set parameters for the connection with the CBS (IP address and port):

```
<PARAMETER NAME="IP_ADDRESS" VALUE="?????????"/>
<PARAMETER NAME="IP_PORT" VALUE="?????"/>
```

The list of message types that are processed is set in the standard file `conf/tables/gate_msg.xml`. To support processing the corresponding transaction message types, copy the file `gate_msg.xml` from the distribution's directory to the `"tables"` directory of the NetServer configuration.

If the predefined list of message types must be modified, edit the `gate_msg.xml` file. The file name is set in the `cb_gate.xml` configuration file of the CB\_GATE channel.

Message types configured in `gate_msg.xml` are specified in the MTYPE tag:

```
<MTYPE MsgKey="010030" MsgType="BAL_INQ"/>
```

where:

- `Msgkey` = `<MTID><Processing code>`.
- `Msg_type` – Message Types code specified in the Code field of the Message Types handbook (see ["Configuring Transaction Message Types that are Processed"](#)).

Only OpenWay specialists can add to the list of message types. The `<Processing Code>` value is a Way4 internal value and it may not match payment system `<Processing Code>` values.

## 2.1.2 Registering the CB\_GATE and H2H\_CBS in the Channel Table

Channels that have been created should be registered in configuration files containing parameters for running NetServer and its channels:

- `conf/init/server.xml`
- `conf/user/server.xml`.

Enter new values in these configuration files:

- `conf/init/server.xml`:

```
<NETSERVER>
  <CHANNEL NAME="H2H_RBS">
    <PARAMETER NAME="CFILE" VALUE="conf/init/h2h_rbs.xml"/>
    <PARAMETER NAME="FILENAME" VALUE="channel/channel"/>
    <PARAMETER NAME="DIRECTORY" VALUE="h2hxfac"/>
    <USER_PARAMETER NAME="AUTOSTART"/>
  </CHANNEL>
  <CHANNEL NAME="CB_GATE">
    <PARAMETER NAME="CFILE" VALUE="conf/init/cb_gate.xml"/>
    <PARAMETER NAME="FILENAME" VALUE="channel/channel"/>
    <PARAMETER NAME="DIRECTORY" VALUE="h2hxfac"/>
    <USER_PARAMETER NAME="AUTOSTART"/>
  </CHANNEL>
</NETSERVER>
```

- `conf/user/server.xml`:

```
<NETSERVER>
  <CHANNEL NAME="H2H_RBS">
    <PARAMETER NAME="AUTOSTART" VALUE="NO"/>
  </CHANNEL>
  <CHANNEL NAME="CB_GATE">
    <PARAMETER NAME="AUTOSTART" VALUE="NO"/>
  </CHANNEL>
</NETSERVER>
```

## 2.2 Configuring Way4 CB Gate

Way4 CB Gate is set up by doing the following:

- [Configuring a Domain.](#)
- [Configuring Transaction Message Types that are Processed.](#)
- [Configuring an Authentication Type.](#)
- [Configuring Routing of Transaction Messages for the CBS.](#)
- [Registering Authorization Procedures.](#)
- [Registering Message Channels.](#)
- [Configuring a Routing Contract.](#)
- [Configuring Contracts of Transactions Authorized in the CBS.](#)
- [Configuring Service Packages for Processing Transactions in the CBS.](#)
- [Configuring Sending Card Status Change Messages to the CBS.](#)

### 2.2.1 Configuring a Domain

A domain is configured in the "Domains" form, menu item "CB Gate → Configuration → Domains".

A domain is a set of rules for interacting with a certain CBS: rules for FX conversion of transaction amounts, PAN masking, synchronizing STIP balances.

If the user is a processing center, the number of domains must match the number of CBS with which the processing center communicates.

An example of domain setup:

Domains						
				1 of 1		X
	Name	Code	Currency FX Mode	IDT Transparent	Domain Data	Category
→	Core Banking System	CBSC	No Conversion	Contract Number	ONLINE_BALANCE_SYNC=Y;	CB Gate
<div> <div>Ins</div> <div>Del</div> <div>Query</div> </div>						

*Domain setup*

The "Domains" form's fields:

- *Name* – domain name.

- **Code** – domain code. This code is used, for example, to identify a card contract's link with the corresponding CBS.
- **Currency FX Mode** – rule for FX conversion of the amount for an incoming transaction (Settlement Amount):
  - "No Conversion" – no conversion, the settlement amount is sent to H2H\_CBS unchanged.
  - "To Domain Currency" – conversion to the domain currency. The settlement amount will be sent to the H2H\_CBS in the domain currency. This option is used, for example, when the CBS only supports one currency. The domain currency must be specified in the *Domain Data* field, in the value of the DOMAIN\_CURR tag. For example, DOMAIN\_CURR=840.
  - "To Contract Currency" – conversion to the contract currency. The settlement amount will be converted to the card contract's currency.
- **IDT Transparent** – PAN substitution rule:
  - "Contract Number" – indicates that when sending a transaction message to the CBS, the number of the contract in Way4 (Contract Number) will be transmitted in field 102.
  - "Self CBS Number" – indicates that when sending a transaction message to the CBS, the number of the card contract in the banking system (RBS\_NUMBER) will be transmitted in field 102.
  - "Billing CBS Number" – if transactions are made with a subordinate card contract, when sending a transaction message to the CBS, the number of the higher-ranking account contract in the banking system will be sent in field 102. Therefore, all messages in the SaF queue that were generated for transactions made with any card contract will be under one higher-ranking account contract.
- **Domain Data** – rule for online synchronization of STIP balances (see the section "[STIP Settings in the Domain](#)").

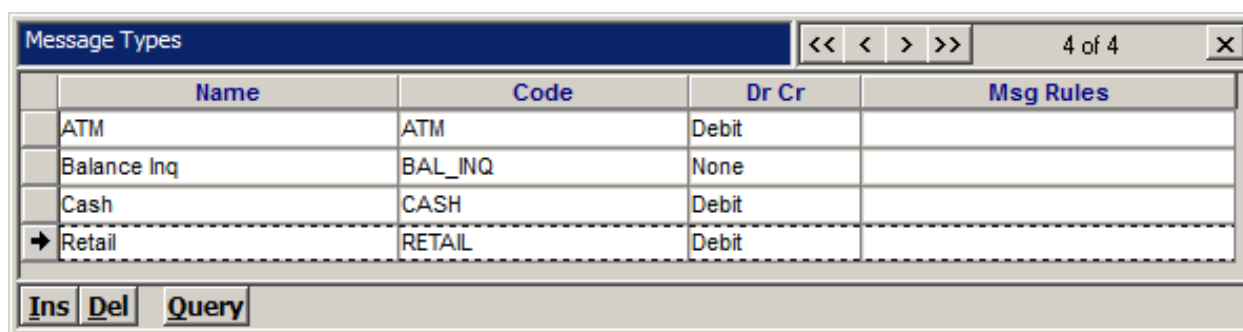
## 2.2.2 Configuring Transaction Message Types that are Processed

To set up routing of transaction messages depending on their type, possible message types must have been registered in the "Message Types" form, menu item "CB Gate → Configuration → Message Types". Register processed message types that are set by the values of the "MsgType" attribute of "MTYPE" tags in the NetServer configuration file conf/tables/gate\_msg.xml. The message codes specified in the configuration file should be registered as message type codes:

Name	Code	Dr Cr
Balance loading	ACC_BALANCE	Credit
ATM	ATM	Debit
Balance Inq	BAL_INQ	None



Name	Code	Dr Cr
Cash	CASH	Debit
Change PIN	CHANGE_PIN	None
Change PIN2	CHANGE_PIN2	None
Ministatement	MINISTATEMENT	None
Retail	RETAIL	Debit
Refund	REFUND	Credit
Note Acceptance	NOTE_ACCEPTANCE	Credit
Cashback	CASHBACK	Debit
Unique	UNIQUE	Debit



Name	Code	Dr Cr	Msg Rules
ATM	ATM	Debit	
Balance Inq	BAL_INQ	None	
Cash	CASH	Debit	
→ Retail	RETAIL	Debit	

Message types that are processed

"Message Types" form fields:

- *Name* – message type name.
- *Code* – message code in the channel for transmitting information.
- *Dr Cr* – transaction direction (Credit, Debit, None).
- *Msg Rules* – additional parameters in the form of tags (see the section "Tags Used when Posting Documents" of the document "Documents").

## 2.2.3 Configuring an Authentication Type

Authentication types are configured in the "Authentication Types" form, menu item "CB Gate → Configuration → Authentication Types", for example:

Authentication Types				<< < > >>	1 of 7	X
Name	Code	Auth Type Category	Is Ready			
Normal Card (Default account)	00	Auth Scheme	Ready			

### Configuring the code to authenticate an account type

If a bankcard was processed in the Visa network and when making a transaction, the client selected the option to choose an account, his selection will be shown in an ISO8583 message in field 03 ("Processing code"), in positions 3 and 4 (for example, field 03: 304000 – balance request for "Universal" account type). The AUTH channel doesn't change this value. A check is made in the CB\_GATE channel that this account type is supported. Then a search is made in Way4 for contracts with this account type.

"Authentication Types" form fields:

- *Name* – name of authentication type.
- *Code* – authentication type code; possible values: "00", "10", "20", "30", and "40".
- *Auth Type Category* – authentication type category.
- *Is Ready* – indicates whether the authentication type has been approved:
  - "Ready" – changes have been approved.
  - "Not Ready" – changes have not been approved.

## 2.2.4 Configuring Routing of Transaction Messages for the CBS

Routing of transaction messages for the CBS is configured in the "Routing Rules" form, menu item "CB Gate → Configuration → Routing Rules". Configure a routing rule, for example:

Routing Rules										<< < > >>	1 of 1	X
For Domain	For Msg Type	For Request Cat	For Auth Type	Channel	StandIN RC	Rule Parms	Group Code	Is Active	To Send			
Core Banking Sy	Balance Inquiry		Normal Card (Default)	0		SEND_ALWAYS		Yes	In Online			

### Rule for routing transaction messages for the CBS

A message is routed according to rules set in the fields *For Domain*, *For Msg Type*, *For Request Cat*, *For Auth Type*. The H2H routing channel specified in the *Channel* field will be selected for these data.

"Routing Rules" form fields:

- *For Domain* – name of the domain for which the rule is used.
- *For Msg Type* – name of the message type for which the rule is used.
- *For Request Cat* – category of message for which the rule is used.
- *For Auth Type* – name of the authentication type for which the rule is used. If no value is set, any authentication type can be used.
- *Channel* – code of the H2H message channel for the CBS. The field's value must correspond to the message channel setup and the code of the H2H channel in the NetServer configuration (see [figure](#)).
- *To Send*

- "in Online" – all authorization messages (Request and Advice) will be sent to the CBS online. If there is no connection with the CBS, messages will be sent to the SaF queue. The "in Online" value is used by default (if the field is empty).
- "Never Send" – authorization messages will not be sent to the CBS.
- "as SAF Advice" – all authorization messages (Request and Advice) will be sent to the SaF queue. This value is not recommended. NetServer automatically performs a similar action in real time when there is a peak load on the CBS H2H channel.
- *StandIN RC* – code of the response to an authorization message if there is no connection with the CBS. If the response code value is "00", the transaction can be permitted.
- *Rule Parms* – rule for processing a transaction message using the SaF queue (see the section "[Use of the SaF Queue for Processing a New Authorization Request](#)")
- *Group Code* – reserved for forward compatibility.
- *Is Active* – indicates whether the rule is active.

## 2.2.5 Registering Authorization Procedures

To register authorization procedures, manually execute the following scripts (ows\_home\opt\cb\_gate directory):

- opt\_cb\_gate\_b.sql
- opt\_cb\_gate\_s.sql.



When installing the scripts listed below, custom settings made earlier in these scripts must be considered:

- cust/cust\_add\_serv.sql
- cust/cust\_auth\_bal\_str.sql
- cust/cust\_auth\_end\_request.sql
- cust/cust\_auth\_get\_av.sql
- cust/cust\_check\_contract.sql.



In Way4, it is possible to work with a client balance that is processed in the CBS without using custom procedures (in particular, cust\_check\_contract and cust\_auth\_get\_av). This functionality can be enabled in a card Product's settings (menu item "Full → Configuration Setup → Products → Product Definition → Products") by setting the tag CBS\_CH=<Code\_of\_CB\_GATE channel>; in the *Custom Data* field.

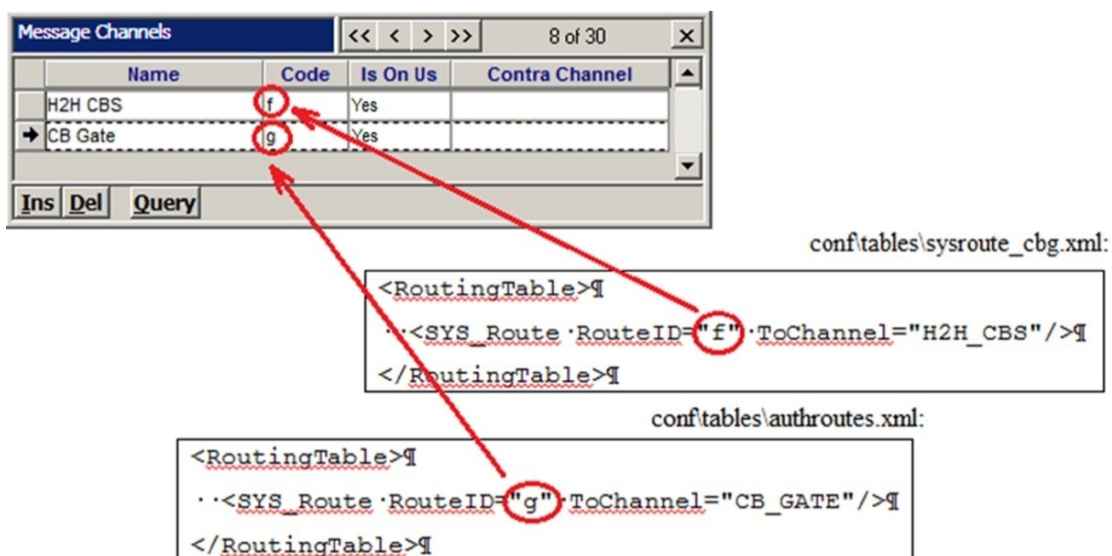
## 2.2.6 Registering Message Channels

To set up rules for processing transaction information, register the NetServer channels "CB Gate" with the "g" code and "H2H CBS" with the "f" code. Setup is performed in the "Message Channels" form,

menu item "Full → Configuration Setup → Main Tables → Message Channels". The codes must match those specified in the NetServer configuration's routing tables. For example:

- for H2H\_CBS:
  - *Code* – "f"
  - *Contra Channel* – the field does not fill (";")
  - *Is On Us* – "Yes"
  - *Name* – "H2H CBS"
- for CB\_GATE:
  - *Code* – "g"
  - *Contra Channel* – the field does not fill (";")
  - *Is On Us* – "Yes"
  - *Name* – "CB Gate"

The figure (see [figure](#)) shows fragments of NetServer configuration files for the own authorization channel (conf\tables\authroutes.xml) and the CB\_GATE channel (conf\tables\sysroute\_cbg.xml).



Configuring message channels

## 2.2.7 Configuring a Routing Contract

To set up routing of a transaction message, register Bank Identification Code (BIC) in the "RBS Bank Identification Codes" form, menu item "Full → Configuration Setup → Routing → RBS Bank Identification Codes". For example:

- *Bank ID Code* – "CBSC"
- *Bank Name* – "CoreBankSystem"
- *Corresponding Account* – the field is not filled in
- *BIN Details* – the field is not filled in

RBS Bank Identification Codes				<<	<	>	>>	6 of 6	X
	Bank ID Code	Bank Name	Corresponding Account	BIN Details					
→	CBSC	CoreBankSystem							
Ins	Del	Query							

### Bank Identification Code

Adding the corresponding record to the "RBS" BIN group makes it possible to define the routing contract when processing transactions messages.

BIN Groups					<< < > >>		28 of 35		✕	
Name		Default Channel		Group Code		Routing Priority		Absolute Routing Priority		
→ RBS		RBS		B		00				
Ins		Del		Query		Routing		BIN Table		

BIN Table for RBS										<< < > >>		4 of 6		b ✕					
Name		Member ID		Start BIN		End BIN		Proc Class		Term Cat		Brand		Sub BIN		Source		BIN Details	
→ CoreBankSystem		CBSC		4081		4081										Own			
Ins		Del		Query		Full Info													

### BIN table settings to search for a contract

## 2.2.8 Configuring Contracts of Transactions Authorized in the CBS

As soon as the AUTH channel sends a transaction message to the CB\_GATE channel, a route for it is searched for in the Way4 database. A search is made for the domain to which card contracts belong and its routing rule.

Therefore, card contracts with transactions that are authorized in the CBS must be specified ("Issuing → Contracts Input & Update → Issuing Contracts (Private) → [Cards]") in the following fields:

- *RBS #* – number identifying the client account in the CBS.
- *Member ID* – code of the domain that was registered earlier (see "[Configuring a Domain](#)").
- When registering card contracts that are subordinate to the higher-ranking contract according to a "Main/Sub" type, these values are automatically inherited from the higher-ranking account contract.

Configuring client contracts

## 2.2.9 Configuring Service Packages for Processing Transactions in the CBS

Service Packages for processing transactions are configured in the "Private Card Service Packs" form, menu item "Full → Configuration Setup → Products → Issuing Private Products → Private Card Service Packs". For Way4 to authorize certain transactions in the CBS, specify the tag CHANNEL=g; in the *Special Parm*s field of the corresponding Service Package. The letter "g" corresponds to the setting in the configuration file for the CB\_GATE channel, for example:

- Name – "001-Our Priv VISA"
- Contract Type – "Our VISA Cards"
- Special Parm's – "CHANNEL=g;"
- Is Ready – "Ready"

conf/tables/authroutes.xml:

```
<RoutingTable>
  ..<INCLUDE FILE="conf/tables/hsmroutes.xml" COMMENT="HSM Channels"/>
  ..<SYS_Route RouteID="g" ToChannel="CB_GATE"/>
</RoutingTable>
```

Service Package for processing transactions authorized in the CBS

## 2.2.10 Configuring Sending Card Status Change Messages to the CBS

If messages about changes in card status must be sent to the CBS, configure an Event that causes the card to be put in a stop list. Online notifications can be sent when a card is put in a stop list (see the document "WAY4™ Stop Lists").

For online synchronization of card status with the CBS, the following Way4 global parameters are used: INTRANET\_SERVER, NETSERVER\_CHANNEL\_<code of the H2H channel to the CBS>, NETSERVER\_TIMEOUT\_<code of the H2H channel to the CBS>, STOPLIST\_ADD\_CHANNELS. Parameters are described in detail in the document "WAY4™ Global Parameters".

Global parameters are configured in the "Additional Global Parameters" form, opened with the menu item "Full → Configuration Setup → Main Tables → Additional Global Parameters". Configure global parameters, for example:

- INTRANET\_SERVER = "899" (the actual INTRANET\_SERVER address)
- NETSERVER\_CHANNEL\_f = "H2H\_CBS"
- NETSERVER\_TIMEOUT\_f = "10"
- STOPLIST\_ADD\_CHANNELS="f"

Global parameter settings correspond to H2H\_CBS channel settings:

```
<RoutingTable>
  <SYS_Route RouteID="f" ToChannel="H2H_CBS"/>
</RoutingTable>
```

Custom procedures should also manually be loaded (ows\_home\opt\cbg\_sl directory):

- opt\_cbg\_sl\_s.sql
- opt\_cbg\_sl\_b.sql.



When installing the scripts listed below, custom settings made earlier in these scripts must be considered.

- cust\_contr\_st\_ch.sql
- cust\_evnt\_close.sql
- cust\_evnt\_post.sql.

## 2.3 Additional Functionality

### 2.3.1 Substitution of Acquirer ID

If necessary, the following settings can be used to substitute acquirer ID in messages (ISO8583, field 32) sent to the CBS.

Set parameters for online communications with the CBS on the H2H\_CBS channel. Determine the acquirer that will be specified in field 32 of the ISO8583 message. To do so, in the *Acq ID* field of the "Bank Acquiring Parameters" form (menu item "Full → Configuration Setup → Main Tables → Bank

Acquiring Parameters") for the "Principal" financial institution, for example, specify the value of the *Bank Code* field of the "Principal" financial institution from the "Financial Institutions" table (menu item "Full → Configuration Setup → Main Tables → Financial Institutions"). Use the [Full Info] button to open the "Full Info for Bank Acquiring Parameters" form. In the *Additional Parm*s field, add the tag "CBSC\_F32=000001" ("CBSC" as "Acquiring member").

### Settings for online communication with the CBS

To specify the NetServer channel's link with the main financial institution, the configuration file of the H2H\_CBS channel must contain the following parameters in the NETWORK section (conf\init\h2h\_rbs.xml configuration file):

```
<PARAMETER NAME="ASK_ACQUIRER_PARAMS" VALUE="ON"/>
<PARAMETER NAME="NAME_FOR_AID" VALUE="CBSC_F32"/>
```

When configuring the parameter "NAME\_FOR\_AID", it is necessary to consider the values of the parameters "ASK\_ACQUIRER\_PARAMS", "F32\_CORRECTION", "TRANSIT\_FROM".

## 2.3.2 STIP setup

The following settings are required to support Stand-In Processing (STIP).

### 2.3.2.1 STIP Settings in the Domain

Rules for synchronizing STIP balances are configured using tags in the *Data Domain* field of the "Domains" form (see [figure](#)).

The rule for online synchronization of STIP balances is defined using the ONLINE\_BALANCE\_SYNC tag:

- ONLINE\_BALANCE\_SYNC=N; – the STIP balance is not sent in the online response from the CBS (field 54).
- ONLINE\_BALANCE\_SYNC=Y; – the STIP balance will be sent in the online response from the CBS (field 54). The default value is ONLINE\_BALANCE\_SYNC=Y;.



The SKIP\_TRN\_REF\_CHCK; tag is used to define the rule for importing STIP balances from the CBS to Way4. If the file imported to Way4 does not contain the identifier of the last authorization message (LastAuthId) for a contract, when the SKIP\_TRN\_REF\_CHCK; is set, transactions recorded in Way4 for this contract are not matched.

### 2.3.2.2 Configuring a Balance Type for STIP

Register a balance type whose value will be used by STIP (if transactions are permitted when there is no connection with the CBS). The balance type is registered in the "Balance Types" handbook as follows:

- *Code* – "CB"; this value is hardcoded and cannot be changed.
- *Name* – "Core Balance".
- *Posting Details* – the field is not filled in.

Setup is performed in the "Balance Types" form, menu item "CB Gate → Configuration → Balance Types".

Balance Types										<< < > >>		1 of 15		X
Name	Code	Main Only	By Billing	Is State	DIQ Code	DIQ Level	Skip Liab	Direction	Group Code	Posting Details				
→ Core Balance	CB	For All				0		None						
Ins	Del	Query	Recalc	SubBal of	Includes									

#### Configuring a Balance Type for STIP

For a detailed description of the "Balance Types" form, see the section "Registering additional balance types" of the document "Balance Types".

A balance type for STIP can be redefined in a specific card Product's settings. A balance type code is set in the tag STIP\_BT=<BalanceTypeCode>; in the Product's *Custom Data* field (menu item "Full → Configuration Setup → Products → Product Definition → Products"). If the tag is not set, the aforementioned balance type with the "CB" code is used.

### 2.3.2.3 Parameters for Authorization Queuing using SaF Technology

For CBGate to work in Stand-In authorization mode, it is necessary to configure sending messages regarding authorizations using the SaF queue for guaranteed delivery.

SaF technology, parameters, and form fields are described in detail in the document "Store and Forward Technology".

Configure parameters for guaranteed message delivery on the SaF logical channel, menu item "Full → Acquiring → Online Logs → Logical Channels (SaF)" → [Settings], for example:

- *Direction* – "Outward"
- *Mess Type* – "0120" ("0220", "0420")
- *Attempt Limit* – "3"
- *First Interval* – "5"
- *Retry Interval* – "60"
- *RCs to Close* – "00"
- *Expiry Period* – "0".

Logical Channels (SaF)
4 of 5

Code	Name	SAF Waiting	SAF Suspended
V1	VIP/VIP	0	0
S1	SMS	0	0
AT	ATM	0	0
B1	CBS	0	0
P1	Bill	0	0

Ins Del Query Settings Messages Physical

Settings for CBS
1 of 3

Channel ID	Direction	Mess Type	Attempt Limit	First Interval	Retry Interval	Retry Intervals for RCs	RCs to Close	Expiry Period
B1	Outward	0120	3	5	60		00;	0
B1	Outward	0220	3	5	60		00;	0
B1	Outward	0420	3	5	60		00;	0

Ins Del Query

...<PARAMETER NAME="CHANNEL\_ID" VALUE="B1">

### Configuring parameters for SaF

The SaF channel code should be specified in the domain settings (*Domain Data* field, see "[Configuring a Domain](#)") using the SAF\_CH tag, for example, "SAF\_CH=B1;"

### 2.3.2.4 Use of the SaF Queue for Processing a New Authorization Request

When the connection with the CBS is restored, new authorisation is processed in following order:

- if the "SEND\_ALWAYS;" tag (see "[Tags Used in CB Gate Setup](#)") is set in the domain settings (*Domain Data* field of the "Domains" form) or in the routing rules (*Rule Parms* field of the "Routing Rules" form), a new transaction is sent to CBS without checking the SaF queue.
- if the "SEND\_ALWAYS;" tag is missing, the queue is checked in the SaF channel with code specified in the SAF\_CH tag in the domain settings. The same SaF channel code must be specified in settings of the configuration file conf\init\h2h\_rbs.xml in the H2H\_CBS channel ("CHANNEL\_ID" parameter).

The queue is examined within the bounds of one contract. If the SaF queue is not empty, a transaction is put in the SaF queue. A decision on a new authorization will be taken after processing all messages in the "Waiting" status – a new authorization will be sent if all previous messages in the queue have the "Closed" status. If the queue is empty, the authorization request is sent to the CBS.

### 2.3.2.5 Configuring Limiters for Stand-in Authorizations

Limiters can be set for a specific card contact or for a Product.

Options for limiter use:

- Transaction – limiters that are checked (and counters updated) for any transactions; for those permitted by the CBS and for those permitted by CB Gate (Usage Type = Transactions, see the section "Principles of Usage Limiter Operation" of the document "[Usage Limiters](#)").

- STIP – limiters (*Usage Type* = STIP) that are only checked (and counters updated) when the following conditions are met:
- The CBS is unavailable.
- The STIP balance is depleted (less than the transaction amount).
- Transactions are permitted by CB Gate.

 STIP limiters work the same way as "Overdraft" limiters (see the section "General Templates" of the document "[Usage Limiters](#)").

#### 2.3.2.5.1 Possible setup procedure:

- Register an additional Service Package, for example, "XXX-CB STIP usages" (see the section "Configuring Additional Service Packages" of the document "Way4 Service Packages"). Register limiters in the additional Service Package, for example:

Service Packs											<< < > >>			22 of 1277				
Category	Institution	Client	Contract Type	Name	Code	For Contracts	Parent Pack	Fee Contract	Tariff Domain	Is Ready	Auth Conf Mode							
Card	Principal	Private	Our VISA Cards	XXX-CB STIP usages	Additional					Ready								
Ins	Del	Query	Approve	Misc	Source	Target	Additional	Usage	Events	Messages	Group Msg	Preferred	Details					
Usage for XXX-CB STIP usages											<< < > >>			1 of 1		b x		
Usage Code	Usage Type	SIC Group	Channel	Operation	Period	Period Type	Usage Event	Fee Type	Max #	Max Amnt	Max Pcnt	Max Sngl Amnt	Amnt Curr	Is Active	Is Ready	Proc.Mode		
Usage for STIP	STIP		VISA		1	Month	Usage		0	10 000,00	3,00	1 000,00	USD	Yes	Ready	On Line		
													<< < > >>					
Ins	Del	Query	Details	Approved	Messages													

### Configuring a limiter in an additional Service Package

- This setting means that when the CBS is unavailable, after the STIP balance has been depleted, transactions for a total amount of up to 10,000 USD per month can be processed; however, each transaction may not exceed an amount of 1,000 USD.
- For example, when these STIP limiter settings are used, the CBS is unavailable and the STIP balance is 500 USD:
  - A transaction for 400 USD will be made without checking the STIP limiter, since the STIP balance is sufficient for the transaction to be made.
  - A transaction for 1,000 USD initiates a check of the STIP limiter and will be made since it meets all the limiter's conditions.
  - A transaction for 1,100 USD initiates a check of the STIP limiter and will be rejected since the transaction amount exceeds the STIP limiter's "Max Sngl Amnt".
- Attach the Service Package "XXX-CB STIP usages" to the main Service Package set up earlier "001-Our Priv VISA":

Private Card Service Packs									
Name	Contract Type	Parent Pack	For Contracts	Use Default	Code	Fee Contract	Special Parms	Is Read	
001-Our Priv VISA	Our VISA Cards		Product	For Dispute	PIV	001-CLIENT_FEE	CHANNEL=g;	Ready	

Additional for 001-Our Priv VISA			
Priority	Add Pack	Is Ready	Active by Default
	XXX-CB STIP usages	Ready	Yes

Attaching "XXX-CB STIP usages" to the main Service Package

### 2.3.3 Prohibiting Authorizations for a Contract in STIP

The "STIP\_STATUS" user classifier is used to prohibit processing authorizations for a certain contract in STIP mode. The code of the negative response returned to the CB\_GATE channel is set in this classifier. The "STIP\_STATUS" classifier is assigned to a contract for which processing in STIP is prohibited.

The "STIP\_STATUS" user classifier is set in the "User Classifiers" form, menu item "Full → Configuration Setup → Common Handbooks → User Classifiers". For example:

User Classifiers											
Name	Code	ip	Category	ult	Applies To	Client Cat	Contract Cat	Product Cat	Role	Domain-base	Add Info
CBS STIP Card Status	STIP_STATUS	Status		Any Contract		Account	Issuing	Primary			

Values for CBS STIP Card Status									
Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To	
0	Do not honor	05		No		Yes	00/00/0000	00/00/0000	

Configuring the "STIP\_STATUS" user classifier

The "STIP\_STATUS" classifier code is predefined and its value is specified in the Code field of the "User Classifiers" form.

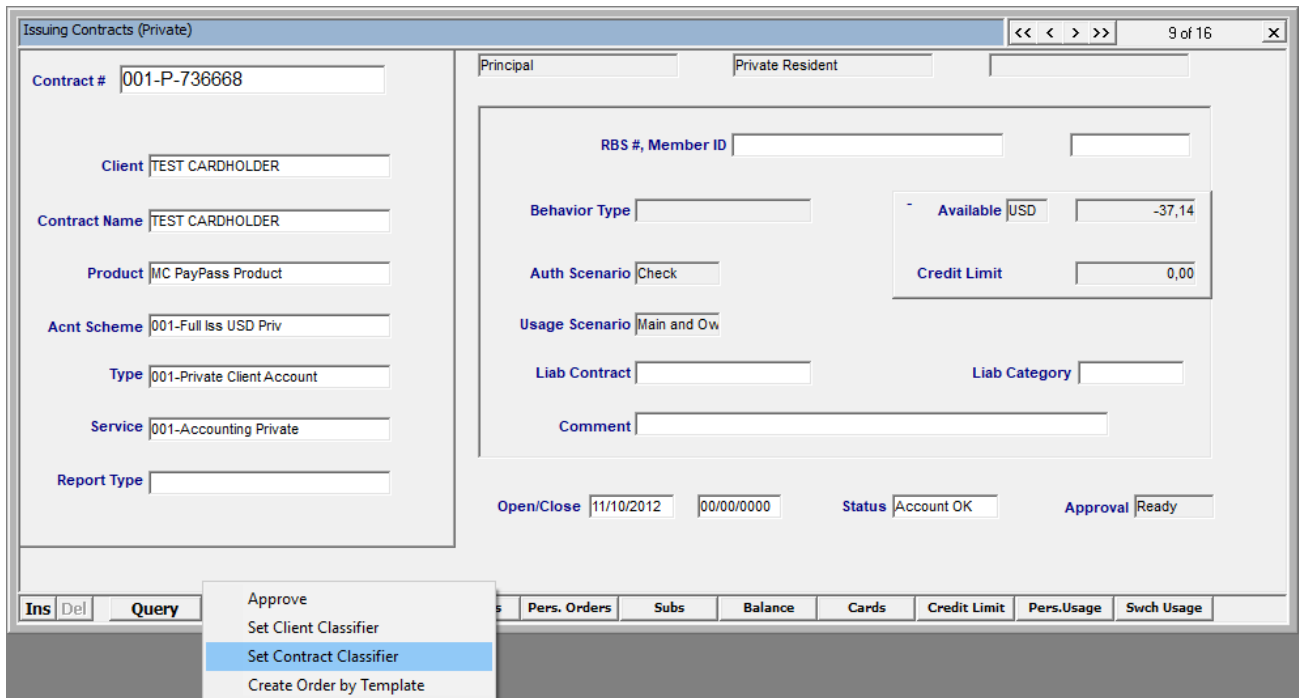
The Code field of the "Values for ..." form specifies the code of the negative response that will be generated in the message (ISO8583) when an attempt is made to process an authorization for this card in STIP mode.

"User Classifiers" and "Values for ..." form fields are described in the section "Configuring Hardcoded User Classifiers" of the document "Way4 Client and Contract Classifiers".

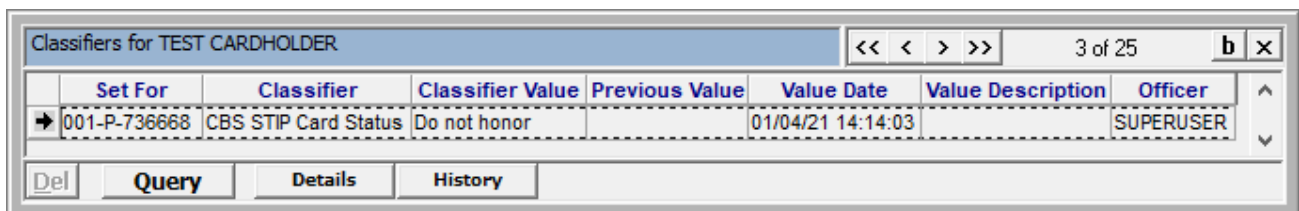
Generally, the "STIP\_STATUS" user classifier is assigned to an account contract whose balance is checked in the CBS. Card contracts with authorization scenario *Auth Scenario* = "Check" are an exception. In this case, a classifier can be assigned to a card contract.

For the procedure to assign a classifier, see the section "Manually Changing Classifier Values" of the document "Way4 Client and Contract Classifiers".

To prohibit authorization in STIP mode for contracts that are subordinate to an account contract (for authorization scenario *Auth Scenario* = "See Main"), do as follows:



An account contract for which the classifier is set



Set For	Classifier	Classifier Value	Previous Value	Value Date	Value Description	Officer
001-P-736668	CBS STIP Card Status	Do not honor		01/04/21 14:14:03		SUPERUSER

"STIP\_STATUS classifier value assigned to a contract

All authorization attempts in STIP mode for contracts that are subordinate to the account contract will be declined with RC "Do not honor" (05).

## 2.3.4 Loading STIP Balances

ASCII format files are supported.

### 2.3.4.1 Pipe for Loading Balances

Balance files used during authorization when the CBS is unavailable are loaded to Way4 using a standard Java pipe – "com.openwaygroup.pipe.cb\_gate\_balance\_load.jar".

The "Load Stip Balance" menu item is used to run the Java pipe ("Full → CB Gate → Runtime → Load Stip Balance").

Files with contract balances can be loaded in several parallel threads.

### 2.3.4.2 Java Pipe Parameters

The pipe "com.openwaygroup.pipe.cb\_gate\_balance\_load.jar" is used with the following parameters:

Parameter	Default value	Parameter description
SOURCE_DIR	@RBS_INTERCHANGE_DIR@IN\	Directory where loaded files should be put.
PROCESSED_DIR	@RBS_INTERCHANGE_DIR@arch \	Directory in which text files containing information about loaded records should be put.
N_OF_PARALLEL_THREADS	4	Number of parallel threads for loading pipes.
COMMIT_INTERVAL	1000	The parameter determines the number of records loaded after which in each thread changes are committed to the Way4 database.
FILE_MASK	CBGB*.txt	Name of loaded file.

### 2.3.4.3 File Format

File format is described in the document "STIP Balance File Format" (STIP\_Balance\_Format.pdf).

## 2.3.5 Scheduled Loading of STIP Balances

Use Way4 Scheduler (see the document "Scheduler R2") to load STIP balances according to a schedule, or with a certain frequency.

### 3 Tags in CB Gate Setup

Name	Default value	Description
Tags set in a domain's <i>Domain Data</i> field (TD_DOMAIN.DOMAIN_DATA)		
SEND_STIP_BALANCE	N	<p>Prohibits sending STIP balance values (balance of a contract with the "CB" code) to an acquirer bank if authorization was performed by Way4 in STIP mode (CBS is unavailable).</p> <p>Information about the balance value will only be sent to the acquirer bank if the CBS is available. The balance value (field DE55) is sent in the response message from the CBS (0210 response message).</p> <p>The tag is set in the "Domains" form, menu item "CB Gate → Configuration → Domains".</p>
ONLINE_BALANCE_SYNC	Y	<p>Rules for online synchronization of the STIP balance:</p> <ul style="list-style-type: none"> <li>• N – balance data received in the online message from the CBS will not be used to update the STIP balance.</li> <li>• Y – the STIP balance will be sent in the online response from the CBS (field 54).</li> </ul> <p>The tag is set in the "Domains" form, menu item "CB Gate → Configuration → Domains".</p>
SKIP_TRN_REF_CHK		<p>If the file imported to Way4 does not contain the identifier of the last authorization message (LastAuthId) for a contract, when the SKIP_TRN_REF_CHK; tag is set, transactions recorded in Way4 for this contract are not matched.</p> <p>The tag is set in the "Domains" form, menu item "CB Gate → Configuration → Domains".</p>

Name	Default value	Description
DOMAIN_CURR		<p>The domain currency code is set in the tag. The Settlement Amount will be sent to the H2H_CBS with conversion to the domain currency. This functionality is used, for example, if the CBS only supports one currency.</p> <p>The tag is set in the "Domains" form, menu item "CB Gate → Configuration → Domains".</p>
SEND_ALWAYS		<p>When the connection with the CBS is restored, a new authorization request will be sent to the CBS without checking the SaF queue. The tag does not have a specific value and is set as SEND_ALWAYS;</p>
SAF_CH		<p>Channel code for SaF queue (according to the <i>Channel Id</i> field of the "Logical Channels (SaF)" form, menu item "Full → Acquiring → Online Logs → Logical Channels (SaF)").</p>
Tags set in the <i>Rule Parms</i> field of transaction routing rules (TD_RT_RULE.RULE_PARMS)		
SEND_ALWAYS		<p>Similar to the SEND_ALWAYS tag described above for domain settings (<i>Domain Data</i> field).</p>
Tags set in the <i>Special Parms</i> field of the Service Package (SERV_PACK.AUTH_CONF_MODE)		
CHANNEL		<p>The CB_GATE channel code is set as the tag value. Transactions processed by a Service Package in which this tag is set will be authorized in the CBS.</p> <p>The tag is set in the "Private Card Service Packs" form, menu item "Full → Configuration Setup → Products → Issuing Private Products → Private Card Service Packs"</p>
Tags set in a card Product's <i>Custom Data</i> field		
CBS_CH		<p>The CB_GATE channel code is set as the tag value. It is similar to the CHANNEL tag but includes support for authorizations without custom procedures (in particular, cust_auth_get_av and cust_check_contract).</p>



Name	Default value	Description
STIP_BT		A balance type code whose value will be used by STIP (if transactions are permitted when there is no connection with the CBS) is set as the tag value. If the tag is not set for the corresponding card Product, a balance type with the "CB" code is used.