



TEMENOS

The software specialist for banking and finance

Objectives for the course

- ◆ Introducing the participants to the concept of payments hub
- ◆ Configuring and processing incoming, outgoing, redirect and book SWIFT payments
- ◆ Overview of batch processing (Single debit and multiple credits)
- ◆ Understand the need and use of warehousing capability, debit authority, code words and balance reservation
- ◆ Overview of linkage to STeP (Automated Repair Tool) and AML (Filtering)
- ◆ Understand clearing framework and how system can be scaled to support additional clearings
- ◆ Understand how the SEPA payments processing using ESB layer
- ◆ Understand how direct debits (both incoming and outgoing) are processed
- ◆ Using reports and enquiries to perform payments monitoring and analytics



Prerequisites for this Course

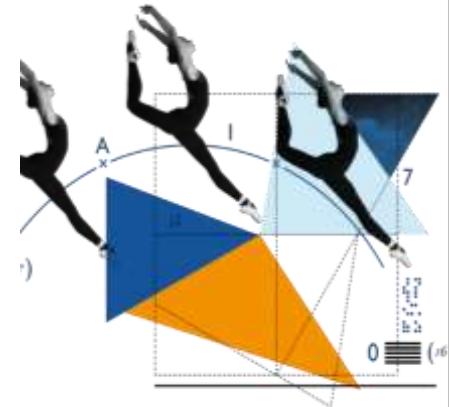
- ◆ T24 Induction course (T2ITC)
- ◆ Understanding of International and Domestic Payments Business
- ◆ Hands on experience with T24 product (or) Any other Banking / Payment Product

TPH Day 1

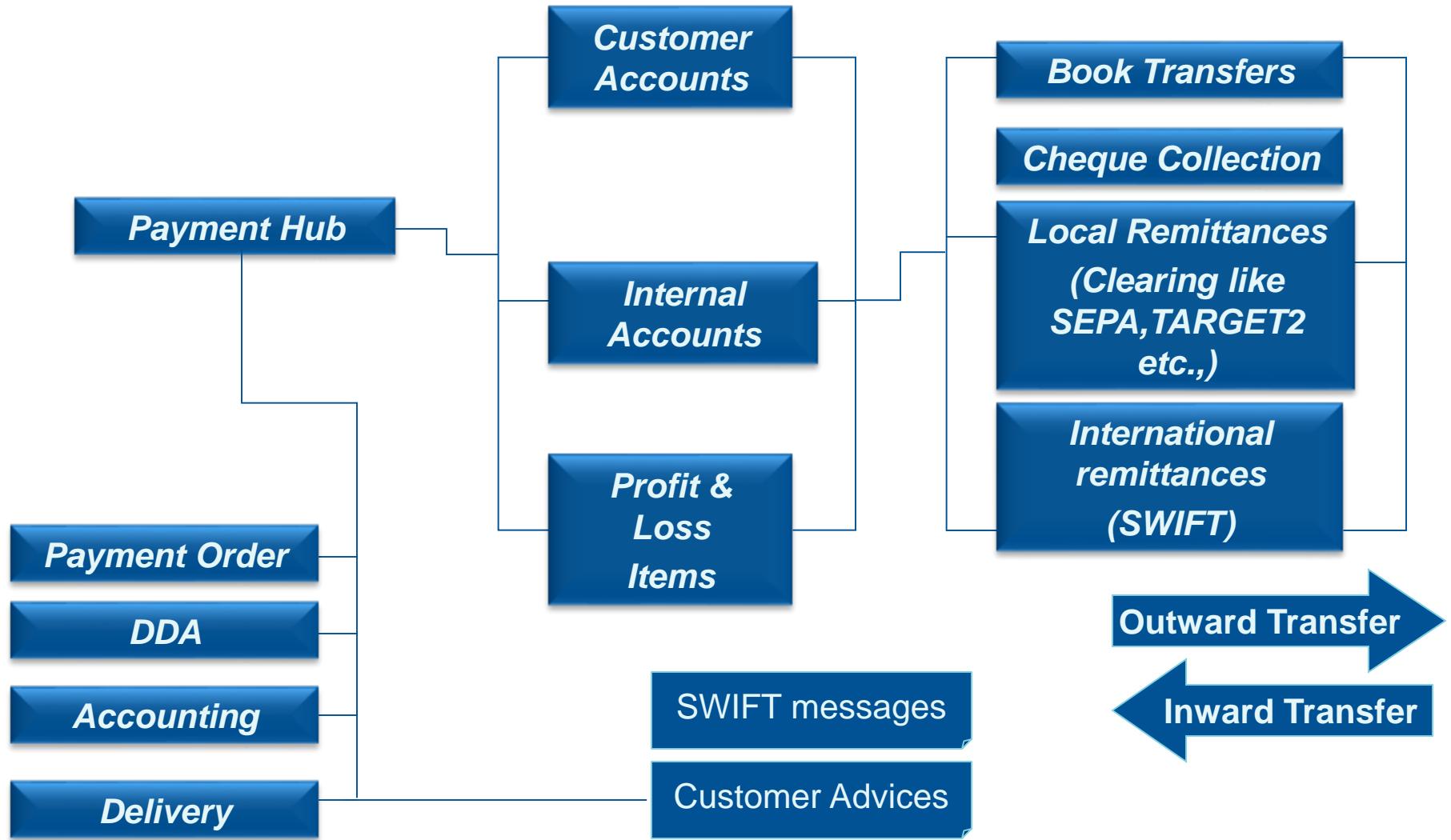
Learning Objectives

Objectives

- ◆ Learn about the:
 - Universal Payment Process Flow in Temenos Payment Suite
 - Understand the Data Model of TPH
- ◆ Learn How to setup the basic Static Data Configuration of TPH
- ◆ Understand how Incoming messages are received, accepted and mapped in TPH
- ◆ Understand the concept of
 - Weight Assignment
 - Debit Authority
 - Debit Party Determination
 - Warehousing of Payments
 - Balance Check



Payment Hub – Overview



Payment Hub Dependencies

- ◆ Payment Hub makes use of
 - CUSTOMER
 - ACCOUNT
- ◆ Core dependencies
 - Delivery
 - Accounting
 - Currency & Holiday Table
- ◆ Payment Hub also uses other Static tables
- ◆ Payment Hub also work as a Standalone Product (communication with external system for Customer, DDA and GL)

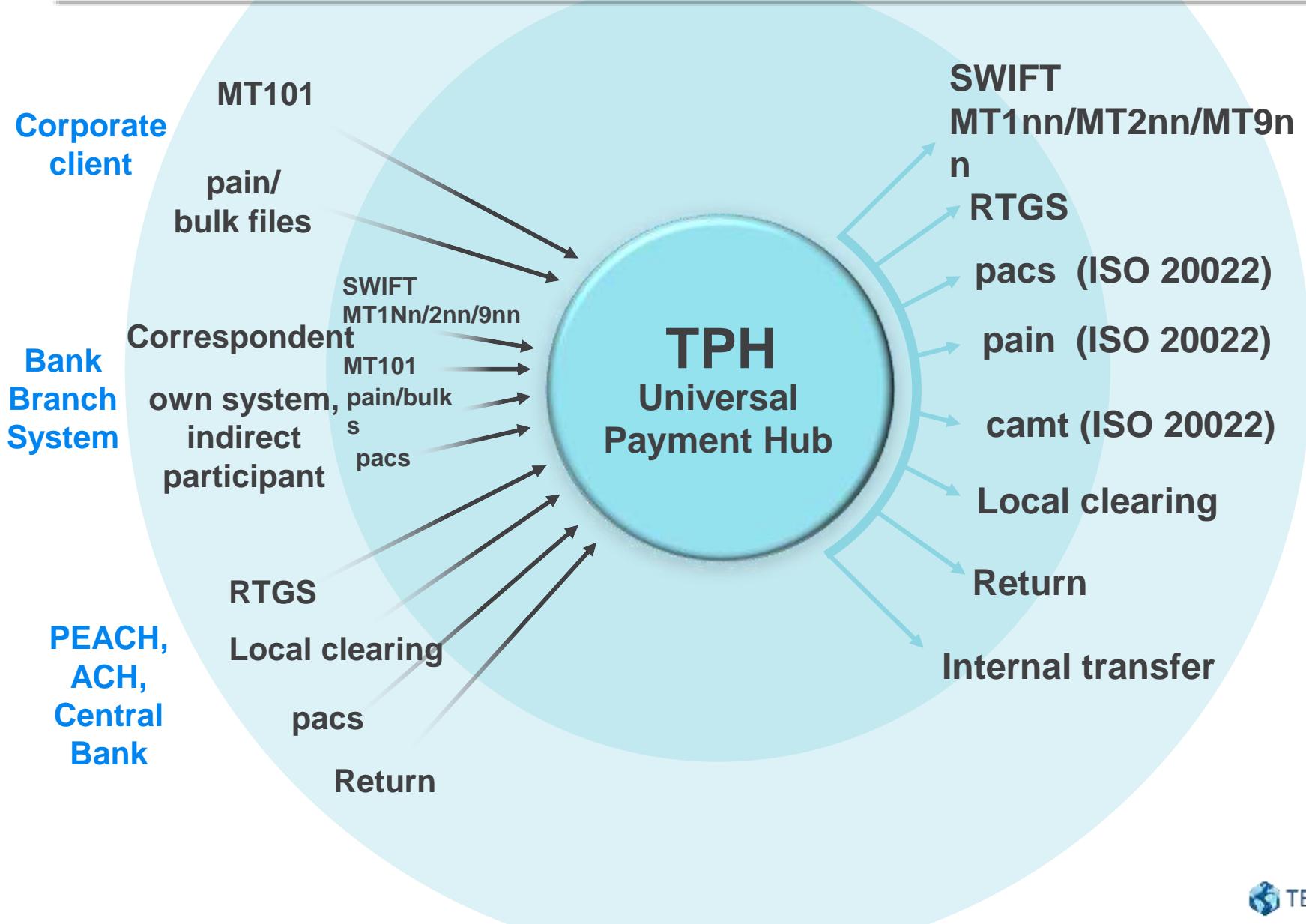
Benefits of Payment Hub

- ◆ TPH offers excellent breadth and depth of functionality as well as flexibility
- ◆ Payment Hub features offers ability to skip, prioritise and specify later date execution or override changes manually and manage service level agreements through parameterization
- ◆ TPH enables maximize Straight-through Processing (STP) with the ability to configure automated actions for exceptions and reduces risk by minimizing manual intervention
- ◆ TPH enables speed of settlement and eliminates unnecessary processing and enables banks to consolidate disparate payment systems and processes into a single standardization solution

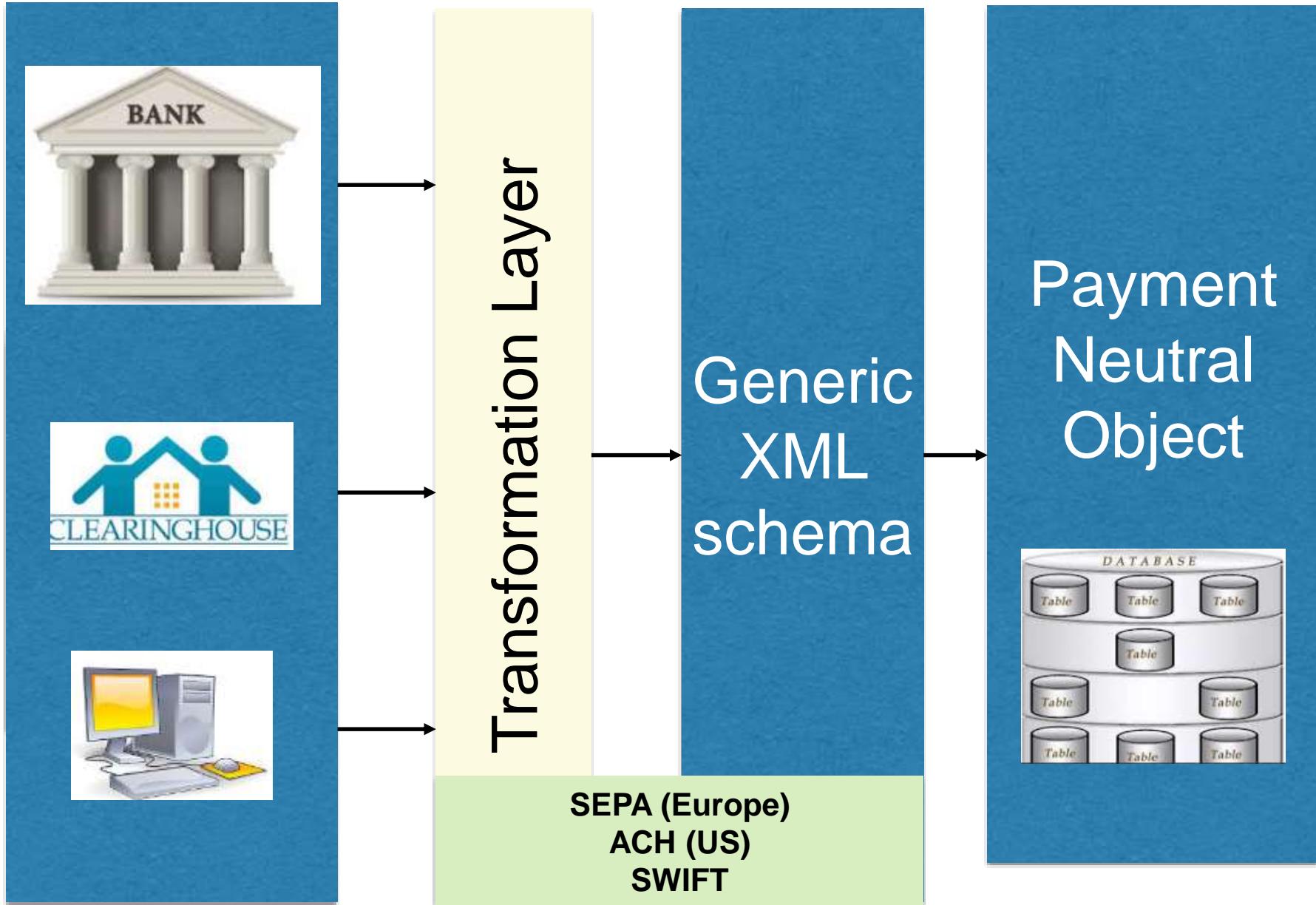
Supported Swift Message Types

- ◆ Temenos supports the following Swift Message Types:
 - MT101 (Single & Multiple) – Request for transfer
 - MT103 – Single customer credit transfer
 - MT103+ – STP Single customer credit transfer
 - MT191 – Request for payment of charges, interest and other expenses
 - MT195 – Queries
 - MT196 – Answers
 - MT199 – Free format message
 - MT200 – Financial Institution Transfer for its Own Account
 - MT202 – General Financial Institution Transfer
 - MT202C – COV General Financial Institution Transfer
 - MT019 – Abort Notification(used for TARGET2)
 - MT 210 - Notice to Receive
- ◆ Clearing specific message types are also supported in Payments Hub(like SEPA,BACS,FEDWIRE,USACH etc.,).

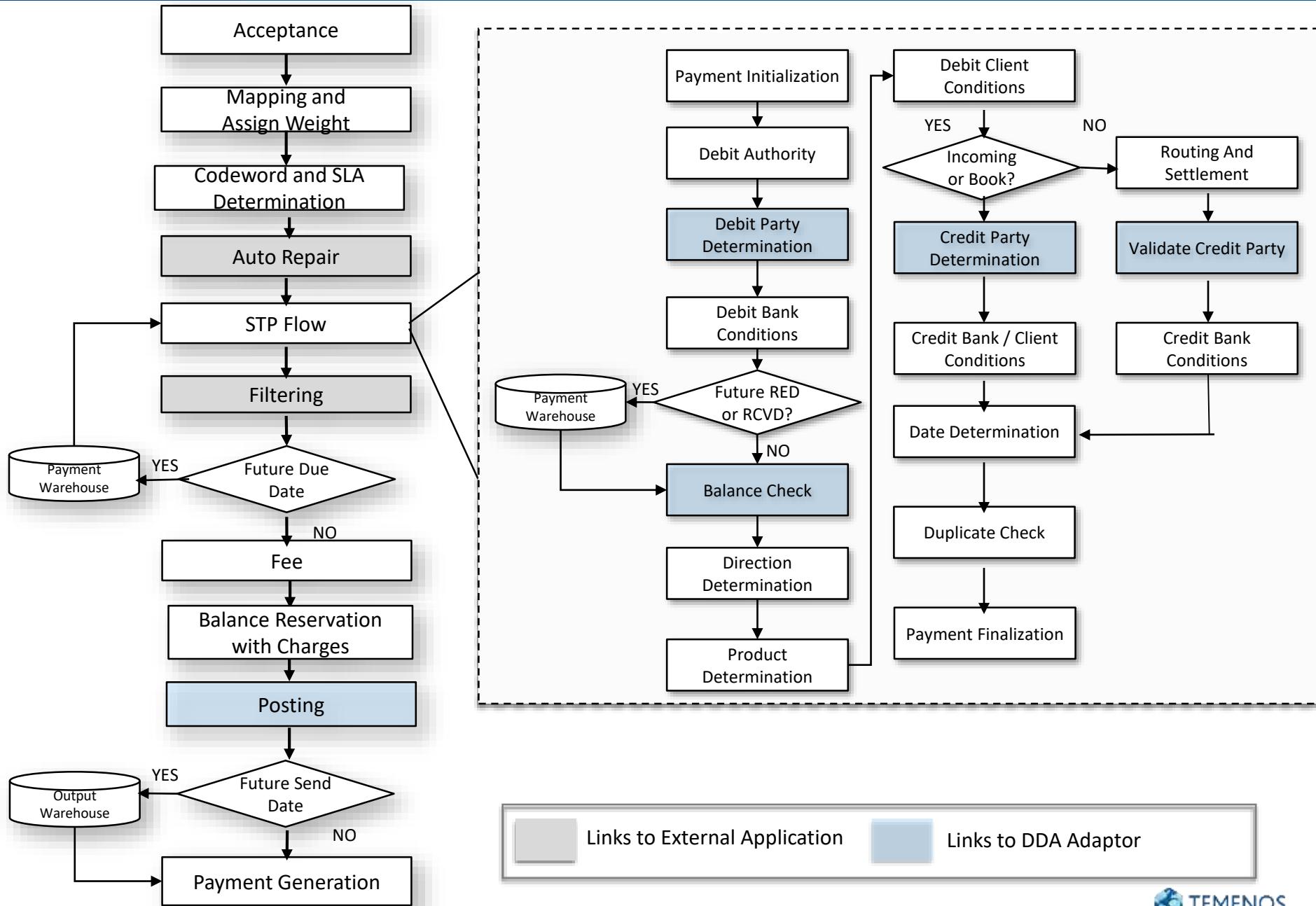
TPH – Channel Agnostic



Understanding different message formats



TPH – Components Overview



Configuration Driven to enable high STP rates

Admin Menu > Payment Hub

Payment Hub	^
Static Data GUI	▼
Authorization Principle	ং
Message Acceptance GUI	▼
Payment Router GUI	ং
Message Mapping GUI	▼
Batch Server GUI	ং
Local Clearing GUI	▼
Trip Status Action	ং
Payment Workflow GUI	▼
Weight Assignment	ং
Inbound CodeWords GUI	▼
Outbound CodeWords GUI	▼
SLA Per Codeword	ং
Bank Conditions GUI	ং
Debit Authority GUI	▼
Balance Check GUI	▼
Product Determination GUI	▼
Client Conditions GUI	▼
Routing And Settlement GUI	▼
Date Determination GUI	▼
Risk Filter GUI	▼
Fee Determination GUI	▼
Filtering GUI	▼
Posting Scheme GUI	▼
Claims GUI	ং
Automated Repair Tool GUI	▼
Clearing Directory GUI	▼
Payment Purpose Code	▼
Payment Categ Purpose	▼
SEPA Clearing Directory GUI	▼
Templates GUI	▼
Inward Entry GUI	▼
Non Customer Accounts	▼

Dashboards

Pending and Processed Payments												
Company	FT Number	Ccy	Amt	↔	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description
BNK	BNK181070LFMG0FH	EUR	152.00	↔	BNK	EUR1402000010001	EUR	17 APR 2018	13E09T07123321	13D07123D441234	999	Payment complete
BNK	BNK18107F0HKHMD	EUR	11.03	↔	BNK	EUR1402000010001	EUR	17 APR 2018	533NDTOEND1013	533DTXNID441013	999	Payment complete
BNK	BNK18107FCLJHGCD	EUR	150.00	↔	BNK	EUR1402000010001	EUR	17 APR 2018	123NDTO1231123	123D0XN123431321	999	Payment complete
BNK	BNK18107MBJLDF0J	EUR	11.02	↔	BNK	EUR1402000010001	EUR	17 APR 2018	53ENDTOEND1512	53DDTXNID141512	999	Payment complete
BNK	BNK18107LDMFMCMG	EUR	11.01	↔	BNK	EUR1402000010001	EUR	17 APR 2018	5ENDTOENDID1311	5DDT3NID11011	999	Payment complete
BNK	BNK18107LGMLJHGCG	EUR	149.00	↔	BNK	EUR1402000010001	EUR	17 APR 2018	1END12377I08321	1D123N7877123	999	Payment complete

Mid Office Payment Entry Screen

Order Entry Outgoing Transfer (CTR) OE18191TSZ42

Payment Processing Information

Status	135	Processing Company	BNK	<input checked="" type="checkbox"/> Yes	
Transaction Reference Number		Processing Date	10 JUL 2018	10 JUL 2018	Processing Date Imposed Flag
Sender's Reference Number		Priority	1	<input checked="" type="checkbox"/> Yes	
Related Reference		Product			
Source	OE	Output Channel		<input checked="" type="checkbox"/> Yes	
Direction	O	Transaction Currency		Instructed Currency	
Transfer Type	C	Transaction Amount		Instructed Amount	
Incoming Message Type	RFCT	Charge Option	<input type="radio"/> Ben <input checked="" type="radio"/> Sha <input type="radio"/> Our		
Balance Reservation		Receiver Institution		Receiver Institution N C C	
Balance Reservation Number		Beneficiary ID			
Balance Reservation Debit Chg Acct					
Pre-Authorization Number					
Intra Company Payment	<input type="radio"/> Yes				
Store Template Values					
Select from Template					
Save As Template	<input type="radio"/> Yes				
Nick Name					

Exception Handling - Repair and Resubmit Payments

Repair View Screen OE18107VNZLW

Payment Processing Information					
Status	235				
Transaction Reference Number	BNK18107HLLM0LCL				
Sender's Reference Number	INCOMINREPAIR				
Priority	1				
Source	SWIFT				
Output Channel	LEDGER				
Direction	I				
Transaction Currency	USD				
Transfer Type	C				
Incoming Message Type	103				
Balance Reservation	A				
Balance Reservation Number	ACLK1810725207				
Processing Company	BNK				
Processing Date	17 APR 2018				
Transaction Amount	999.00				
Charge Option	Sha				
Sender Institution	BARCGB22				
Debit Credit Info	Error Information	Charge Information	Routing Information	Additional Information	Audit
Special Instruction Error Information					
Functional Error.1 CPD10003 ** Credit Main Account: Account Invalid / 1113 /					

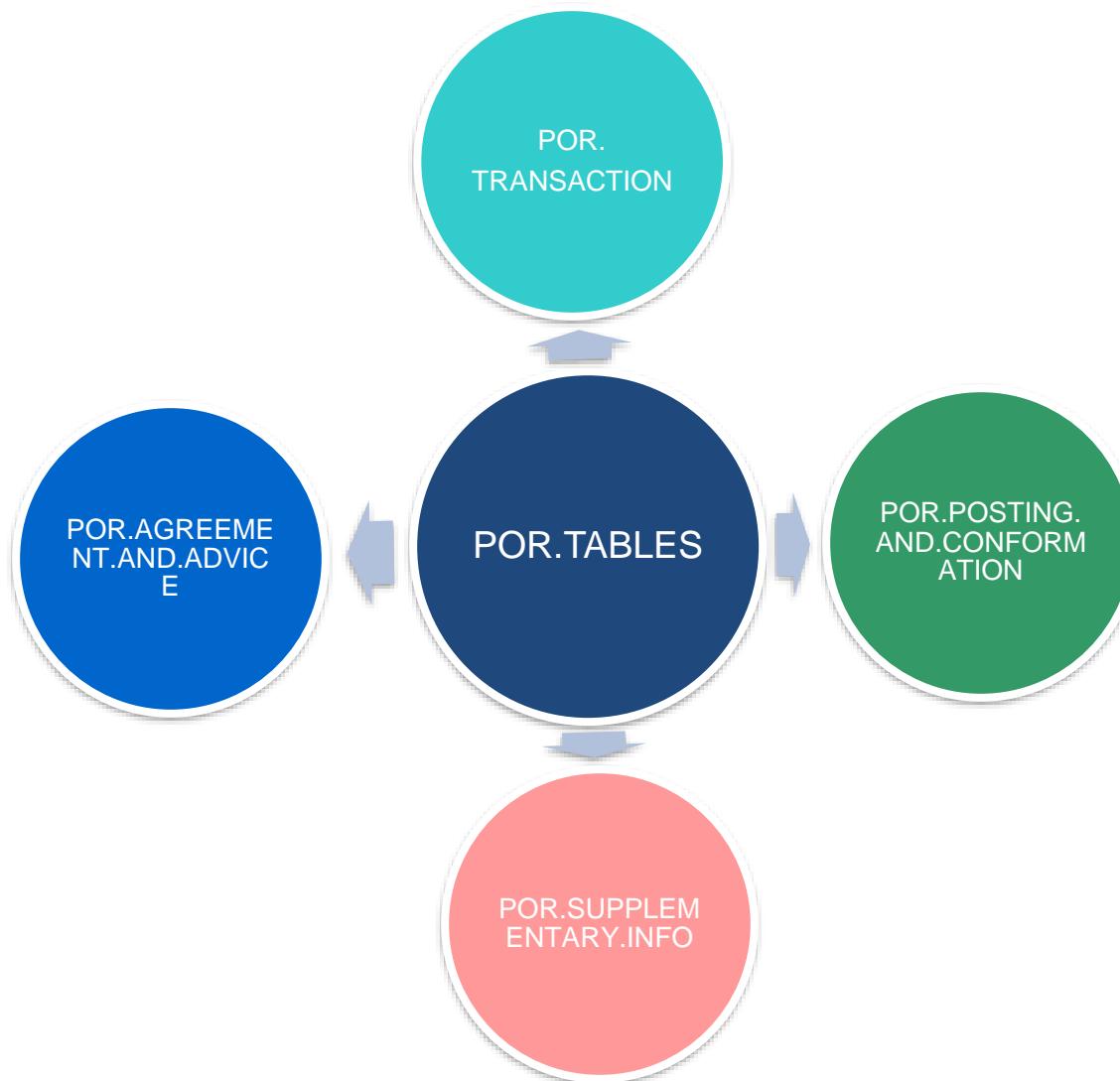
In detail audit logs – Trace everything that happens to a payment

Audit Trail

Event Type	Event Description	Error Code	Add Info	History Timestamp
INF	Message mapped according to parameters		HISWF	17 APR 2018 16:10:48.397
INF	Weight assigned successfully			17 APR 2018 16:10:48.397
INF	Inbound CodeWord processed successfully		*	17 APR 2018 18:26:34.279
INF	SLA successfully determined			17 APR 2018 18:26:34.279
INF	Automated Repair Tool not required for this weight and specific weight		HISWF	17 APR 2018 18:26:34.279
INF	Payment Successfully Initialised			17 APR 2018 18:26:34.279
INF	Debit Authority successful - Debit Authority Indicator set		S	17 APR 2018 18:26:34.279
INF	Debit Party Successfully Determined		BNK 23752 USD	17 APR 2018 18:26:34.279
INF	Bank Condition read successfully		DEFAULT-20160101 * *	17 APR 2018 18:26:34.279
INF	Debit Bank Conditions updated successfully			17 APR 2018 18:26:34.279
INF	Own Account successfully Determined		Y	17 APR 2018 18:26:34.279
INF	Direction and Transfer type successfully determined		IIC	17 APR 2018 18:26:34.279
INF	Product determination successful		HWA PPHPC14112F7RHC-20160101 SWIFT DEFAULT LEDGER DEFAULT HKCLG_CD DEFAULT	17 APR 2018 18:26:34.279
INF	Credit Party successfully determined		11193 / BNK /	17 APR 2018 18:26:34.279
INF	Debit Main Account Successfully Validated		BNK 23752 USD	17 APR 2018 18:26:34.279
INF	Credit Main Account Successfully Validated		BNK 11193 USD	17 APR 2018 18:26:34.279
INF	The Funds Authorization process is skipped for the payment			17 APR 2018 18:26:34.279
INF	Client Condition read successfully		DEFAULTSWIFT***** * DEFAULT SWIFT * *	17 APR 2018 18:26:34.279
INF	Requested Credit Value date is in past and it cannot be met		20180417 20160719	17 APR 2018 18:26:34.279
INF	Date Determination Successful		Proc:20180417 CVD:20180417 DVD:20180417 PSD: CSD: BD:20180417 EXD:20180417	17 APR 2018 18:26:34.279
INF	Duplicate check performed successfully			17 APR 2018 18:26:34.279
INF	FATF Regulations Successfully met			17 APR 2018 18:26:34.279
INF	STP successfully completed			17 APR 2018 18:26:34.279
INF	End of STP processing in Single flow service		600 31	17 APR 2018 18:26:34.279
INF	Status code changed to ready for Risk Filter			17 APR 2018 18:26:34.279
INF	Risk Filtering successful			17 APR 2018 18:26:34.279
INF	Record key - ClientCharges table used for peeling off		1-20180316 * * BNK * *	17 APR 2018 18:26:34.279
INF	Fee Processing is successful			17 APR 2018 18:26:34.279
INF	The Balance Check with charges process is skipped for the payment			17 APR 2018 18:26:34.279
INF	Posting lines and statement lines generated successfully and passed to Ledger			17 APR 2018 18:26:34.279
INF	Posting completed successfully		BNK18107GFCCGFCM	17 APR 2018 18:26:34.279
INF	Payment processing is complete			17 APR 2018 18:26:34.279

Static Data Configuration

Introduction to concept of POR tables



Business Case 1



Process incoming MT103

Alfa Beta in US, wishes to pay USD 340 to his supplier Nike located in UK.

Nike holds an USD account with T24 Bank while Alfa Beta has an USD account with CITI Bank in US, NY

CITI Bank, on behalf of Alfa Beta sends a MT103 to T24 Bank

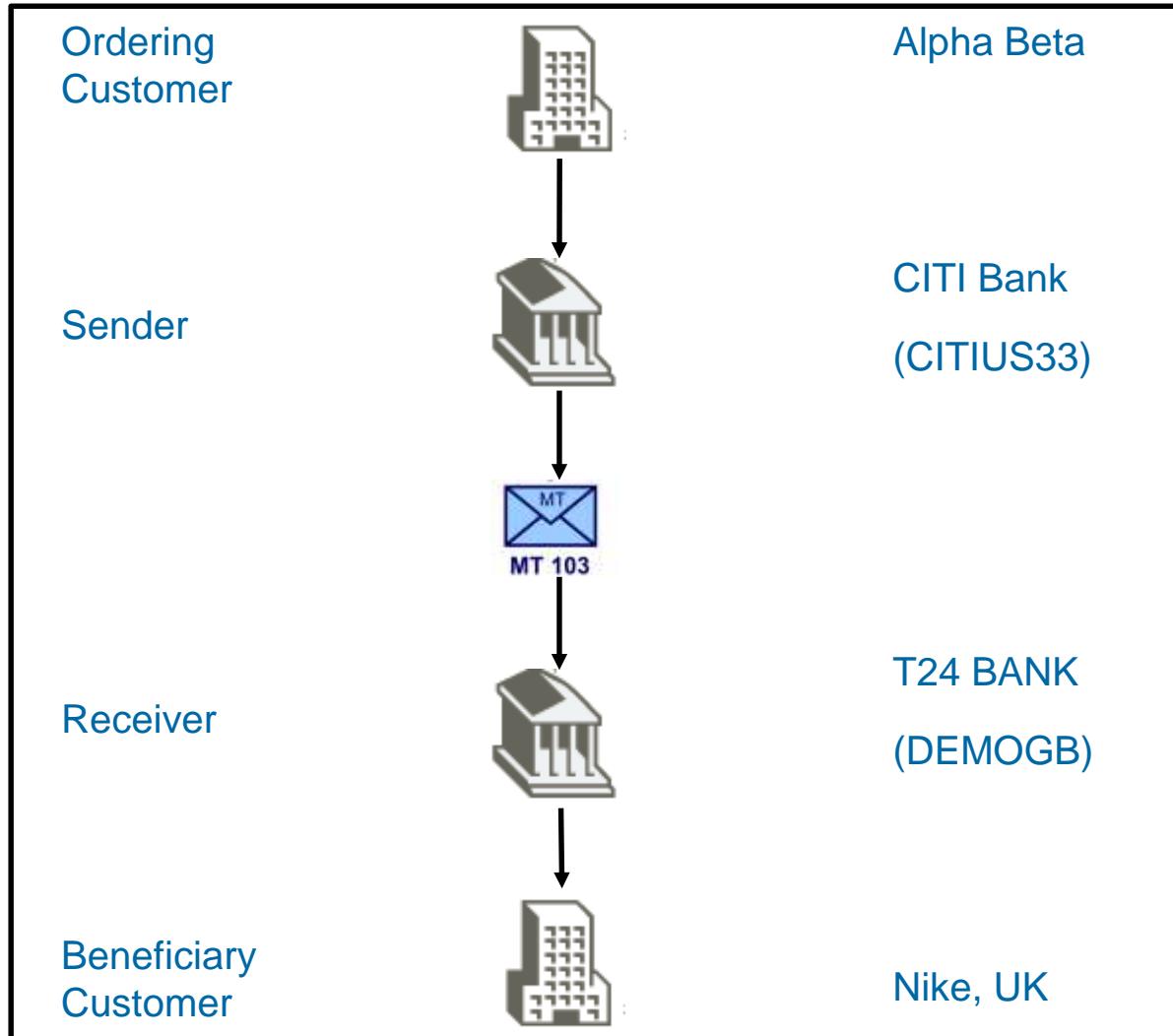
CITI Bank shares a direct account relationship with T24 Bank.

T24BANK uses TPH (Temenos Payment Hub) for handling all types of payment transactions and T24 acts as the DDA system (Demand Deposit Account)

Transaction charges on the receiver's side is NIL

Charge type used is SHA

Process incoming MT103



Process incoming MT103

```
SWIFTMT103-BUC1-001 (2).txt X
1 {1:F01DEMOGBPXXXX9024629991}{2:01031425131119CITIUS33AXXX89245950131311191435S}{3:{108:BNKMT103FXSHA}}{4:
2 :20:BUC1MT013INC
3 :23B:CRED
4 :32A:160719USD340,00
5 :50K:/GB10MIDL40051574128754
6 Alfa Beta
7 New York
8 US
9 :52A:MIDLGB22XXX
10 :59:/11193
11 Nike
12 London
13 UK
14 :70:INCOMING STP NO FX
15 :71A:SHA
16 -}
```



SWIFTMT103-BUC1-001.txt

Introduction to payment neutral object

Received File Details*		Received Bulk Details		Received Message Details					
Received Message/File Details - List									
File Reference Queue Name <> Company File Status <> File Name <> Source Single Multiple Ind <> <>									
ABC	SWIFT		RECEIVED						
66 →	✉	✉	✉	✉	✉				

Received File Details		Received Bulk Details		Received Message Details					
Received Message/File Details - List									
File Reference Queue Name <> Company File Status <> File Name <> Source Single Multiple Ind <> <>									
ABC	SWIFT	BNK	MAPPED	SWIFT	S				
66 →	✉	✉	✉	✉	✉				

Blob Payment File Content	
Blob Unique ID	Message Content
ABC	{1:F01DEMOGBPXXXX9024629991}{2:01031425131119CITIUS33AXXX89245950131311191435S}{3:{108:BNKMT103FXSHA}}{4: :20:BUC1MT013INC :23B:CRED :32A:160719USD340,00 :50K:/GB10MIDL40051574128754 Alfa Beta New York US :52A:MIDLGB22XXX :59:/11193 Nike London UK :70:INCOMING STP NO FX :71A:SHA →}

Introduction to concept of POR tables

POR.TRANSACTION main payment object table

Pending and Processed Payments													
Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description		
BNK	BNK18107GFCGGFCM	USD	340.00	BNK	11193	USD	17 APR 2018		BUC1MT013INC	999	Payment complete		

POR.TRANSACTION BNK18107GFCGGFCM	Debit Main Account: 23752	Credit Client ID: 11193
CompanyID: BNK	Debit Main Account Currency Code: USD	Credit Business Line: 999
FTNumber: BNK18107GFCGGFCM	Debit Party Line1: Citi Group Inc. (New York)	TransactionAmount: 340.00
Status Code: 999	Debit Party Line2: 399 Park Ave	TransactionCurrencyCode: USD
Payment Direction: I	Debit Party Line3: New York	Transaction Amount Home: 340.00
C T R B T R Indicator: C	Debit Main Amount: 340.00	Home Currency: USD
Own Account Indicator: Y	Debit Main Amount Home: 340.00	Transaction Amount G.L Home: 340.00
Status Date Time: 20180417182634279	Debit Client ID: 100492	G.L Home Currency: USD
Specific Weight Code: SWF	Debit Business Line: 999	Details Of Charges: SWA
Weight Code: H	Credit Main Account Company ID: BNK	Debit Value Date: 17 APR 2018
Heavy Weight Product ID: PPNFC14112ETRHC-20160101	Credit Main Account: 11193	Credit Value Date: 17 APR 2018
Message Priority: 1	Credit Main Account Currency Code: USD	Originating Source: SWIFT
Domestic International: D	Credit Party Line1: Nike	Received Source: SWIFT
MessageFormat: 103	Credit Party Line2: 1 BOWERMAN DRIVE	Originating Channel: SWIFT
Priority Code: E	Credit Party Line3: BEAVERTON	Source Product: SWIFT
Company Region: ALL	Credit Main Amount: 340.00	Incoming Message Type: 103
Sender Address: CITRUS30	Credit Main Amount Home: 340.00	Output Channel: LEDGER
Receiver Address: DEMO@BPE	Credit Charge Exchange Rate: 1.235698000	Single Multiple Indicator: S
Senders Reference Incoming: BUC1MT013INC	Credit Charge Currency Pair: GBP/USD	Number Of Children: 0
Bank Operation Code: CRED	Credit IBAN Indicator: N	Message User Reference: BUC1MT013INC
Debit Main Account Company ID: BNK		

Introduction to concept of POR tables-POR.SUPPLEMENTARY.INFO

POR.SUPPLEMENTARY.INFO BNK18107GFCGGFCM

Main Or Charge Account Type	Account Company Id	Account Number		
D	BNK	23752		
C	BNK	11193		
< Additional Information Code >		Add Inf Type Line Seq	Additional Inf Tag	Additional Inf Line
RMTINF		1	70	INCOMING STP NO FX
< Party Type >		Party Role	Role Indicator	Information Tag
CREDIT		BENFCY	R	59
DEBIT		SENDER	R	
DEBIT		ORDPTY	R	50K
DEBIT		ORDINS	R	52A
< Entry IDs.1 >		184344711799403.00		
Entry IDs.2		1-2		
Entry IDs.3		1		
Eb Duplicate Type Id		PH-INCOMING		

Ccy	Account Type	Account Status
USD	N	Active
USD	C	Active
< Reserved6 >		Reserved7
< Party Identifier Code >		Party Account Line
		/11193
CITIUS33		/GB10MIDL40051574128754
MIDLGB22		

Introduction to concept of POR tables- POR.POSTING.AND.CONFIRMATION

POR.POSTING.AND.CONFIRMATION BNK18107GFCGGFCM

Charge Party Indicator	Fee Type	Charge Sign
C	TRANSACTIONFEE	P
Booking Date	17 APR 2018	17 APR 2018
Transaction Ref	BNK18107GFCGGFCM	
Local Currency Code	USD	
Posting Line Number	Statement Line Number	
1	1	Cust CHDebit HKCL with charges
2	1	Bank HKCLG standard
3	1	Charge Credit Detailed

Type Of Charge	Fee Description	CH
R	Transaction Fee	6.18
Booking Date	17 APR 2018	17 APR 2018
Transaction Ref	BNK18107GFCGGFCM	
Local Currency Code	USD	
Statement Line		
Cust CHDebit HKCL with charges		
Bank HKCLG standard		
Charge Credit Detailed		

Introduction to concept of POR tables- POR.AGREEMENT.AND.ADVICE

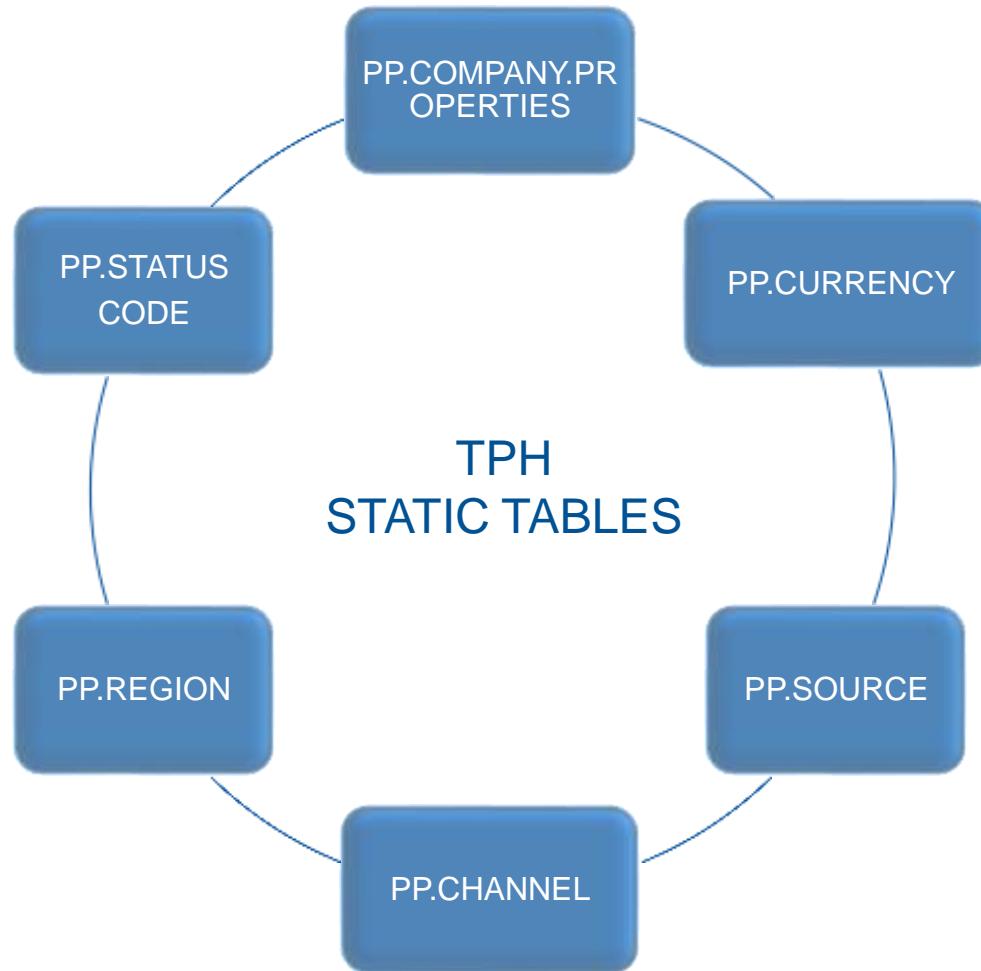
POR.AGREEMENT.AND.ADVICE BNK18107GFCGGFMC			
Debit Credit Indicator		Client Conditions Id	
C	DEFAULTSWIFT*****		
< >			
Dbt Cdt Bank Cond Ind		Bank Conditions Id	
D	DEFAULT-20160101		
< >			
Pc Language Id	Pc Statement Format Name	Billing Indicator	
1		N	
< >			
Ctr Non Stp Indicator	Btr Non Stp Indicator		
N	N		
< >			
Charge Posting Separately	Charge Posting Detail	Vat Principal	
N	N	0	
< >			
Warehouse Flag	Warehouse Release Time	Charge Account Company Id	
J			
< >			
Vat On Charge	Non Stp Indicator	Fx Non Stp Indicator	
N	N	N	
< >			

Party Roles

Party Role List

PartyRole	Party Role Tag	Description	
ACWINS	57	Account with Institution	<input checked="" type="checkbox"/> <input type="radio"/>
ASVINS	52	Account Servicing Institution	<input checked="" type="checkbox"/> <input type="radio"/>
BENFCY	59	BENFCY	<input checked="" type="checkbox"/> <input type="radio"/>
BENINS	58	Beneficiary Institution	<input checked="" type="checkbox"/> <input type="radio"/>
IMPICDT	50	Implied Credit	<input checked="" type="checkbox"/> <input type="radio"/>
IMPDBT	50	Implied Debit Account	<input checked="" type="checkbox"/> <input type="radio"/>
INSPTY	50	Instructing Party	<input checked="" type="checkbox"/> <input type="radio"/>
INTINS	56	Intermediary Institution	<input checked="" type="checkbox"/> <input type="radio"/>
ORDINS	52	Ordering Institution	<input checked="" type="checkbox"/> <input type="radio"/>
ORDPTY	50	Ordering Party	<input checked="" type="checkbox"/> <input type="radio"/>
RCVCBK	54	Receiver's Correspondent Bank	<input checked="" type="checkbox"/> <input type="radio"/>
SENDER	50	Sender	<input checked="" type="checkbox"/> <input type="radio"/>
SNDCBK	53	Sender's Correspondent Bank	<input checked="" type="checkbox"/> <input type="radio"/>
SNDINS	51	Sending Institution	<input checked="" type="checkbox"/> <input type="radio"/>
TRMINS	55	Third Reimbursement Institution	<input checked="" type="checkbox"/> <input type="radio"/>
ULTCDT	99	Ultimate Creditor.	<input checked="" type="checkbox"/> <input type="radio"/>
ULTDBT	99	Ultimate Debtor.	<input checked="" type="checkbox"/> <input type="radio"/>

Static Data Configuration



Static Data Configuration – Company Properties

Table	Company Properties
ID	BNK-20161031
Field Name	Field Value
Start Date	31 OCT 2016
Home Country Code	GB
Home Currency Code	USD
Application User ID	INPUTTER
Company Region	ALL
Dealer Desk Enabled	<ul style="list-style-type: none">● Y● N
SOD Run Time	07:00
COB Run Time	22:00
Company BIC	DEMOGBPX
Days Active Payment	30
Days Duplicate Check	
Claim Beneficiary BIC	
Maximum Claim Days	15
Auto Repair Wait Interval Seconds	1
Screen Wait Interval Seconds	100
Default Client ID	23019515
Default Language ID	1

**Admin Menu >
Payment Hub > Static
Data GUI > Company
Properties**

Static Data Configuration - Currency

Table	PP.CURRENCY				
ID	GBP				
Field Name	Field Value				
Company	BNK				
CountryCode	GB				
Currency Group	*				
Currency Name	Pound Sterling				
Fractional Digit	2				
Country Name	Great Britan				
FX Limit	999,999,999				
Weekend Day 1	Saturday				
Weekend Day 2	Sunday				
Override Through Upload	Y				
Reserved5					
Reserved4					
Reserved3					
Reserved2					
Reserved1					
Override.1					
Record Status					
Curr No	1				
Inputter.1	1_201611				
Date Time.1	4/26/2018 17:09				
Authoriser	69990_TRAIN511_OFS_GCS				
Company	GB0010001	Model Bank			
Dept Code	1	Implementation			
Auditor Code					
Audit Date Time					

**Admin Menu > Payment Hub
>Static Data GUI > Currency**

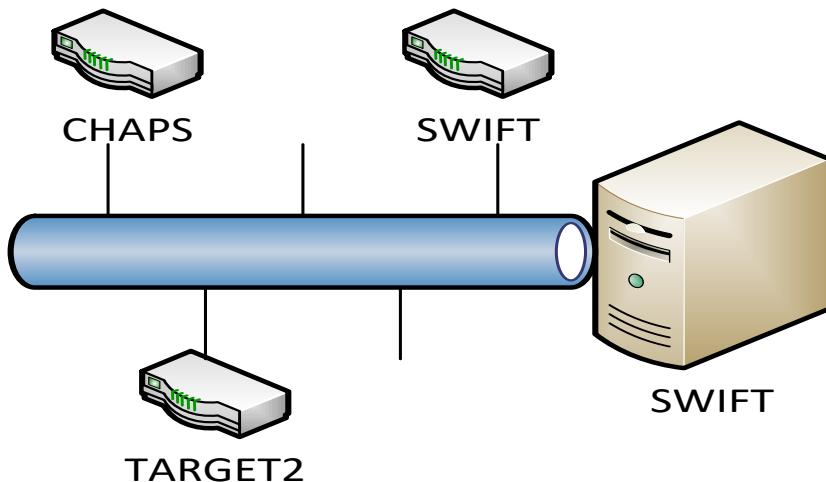
PP.CURRENCY - Default List

CurrencyCode	CompanyID	CountryCode	CurrencyGroup	CurrencyName
<u>AED</u>	BNK	AE	*	UAE DIRHAM
<u>AUD</u>	BNK	AU	*	AUSTRALIAN DOLLAR
<u>CAD</u>	BNK	CA	*	CANADIAN DOLLAR
<u>CHF</u>	BNK	CH	*	SWISS FRANC
<u>CNY</u>	BNK	CN	*	YUAN RENMINBI
<u>CZK</u>	BNK	CZ	*	CZECH KORUNA
<u>DKK</u>	BNK	DK	*	DANISH KRONE
<u>EUR</u>	BNK	EU	*	EURO
<u>GBP</u>	BNK	GB	*	POUND STERLING
<u>HKD</u>	BNK	HK	*	HONG KONG DOLLAR

Page 1 of 2

Static Data Configuration - Source

- “SOURCE” using Swift Channel



Source	ChannelName	SourceDescription
CHAPS	SWIFT	CHAPS payments received via SWIFT
SWIFT	SWIFT	SWIFT messages received via SWIFT
TARGET	SWIFT	TARGET2 payments received via SWIFT

**Admin Menu > Payment Hub
>Static Data GUI > Source**

Table	PP.SOURCE
ID	SWIFT
Field Name	Field Value
Channel Name	SWIFT
Source Product	SWIFT
SourceDescription	SWIFT
SourcePDGroup	SWIFT
Source Type	<ul style="list-style-type: none">• X• Nc• I
Reserved4	
Reserved3	
Reserved2	
Reserved1	
Override.1	
Record Status	

Static Data Configuration - Channel

◆ Payment Channels



**Admin Menu > Payment Hub
>Static Data GUI > Channel**

Table	PP.CHANNEL
ID	SWIFT
Field Name	Field Value
Channel Description	SWIFT
Reserved5	
Reserved4	
Reserved3	
Reserved2	
Reserved1	
Override.1	
Record Status	
Curr No	1

Static Data Configuration - Region

- Entity's Region in the country
 - Country Code
 - Region

Admin Menu > Payment Hub > Static Data GUI > Region

Table	PP.REGION
ID	EU
Field Name	Field Value
Region.1	ALL
Reserved5	
Reserved4	
Reserved3	
Reserved2	
Reserved1	
Override.1	
Record Status	
Curr No	1

Static Data Configuration – Status Code

◆ STATUSCODE

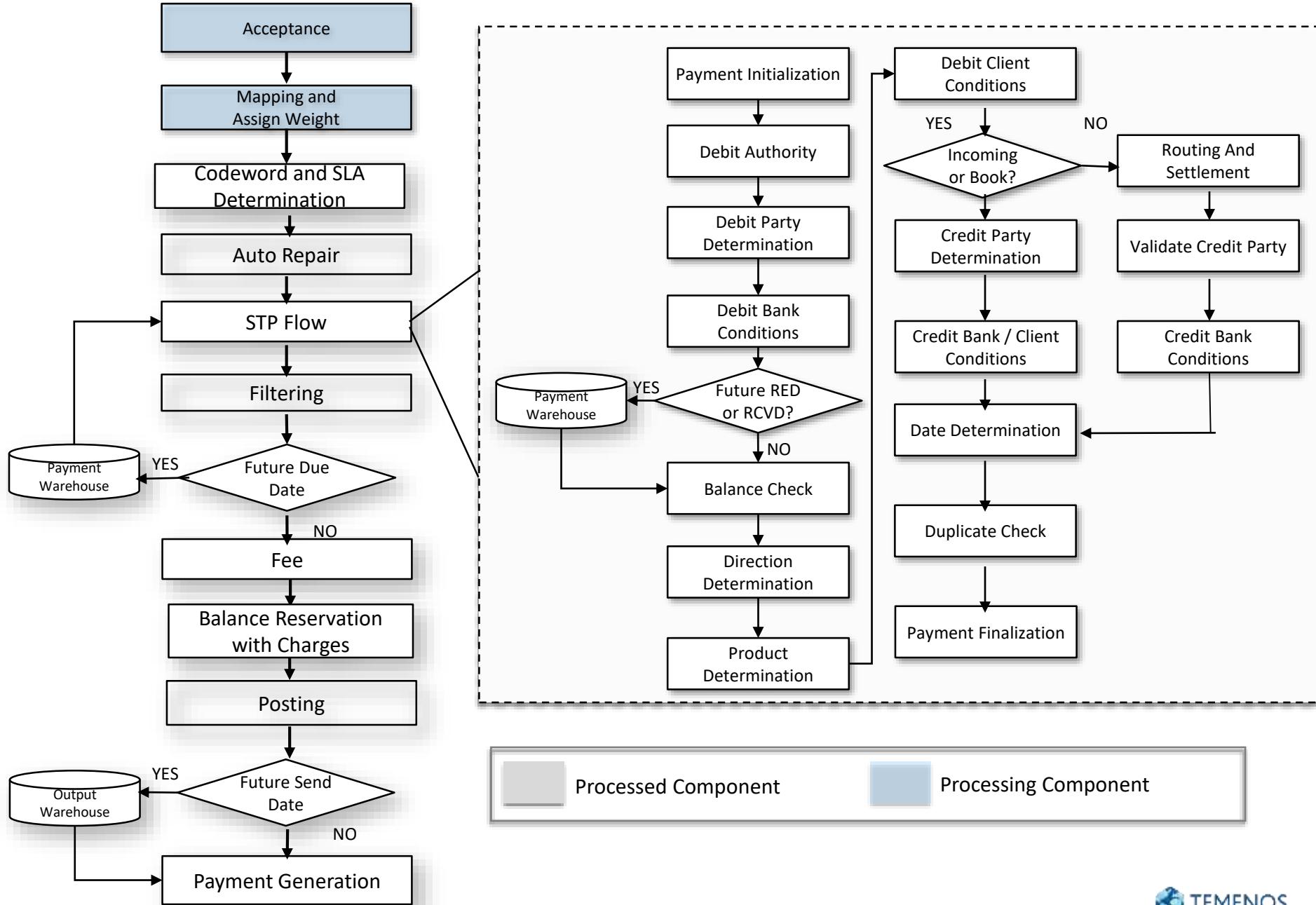
- Payment transaction flow monitor
- Signifies payment current state and completion (i.e. '999')

PP.STATUS.CODE - Default List														
Status Code	Status Description										Reserved 5	Reserved 4	Reserved 3	
100	Completed - Credit Party Determination													
109	Completed - Charge Account validated from Credit Bank Condition													
117	Completed - Charge Account validated from Credit Client Condition													
135	Waiting - Payment moved to Order Entry Pending Submit Queue													
145	Processing - Debit Party Determination and Validation for Order Entry													
148	Completed - Debit Party Determination and Validation for Order Entry													
15	Transaction Sent to Auto Enrichment Engine													
155	Processing - Debit Charge Account Validation for OE derived from Debit Bank Conditions													
158	Completed - Debit Charge Account Validation for OE derived from Debit Bank Conditions													
165	Processing - Debit Charge Account Validation for OE derived from Debit Client Conditions													

Page 1 of 18

Pending and Processed Payments												Results 1 - 19	
Company	FT Number	Ccy	Amt	◀▶	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	
BNK	BNK181070LFGM0FH	EUR	152.00		BNK	EUR1402000010001	EUR	17 APR 2018	13E09TO7123321	13D07123D441234	999	Payment complete	
BNK	BNK18107F0HKHMD	EUR	11.03		BNK	EUR1402000010001	EUR	17 APR 2018	533NDTOEND1013	533DTXNID441013	999	Payment complete	
BNK	BNK18107FCLJHGCD	EUR	150.00		BNK	EUR1402000010001	EUR	17 APR 2018	123NDTO1231123	123D0XXN123431321	999	Payment complete	
BNK	BNK18107MBJLDF0J	EUR	11.02		BNK	EUR1402000010001	EUR	17 APR 2018	53ENDTOEND1512	53DDTXNID141512	999	Payment complete	
BNK	BNK18107LDMFMCMG	EUR	11.01		BNK	EUR1402000010001	EUR	17 APR 2018	5ENDTOENDID1311	5DDT3NID11011	999	Payment complete	
BNK	BNK18107LGMLJHGC	EUR	149.00		BNK	EUR1402000010001	EUR	17 APR 2018	1END12377I08321	1D123N7877123	999	Payment complete	
BNK	BNK18080HMFHLFB	USD	7,000.00			USD1402500010001		21 MAR 2018	TT18080CG5CD	CC180800003	235	Waiting - Payment moved to General Repair Queue	
BNK	BNK18080J00LDHHK	USD	500.00			USD1402500010001		21 MAR 2018	TT18080VF0LN	CC180800012	235	Waiting - Payment moved to General Repair Queue	
BNK	BNK18080G0BCGCCC	USD	600.00			USD1402500010001		21 MAR 2018	TT1808032JQH	CC180800005	235	Waiting - Payment moved to General Repair Queue	
BNK	BNK18080LLFGLCLG	USD	10,000.00			USD1402500010001		21 MAR 2018	TT180802QK01	CC180800007	235	Waiting - Payment moved to General Repair Queue	
BNK	BNK18080JCKF0KC	GBP	150.00		BNK	GBP1591500010001	GBP	21 MAR 2018	TT18080397VR	CC180800001	730	Sent to Clearing	

How does TPH process a payment message?



Message Receiving and Mapping

Message Format	Support
SWIFT	Consumed as is by TPH. No transformation required.
SEPA	Native formats for SEPA messages are supported.
US ACH	Received by the US regional layer, de-bulked and sent to TPH in a bilaterally agreed format. Communication between the Regional layer and TPH is in an embedded mode.
TARGET2	Native Formats are supported.
Messages from Payment Order	Directly mapped to TPH internal tables. Communication between Payment Order and TPH is in an embedded mode.
Proprietary format messages	To be mapped to the exposed XML schema

Concept of Message Acceptance and Mapping

Tables Used	
F.PRF.BLOB	To store the received message
F.PPT.RECEIVEDFILED ETAILS	Stores the attributes of the received message such as source, format etc.

Messaging process consists of below stages:

- RECEIVED: Original Message is received
- ACCEPTED: Post successful validation of received message
- MAPPED: Transformed into TPH and status assigned for payment transaction process

Concept of Message Acceptance and Mapping

Received Message/File Details - List

File Reference	Queue Name	Company	File Status	File Name	Source
TPS18016000016003	EBAINST	BNK	MAPPED	INSTANT-PACS008-TPS18016000016-003.xml	EBAINST
TPS18016000016001	TPHINSTC2B		MAPPED	INSTANT-PAIN001-TPS18016000016-001.xml	CTIINST
TPS18016000016004	EBAINST	BNK	MAPPED	INSTANT-PACS008-TPS18016000016-004.xml	EBAINST
TPS18016000016005	TPHINSTC2B		MAPPED	INSTANT-PAIN001-TPS18016000016-005.xml	CTIINST
TPS18016000016006	EBAINST	BNK	MAPPED	INSTANT-PACS008-TPS18016000016-006.xml	EBAINST
TPS18016000016007	EBAINST	BNK	MAPPED	INSTANT-PACS008-TPS18016000016-007.xml	EBAINST
TPS18016000016008	EBAINST	BNK	MAPPED	INSTANT-PACS008-TPS18016000016-008.xml	EBAINST
TPS18016000016009	EBAINST	BNK	MAPPED	INSTANT-PACS002-TPS18016000016-009.xml	EBAINST
TPS18016000016010	EBAINST	BNK	REJECTED	INSTANT-PACS002-TPS18016000016-010.xml	EBAINST
TPS18016000016013	EBAINST	BNK	MAPPED	INSTANT-PACS002-TPS18016000016-013.xml	EBAINST
TPS18074880001002	CHQCLGXML	BNK	MAPPED	SEPA-PACS003-TPS18074880001-002.xml	CHQCLG
TPS18017880001011	TPHDDI		ACCEPTED	SEPA-PAIN008-TPS18017880001-011.xml	DDI
TPS18074880001003	CHQCLGXML	BNK	MAPPED	SEPA-PACS003-TPS18074880001-003.xml	CHQCLG
TPS17311000016004	STEP2	BNK	MAPPED	SEPA-PACS003-TPS17311000016-004.xml	STEP2
TPS17311000016007	TPHCTI		MAPPED	SEPA-PAIN001-TPS17311000016-007.xml	CTI
TPS17311000016002	STEP2	BNK	MAPPED	SEPA-PACS008-TPS17311000016-002.xml	STEP2
SWIFT-MT101-TPS16173000001-005	SWIFT	BNK	MAPPED		SWIFT
SWIFT-MT103-TPS16173000001-011	SWIFT	BNK	MAPPED		SWIFT
SWIFT-MT103-TPS16173000001-009	SWIFT	BNK	MAPPED		SWIFT

Message Acceptance - Configuration

Admin Menu > Payment Hub > Message Acceptance GUI > Message Acceptance Param

Admin Menu	
Multi Tenant Administration	▼
Framework Parameter	▼
Product Builder	▼
Retail Administration	▼
Islamic Administration	▼
CRM Administration	▼
Credit Administration	▼
Payment Administration	▼
Corporate Administration	▼
Treasury Administration	▼
Private Administration	▼
Finance Administration	▼
Business Tools	▼
System Administration	▼
External User Administration	▼
Implementation Utilities	▼
Payment Hub	^
Static Data GUI	▼
Authorization Principle	↗
Message Acceptance GUI	^
Message Acceptance Parameters	↗
Message Formats	↗
Message Format Per Channel	↗

ID	SWIFT
Field Name	Field Value
Incoming Message Directory	
Channel	SWIFT
Single Multiple Indicator	<ul style="list-style-type: none">• S• B• C
Interpret API	SwiftService.interpretSwift
Validate API	
Check Dup Ind	<ul style="list-style-type: none">• Y• N
ACK Required Y?	<ul style="list-style-type: none">• Y• N
ACK API	
ACK NACK Queue	
Message Forward API	SwiftService.forwardSwiftMessage
Message Forward Queue	
Read Message API	SWIFT.IN
Debulk API	

Message Mapping - Configuration

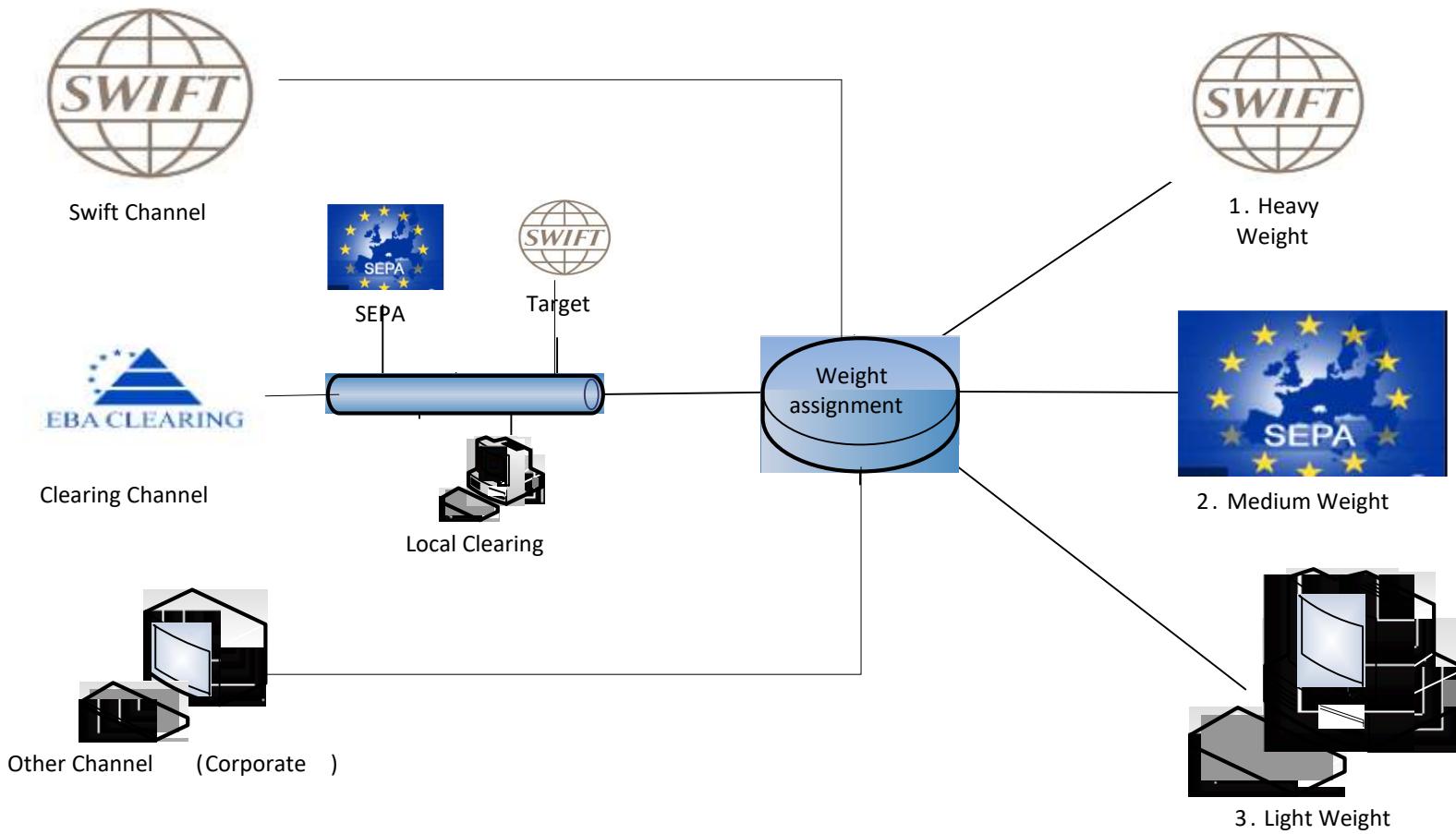
Admin Menu > Payment Hub > Message Mapping GUI > Message Mapping Param

A screenshot of a navigation sidebar titled "Payment Hub". The sidebar lists several menu items with dropdown arrows: "Static Data GUI", "Authorization Principle", "Message Acceptance GUI", "Message Acceptance Parameters", "Message Formats", and "Message Format Per Channel".

A screenshot of a configuration screen for "Message Mapping Param". The top navigation bar has tabs "Modify" (selected) and "Audit". The main area contains the following fields:

Debulk API	HKCLGMessageMappingService.debulkHKCLGMessage
Mapping API *	HKCLGMessageMappingService.doMessageMappingHKCLG
Source Type API	(empty input field)
Clearing Transaction Type	(empty input field)
Clearing Nature Code.1	- Please Select <input checked="" type="checkbox"/> <input type="button" value="+"/>

Assign Weight for the Payment



Assign Weight for the Payment

Admin Menu > Payment Hub > Weight Assignment

Payment Hub	
Static Data GUI	
Authorization Principle	
Message Acceptance GUI	
Payment Router GUI	
Message Mapping GUI	
Batch Server GUI	
Local Clearing GUI	
Trip Status Action	
Payment Workflow GUI	
Weight Assignment	

ID	STEP2.pacs.008.CT-20170203
Field Name	Field Value
Company ID	BNK
Rank	12
Specific WeightCode	SCT
Weight Description	Incoming SEPA Credit Transfer
Weight Code	<ul style="list-style-type: none"> • H • A • M
Start Date	3-Feb-17
End Date	DD MM YYYY
AutoRepair Instance Name	

Company ID	Originating Source	Message Type	Rank	Specific Weight	High Level Weight
BNK	*	*	3	P2	H
BNK	SWIFT	103	1	P1	H
BNK	SWIFT	*	2	P3	H

Skip Programs based on weight

Admin Menu > Payment Hub > Static Data GUI > ProgramsPerWeight

ProductDetermination.H	BNK	*	10	
ProductDetermination.L	BNK	CDR	4	
		STL	9	
		ICD	10	
		CCR	15	
		*	20	
ProductDetermination.M	BNK	CQE	28	
		CQS	29	
		*	30	
RiskFilter.H	BNK	CLM	5	
		*	20	
RiskFilter.L	BNK	CDR	4	
		STL	9	
		ICD	10	
		CCR	20	
		*	40	
RiskFilter.M	BNK	CQE	28	

Skip Programs based on weight

ProgramsPerWeight RiskFilter.H

Amend Audit

Company ID BNK

Specific Weight Code.1 * CLM

Ranking.1 * 5.00

Program Name.1 RiskFilterService.doRiskFiltering

ProgramsPerWeight Description.1 EN Skip program

Program SkipIndicator.1 * Y N

Specific Weight Code.2 * *

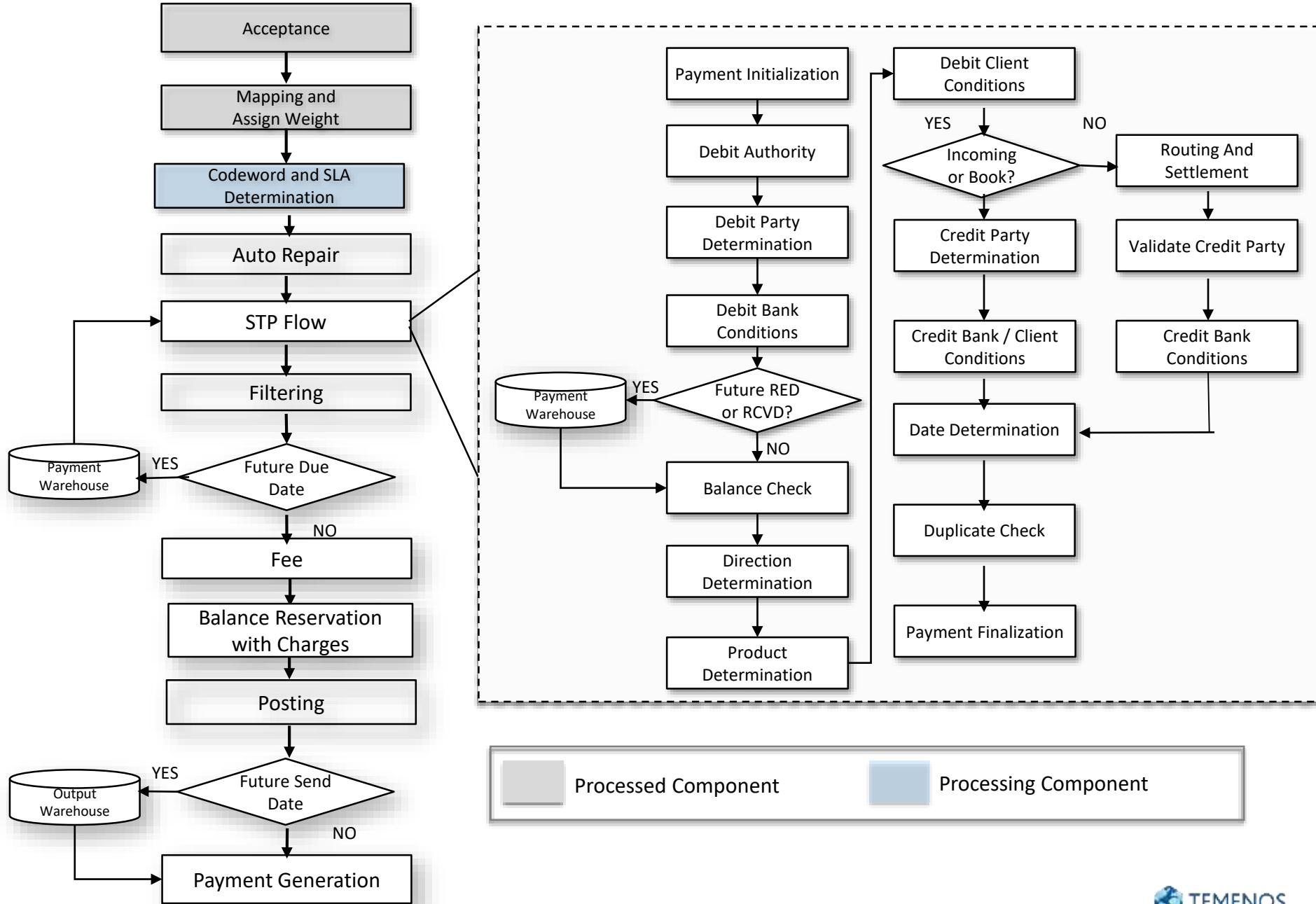
Ranking.2 * 20.00

Program Name.2 RiskFilterService.doRiskFiltering

ProgramsPerWeight Description.2 EN Process Program

Program SkipIndicator.2 * Y N

How does TPH process a payment message?



Code Words

Admin Menu > Payment Hub > Inbound Codeword GUI > Inbound Codeword

Payment Hub

Static Data GUI

Authorization Principle

Message Acceptance GUI

Payment Router GUI

Message Mapping GUI

Batch Server GUI

Local Clearing GUI

Trip Status Action

Payment Workflow GUI

Weight Assignment

Inbound CodeWords GUI

Inbound Codeword

Processing Sequence

Inbound Codeword CORT.INSBNK-20160101

Modify Audit

Company BNK

CodeWord * CORT

Information Code *

Timind

Insbnk

Inssdr

Regrep

Inscvr

Message Payment Type *

Originating Source *

Codeword Ranking.1 *

10.00

Codeword Text.1 *

*

Codeword Priority for PD.1 *

1

Adjusted Message Priority.1

- Please Select

Processing Sequence Number.1

Non STP Indicator.1

Y N

Fee Codeword Flag.1

Y N

Outbound Codeword Applicable Flag.1

Y N

LinkID CORTINSBNK**-20160101

Start Date 01 JAN 2016

End Date 31 DEC 2099

LinkID CORTINSBNK**-20160101

Start Date 01 JAN 2016

End Date 31 DEC 2099

Code Words – Processing Sequence

Admin Menu > Payment Hub > Inbound Codewords GUI > Processing Sequence

Payment Hub	^
Static Data GUI	▼
Authorization Principle	⤴
Message Acceptance GUI	▼
Payment Router GUI	⤴
Message Mapping GUI	▼
Batch Server GUI	⤴
Local Clearing GUI	▼
Trip Status Action	⤴
Payment Workflow GUI	▼
Weight Assignment	⤴
Inbound CodeWords GUI	^
Inbound Codeword	⤴
Processing Sequence	⤴

ID	1
Field Name	Field Value
Company ID	BNK
Processing Sequence Desc	Inbound Processing Sequence 1
Processing Sequence Routine Name	InboundCodeWordService.setCreditValueDate
Inbound Processing Sequence Flag	<ul style="list-style-type: none">• Y• N
Outbound Processing Sequence Flag	<ul style="list-style-type: none">• Y• N

Processing Sequence – Additional Information

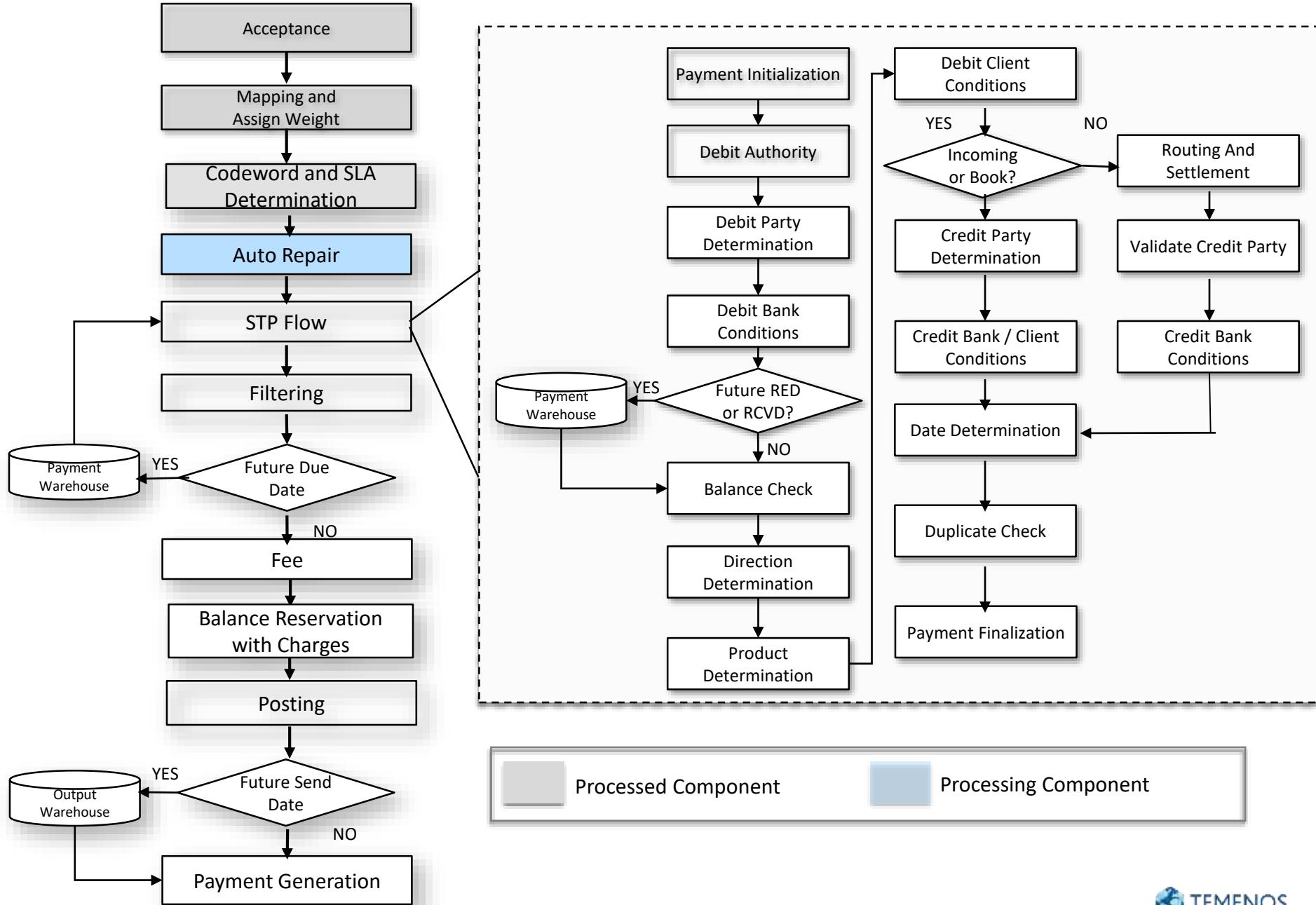
Processing Sequence	Information Code and Code Words	Result of Processing Sequence API	Flags/Code Words that will be set
1	OTHR/BBDD	Assign Requested Credit Value Date equal to Requested Execution Date	
2	ISBNK (In tag 23E) OTHR/NBALANCE/Dddmmyy and /or /Cddmmyy	Assign Requested Credit Value date = Credit Value date in the message for Cddmmyy and impose the same for processing Assign Debit Value date = Debit value date in the message for Dddmmyy and impose the same for processing	<ul style="list-style-type: none"> Set Credit value Date Imposed Flag Set the Skip Balance Check flag Set the SkipBoundaryCheck flag Set the value of the Skip Fee flag to 'A' (Skip All charges) Set the value of the Debit Authority Indicator field to 'S'
3	INSSDR (In tag 72) REC/NBALANCE	Debit Value Date = Requested Credit value Date in the message	<ul style="list-style-type: none"> Set Credit value Date Imposed Flag Set the Skip Balance Check flag Set the SkipBoundaryCheck flag Set the value of the Skip Fee flag to 'A' (Skip All charges) Set the value of the Debit Authority Indicator field to 'S'
6	ISBNK (In tag 23E)	Set RED to RCVD if RED is in future and make RED as blank.	

SLA Determination

Admin Menu > Payment Hub > SLA Per Codeword

Payment Hub	ID	BNK-20160101
Static Data GUI		
Authorization Principle		
Message Acceptance GUI		
Payment Router GUI		
Message Mapping GUI		
Batch Server GUI		
Local Clearing GUI		
Trip Status Action		
Payment Workflow GUI		
Weight Assignment		
Inbound CodeWords GUI		
Outbound CodeWords GUI		
SLA Per Codeword		
	Field Name	Field Value
	Message Priority.1	*
	CodeWord.1	*
	CodeWord Tag.1	*
	CodeWord Text.1	*
	Ranking.1	4
	SLAID.1	*
	Start Date	1-Jan-16
	End Date	DD MM YYYY

How does TPH process a payment message?



Auto repair and Enrichment

- ◆ Increasing the STP process
- ◆ Integrated with External Automated Repair Engine
- ◆ Nature of enrichment
- ◆ Reduce the manual interventions
- ◆ Apply Fees depends on enrichment nature
- ◆ Applicable for STP payments



Erroneous Data in the Incoming Messages

- Take a look at the Tag 59 of Incoming MT101 Message having spaces in Beneficiary Account Line. This Transaction will Land in Repair due to Simple Reasons - TPH will fail to Identify the Account for Credit because in TPH we would have stored the IBAN without spaces which is the correct way of representing an Account / IBAN

```
{1:F01DEMOGBXAAXXX2769820912}{2:01011235041221ABNANL20XXXX03520236480411171235N}{3:{101:XXX}{108:ICM041222AI00  
:20:201506230001  
:28D:00001/00001  
:30:150617  
:21:20150623000101  
:32B:GBP99,00  
:50H:/77488  
A. Mike, Rotterdam  
Edinburgh  
United Kingdom  
:57A:HSBCGB20  
:59:/GB29 RBOS 6016 1331 9268 19  
Ron Marcus  
United Kingdom  
:70:REMITTANCE INFORMATION  
:71A:SHA  
-}
```

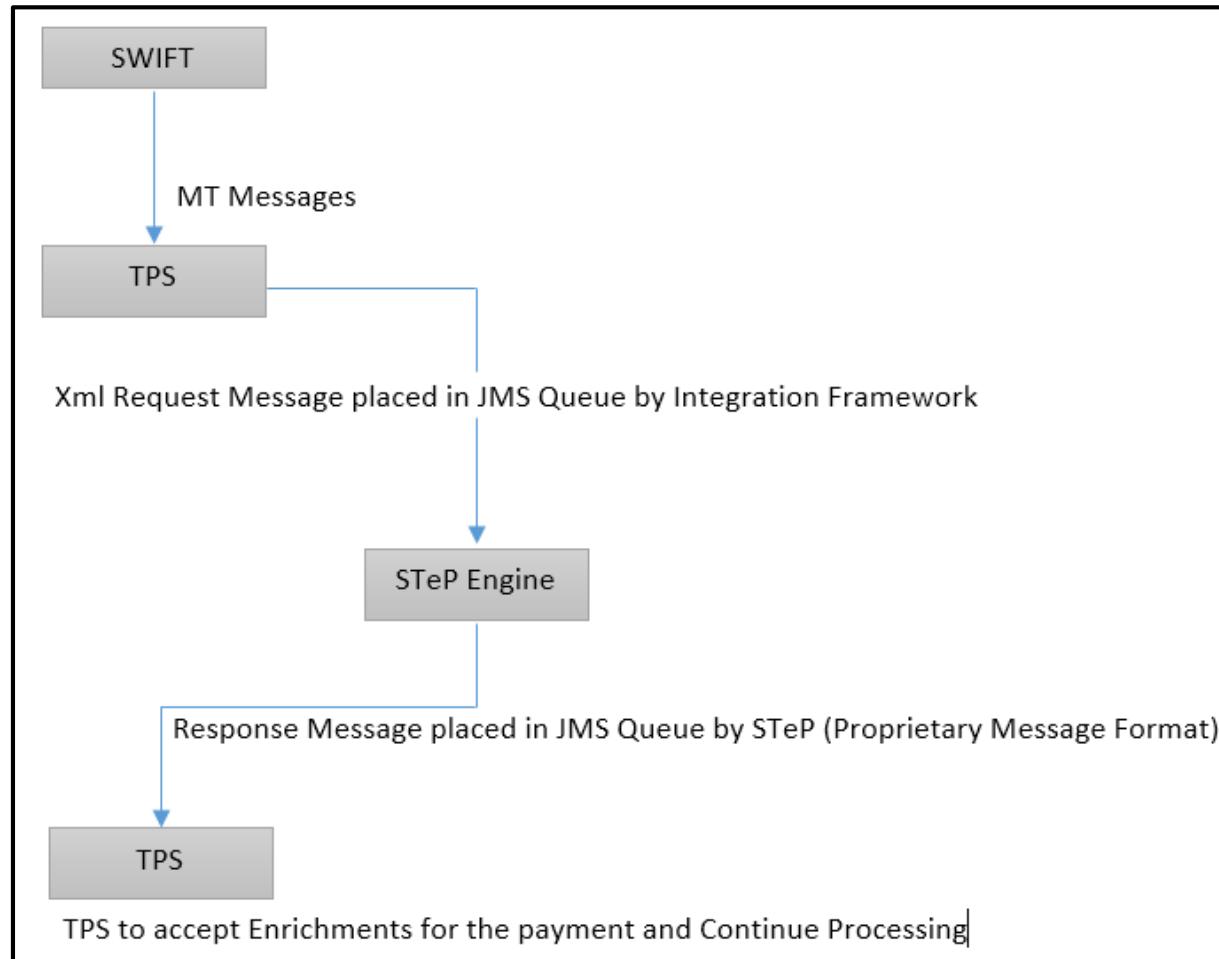
Erroneous Data in the Incoming Messages

- ◆ Data for Beneficiary in the SWIFT Message Received. Observe that Account Number is in Free Line 4
 - ◆ PARTYROLE = “BENFCY”
 - ◆ PARTYFREELINE1 = “JOHAN SMITS”
 - ◆ PARTYFREELINE2 = “PARKSTRAAT 5”
 - ◆ PARTYFREELINE3 = “AMSTERDAM”
 - ◆ PARTYFREELINE4 = “**ACC NO 12312312312**”
- ◆ Image after Enrichment by Automated Repair Tool. Account Number is copied to the appropriate placeholder
 - ◆ PARTYROLE = “BENFCY”
 - ◆ PARTYACCOUNTLINE = “**/12312312312**”
 - ◆ PARTYFREELINE1 = “JOHAN SMITS”
 - ◆ PARTYFREELINE2 = “PARKSTRAAT 5”
 - ◆ PARTYFREELINE3 = “AMSTERDAM”
 - ◆ PARTYFREELINE4 = “**ACC NO 12312312312**”

Erroneous Data in the Incoming Messages

- ◆ Data for ACWINS in the SWIFT Message Received. Observe that BIC is not Input
 - ◆ PARTYROLE = “ACWINS”
 - ◆ PARTYFREELINE1 = “RABO BANK”
 - ◆ PARTYFREELINE2 = “AMSTERDAM”
 - ◆ PARTYFREELINE3 = “NETHERLANDS”
- ◆ Image after Enrichment by Automated Repair Tool. BIC is auto-populated by Automated Repair Engine
 - ◆ PARTYROLE = “ACWINS”
 - ◆ PARTYIDENTIFIERCODE = “**RABONL2AXXX**”
 - ◆ PARTYFREELINE1 = “RABO BANK”
 - ◆ PARTYFREELINE2 = “AMSTERDAM”
 - ◆ PARTYFREELINE3 = “NETHERLANDS”

TPH-STeP Flow



Auto repair and Enrichment

Admin Menu > Payment Hub > Static Data GUI > Programs Per Weight

ProgramsPerWeightList				
Component Name and Weight	Company Id	SW Code	Ranking	
AccountCashPosition.H	BNK	*	1	66
AccountCashPosition.L	BNK	ICD	1	66
		CDR	2	
		CCR	3	
		*	10	
AccountCashPosition.M	BNK	CQE	3	66
		CQS	4	
		*	5	
Autoform.H	BNK	*	10	66
Autoform.L	BNK	CDR	3	66
		STL	9	
		ICD	10	
		CCR	11	
		*	20	
Autoform.M	BNK	CQE	29	66
		CQS	30	
		*	31	
AutomatedRepairTool.H	BNK	*	10	66
AutomatedRepairTool.L	BNK	CDR	4	66
		STL	9	
		ICD	10	
		CCR	11	
		*	40	

Programs Per Weight Table

ProgramsPerWeight AutomatedRepairTool.L

Amend Audit

Company ID BNK

Specific Weight Code.1 * CDR

Ranking.1 * 4.00

Program Name.1 AutomatedRepairToolService.repairPayment

ProgramsPerWeight Description.1 EN

Program SkipIndicator.1 * Y N

Specific Weight Code.2 * STL

Ranking.2 * 9.00

Program Name.2 AutomatedRepairToolService.repairPayment

ProgramsPerWeight Description.2 EN Skip Program

Program SkipIndicator.2 * Y N

Specific Weight Code.3 * ICD

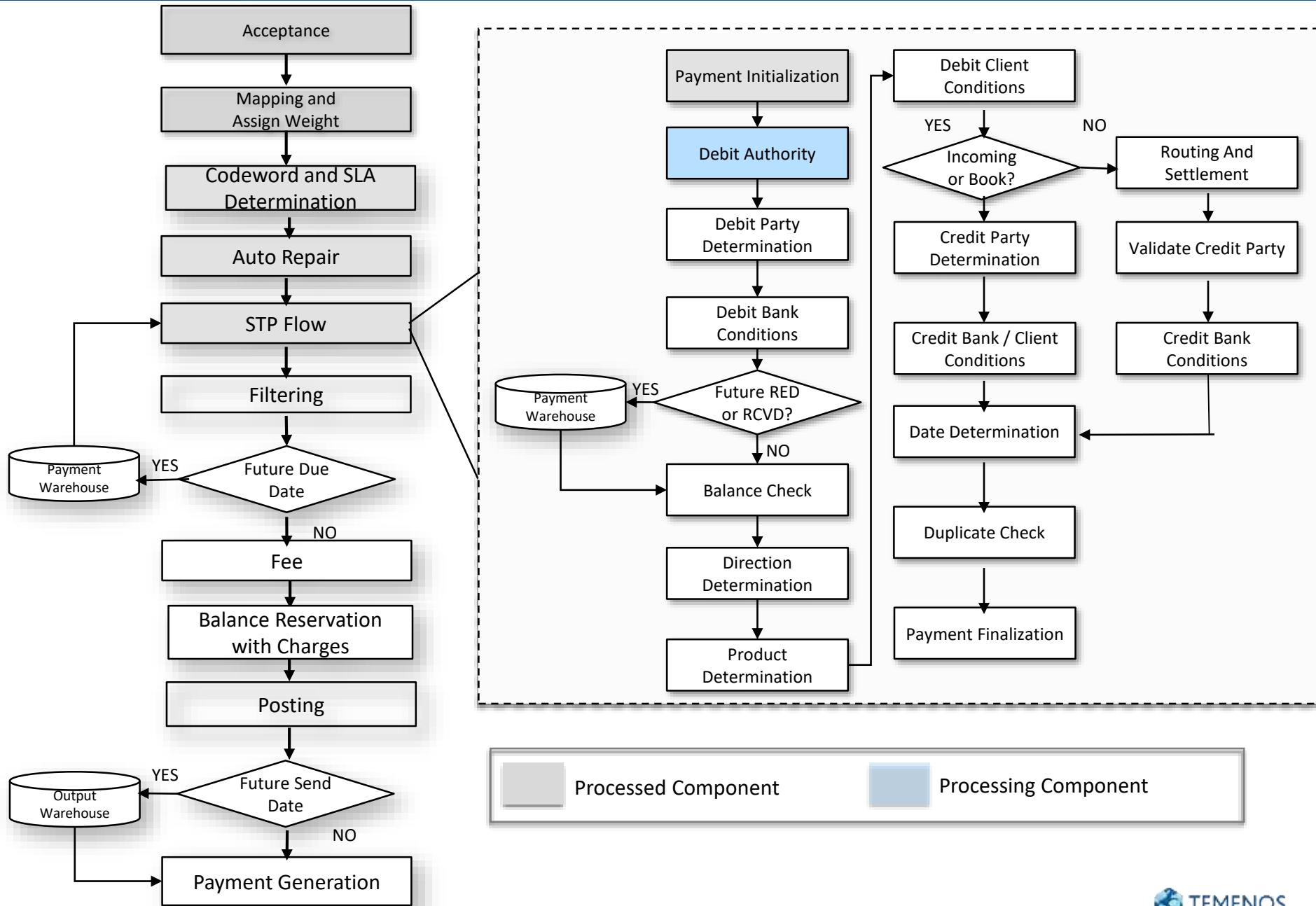
Ranking.3 * 10.00

Program Name.3 AutomatedRepairToolService.repairPayment

ProgramsPerWeight Description.3 EN

Program SkipIndicator.3 * Y N

Debit Authority



Debit Authority

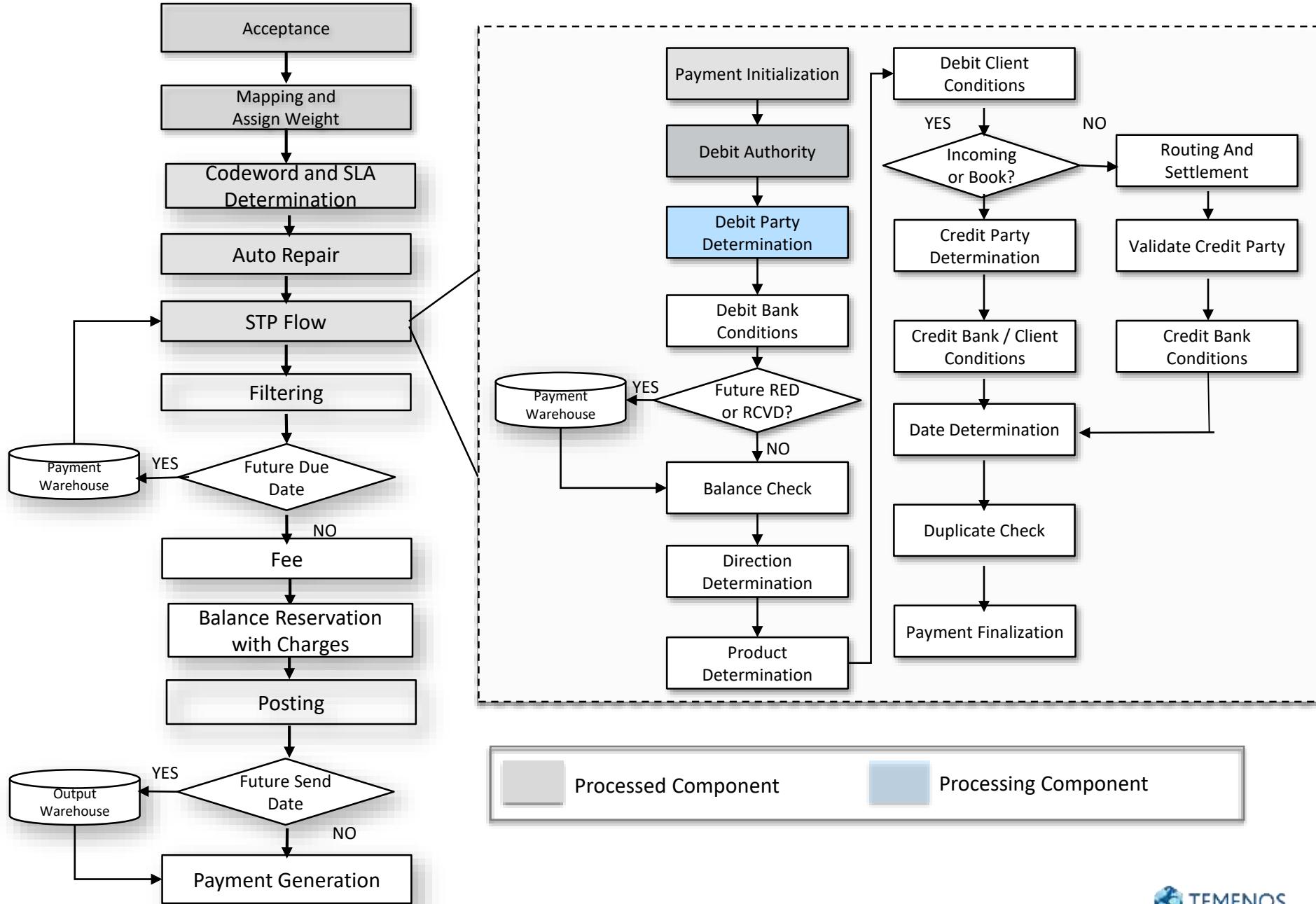
Admin Menu > Payment Hub > Debit Authority GUI > Netting Agreement / No DA List

Payment Hub	^
Static Data GUI	▼
Authorization Principle	⤒
Message Acceptance GUI	▼
Payment Router GUI	⤒
Message Mapping GUI	▼
Batch Server GUI	⤒
Local Clearing GUI	▼
Trip Status Action	⤒
Payment Workflow GUI	▼
Weight Assignment	⤒
Inbound CodeWords GUI	▼
Outbound CodeWords GUI	▼
SLA Per Codeword	⤒
Bank Conditions GUI	⤒
Debit Authority GUI	^
Netting Agreement	⤒
No DA List	⤒

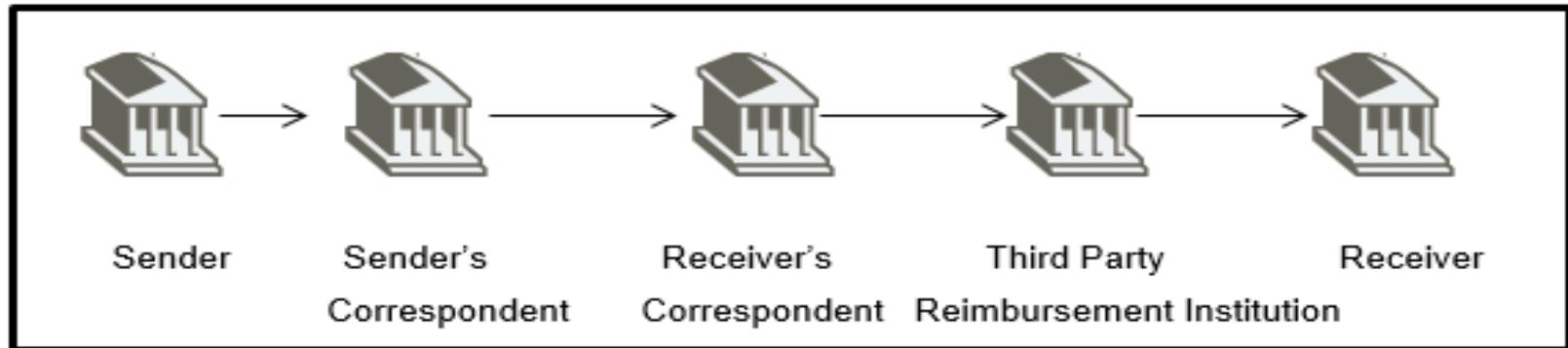
ID	101BOFAUS33-20180316
Field Name	Field Value
Company	BNK
Message Type	101
Sending Bank	BOFAUS33
Debit Account	*
First Name/Address Line	*
LinkID	101BOFAUS33*-20180316
Start Date	16-Mar-18
End Date	31-Dec-99

Table	No DA List
ID	101-20160101
Field Name	Field Value
Company Code	BNK
Start Date	16-Mar-18
End Date	31-Dec-99

Debit Party Determination



Determining Debit Party



- ◆ Determine the debit party, determine and validate account
- ◆ Implied Debit – Validate account

Defining the LORO/NOSTRO Accounts

Admin Menu > Payment Hub > Routing and Settlement GUI > Loro Nostro Account

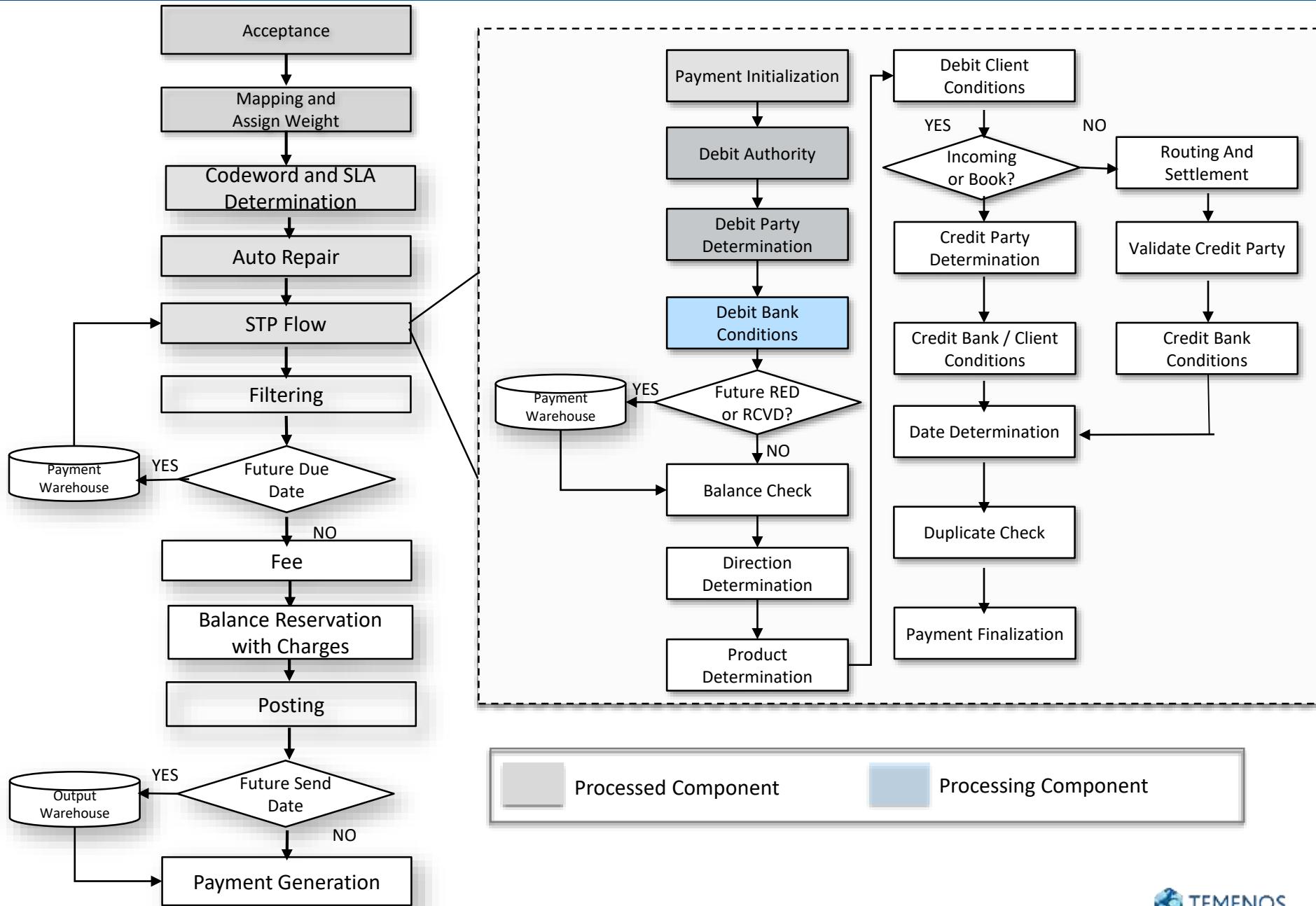
Loro Nostro Account 21-20180316

Company ID	BNK		
Party BIC	HSBCSGSG		
Type of Account Number	N	Account Currency	SGD
Start Date	16 MAR 2018	End Date	31 DEC 2099
LinkID	HSBCSGSGSGDN-20180316		

Account Details **Audit**

AccountNumber	CompanyID	AccountNumber*	OwningBIC*	PreferredDebitAccountNumber*	PreferredCreditAcctNumber*	ChargesIndicator*
<input type="button" value="+"/> BNK		20796	HSBCSGSG	<input checked="" type="radio"/> Y <input type="radio"/> N	<input checked="" type="radio"/> Y <input type="radio"/> N	<input type="radio"/> Y <input checked="" type="radio"/> N

Bank Conditions



Bank Conditions

Admin Menu > Payment Hub > Bank Conditions GUI

Payment Hub

Static Data GUI

Authorization Principle

Message Acceptance GUI

Payment Router GUI

Message Mapping GUI

Batch Server GUI

Local Clearing GUI

Trip Status Action

Payment Workflow GUI

Weight Assignment

Inbound CodeWords GUI

Outbound CodeWords GUI

SLA Per Codeword

Bank Conditions GUI

Bank Conditions Amend DEFAULT-20160101

BankConditions BankCondChargeAccount BankConditionsAdvice Audit

Company BNK

Correspondent BIC/NCC * *

SLA ID * *

Currency * *

Start Date 01 JAN 2016

End Date 31 DEC 2099

Non STP for CTR * Y N

Credit Special Instruction

Non STP for BTR * Y N

Debit Special Instruction

WareHouse Indicator * J Y N

Language

Debit Statement Format

Credit Statement Format

FX Spread

LinkID ***-20160101

AllowSpecialCharacterSet Y N

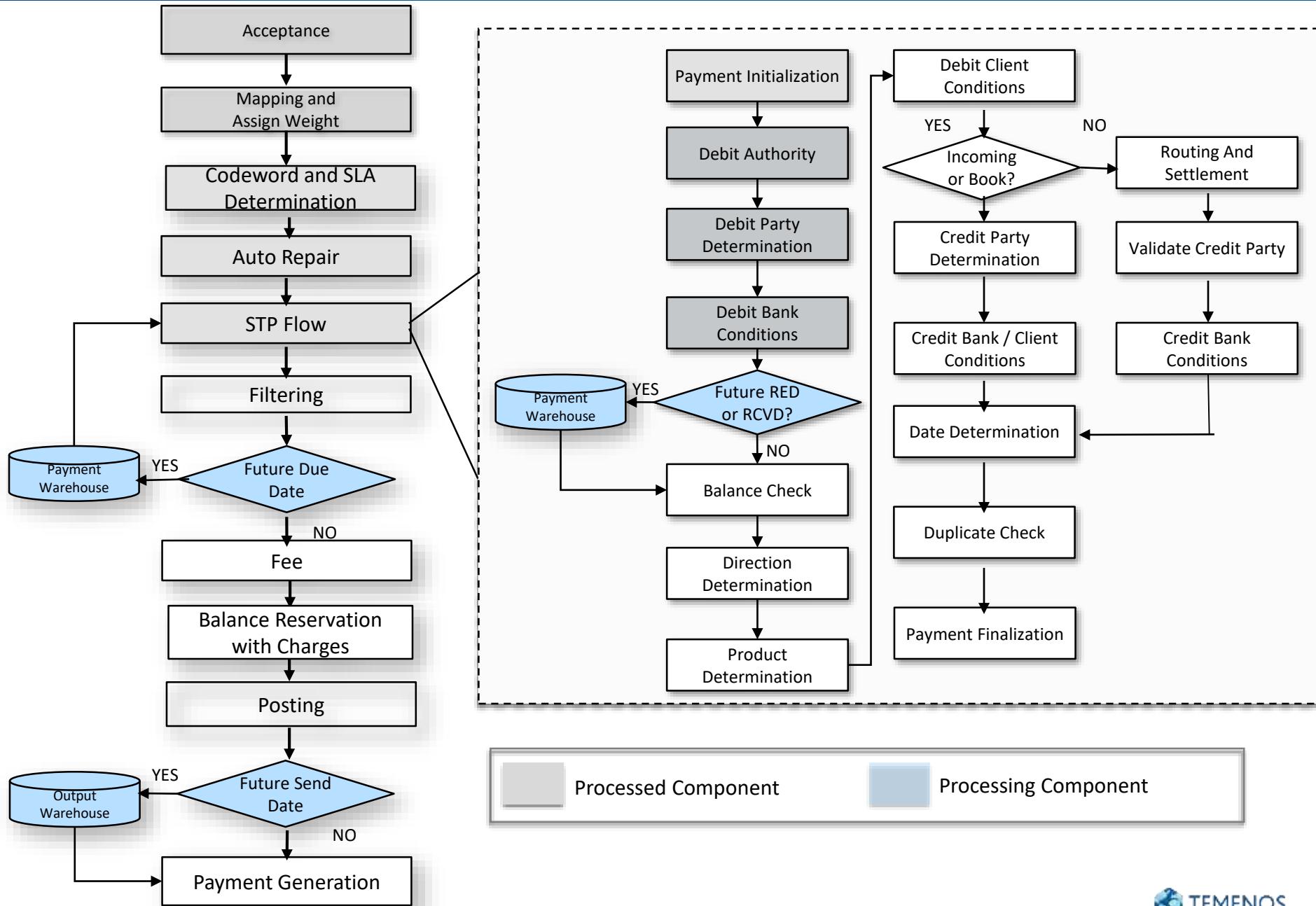
CodePageSet

Tran Ack Nack Indicator Ack Nack Both Y N

Interim Status Indicator

Customer Status Msg Type

Warehouse



Types of Warehouse

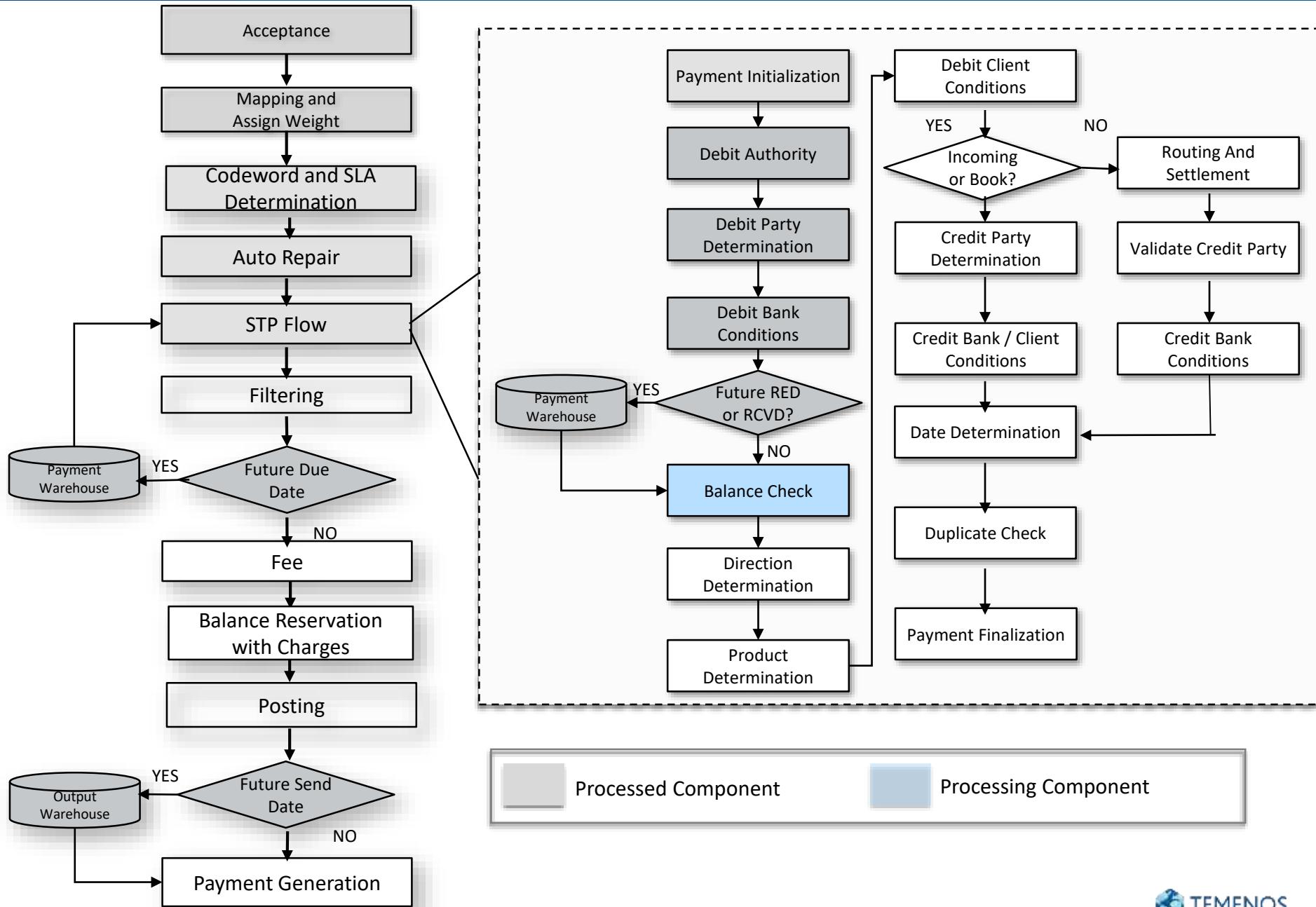


- ◆ Payment warehouse – When Requested Execution Date or Requested Credit Value Date is in future, payments are warehoused at the start of STP flow based on Bank Conditions
- ◆ Future due date warehouse – When calculated Credit Value date is in future and processing date is also pushed to future to meet the credit value date
- ◆ Send date warehouse – When Send date is in future

Release from Warehouse

- ◆ Moves Payments from Warehouse to STP, Filter and Payment Generation based on different Payment status
- ◆ Triggered during Start of Day (SOD)
- ◆ Release from warehouse – Normal and force release
- ◆ A warehoused payment can be cancelled except when it has been booked (A payment in output warehouse cannot be cancelled)
- ◆ The below menu option is used to release payments from the warehouse. User Menu > Payment Hub > Payment Exceptions > Warehouse and Parked Payments > Warehouse Payments List> Warehouse Payments List

Do we have sufficient balance on the debit account?



Balance Check

- ◆ Check for balance on debit account and debit charge account
- ◆ When reserving balance, a record in AC.LOCKED.EVENTS is created
- ◆ During posting, the reserved amount is utilised and hence the lock is removed.
- ◆ Pre-authorisation is possible. This would block funds on an account.
 - ◆ Pre-auth key this created, to be linked to the payment
- ◆ Credit Transfers
 - ◆ When a credit transfer is to be sent out, check if the debit account has sufficient balance to cover transaction amount or transaction amount plus charges
- ◆ Direct Debits
 - ◆ When a direct debit is received, check if the debit account has sufficient balance to cover the transaction amount or transaction amount plus charges

Balance Check

AC.LOCKED.EVENTS

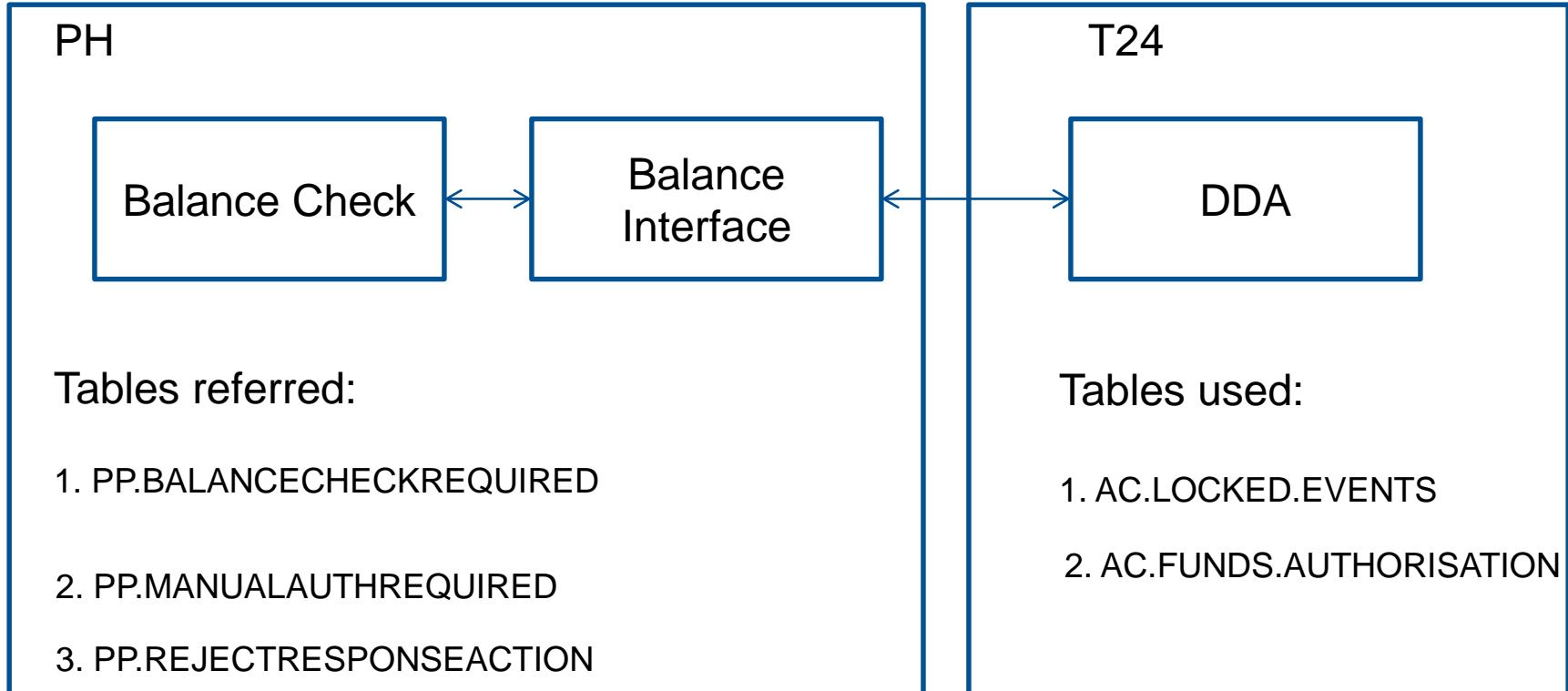
Repair View Screen | OE18107NNWMS

Payment Processing Information	
Status	687
Transaction Reference Number	BNK18107KJFCCOLF
Sender's Reference Number	T24034490
Priority	1
Source	SWIFT
Output Channel	LORD
Direction	0
Transaction Currency	USD
Transfer Type	C
Incoming Message Type	101
Balance	A
Balance Reservation Number	ACLK1810766478
Processing Company	BNK
Processing Date	17 APR 2018 - 17 APR 2018
Transaction Amount	3,500.00
Charge Option	Shr
Sender Institution	BOFAUS33
Receiver Institution	CRESCHZZ

AC.LOCKED.EVENTS | ACLK1810766478

- Please Select	60	
Account Number	11193	NIKE
From Date	17 APR 2018	17 APR 2018
Locked Amount	3,500.00	
Transaction No	BNK18107KJFCCOLF	
Payment Amount	3,500.00	
Payment Currency	USD	US Dollar
Record Status	REVE	REVERSE Reversed
Curr No	1	
Inputter.1	47_INPUTTER	
Date time.1	21 JUN 18 10:50	
Authoriser	47_INPUTTER	
Company	GB0010001	Model Bank

Balance Check- Configuration Tables – Overview



Balance Check- Configuration – Balance Check Required

- Check and reserve balance on debit account and debit charge account
- Admin Menu -> Balance Check GUI

Balance Check Required | PPBCR17621163495872102

Amend Audit

Company	BNK
Rank *	16
Source *	*
Account Type *	C
Message Type *	*
Clearing Nature Code *	*
Settlement Transaction Indicator *	<input checked="" type="radio"/> * <input type="radio"/> Y
Balance Check Required Flag *	<input checked="" type="radio"/> Y <input type="radio"/> N
Reserve With Charges	<input checked="" type="radio"/> Y <input type="radio"/> N
OE Repair Reservation	<input type="radio"/> Submit <input checked="" type="radio"/> Authorise <input type="radio"/> Stp
Hold Bal For Future Processing Dt	<input type="radio"/> Y <input type="radio"/> N
Approval Code.1	- Please Select
Action.1	<input type="radio"/> Retain <input type="radio"/> Cancel

Balance Check with/without charges

Without Charges	With Charges
<ul style="list-style-type: none">• Performed after debit bank Conditions	<ul style="list-style-type: none">• Performed after FX and before posting
<ul style="list-style-type: none">• If FX is involved, mid rate will be used to convert transaction amount from transaction currency to debit account currency	<ul style="list-style-type: none">• If FX is involved, actual FX rate will be derived and transaction amount will be converted to debit account currency. Reservation will be done only if funds are available
<ul style="list-style-type: none">• During FX calculation, once actual FX rate is derived, if account balance is insufficient to cover transaction amount, account will be overdrawn.	<ul style="list-style-type: none">• When there is a FX threshold breach, then, mid rate +/- premium/discount is applied and then, the rate is arrived at.
<ul style="list-style-type: none">• Post balance check, if actual FX rates are higher than the utilised FX rates and account is short of balance, account will be overdrawn.	<ul style="list-style-type: none">• Post balance check, if actual FX rates are higher than the utilised FX rates and account is short of balance, account will be overdrawn.

Balance Check- Configuration – Client Conditions

Client Condition Amend SEPADD_SET-20170213

ClientCondition Client Cond Advice Client Cond FXDiscount **Client Cond Charge Account** Audit

Separate charge Account Indicator * Y N

Indicator For Charge Account.1 C
 D
 A

Transaction Currency.1

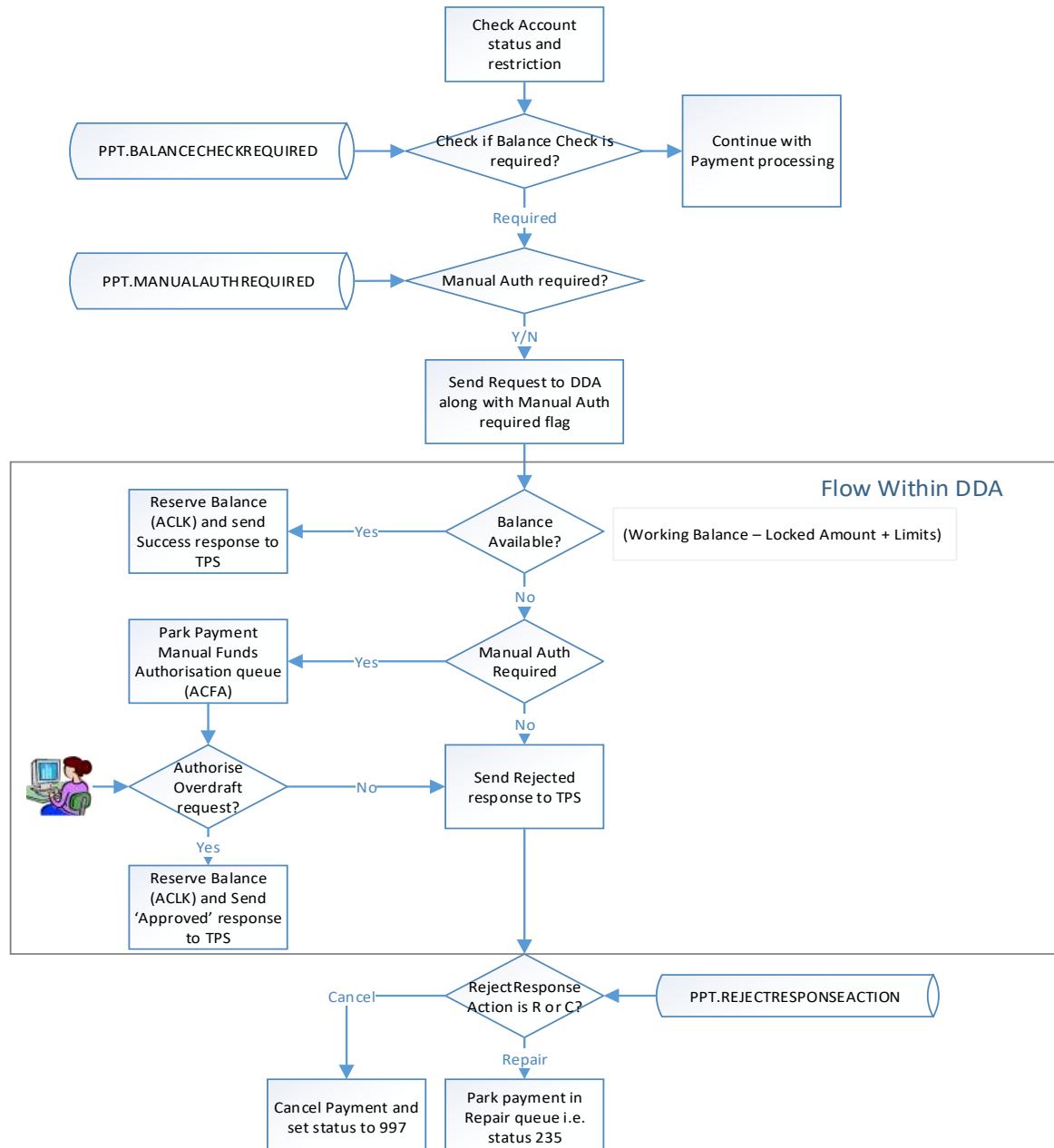
Charge Account Company ID.1

Charge Account Currency.1

Charge Account Number.1

Balance Check On Chg Act Y N

Balance Check Process Flow



Balance Check- Configuration - Manual Auth Required

Manual Auth Required PPMAR17621163495872106 ✓

Amend Audit

Company	BNK
Rank *	40
Business Line *	*
Originating Work flow *	*
Source *	*
Message Priority *	*
Banking Priority *	*
Tran Amount Upper Limit *	*
Message Type *	*
Clearing Nature Code *	*
Auth Required Flag *	<input type="radio"/> Y <input checked="" type="radio"/> N

Balance Check- Configuration -Reject Response Action

Reject Response Action PPRRA17621163495872200

Amend Audit

Company	BNK
Rank *	40
Business Line *	*
Originating Work flow *	*
Source *	*
Message Priority *	*
Banking Priority *	*
Tran Amount Upper Limit *	999999999999
Message Type *	*
Clearing Nature Code *	*
Manual Reject Response Action *	<input checked="" type="radio"/> R <input type="radio"/> C

Balance Check – Insufficient Funds – Manual Auth Required

User Menu > Payment Hub > New Payment Orders > Payment Approvals > Manual Funds Authorisation > Request for Pending Approval

Unauthorised Manual Requests										Results 1 - 1 of 1
Account Number:		77097	Currency :		EUR					
Customer ID		100160	Customer Name:		Yhs					
Available amount:		10,000.00	Working balance		10,000.00					
Reservation Key	Payment Currency	Payment Amount	Reserved Amount	Excess amount	Value date	Created Date and Time	Decision	Decision Reason		
BNK18107HDDLMHM	USD	15,000.00	13,971.79	-3,971.79	17 APR 18	17 APR 18 101224446			- please select -	✓

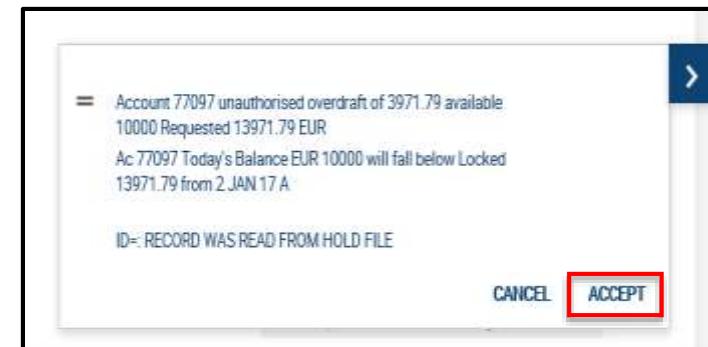
Unauthorised Manual Requests										Results 1 - 1 of 1	⋮
Account Number:		77097	Currency :		EUR						
Customer ID		100160	Customer Name:		Yhs						
Available amount:		-3,971.79	Working balance		10,000.00						
Reservation Key	Payment Currency	Payment Amount	Reservation Amount	Excess amount	Value date	Created Date and Time	Decision	Decision Reason			
BNK18107HDDLMHM	USD	15,000.00	13,971.79	-3,971.79		17 APR 18 101224446	APPROVED	Funds expected to receive Overnight	⌚	✓	

Pre-Authorisation Key

◆ Creation of preauthorisation key

User Menu > Payment Hub > New Payment Orders > Payment Approvals > Manual Funds Authorisation > Request for Pending Approval

Account Number	77097	Currency	EUR
Payment Currency	USD	Payment Amount	15,000.00
Value Date	2 JAN 17 A	Init. Req Date	2 JAN 04 J
Init. Req Time	15:58:14	Created Date	17 APR 2016
Created Time	101224446	Transaction reference	INR1810710000596A
Decision	Approved	Decision Reason 1	Funds expected to receive Override
Funds Auth Status	UNAUTHORISED	Reservation Key	ACFA1810700815
Request Source	ppi	Reservation ID	ACLF18107003780
Request Code	01	Approval Code	<input type="radio"/> Manually authorised <input checked="" type="radio"/> RECYCLER
Request Desc	No Funds		



Using a Pre-Authorisation key

OE screen with a Pre-auth key

Order Entry Book Transfer (CTR) OE18107N19G0

Payment Processing Information

Status	135	Processing Company	BNK	Processing Date Imposed Flag
Transaction Reference Number		Processing Date	17 APR 2018 17 APR 2018	<input type="radio"/> Yes
Sender's Reference Number		Priority	1	
Related Reference		Product		
Source	OE	Output Channel	LEDGER	Output Channel Imposed Flag
Direction	B	Transaction Currency	USD	Instructed Currency
Transfer Type	C	Transaction Amount	15,000.00	Instructed Amount
Incoming Message Type	RFCT	Charge Option	<input type="radio"/> Ben <input checked="" type="radio"/> Sha <input type="radio"/> Our	
Balance Reservation		Receiver Institution		Receiver Institution N CC
Balance Reservation Number	ACFA1810700815			
Balance Reservation Debit Chg Acct				
Pre-Authorization Number	ACFA1810700815			
Intra Company Payment	<input type="radio"/> Yes			
Store Template Values	B-C-RFCT-BNK-INPUTTER			
Select from Template				
Save As Template	<input type="radio"/> Yes			
Nick Name				

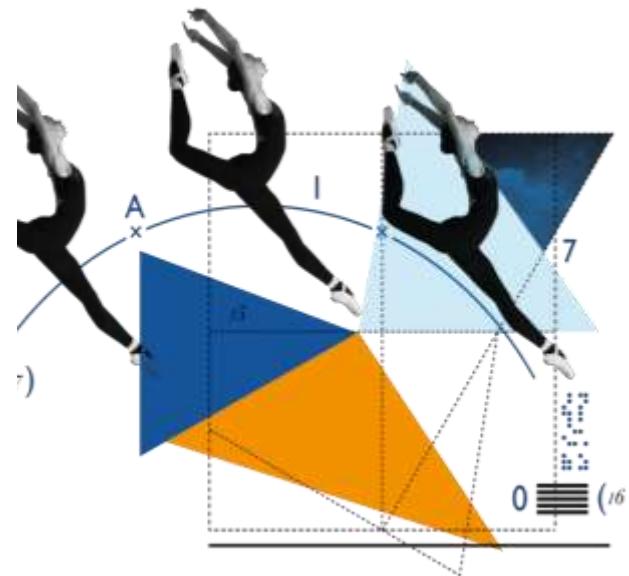
AC.FUNDS.AUTHORISATION

AC.FUNDS.AUTHORISATION ACFA1810700815		Please Select
Debit account	77097	VHSSGD
Account Ccy	EUR	Euro
Requested Ccy	USD	US Dollar
Requested Amt	15,000.00	
Request Date	2.JAN.17.J	2.JAN.17.J
Dta Init Req Date	2.JAN.04.J	2.JAN.04.J
Dta init Req Time	15:58:14	
Orig Sys Date	17 APR 2018	17 APR 2018
Orig Sys Time	101224446	
Orig Trans Ref	BNK18107HODDLMHM	
Orig Trans Company	BNK	
Funds Decision	Approved	
Decision Reason.1	Funds expected to receive Overnight	
Funds Auth Status	AUTHORISED	
Reservation Id	ACLK1810703780	
Reservation Key	ACFA1810700815	
Request Source	PPF	
Request Code	01	
Request Desc	No Funds	
Override.1	Account 77097 unauthorised overdraft of 3971.79 available 10000 Requested 13971.79 EUR	
Override.2	Ac 77097 Today's Balance EUR 10000 will fall below Locked 13971.79 from 17 JAN 2 JA	
Curr No	1	
Inputter.1	95954_INPUTTER_OFS_IRISPA	
Date time.1	04 JUL 18 16:09	
Authoriser	95954_AUTHORISER_OFS_IRISPA	
Company	GB0010001	Model Bank
Dept Code	1	Implementation

What Did We Learn?

Conclusion

- Overview of payment processing in Payment Hub
- Static configurations used in Payment processing
- Process Incoming MT103 till Balance Check component



Thank You



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The software specialist for banking and finance