Change Request form

General Information (Origin of Request)
☐ User Requirements Document (URD)
☐ User Detailed Functional Specification (UDFS)
☐ User Handbook (UHB)
☒ Other User Functional or Technical Documentation (SYS)

Request raised by: Deutsche Bank AG	**Institution:**	**Date raised: 20/09/2021**
Request title: Report Opening Balance in EOD CAMT.053 statement		**Request ref. no:** TIPS-0045-SYS[1]

Request type:	
1. Legal/business importance parameter: (H, M, L) **Low**	**2. Market implementation efforts parameter – Stakeholder impact:** (H, M, L) TBD
3. Operational impact: (H, M, L) **Medium**	**4. Financial impact parameter:** (H, M, L) **Low**
5. Functional/ Technical impact: (H, M, L) **Medium**	**6. Interoperability impact:** (H, M, L) **Low**
Requestor Category: TIPS Participant	**Status:** Allocated to release

Reason for change and expected benefits/business motivation:

TIPS Participants use full CAMT.053 (at EOD) report for *nostro* account reconciliation. The CAMT.053 does currently not specify the opening balance.

With report of opening balance for a settlement date in EOD CAMT.053 there would not be any manual monitoring/correction required for TIPS Participants.

Description of requested change:

This Change Request will include the opening balance in EOD CAMT.053, matching the closing balance from previous day, as per ISO20022 format.

TIPS participants use full CAMT.053 (at EOD) reports is used for *nostro* account reconciliation, with no specific tag defined for opening balance. TIPS participants consider the BFTS amount of the first reported payment from CAMT.053 as opening balance, which currently does not always match with the closing balance from the previous day.

This results in an account balance mismatch alert in reconciliation system, to be manually investigated as an incident and corrected. The correction of such mismatch and the reconciliation process are triggered manually.

This *nostro* is considered as critical and has a high level scrutiny, which makes approval and other process time consuming.

---

[1] XXXX = ECMS /TIPS / CONS, NNNN = 9999, DDDD = URD/UDFS/UHB

_____

Submitted annexes / related documents:

Per ISO specifications the opening balance can be reported in tag similar to CLBD in CAMT.053. Below is the snapshot from ISO doc regarding balance type.

3.4.2.12.1.1.1 Code <Cd>

Presence: [1..1]

Definition: Balance type, in a coded form.

Datatype: "BalanceType12Code" on page 333

CodeName	Name	Definition
XPCD	Expected	Balance, composed of booked entries and pending items known at the time of calculation , which projects the end of day balance if everything is booked on the account and no other entry is posted.
OPAV	OpeningAvailable	Opening balance of amount of money that is at the disposal of the account owner on the date specified.
ITAV	InterimAvailable	Available balance calculated in the course of the account servicer's business day, at the time specified, and subject to further changes during the business day. The interim balance is calculated on the basis of booked credit and debit items during the calculation time/period specified.
CLAV	ClosingAvailable	Closing balance of amount of money that is at the disposal of the account owner on the date specified.

01 February 2016   53

Bank-to-Customer Cash Management - Maintenance 2015 - 2016

CodeName	Name	Definition
FWAV	ForwardAvailable	Forward available balance of money that is at the disposal of the account owner on the date specified.
CLBD	ClosingBooked	Balance of the account at the end of the pre-agreed account reporting period. It is the sum of the opening booked balance at the beginning of the period and all entries booked to the account during the pre-agreed account reporting period.
ITBD	InterimBooked	Balance calculated in the course of the account servicer's business day, at the time specified, and subject to further changes during the business day. The interim balance is calculated on the basis of booked credit and debit items during the calculation time/period specified.
OPBD	OpeningBooked	Book balance of the account at the beginning of the account reporting period. It always equals the closing book balance from the previous report.
PRCD	PreviouslyClosedBooked	Balance of the account at the previously closed account reporting period. The opening booked balance for the new period has to be equal to this balance. Usage: the previously booked closing

_____

Proposed wording for the Change request:

TIPS UDFS

1) §1.5.5.2 Reports

The Statement of Account Turnover provides information on the opening/closing balances at start/end of RTGS System business day and the sum of debits/credits for all the TIPS Accounts or TIPS AS Technical Account in the data scope of the TIPS Actor.

The Statement of Accounts provides information on the ~~balances~~ closing balance at the end of the reported period and also on the opening balance (for full reports only)~~available at the time of report creation~~ for all the TIPS Accounts in the data scope of the TIPS Actor. For each account, detailed information on the related settled transactions (liquidity transfers or Instant Payments) during the reporting period is provided.

2) §2.8.2. Statement of Accounts

The Statement of Accounts report provides detailed information on the activities recorded for all the TIPS Accounts and TIPS AS Technical Accounts in the data scope of the Recipient actor.

The report contains:

- RTGS business date for which the information is retrieved;
- TIPS Participant or Ancillary System identifier;
- TIPS Account or TIPS AS Technical Account identifier;
- Currency of the account;
- Opening balance at the start of the reported period (for full reports only);
- Closing balance at the end of the reported period;
- ~~Account Balance(based on the latest data available);~~
- Start Timestamp for which the account statement is issued;
- End Timestamp for which the account statement is issued;

[…]

3) §2.8.2.1.1Statement of Accounts – Full mode

The underlying assumptions for this representative case are the following: i) the opening balance at the start of RTGS business day (15/12/2017) for the ACCOUNT1 is 500.00 EUR; ii) the RTGS system open at 7 a.m. and close at 6 p.m.; no interruption of the service or disruptive event would occur.

- The following payment transactions are received and settled in TIPS during the current RTGS business date (15/12/2017).

Change Request form

Figure 1 – Statement of Accounts example: list of transactions (full mode)

- On receipt of the notification made by the relevant RTGS system, the RTGS business date parameter is updated accordingly in TIPS (16/12/2017);

- The system takes the snapshot of in-memory balances and downloads transaction data from the database;

- The Basic Report component retrieves the data to be included in the Statement of Accounts;

- The system identifies the Recipient DN from the "Routing Configuration" in combination with the "Party Technical Address" (<ou=dept_123, o=prtyabmmxxx, o=a2anet>);

- The Message Router component sends the following BankToCustomerStatement message to the Recipient.

Change Request form

Figure 2 – Statement of Accounts example: BankToCustomerStatement

Bank To Customer Statement

Sender DN: <ou=dept_123, o=tipsxepmxxx, o=a2anet>
Message Identifier: MsgIDRptSoA151217
Creation Date Time: 2017-12-15T18:01:00:000Z

Statement Identifier: 1
Account Identification: ACCOUNT1
Account Currency: EUR
Account Owner: PRTYABMMXXX
Balance Type: CLBD
Amount: 720 EUR
Credit/Debit Indicator: CRDT
RTGS Business date: 15/12/2017

Transaction Reference: OrigID1
Transaction Amount: 200 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 09:20:05
Bank Transaction Code Family: IRCT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 500 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 300 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 200 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Originator BIC: PRTYABMMXXX
Transaction Beneficiary BIC: PRTYBCMMXXX

Transaction Reference: LT1ID
Transaction Amount: 300 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 10:20:00
Bank Transaction Code Family: RCDT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 300 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 600 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 300 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Originator BIC: PRTYABMMXXX
Transaction Beneficiary BIC: PRTYABMMXXX

Transaction Reference: LT2ID
Transaction Amount: 100 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 11:00:00
Bank Transaction Code Family: RCDT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 600 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 700 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 100 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Originator BIC: PRTYABMMXXX
Transaction Beneficiary BIC: PRTYABMMXXX

Transaction Reference: LT3ID
Transaction Amount: 50 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 14:00:00
Bank Transaction Code Family: ICDT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 700 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 650 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 50 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Originator BIC: PRTYABMMXXX
Transaction Beneficiary BIC: PRTYABMMXXX

Transaction Reference: OrigID2
Transaction Amount: 50 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 16:30:05
Bank Transaction Code Family: IRCT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 650 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 600 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 50 EUR
Transaction Credit/Debit Indicator: DBIT
Transaction Originator BIC: PRTYABMM234
Transaction Beneficiary BIC: PRTYBCMM123

Transaction Reference: OrigID3
Transaction Amount: 120 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Status: BOOK
Settlement timestamp: 15/12/2017 16:35:05
Bank Transaction Code Family: RRCT
Bank transaction code: PMNT
Bank Transaction Code SubFamily: FICT

Transaction Account Balance: 600 EUR
Transaction Account Balance Type: BFTS

Transaction Account Balance: 720 EUR
Transaction Account Balance Type: FTTS

Transaction Amount: 120 EUR
Transaction Credit/Debit Indicator: CRDT
Transaction Originator BIC: PRTYDEMMXXX
Transaction Beneficiary BIC: PRTYABMMXXX

Bank To Customer Statement

Sender DN: <ou=dept_123, o=tipsxepmxxx, o=a2anet>
Message Identifier: MsgIDRptSoA151217
Creation Date Time: 2017-12-15T18:01:00:000Z

Statement Identifier: 1
Account Identification: ACCOUNT1
Account Currency: EUR
Account Owner: PRTYABMMXXX
Balance Type: OPBD
Amount: 500 EUR
Credit/Debit Indicator: CRDT
RTGS Business date: 15/12/2017
Balance Type: CLBD
Amount: 720 EUR
Credit/Debit Indicator: CRDT
RTGS Business date: 15/12/2017

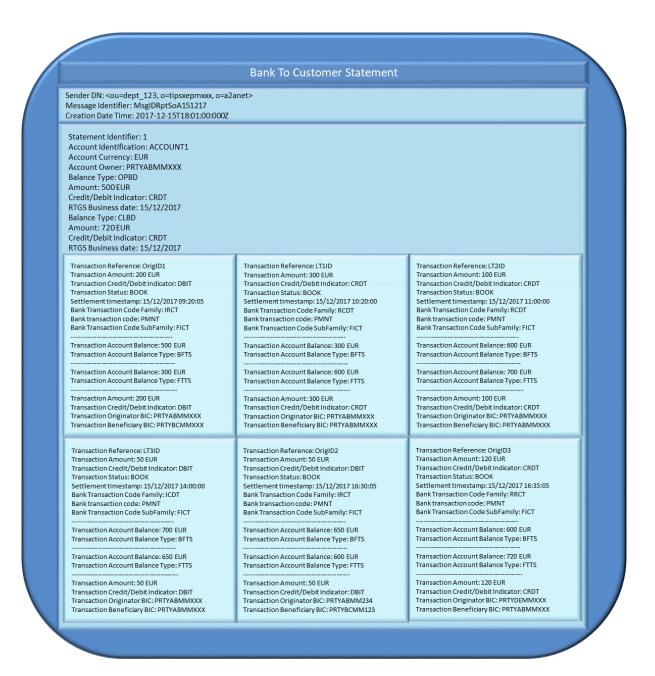|		
Transaction Reference: OrigID1 Transaction Amount: 200 EUR Transaction Credit/Debit Indicator: DBIT Transaction Status: BOOK Settlement timestamp: 15/12/2017 09:20:05 Bank Transaction Code Family: IRCT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 500 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 300 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 200 EUR Transaction Credit/Debit Indicator: DBIT Transaction Originator BIC: PRTYABMMXXX Transaction Beneficiary BIC: PRTYBCMMXXX	Transaction Reference: LT1ID Transaction Amount: 300 EUR Transaction Credit/Debit Indicator: CRDT Transaction Status: BOOK Settlement timestamp: 15/12/2017 10:20:00 Bank Transaction Code Family: RCDT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 300 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 600 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 300 EUR Transaction Credit/Debit Indicator: CRDT Transaction Originator BIC: PRTYABMMXXX Transaction Beneficiary BIC: PRTYABMMXXX	Transaction Reference: LT2ID Transaction Amount: 100 EUR Transaction Credit/Debit Indicator: CRDT Transaction Status: BOOK Settlement timestamp: 15/12/2017 11:00:00 Bank Transaction Code Family: RCDT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 600 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 700 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 100 EUR Transaction Credit/Debit Indicator: CRDT Transaction Originator BIC: PRTYABMMXXX Transaction Beneficiary BIC: PRTYABMMXXX
Transaction Reference: LT3ID Transaction Amount: 50 EUR Transaction Credit/Debit Indicator: DBIT Transaction Status: BOOK Settlement timestamp: 15/12/2017 14:00:00 Bank Transaction Code Family: ICDT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 700 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 650 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 50 EUR Transaction Credit/Debit Indicator: DBIT Transaction Originator BIC: PRTYABMMXXX Transaction Beneficiary BIC: PRTYABMMXXX	Transaction Reference: OrigID2 Transaction Amount: 50 EUR Transaction Credit/Debit Indicator: DBIT Transaction Status: BOOK Settlement timestamp: 15/12/2017 16:30:05 Bank Transaction Code Family: IRCT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 650 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 600 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 50 EUR Transaction Credit/Debit Indicator: DBIT Transaction Originator BIC: PRTYABMM234 Transaction Beneficiary BIC: PRTYBCMM123	Transaction Reference: OrigID3 Transaction Amount: 120 EUR Transaction Credit/Debit Indicator: CRDT Transaction Status: BOOK Settlement timestamp: 15/12/2017 16:35:05 Bank Transaction Code Family: RRCT Bank transaction code: PMNT Bank Transaction Code SubFamily: FICT ----------------------------------- Transaction Account Balance: 600 EUR Transaction Account Balance Type: BFTS ----------------------------------- Transaction Account Balance: 720 EUR Transaction Account Balance Type: FTTS ----------------------------------- Transaction Amount: 120 EUR Transaction Credit/Debit Indicator: CRDT Transaction Originator BIC: PRTYDEMMXXX Transaction Beneficiary BIC: PRTYABMMXXX

4) §3.3.2.2.12 BankToCustomerStatement (camt.053.001.06)

The Bank To Customer Statement (camt.053.001.06) provides detailed information on the activities recorded for all the accounts in the data scope of the recipient actor.

Table 1 – BankToCustomerStatement (camt.053.001.06)

Field Name	Description	XML path	Mand.	TIPS Usage
[…]	[…]	[…]	[…]	[…]
Account Identification	Account reported	BkToCstmrStmt/Stmt/Acct/Id	Yes	

Change Request form

Field Name	Description	XML path	Mand.	TIPS Usage
Account Currency	Currency of the Account	BkToCstmrStmt/Stmt/Acct/Ccy	Yes	
Account Owner	BIC of Financial Institution owning the account reported	BkToCstmrStmt/Stmt/Acct/Ownr/Id/OrgId/AnyBIC	Yes	
Balance Type	Type of the balance reported	BkToCstmrStmt/Stmt/Bal/Tp/CdOrPrtry/Prtry	Yes	Allowed values: - **OPBD**: Balance of the account at the start of the pre-agreed account reporting period (for full reports only); - **CLBD**: Balance of the account at the end of the pre-agreed account reporting period.
Amount	Balance Amount with currency	BkToCstmrStmt/Stmt/Bal/Amt	Yes	
[…]	[…]	[…]	[…]	[…]

6) TIPS UDFS Annex

Update of the message schema and the relevant example for the following message is required:

- camt.053.001.06 (XSD);

- camt.053.001.06 (Example).

_____

High level description of Impact:

_____

The aim of this change request is to add the new balance type code 'Opening Balance' (OPBD) in the Statement of Accounts report generated at the End-of-Day. The inclusion of the OPBD balance type code will simplify the TIPS Participants and Ancillary Systems EoD reconciliation activities. The new balance type will not be part

Besides editorial changes to the TIPS UDFS, an update of both the schema file (XSD) and example for camt.053 is required.

_____

Impacts on other projects and products:

No impact is foreseen on other TARGET services:

- CSLD no impact
- ECMS no impact
- T2S no impact
- TARGET2 no impact

Outcome/Decisions:

Change Request form

L3 analysis - General Information		
Impact on TIPS		
Business Interface		
X	A2A Interface	
	U2A Interface	
Settlement Engine		
	Payment Transaction	
	Liquidity Transfer	
	Recall	
Queries and Reports		
	Queries	
X	Reports	
Other functions		
	Local Reference Data Management	
	Statistics	
	Complex Queries and Reports	
	Mobile Proxy Look-up	
Common Components		
	ESMIG	
	CRDM	
	Archiving	
	Billing	
	DMT	
Operational Tools		
	SLA Reporting	
	TMS	

Change Request form

	Technical Monitoring	
	Change Management	
	Capacity Management	
Infrastructure request		
	Application components impacted	
	Application components not impacted	
Operational activities		
	Business activities impacted	
	Technical activities impacted	
New functionalities		

Impact on documentation		
Document	**Chapter**	**Change**
TIPS UDFS	- §1.5.5.2 Reports - §2.8.2. Statement of Accounts - §2.8.2.1.1 Statement of Accounts – Full mode - §3.3.2.2.12 BankToCustomerStatement (camt.053.001.06)	- Wording amended; - Wording amended for the Opening Balance; - Examples amended for the Opening Balance; - Message specification updated.
Training documentation	n/a	n/a
Other documents	xsd specifications and examples: - camt.053.001.06	- Cardinality of the balance block set to [1..2]. Opening Balance introduced as balance type code.

Change Request form

Overview of the impact of the request on TIPS (L2 view)
Summary of functional, development, infrastructure, operational and security impacts

Summary of functional impact:

In order to allow a proper reconciliation on customer side, TIPS should be adapted in order to report the Opening Balance into the Statement of Account report (camt.053.001.06), in addition to the Closing balance already reported. The Opening balance should be included only in the Statement of Account in Full mode, representing the Balance of the account at the start of the reported business date: this change will facilitate the reconciliation process based on the Statement of Account report.

An update of the TIPS functional documentation is required in the following areas:

- TIPS UDFS;

- Message schema and example for camt.053.001.06

Summary of application development impact:

The Statement of Account report (camt.053.001.06) entries have a strict sequential order that follows the order of TIPS settlement. Given this assumption, in principle, the TIPS participants should consider the BFTS (before settlement) amount of the first reported payment from CAMT.053 as the opening balance. The reason why this *"currently does not always match with the closing balance from the previous day reconciliation"* must be sought in the composition of such balances that may include "in-flight" (i.e. not yet confirmed) Liquidity Transfers and reserved amounts. The CR-0044 aims at resolving this issue, by correcting the balances deducting the above "transient" amounts.

Consequently, after the CR-0044 is implemented, a TIPS customer will be able to take the BFTS (before settlement) amount of the first payment in the CAMT.053 as the opening balance.

Nevertheless, if this CR is deemed to be implemented in any case, it is possible **to add the opening balance** (OPBD) **in the daily Statement of Accounts report only** (those produced at end-of-day), assuming that this would simplify the reconciliation activities. As opposite, the other Statement of Account reports produced intraday will not be changed by this CR[2].

Summary of infrastructure impact:

No infrastructure impact.

Summary of operational impact:

---

[2] The reason for changing only the EOD report comes from the circumstance that TIPS does not store such opening balance. To obtain this value when the report is produced and the "account data" are written, TIPS should be able to read the first payment (within the report period) when the payments are not yet accessed. TIPS reads the payments using a "streaming" technique (that allow to reach very high speed), and this must be done continually and, so, only after the account data have been sent to the report. For this reason, from a technical viewpoint, the proposed solution conflicts with the technical architecture and its implementation could jeopardize the scalability of the report generation, making impossible to ensure the proper throughput of the system that would not be in line with the non-functional requirements anymore.

No operational impact.

Summary of security impact:

See Change Request analysis.